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TAKE CONTROL OF

Golden Gate

by JOE KISSELL

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Read Me First

Welcome to *Take Control of Golden Gate,* version 1.0, published in August 2026 by alt concepts. This book was written by Joe Kissell and edited by Glenn Fleishman.

This book teaches you all about macOS 27 Golden Gate, including how to upgrade from an older operating system and how to use the major new features.

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Updates and More

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A Few Words About Terminology

As you read this book, it may be helpful to understand how I use certain terms:

- **"M-series" vs. "Apple silicon":** Since 2020, Macs have used Apple-designed chips, which Apple calls "Apple silicon." Basically more powerful versions of the A-series chips that had long powered iPhones, these new variants had names starting with M: M1 at first, followed by M1 Pro, M1 Max, and M1 Ultra, then an M2 line, an M3 line, an M4 line, and an M5 line, with many more iterations expected in the future.

  Even though Apple wanted everyone to call these devices "Macs with Apple silicon," that always seemed excessively clunky to us, so in Take Control books we consistently used the shorthand "M-series Macs." However, in March 2026, Apple released the low-cost MacBook Neo that doesn't use an M-series chip but rather an A-series chip—a variant of the one used in the iPhone 16 Pro and iPhone 16 Pro Max. There will presumably be more Macs in the future with A-series chips.

  So, reluctantly, we're dropping the compact "M-series" designation and calling these Macs either "Apple silicon Macs" or "Macs with Apple silicon."

- **"Disk" vs. "SSD":** In this book I use the term "disk" to refer to your Mac's primary storage device. For all Macs that can run Golden Gate, this isn't really a disk-shaped object at all, but rather a solid-state disk (SSD), which is far, far faster and more reliable than a mechanical hard drive. However, for largely historical reasons, the word "disk" is still used throughout macOS to refer to storage devices of all kinds.

Introduction

macOS 27 Golden Gate is one of those rare upgrades (like going from Leopard to Snow Leopard, for those who remember it) that focuses more on improving what's already there than on new features. To be sure, there *are* new features, including a few big ones. But even those—I'm thinking of Siri AI in particular—are mostly revisions of existing features rather than entirely novel capabilities.

This book is your guide to what's new in Golden Gate. I assume you already have a basic grasp of Mac fundamentals, so I don't explain things like what the Finder is, how to use the Dock, or where to find your apps. (To learn about those things, pick up my book *Mac Basics*.) The focus here is on what's different from Tahoe and other recent versions of macOS.

In the past, Apple has released detailed descriptions of all the new features of that year's version of macOS. This year's macOS webpage, by contrast, is extremely light on details, focusing only on what Apple considers the key features. The extensive feature lists you can find online (such as this one at TidBITS) are based on a single slide shown in its entirety for less than two seconds during the WWDC keynote, which listed hundreds of changes across all the version 27 releases.

I read every one of those items and tried as many as I could in the beta releases of Golden Gate, but many did not seem to function as described. It's not yet clear for some features whether they haven't appeared in the latest beta release (as I write this in mid-August 2026), Apple removed them, or Apple's description was too vague for me to figure out what should happen. Apple stresses performance and reliability improvements, which are harder to test, and in some cases I never noticed the problems they addressed in the first place. So, if you're looking for information on a feature from those lists and don't see it here, that's why.

I expect that after the production version of Golden Gate ships, I'll update this book to add more details.

As I've done for several years, I've incorporated instructions for upgrading from earlier versions of macOS into this book. I help you confirm that your Mac is compatible with Golden Gate, walk you through all the preparatory steps, and guide you through the installation process. Then I show you the major changes in Golden Gate. I also tell you about some potential pitfalls and how to avoid them or work around them.

As I write this in August 2026, Golden Gate is in beta testing, due for release sometime in the fall. Things are certain to change between now and when version 27.0 becomes public, so my plan is to publish version 1.1 of this book on the same day as the Golden Gate release to account for any significant changes since the beta versions I was able to test for this version of the book. Because there will certainly be more releases of Golden Gate (27.1, 27.2, and so on) with further changes, there may be further updates to this book beyond version 1.1 in the coming year, depending on the scope of timing of those changes.

To check for updates to this book, click the Ebook Extras badge in the upper-right corner of the cover (if you're reading the PDF format). Or, in any format, go to the Ebook Extras topic and click the "access extras related to this ebook" link. If you purchased your book directly from Take Control Books (in which case you have an account with us), you can log in when you visit the Ebook Extras page.

Golden Gate Quick Start

You can read this book in any order, jumping to whatever topics interest you most. However, I recommend reading the first chapter (Take In the Scenic View) first to get an overview, and if you're upgrading to Golden Gate from an earlier version of macOS, you should go through the Check Your Mac for Compatibility and Upgrade to Golden Gate chapters to ensure a smooth transition.

Learn about what's new:

- Discover what you have to look forward to when you upgrade to Golden Gate, as well as what features were added (and removed) in the last several macOS versions. Read Take In the Scenic View.

Upgrade your Mac to Golden Gate:

- Make sure your computer can run Golden Gate. See Check Your Mac for Compatibility.
- If you're installing the Golden Gate *beta,* read the sidebar Upgrading to or from the Golden Gate Beta.
- Follow detailed, step-by-step instructions to upgrade your Mac. See Upgrade to Golden Gate.

Explore the major new features:

- Discover improvements and refinements in the Liquid Glass interface in See Liquid Glass Changes.
- Learn about Siri's new tricks and expanded Apple Intelligence features; see Explore Siri AI & Apple Intelligence.
- Keep your kids safer online; see Use Child Safety Features.
- See what settings are new or different in Explore System Settings.

Explore other changes:

- Uncover smaller, miscellaneous changes in system-wide technologies. See Discover Other System Improvements.
- Find out which other apps have noteworthy changes. See Explore Other App Improvements.

Take In the Scenic View

Since you've bought this book, I assume you've already decided to upgrade to Golden Gate and don't need convincing that it's worth your time and effort. However, I would like to call attention to some of the biggest changes in Golden Gate that you can look forward to, especially those I discuss in more detail later in this book.

In addition, if you're upgrading from an operating system older than macOS 15 Sequoia, you may be interested to know what other features were added along the way—as well as some that are about to disappear.

Find Out What's New in Golden Gate

Apple has a list of new Golden Gate features on this webpage. I won't catalog them all here as they're covered throughout this book. However, I would like to call out some of the most notable changes and improvements since macOS 26 Tahoe:

- **Liquid Glass improvements:** Although Apple is still committed to the Liquid Glass user interface introduced in Tahoe, Golden Gate makes a number of changes and refinements that address some of the criticisms of the original version. I discuss these in See Liquid Glass Changes.
- **Performance improvements:** Apple has fixed bugs while increasing speed, reliability, and smoothness across many aspects of macOS. As I said in the Introduction, I won't list every single one of these, but I can make the general statement that you should find better performance and fewer bugs across numerous aspects of Golden Gate.
- **Siri AI:** The much-maligned Siri of yesteryear has been replaced with a completely new engine that's far more powerful and convenient. And Apple has blurred the distinction between Siri and Apple Intelligence. See Explore Siri AI & Apple Intelligence.

- **Child safety:** Although macOS has long included a robust set of features intended to keep children safe, Golden Gate adds several more. See Use Child Safety Features.
- **Everything else:** As usual, many aspects of macOS, including about two dozen built-in apps, have new features and capabilities. See Discover Other System Improvements and Explore Other App Improvements.

At the same time, Apple has given notice that a few features are on their way out: they're still in Golden Gate, but will no longer be present in macOS 28 next year.

First is Rosetta, the technology that enables Macs with Apple silicon to seamlessly run apps designed to work only on Intel processors. It has been around since macOS 11 Big Sur, but now that the transition to Apple silicon is complete and Golden Gate no longer supports any Intel-based Macs, Rosetta's days are numbered. Although any apps you have that were designed for Intel processors should still work in Golden Gate, you will continue to see messages like **Figure 1**, which started appearing partway through Tahoe's life cycle.

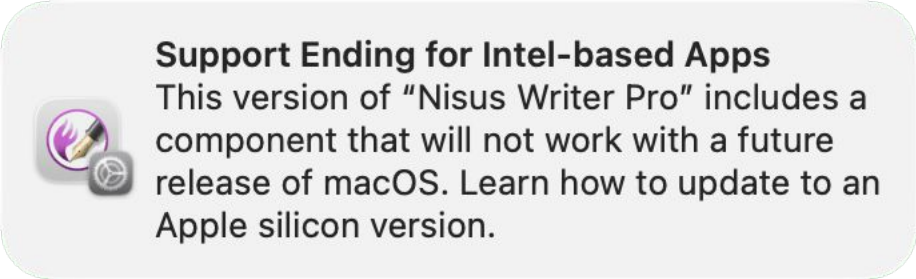


Figure 1: Any apps that are either entirely Intel-based or include an Intel-based component periodically prompt a notification like this.

Note: Technically, it's Rosetta 2, as Apple had a previous emulation technology called Rosetta. However, Apple's documentation omits the 2 to refer to this second version.

Translation: you have about a year to obtain a new version of the app designed for Apple silicon (if the developer releases one) or find an alternative. Otherwise, if you depend on that app, you may have to stay on Golden Gate for quite a while.

You can start making the transition from any remaining Intel-based apps now by going to System Settings > General > About, and clicking Details under the macOS section. This shows a list of apps and some components on your Mac that have Intel-only code, showing those you used in the last year first.

The built-in tool may not find all the agents, daemons, command-line programs, and other bits and bobs you've installed over the years. For that, you should turn to third-party tools that work in Tahoe (and some earlier versions of macOS), like iMazing's Silicon (free), St. Clair Software's Go64 (free), and bzwrd's more elaborate Rosetta Check ($6.99/€6.99 one-time fee).

Similarly, Apple has removed the DVDPlayback framework, which likely means the DVD Player app, which is still present in Golden Gate, will be gone in macOS 28.

And, any drives formatted using the encrypted Mac OS Extended (HFS+) format won't work in macOS 28. If you have such a drive, you'll want to back it up, reformat it as APFS, and then copy your data back before macOS 28 rolls around in late 2027.

If you're already running Tahoe, that's all you need to know for now; skip ahead to Check Your Mac for Compatibility. But if your Mac is still using an older operating system, read on to learn about some changes in the past few releases that you may not be fully prepared for.

Catch Up with macOS Changes

The older the operating system you're upgrading from, the more changes you'll notice in Golden Gate—and the greater the likelihood that you'll encounter compatibility problems with old hardware and software. You'll find great new features, but you may also have to abandon software you've used for many years, adopt new habits, or reorient your thinking about how a Mac works. Before you jump in, you should understand what awaits you.

Read the topics below covering any operating systems you've never installed on your Mac.

Changes in Tahoe

In macOS 26 Tahoe, Apple introduced a new numbering scheme that's now used across all their operating systems; the number represents the year *after* the operating system is released. Tahoe introduced the somewhat controversial Liquid Glass look and feel, as well as greatly expanded customization options for Control Center and your menu bar. It expanded iPhone Continuity features by bringing the Phone app to macOS, as well as displaying live activities from your iPhone on your Mac's menu bar. Spotlight was redesigned—not just visually, but also with support for initiating numerous actions without opening an app, jumping right to an action with quick keys, and keeping a history of items you've copied to your clipboard. New apps included Apps (which replaced Launchpad), Games, Journal, and Magnifier. Live Translation in FaceTime, Messages, and Phone adds audio and text translation in real time as you type and speak when you're conversing with someone who speaks a different language. And shortcuts in the Shortcuts app can run automatically on a schedule or in response to various events, while new Shortcuts actions offer a variety of Apple Intelligence features you can use to create more powerful automations.

Changes in Sequoia

macOS 15 Sequoia (along with iOS 18 and iPadOS 18) introduced Apple Intelligence, Apple's spin on artificial intelligence (AI), with changes to Safari, Siri, Mail, Messages, Notes, Photos, and other apps, plus writing tools throughout the system and optional integration with ChatGPT. It also added window tiling, the iPhone Mirroring app to interact with your iPhone using your Mac, and the Passwords app for easier access to usernames and passwords. Messages gained support for formatted text, animated text effects, scheduled messages, and more flexible tapbacks, while Notes added live audio transcription, collapsible sections, text highlighting, and Math Notes, a simple new way to perform math calculations. Smaller, but (mostly) welcome, changes also appeared in numerous built-in apps, including Calculator,

Calendar, Finder, Freeform, Home, Mail, Maps, Music, Photos, Podcasts, Reminders, and Weather.

Changes in Sonoma

macOS 14 Sonoma didn't look much different from Ventura, but it included a number of useful new features, such as visual reactions and screen-sharing tools for videoconferencing, widgets on the desktop, and significant improvements to Messages, Notes, and Reminders (plus smaller changes in a variety of other apps). It came with Safari 17, which introduced profiles to separate your Safari data into multiple contexts, the capability to turn any website into a standalone app, and a way to share passwords and passkeys securely. Numerous other privacy and security features were included, such as sensitive content warnings, more detailed permissions settings for apps that access your photos and calendars, and alerts about apps that monitor what's on your screen.

Changes in Ventura

Perhaps the most obvious change in macOS 13 Ventura was the transformation of System Preferences into System Settings, making it look and act much like the Settings app in iOS and iPadOS. This was no mere name change; Apple massively rearranged the names and locations of settings, making them challenging for even a veteran Mac nerd to locate (see Explore System Settings for more details). Another feature borrowed from iPadOS was Stage Manager, which adds to the existing list of a dozen or so ways to manage apps and windows. (It has proved not to be very popular.)

Safari added a number of small features, most notably support for *passkeys*, which are the easier, more secure successor to passwords. Mail and Messages gained the capability to unsend messages, and both apps also saw other improvements (such as scheduling messages in Mail and editing already-sent messages in Messages). Photos added a new iCloud Shared Photo Library, which makes it much simpler to share photos within a family, among other features. And a new Ad-

vanced Data Protection feature lets you optionally add end-to-end encryption to most iCloud data.

As iPhones are known for their excellent cameras and Macs are not, Apple added a feature called Continuity Camera that lets you use your iPhone as a high-quality webcam for your Mac. Apple also added the new Freeform app for solo or shared whiteboarding. Beyond that, Apple made small changes to numerous system-level capabilities (such as Live Text, Memoji, and Spotlight) and built-in apps (including Clock,Weather, Notes, and Reminders).

Changes in Monterey

Monterey didn't have a lot of big, flashy features, but it did introduce some important new technologies, such as SharePlay (a way to enjoy synchronized media with someone in another location while chatting using FaceTime), Universal Control (which lets you control multiple Macs and iPads with a single keyboard and pointing device), and Focus (which upgraded Do Not Disturb with user-definable categories, letting you specify who or what can disturb you and when). Monterey also brought Shortcuts to macOS, finally giving Apple users a simple yet powerful cross-platform automation tool. And Monterey was the first version of macOS to support the paid iCloud+ tiers, with exclusive features like Private Relay and Hide My Email.

Safari got a modest overhaul, featuring a revised tab bar, tab groups, better searching, and a redesigned sidebar—plus better privacy protection. FaceTime gained features that help you look and sound better, make better use of group conversations, and even communicate with people using non-Apple devices, while Messages made it easier to find links, photos, and other items people shared with you. The Maps app gained a bunch of new features, including an interactive globe, new driving and transit features, and better searching. Monterey also introduced AirPlay to Mac, Live Text (automatic, instant OCR for images), and Quick Note (to create new notes without opening the Notes app).

Check Your Mac for Compatibility

Golden Gate runs on all currently shipping Macs, as well as most models introduced within the past five years or so. Sadly, Golden Gate does drop support for some Mac models that were able to run macOS 26 Tahoe. The next few pages will help you verify that your hardware is fully compatible with Golden Gate.

Model Support

Golden Gate supports all and only Macs with Apple silicon. The full list of supported models is:

- MacBook Neo
- MacBook Air (Apple silicon, 2020 or newer)
- MacBook Pro (Apple silicon, 2020 or newer)
- iMac (2021 or newer)
- Mac mini (2020 or newer)
- Mac Studio
- Mac Pro (2023)

Unfortunately, that excludes the last Intel-based models that were able to run Tahoe but can now go no further: iMac (2020), MacBook Air (Retina, 13-inch, 2020), MacBook Pro (16-inch, 2019; 13-inch, 2020), and Mac Pro (2019).

To confirm which Mac model you have, choose Apple > About This Mac. You'll see something like **Figure 2** in Ventura or later (the layout differs in Monterey or earlier).



Figure 2: About This Mac (Ventura or later).

If your Mac doesn't have an Apple M-series or A-series processor, I'm very sorry to say it won't run Golden Gate, regardless of its age or speed.

Even if your Mac *is* on that list, however, a couple of Golden Gate features may not work because they have more stringent processor requirements. For instance, improved Dictation accuracy and customizing Siri's expressivity (Apple's term) and pace require a Mac with an M3 processor or newer and at least 12 GB of RAM.

New Macs that shipped after Golden Gate was released have Golden Gate preinstalled; if necessary, you can use the Migration Assistant to transfer files, accounts, and settings from your old Mac, as I explain in my TidBITS article How to Migrate to a New Mac (which is still largely accurate even though it was published way back in 2016). After your migration, you'll have some additional steps to complete, as Adam

Engst explains in Moving to a New Mac: What's Left to Do After Migration?.

Free Disk Space

The amount of free space Golden Gate requires for installation depends on a number of variables, including which version of macOS you're upgrading from and which upgrade method you use. I suggest starting with at least 50 GB of free space before downloading the Golden Gate installer, which itself occupies up to about 21 GB. Some Golden Gate features will require increasing amounts of disk space as you use them, so it never hurts to have room to grow.

Tip: To find out how much free space a volume has, select the volume's icon in the Finder and choose File > Get Info. The window that appears lists (among other things) the volume's Capacity (total), Available (free), and Used space. (Sometimes those values can be misleading, though; I explain all the gory details in *Take Control of Solving Mac Problems*.)

Upgrade to Golden Gate

Up through 2019, I wrote an entire book every year on the process of upgrading to the latest Mac operating system. Now, rather than offering a separate *Take Control of Upgrading to Golden Gate* book, I've condensed all my upgrading instructions into just this one (admittedly rather long) chapter. Although I've deliberately left out some details and background information from the book-length text, what follows is more than enough to get you through the process.

If you've already upgraded to Golden Gate (either the public beta or the final version, depending on when you're reading this), you can skip ahead to See Liquid Glass Changes.

You Can (and Should) Skip Versions

Every now and then I get email from someone who hasn't upgraded macOS in a few years and wants to know whether they can jump straight from whatever they have to the latest system, or whether they must apply each major upgrade incrementally along the way.

I must admit that my first thought is always, "Why didn't you install each new version as it was released?" I have always—going back to the pre–Mac OS X days—installed every single update Apple has released, and I've never regretted that approach. You can do that too! Not only is it safe, it's also significantly less hassle than waiting years between upgrades.

Be that as it may, if you are running an older version of macOS and want to install Golden Gate, as long as your Mac is compatible (see Check Your Mac for Compatibility), you should just go for it. **To be crystal clear, you do *not* have to install every new release of macOS between the one you have and the one you want!** Even if your Mac is currently running, say, macOS 11 Big Sur, you can (and should) skip straight to macOS 27 Golden Gate. No need to step through Monterey, Ventura, Sonoma, Sequoia, and Tahoe! The Golden Gate installer doesn't care where you're starting. However, the longer the gap, the more likely you will have incompatible third-party software.

Update Your Third-Party Software

Every major upgrade to macOS results in software compatibility problems, where some apps work poorly or won't launch. Most of us will have to update at least a few apps to make them work correctly under Golden Gate. If history is any indication, some incompatible apps won't have an update available right away, and a few might never have one. But many developers work hard to ensure that their software is ready for each new version of macOS, and "Golden Gate-compatible" software updates have already been appearing for months.

Tip: RoaringApps maintains a wiki that lists thousands of Mac, iPhone, and iPad apps and the current status of their compatibility with various operating system versions (including Golden Gate), as reported by users. Although this list is neither exhaustive nor definitive, it provides a quick way to check on the apps most important to you.

Update Your Remaining Apps

The Golden Gate installer looks for, and disables, certain types of incompatible software—but there's no guarantee it will find everything. Given the choice, you're usually better off upgrading third-party software *before* you install a new version of your operating system. (You may occasionally run into an app with a newer version designed to run *only* on Golden Gate; in such limited cases, you may have to install the updated software after upgrading to Golden Gate.)

Apple built an update mechanism into the App Store, so any apps you downloaded from the App Store can also be updated there—and App Store updates are free. To check for and apply App Store updates:

1. Open the App Store app by choosing Apple > App Store.
2. Click Updates in the sidebar to display a list of available updates.
3. To update a single app, click the Update button next to it. Or, to update all the listed apps at once, click Update All.

4. If prompted to do so, enter your Apple Account username and password, and click Sign In.

The App Store downloads and installs the updates automatically.

Software that doesn't come from the App Store requires a separate update mechanism. Happily, most modern apps contain some sort of update feature. In each non–App Store app that you use frequently, look for a Check for Updates command (the wording may vary). Such commands usually appear in the application menu, the Help menu, or the Settings window.

Tip: Remember to check for updates of setting panes, status menus, browser extensions, and other system enhancements too.

Back Up Your Disk

I consider a solid backup plan to be essential for every Mac user. I hope you already perform backups regularly, and if you don't, this is a perfect time to start before you upgrade Golden Gate. Here are some of the ways you can achieve that:

- **Create a data-only duplicate:** macOS splits your startup volume in two: one volume holds macOS itself; the other, with "- Data" appended to the name, holds everything else. (Most users will never notice this split, because Apple does some magic behind the scenes to make it appear, in most places, that you have just one volume, called Macintosh HD by default.) Because *only* that data volume contains your personal files, settings, and apps that weren't included with macOS, that's all you really need to back up. Backup apps such as Carbon Copy Cloner and SuperDuper! can clone just the data volume if you like. (You'll have to jump through a few hoops to restore that data if you eventually decide to downgrade; see How to Downgrade macOS, later in this chapter, for details.)

  Consult the documentation for whichever app you choose for complete instructions, but the basic idea is: first, erase the external SSD

using Disk Utility; then, open the backup app, select your Data volume as the source and the external drive as the destination, and click the button to start the duplication process.

Note: Although an SSD is all but mandatory as a *startup* volume in macOS these days, it's fine to use a hard drive for a data-only duplicate (or a Time Machine backup, for that matter), since you won't be booting from it.

- **Create a *full* Time Machine backup:** To hear Apple tell the story, Time Machine is the only backup solution anyone needs. Attach an external hard drive or SSD, flip a switch in System Settings, and you're done: automatic backups every hour with no further thought or fuss. As I explain in *Take Control of Backing Up Your Mac*, Time Machine is pretty good but far from perfect. The most important drawback for our current purposes is not a flaw in Time Machine as such, but rather the fact that, for any of numerous good reasons, you may opt to exclude some items from Time Machine (by going to System Settings > General > Time Machine > Options and adding files or folders to the Exclude from Backups list). If you do that, those files can't be restored if and when you have to revert to an older version of macOS. So, fair warning: you can use Time Machine if you like, but first remove everything from that list and make sure Time Machine completes at least one run.
- **Clone if you want to:** If you have the necessary hardware, software, and patience, you *can* create a full bootable duplicate, even on a modern Apple silicon Mac. But since this is so much more complicated and less necessary than in years past, I wouldn't bother.

One type of backup that will *not* suffice for this particular purpose is an online backup using a service such as Backblaze. I like Backblaze and use it myself, but because it excludes many types of files and is unavailable to the macOS installer or Migration Assistant as a data source, it can't be used to restore an entire Data volume after a failed upgrade.

Decide on an Installation Method

The Golden Gate installer doesn't give you many options, but you can still approach the process in either of two ways:

- **Plan A: In-Place Upgrade:** This easy, default method is appropriate for most people (including anyone Upgrading to or from the Golden Gate Beta), with some qualifications.
- **Plan B: Clean Install:** Although the installer offers no built-in option to start fresh by erasing your disk, you can accomplish the same thing in a slightly roundabout way.

Most users should start with Plan A and then if (and only if) they encounter problems, move on to Plan B. A few people may want to skip Plan A and go directly to Plan B. In almost every case, the end result will be virtually identical, regardless of which path you take.

In the pages that follow, I describe the differences between these two plans and help you choose which way to go. Then, later in this chapter, I give you step-by-step instructions for each plan.

Upgrading a New Mac

If you're not only upgrading a new (or new to you) Mac to Golden Gate but also moving your files from an old Mac, you can use Migration Assistant to transfer your old data to the new Mac. If you use Plan B: Clean Install, Migration Assistant runs automatically at the end of the installation; if you use Plan A: In-Place Upgrade, you can run the Migration Assistant utility immediately after rebooting in Golden Gate.

See my TidBITS article How to Migrate to a New Mac for details, but note that since that article was written, Apple made a major improvement to Migration Assistant: if it sees an account on the old Mac with the same username as one on the new Mac, it offers to delete the user account from the new Mac and replace it with the data from the old Mac, optionally keeping an archive of the existing account.

Upgrading to or from the Golden Gate Beta

If you're planning to install the Golden Gate public beta before the final Golden Gate release, everything in this book still applies, except that the wording will be different in spots. You can install the beta on an external SSD, or on a partition of an existing SSD. But there's an even better option, which is both simpler and faster: create an extra APFS volume on your startup volume and install Golden Gate there. Because of the way APFS handles volumes, this is quick, safe, and avoids the need to specify a partition size in advance. Apple offers full details in this article.

What if you've *already* installed the Golden Gate public beta and are using this book to upgrade from the beta to the final release?

You can still choose between Plans A and B—nothing changes there, because it's possible to do either an in-place upgrade from the beta to the final version or a clean install of the final version that migrates data from the beta. In fact, you can even upgrade from the beta to the full release version using Software Update if you so choose; see Learn About Upgrades via Software Update.

However, if you installed the Golden Gate beta on a separate volume—not your ordinary startup volume—and didn't save any files on that separate volume, my advice is to restart from your main (pre-Golden Gate) volume, create a data-only duplicate of your startup volume, and then choose Plan A or Plan B as though you'd never used the beta at all. Once you're sure everything is present and functional, you can delete your Golden Gate beta volume.

Plan A: In-Place Upgrade

The Golden Gate installer offers a single upgrade method that attempts to make the transition simple by leaving almost all your files, apps, and settings in place. You run the installer as you would any other app, and it replaces all the components of your old macOS installation with their Golden Gate equivalents, while deleting those that are obsolete—just as the App Store app does when it installs minor updates.

The Golden Gate installer automatically checks for certain categories of incompatible software and moves any such files safely aside into a Relocated Items folder in `/Users/Shared`.

Note: The installer can't know about every potential software conflict with Golden Gate—it disables only software that loads automatically on startup and that runs in the background, such as drivers and other kernel extensions. Ordinary apps are never moved aside, even if they can't possibly run under Golden Gate.

As long as you have a complete backup, you have little to fear from an in-place upgrade to Golden Gate, and it's entirely reasonable for Apple to have made it the only official option.

However, I must reiterate that as good as the installer is, there are no guarantees. Something could still go wrong before, during, or after the upgrade. It's also possible that, due to an error or design flaw in the installer, important files could be deleted. These are among the reasons to consider following the clean install procedure that I describe next.

Plan B: Clean Install

Whether or not you trust the installer (and Golden Gate itself) to protect you from software incompatibilities, you might consider making a fresh start by erasing your entire disk and installing a clean, pristine copy of Golden Gate. This process requires a few extra clicks and a bit more time, but it's not hard to perform. You must start up from another volume (which could be a bootable duplicate or a bootable installer volume, described ahead) to erase your previous system, run the installer, and restore your personal files.

The main reason to prefer a clean install over an in-place upgrade is that erasing your disk wipes out any hidden directory corruption, file system problems, and other disk gremlins that may cause problems.

If a clean install did nothing but erase your disk and install Golden Gate, then all your settings, user-installed software, and files would be gone, and you'd have to either restore them from a backup or recreate them from scratch: not fun. But as in previous versions of macOS, the Golden Gate installer also offers an optional Migration Assistant feature—available only when you install onto a blank volume—that makes the process easy. As soon as the installation completes, you'll have the option to migrate all your apps and personal files from anoth-

er volume. Since you've made a complete backup, the installer can take all your personal data from that disk and copy it to the analogous location on the Golden Gate volume.

When copying your old data, you can be *somewhat* selective, but you can't select individual files or folders to migrate (or skip). If you select every possible category of data (the default), Migration Assistant dutifully copies virtually everything from your backup to your startup volume (while moving aside any software it identifies as incompatible, just as occurs in an in-place upgrade). Almost to a file, the results should be identical to what you'd get with an in-place upgrade! (There are some tiny differences, but almost certainly nothing you'd ever notice if you didn't scrutinize every last file on your disk.)

The thing is, I recommend that you *do* copy all your old data, because otherwise you're likely to be left without something you need and expect. Therefore, since the net result is essentially the same with the in-place upgrade method and a clean install, I now recommend a clean install *only* in the following situations:

- Your startup disk has errors that Disk Utility can't repair, even in recovery mode.
- You want to be selective about which folders and files you let Migration Assistant copy (to reduce the clutter on your disk, for example), and you're willing to manually copy other files you may need later.
- You're installing Golden Gate onto a Mac you just purchased, and you want to erase the drive and start fresh with Golden Gate. You'll transfer your data from your old Mac (or PC) during the installation process.
- You attempted an in-place upgrade and it failed.

Double backup warning! I want to remind you that Plan B really will destroy all the data on your disk (or partition) prior to installing a fresh copy of Golden Gate. If anything were to go wrong with your backup, you would be unhappy. So check your backups!

Pick a Plan

To summarize, I believe Plan A is best for most people. Let Apple's installer do its thing. You'll already have a full backup (because, remember, I insist on it!), so the worst thing that could happen is you lose an hour or so of your time and have to start over with Plan B's clean install. The overwhelming probability is that everything will be just fine, however, if you go with the flow.

With any plan—even with an in-place upgrade—questions, choices, and issues may arise. I explain how to deal with all of them as we go.

Learn About Upgrades via Software Update

Since Apple first made major macOS upgrades available in downloadable form rather than offering DVDs (remember those?), downloading an installer meant just that: you got a separate installer app on your disk that you could open by double-clicking it. In contrast, minor updates were available through Software Update, requiring only a couple of clicks to install.

For the past several years, however, Apple has offered even major upgrades—like going from macOS 26 Tahoe to macOS 27 Golden Gate—via Software Update (that is, System Preferences > Software Update in Monterey or earlier, or System Settings > General > Software Update in Ventura or later). Besides requiring fewer steps, the downloads available through Software Update tend to be smaller and thus quicker to download than full installers.

If your Mac supports Golden Gate and it hasn't yet been installed after its (non-beta) release, a little badge appears on the System Settings icon and you may be tempted to simply click Upgrade Now and step through the update process there. See **Figure 3** for what this looks like if you're upgrading from Monterey, or **Figure 4** for what it looks like if you're upgrading from Tahoe (though you'll see whatever the latest version of Golden Gate is rather than 27.0).

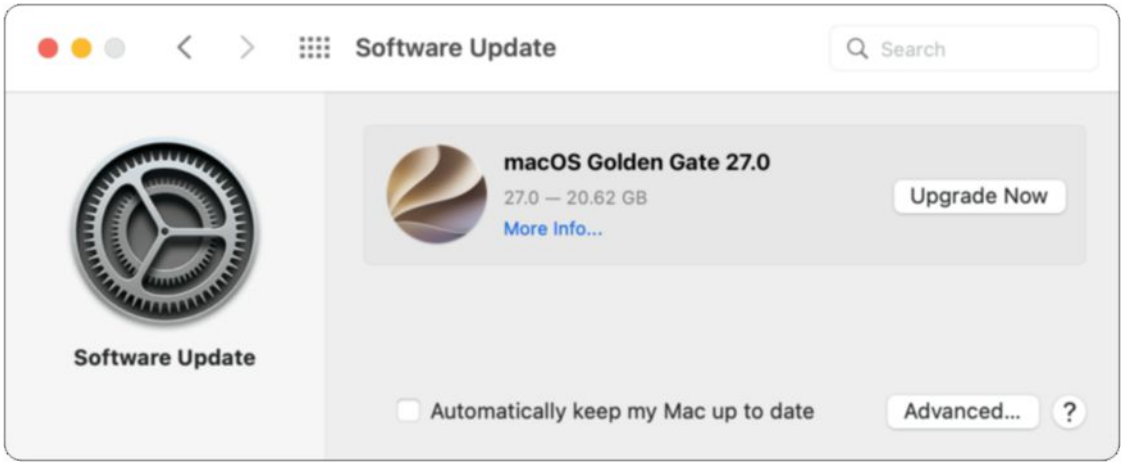


Figure 3: A mockup of what the upgrade from Monterey to Golden Gate should look like in System Preferences > Software Update.

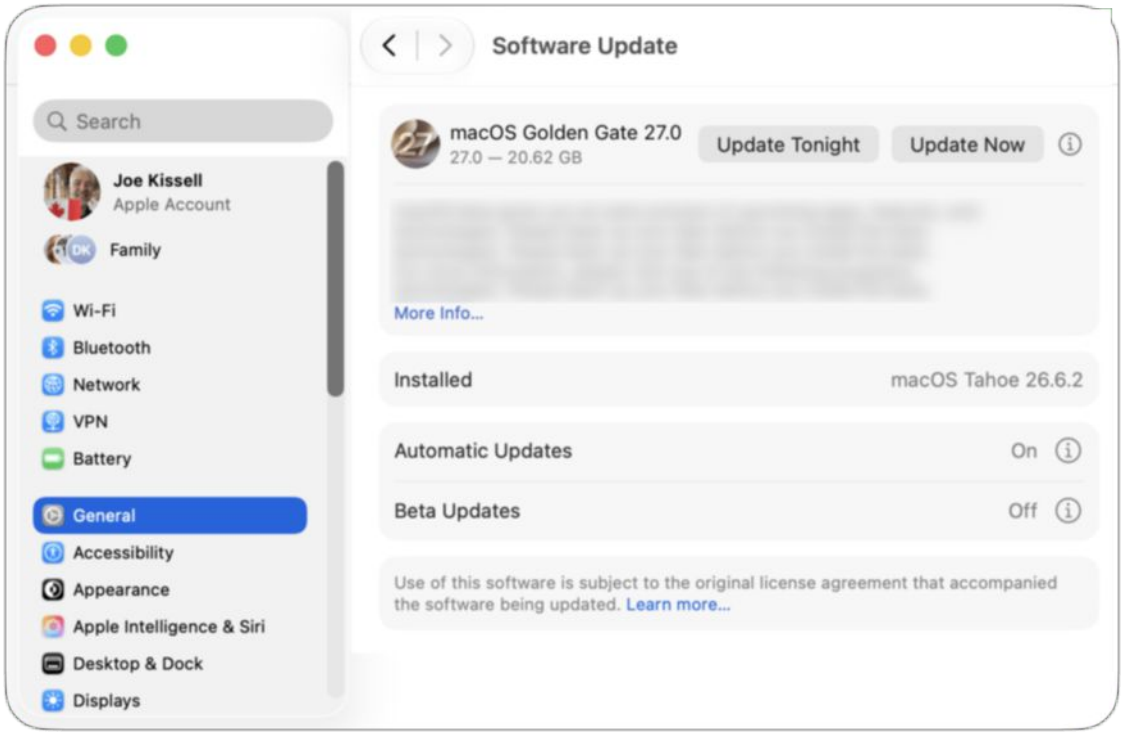


Figure 4: A mockup of what the upgrade from Tahoe to Golden Gate should look like in System Settings > General > Software Update.

Although you *can* use this approach, I recommend against it, for the following reasons:

- The downloads may be smaller, but you don't get a *standalone* installer. That means you can't copy it to another Mac or make a backup of the installer in case you need to use it again (see Copy the Installer to a Safe Place, ahead).

- As a consequence of not having a full installer app, you can't make a bootable installer (see Make a Bootable Installer Volume).
- The installer you get via Software Update does not prompt you to choose a destination (see Select a Destination); it can be used only for updating the copy of macOS on your current startup volume. That also means this approach can't be used with Plan B. So, if you try using Software Update with Plan A and you have a problem, you'll have to download the full installer anyway to switch to Plan B.

If you do choose to go the Software Update route, most of the installation process I describe ahead (from Take a Meditation Break onward) will be the same, and you'll follow the same steps afterward.

Make Final Preparations

Now that you know which basic installation technique you're going to use, you're nearly ready to proceed. Your next major step (which could take hours, or even longer) is to obtain the Golden Gate installer; then I'll recommend a few other quick, last-minute tasks before you dive in.

Obtain the Installer

If you want to install the Golden Gate public beta, follow Apple's instructions to enroll your Mac and enable beta updates.

However, if you're following these instructions after Golden Gate has been released, you will of course want the final version. Depending on your situation, obtaining the Golden Gate installer may be a trivial matter of a few clicks, or it may be an involved ordeal.

If you read Learn About Upgrades via Software Update and are comfortable with the trade-offs involved, you don't have to perform a separate download at all; simply go to System Settings > General > Software Update (or System Preferences > Software Update) and click Upgrade Now. Then click Continue, agree to the software license if prompted to do so, and skip ahead to Take a Meditation Break.

If you don't pursue this path, you must go through a few non-obvious steps to download the Golden Gate installer, which, like Tahoe, is not available from the Mac App Store.

The easiest way to proceed is to obtain a direct download link *that points directly to Apple's servers*. I can't ***overemphasize*** how important it is to download directly from Apple. Apple doesn't publicize such links, but the site Mr. Macintosh has very helpfully collected them for us. Go to this page on the Mr. Macintosh site to find the correct link; all the links on the page all point to `swcdn.apple.com`, a legitimate Apple download server.

On that page, look for the most recent entry in the macOS Golden Gate BETA Full Installer table (if you're reading this before the official release) or the PUBLIC Full Installer table (if you're reading it after). Click the link to download `InstallAssistant.pkg`.

You might be thinking, "Don't I want an app called Install macOS Golden Gate? What's InstallAssistant?" In fact, `InstallAssistant.pkg` is a simple installer that merely puts the Install macOS Golden Gate app in your Applications folder. So, once that file has finished downloading, double-click it and follow the prompts to run the installer, which is really the *installer* installer. When it's done, you'll see Install macOS Golden Gate (or Install macOS Golden Gate Beta) in your `/Applications` folder (unless you selected a different location for it). You can then delete the `InstallAssistant.pkg` file.

An alternative that's available only for public releases, not beta versions, is using a command-line program in Terminal to download the full installer. See the details here, but you'd enter `softwareupdate --fetch-full-installer --full-installer-version 27.0` to download the full version of Golden Gate 27.0 once it's out.

Copy the Installer to a Safe Place

If you decided to use Software Update to download Golden Gate, there's nothing to see here; move on to Make a Bootable Installer Volume. However, if you followed the steps just above to download a standalone Golden Gate installer, bear in mind that if you do an in-

place upgrade (whether to your internal SSD or an external SSD), the installer is deleted from `/Applications` once the process is finished!

I presume the reason for this is that, once Golden Gate is installed, Apple wants to give you back the 21 GB or so of disk space the installer was taking up, since you likely won't need the installer in the future (and can download it again if you do). But what if you want to install Golden Gate on multiple Macs—or reinstall it later on the same Mac—without having to download that huge installer again? I'll tell you what: you'd better put that installer in a safe place before you run it! If it's anywhere else—your desktop, `~/Downloads`, or wherever—it won't be deleted after it runs.

So, before you do anything else, I suggest that you either ⌘-drag the installer to *move* it from `/Applications` to another location, or Option-drag the installer to *copy* it to another location—preferably another volume—so if it is deleted, you'll have a spare. Or, create a bootable installation volume, as I describe next.

Make a Bootable Installer Volume

The installer for Golden Gate doesn't include or require boot media. But you might want to have a copy of the installer on a bootable disk for one of these reasons:

- As a backup, so you don't have to re-download it if you need it in the future
- To simplify installing Golden Gate on multiple Macs
- To facilitate downgrading from Golden Gate to your previous version of macOS should that become necessary (in which case, you'd want to create a bootable installer volume for the old version, not for Golden Gate)

If none of that applies to you, skip ahead to Update Your Backup.

To move ahead with a bootable installer volume, you'll want a flash drive with at least 32 GB of free capacity. (A 32 GB USB flash drive can be found for under $10 online or at your favorite local electronics

store.) Then you follow a simple procedure to put a bootable installer on that drive and, when the time comes, start from that volume and run the installer.

Next, you'll use a command-line tool called `createinstallmedia` that is buried inside the installer (and thus is a method that Apple officially sanctions). Using this tool requires a visit to Terminal, but it's really a matter of copying and pasting one line from Apple's website into Terminal and replacing the name MyVolume with the name of the drive you'll be using. Apple offers complete instructions, and they're not painful at all.

But there's a catch, in that a bootable installer requires a *full* macOS installer to work with, and in some cases, that may not be what you get when you download Golden Gate, as I explain in the sidebar ahead.

Update Your Backup

Earlier in this chapter, I instructed you to make a complete backup of your startup disk. If you did that just minutes ago—and your backup includes the Golden Gate installer file located outside the `/Applications` folder—then you can move along to the next step. Otherwise, I suggest updating your backup before running the installer.

Upgrade Using Plan A: In-Place Upgrade

Now that you've gone through all the preliminary steps, it's time to begin the upgrade. For most people, Plan A—essentially letting the installer do what it wants—is the logical choice. And remember, if it doesn't work out for any reason, you can always move on later to Upgrade Using Plan B: Clean Install. Nevertheless, because you may encounter some questions or confusion during the process, I detail exactly what steps to take from start to finish.

Start the Installer

Before you run the installer, if you haven't already done so:

- If you are installing onto a laptop, connect its AC adapter to a power source. (If you forget to do this, the installer will prompt you.)
- Quit all open apps. (The installer attempts to do this for you—and prompts you if it can't—but you might as well take care of this beforehand.)

To begin the process, double-click the Install macOS Golden Gate (or, during beta testing, Install macOS Golden Gate Beta) icon in your `/Applications` folder or wherever else you put it. A window appears with just one button: Continue. Click it!

> **Note:** As a reminder, if you chose to use Software Update as described in Learn About Upgrades via Software Update, there's no separate installer to run or destination to select.

The Software License Agreement appears next; click Agree, and then click Agree again in the confirmation dialog to proceed.

Select a Destination

The next screen—assuming you are using the standalone installer and not Software Update—asks you to confirm which volume you want to install Golden Gate onto. In most cases, it displays its best guess—typically your startup volume—but you may see multiple disks here (**Figure 5**), in which case you should select the one you want. If the volume where you want to install Golden Gate isn't visible, you should see a Show All Disks button; click that to display all available options and then make your selection.

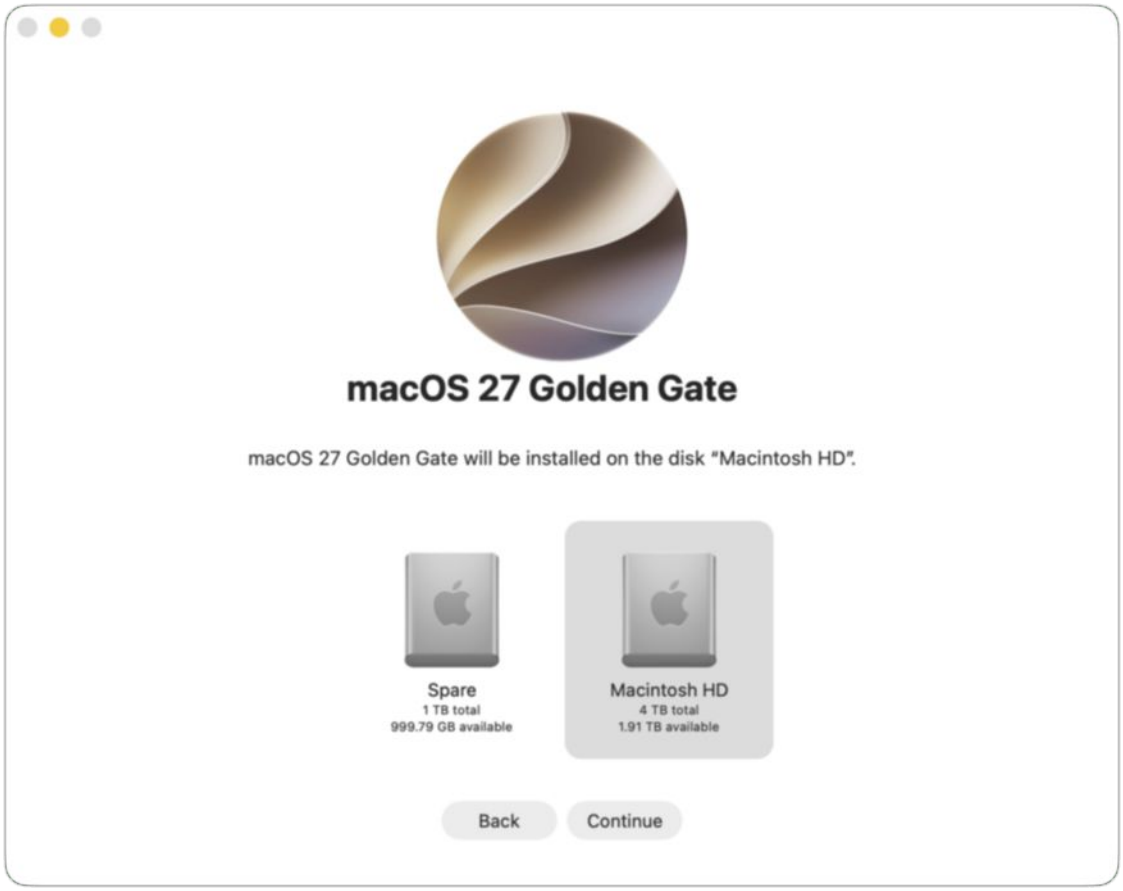


Figure 5: If the installer's best guess as to your desired destination isn't right and the one you want isn't visible, a Show All Disks button should appear to let you see the others.

If the installer can't use a volume as the destination for any reason, that volume is dimmed; click it for an explanation. If the volume is empty or contains a recent version of macOS, it should be OK; if not, the instructions may tell you to back it up and erase it. (In some cases you may be prompted to reformat it.)

Note: If you see an "Unsupported partition structure" error message, skip way ahead to Can't Select Installation Volume….

With your desired destination volume selected, click Continue or Install (the wording varies depending on your setup). Next, you're prompted to enter your administrator credentials (in order to add a helper app); do so and click OK (or, in some cases, Unlock).

The installer begins copying files. The copy process typically takes several minutes, but when it finishes, the installer tells you that it will restart your computer automatically in 30 seconds; you can also click

Restart to skip the wait. If any apps are still open and the installer is unable to close them automatically (for example, if there are unsaved changes you must respond to), the installer displays a prompt asking you to click Close Other Applications.

Take a Meditation Break

Depending on a number of variables, including the speed of your Mac and the size of your disk, installation may take less than a half hour or as long as several hours. Apart from the steps you've already performed, the process normally requires no intervention until the very end. Until then, you won't be able to use your Mac for anything else, so now's a good time to take a break to do some meditation, tai chi, qigong, or yoga—you have a bit of time to kill.

Note: If you insist on watching the installer's progress bar gradually make its way across the screen, beware: its time estimates ("About 43 minutes," "Less than a minute," etc.) are notoriously inaccurate, especially near the beginning and end of the process. And remember: a watched installer never boils.

As the installer progresses, your Mac will restart one or more times, and it may make some unusual sounds (like a long beep). You may also hear your Mac's startup chime—perhaps even more than once. At the end of the installation, you'll continue with several additional configuration steps.

Finish Setup Assistant

What happens next depends on how your Mac was *previously* set up:

- If you had Automatic Login turned on previously, Golden Gate should log you in automatically.
- If Automatic Login was off, your entire screen becomes a login screen. Select (or enter) your username if necessary, enter your password, and press Return to log in. This initial login process may take longer than usual, so be prepared to wait a few minutes before the login screen disappears.

The first time you use Golden Gate, the installer's Setup Assistant app runs, although you won't see that name; if it appears at all, it looks like a continuation of the installer itself. Setup Assistant may display one or more screens that ask you to make various setup choices.

Note: If you happen to be installing Golden Gate onto an external drive connected to a Mac with a Touch ID sensor, you may see an additional screen here prompting you to set up Touch ID (again).

One choice you'll see is a Liquid Glass slider (**Figure 6**), which lets you adjust the transparency for some Liquid Glass interface elements. Set this however you like. (I prefer all the way to the right, the most heavily tinted—or as little transparency as possible.) You can change this later in System Settings; see The Liquid Glass Slider, where I go into more detail.

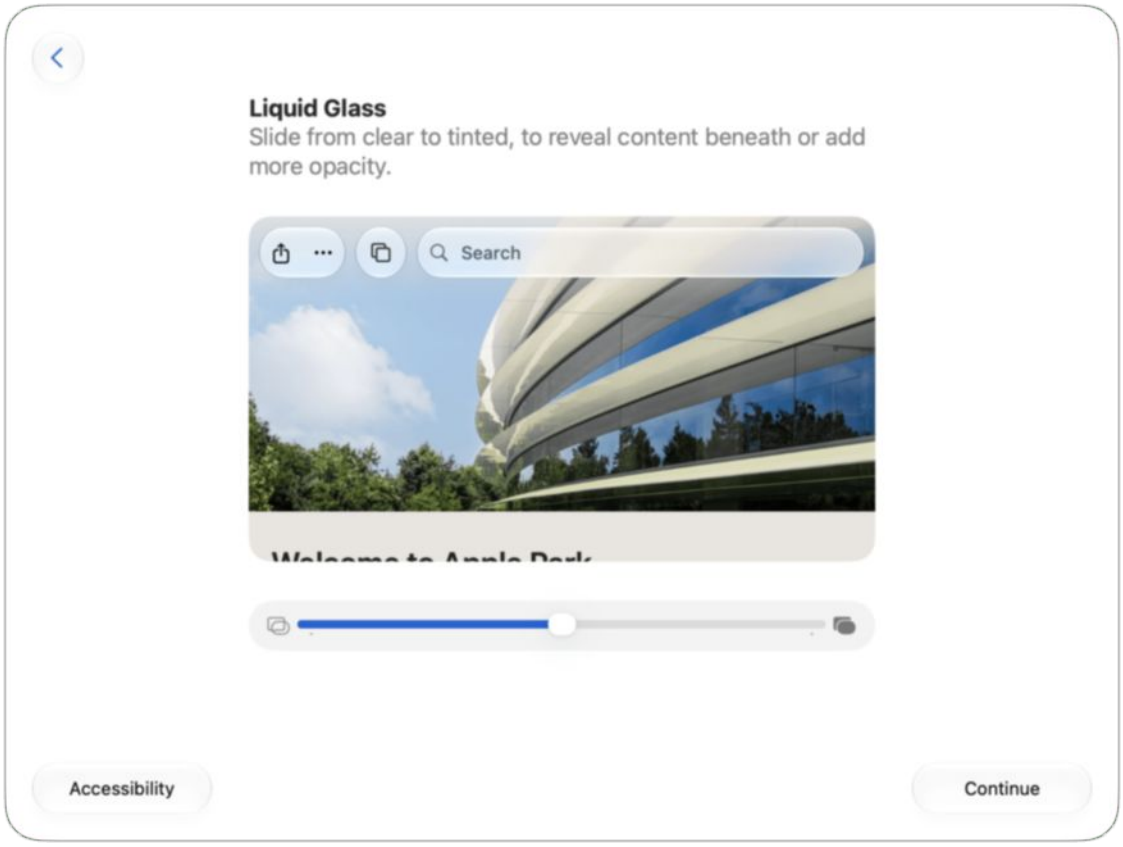


Figure 6: Use this slider in Setup Assistant to adjust how transparent or tinted certain interface elements should be.

Depending on which version of macOS you're upgrading from and your previous settings, you may *also* see one or more additional screens. Those include (not necessarily in this order):

- **Sign in with Your Apple Account:** Even if you were signed in to iCloud in your previous version of macOS, this screen may prompt you to sign in again. Depending on the circumstances, you may be asked only for your password, or for both your Apple Account username and password. If you don't want to enter an Apple Account username—and are willing to forgo all iCloud features for the present—select Set Up Later, click Continue, and then click Skip again to confirm. (You can enter this information later, in System Settings > Apple Account.)
- **Terms and Conditions:** Setup Assistant wants to be sure that you've consented to a bunch of additional legalese, so it may invite you to read, study, and agree to one or more statements, such as "macOS Software License Agreement" or "Game Center Terms and Conditions." Handle these however you want; I've found that my lawyer enjoys chatting with me about each paragraph of such agreements in detail (at his usual hourly rates).
- **Enable Location Services:** If you hadn't previously enabled Location Services (which is used for iCloud's Find My Mac feature, Maps, Spotlight suggestions, and numerous other things), a dialog may appear asking whether you'd like to do so. Check "Enable location services on this Mac" if you like (if you leave this disabled, you can enable the setting later in System Settings > Privacy & Security > Privacy > Location Services), or click the "About Location Services & Privacy" link to learn more.
- **Analytics:** Golden Gate can automatically send diagnostic and usage data to Apple and/or third-party developers to help them track down the causes of crashes and other bugs you may encounter. This information is anonymous and doesn't contain personal data.

  If you want to send this troubleshooting data in the event that a problem occurs, select Send Diagnostics & Usage Data to Apple.

With that selected, you may also select Share Crash Data with App Developers. (You can't share crash data with app developers unless you also share diagnostic data with Apple.)

- **Siri:** You may see a Siri screen that simply reminds you that you can now say "Siri" instead of "Hey Siri" if you like. If you're updating from a much older version of macOS without Siri enabled, you may also see a prompt asking whether you'd like Siri to listen for your spoken requests. A second Siri screen, titled Improve Siri & Dictation, could also appear, asking you to give Apple permission to listen to recordings of your voice in order to improve speech-to-text accuracy. For privacy reasons, I recommend selecting Not Now.

Tip: You can always enable or disable Siri later: go to System Settings > Siri > Requests once Golden Gate is up and running and choose your desired setting.

If you had to struggle through any or all of that, here's when the "Setting Up Your Mac" screen makes its brief appearance. Then Setup Assistant quits automatically, and your Golden Gate desktop appears.

Tip: Not sure whether you've successfully upgraded since you missed the end of the process? Choose Apple > About This Mac. If the window says 27.0 or higher at the top under "macOS," you're running Golden Gate!

Check for Proper Operation

In all probability, your upgrade will have gone smoothly, and everything will now work more or less the way you expect. However, even if everything looks fine, don't declare upgrade victory until you Perform Post-Installation Tasks, including dealing with any alerts and queries that pop up shortly after installation, checking for software updates, and configuring a few new options in System Settings.

If anything did go amiss, or if you later discover problems that aren't solved by following the advice in Troubleshoot Upgrade Problems, you can fall back to Upgrade Using Plan B: Clean Install.

Assuming your installation is now complete, you can skip the rest of this chapter and head on to See Liquid Glass Changes.

Upgrade Using Plan B: Clean Install

If you prefer a cleaner installation of Golden Gate than what an in-place upgrade provides—specifically, one that gets rid of any disk errors and gives you a chance to weed out some types of user-created data—opt for Plan B. It's also the right choice if you tried Plan A and encountered problems.

Much of Plan B is just like Plan A, so I refer to earlier discussions for some details. The differences come at the beginning (erasing your disk manually) and the end (using Setup Assistant to configure numerous settings and, optionally, using Migration Assistant to transfer data from your backup).

Start Up from Another Volume

Unlike Plan A's in-place upgrade, Plan B requires you to start up from another volume that contains the Golden Gate installer. You have a few choices:

- A bootable installer volume (see Make a Bootable Installer Volume)
- A bootable duplicate stored on an external SSD
- Recovery mode

For the first two bullets, see the next topic; for recovery mode, skip ahead to Start Up in Recovery Mode.

Start Up from an External Drive

To start up from a bootable installer volume or a bootable duplicate:

1. Make sure the external drive is connected to your Mac.
2. Choose Apple > Shut Down.

3. Press and hold the power button until the text “Loading startup options” appears.
4. Wait for the available startup volumes to appear; this may take 30 seconds or more.
5. Select your external startup volume and click Continue.

Now that you’ve booted from another drive, you can erase your main disk and install Golden Gate onto it.

Start Up in Recovery Mode

To start your Mac in recovery mode, turn it off, then press and hold the power button until you see “Loading startup options” on the screen. When the Options icon appears, click it, then click Continue.

Erase Your Disk

Having started up from another volume or in recovery mode, follow these steps to erase your destination volume in preparation for Golden Gate:

1. Open Disk Utility. If you’ve started up from an external volume, you can find it in `/Applications/Utilities`. If you’re in recovery mode, click Disk Utility in the macOS Utilities window.
2. If only the volumes are visible in the sidebar and not the drive itself, choose View > Show All Devices.
3. In the sidebar, select the disk or partition you want to erase. (Be sure to select the top-level icon, not an indented container or volume.) If it is not already mounted, click the Mount icon on the toolbar; if prompted to unlock it, enter your password.

Choose carefully! Triple-check to be sure that the volume you’re erasing is the one where you want to install Golden Gate, and that it’s the one you’ve backed up following the instructions in Back Up Your Disk!

4. On the toolbar, click the Erase button.

5. Type a name for your disk, make sure Format is set to APFS, and if the Scheme pop-up menu appears, choose GUID Partition Map.
6. Click Erase.
7. If you see a confirmation dialog, click Erase again. Disk Utility erases the disk, which normally takes just a few seconds. Click Done if prompted when the Erase process is complete.
8. Choose Disk Utility > Quit Disk Utility.

You're now ready to install Golden Gate on the empty volume.

Run the Installer

Your next steps are slightly different depending on how you started your Mac:

- If you've started from an external drive, make sure you've quit all running apps and then double-click the Install macOS Golden Gate (or, during beta testing, Install macOS Golden Gate Beta) icon in your `/Applications` folder or wherever else you put it. (If you haven't quit all running apps, the installer will attempt to do so.)
- If you're running in recovery mode, click Install macOS (or Install macOS Golden Gate).

Note: As a reminder, when you click Install macOS while in recovery mode, the Golden Gate installer runs *only* when Golden Gate is the current release version of macOS. If you're doing this while Golden Gate is still in beta, only your previous version of macOS will be available here.

A window appears with one button: Continue. Click it!

The next few steps are identical to those for an in-place upgrade:

1. The Software License Agreement appears; click Agree, and then click Agree again in the confirmation dialog.
2. Now select your destination. If needed, click Show All Disks to display all available options and click the one you want to use.

3. With your desired destination volume selected, click Continue or Install (the wording varies depending on your setup).

4. Next, you're prompted to enter your administrator credentials (in order to add a helper app); do so and click OK (or, in some cases, Unlock).

The installer begins copying files, a process that typically takes just a few minutes, but may take longer. Then, depending on your configuration, it may restart your Mac automatically, or it may ask you to click a Restart button. After the restart, the main portion of the installation process occurs.

Note: If you are installing Golden Gate onto a disk that's encrypted, you may be prompted to enter your password to unlock the disk immediately after the installer restarts your Mac.

During the installation, you may want to Take a Meditation Break, but be sure to come back here once you've read that topic. As the installer progresses, your Mac will restart one or more times, with or without the startup chime. You'll know the process has finished when the Select Your Country or Region screen appears. That's part of Setup Assistant, to which we now turn our attention.

Use Setup Assistant

Setup Assistant is an app that looks like a continuation of the Golden Gate installer, and the installer doesn't display the name "Setup Assistant." The assistant runs automatically after Golden Gate restarts at the end of the installation process, and walks you through a number of setup and configuration questions. It also offers to transfer files from another Mac or PC, another volume (which can be a bootable or data-only duplicate), or a Time Machine backup. I discuss that portion of the process in Use Migration Assistant, next.

Here's an overview of the main screens you may see. Depending on your hardware setup and which decisions you make as you work your way through the installer, this list may vary somewhat:

- **Hello:** A "hello" screen greets you in a series of languages, changing every few seconds. There's just one button at the bottom of the screen, "Get Started," which you should click—even if the language has changed and you can't read what it says!
- **Select Your Country or Region:** Your first task is to select a country or region on the Welcome screen and click Continue.
- **Written and Spoken Languages:** In some cases, you may be asked to confirm your preferred written and spoken languages, including those used for your keyboard and dictation.
- **Accessibility:** This screen gives you a convenient way to set a wide variety of accessibility preferences. Clicking any of the four titles shown (Vision, Motor, Hearing, or Cognitive) leads you through a series of options in that category, each with graphical descriptions of what the options do. You can adjust any or all of these, in any order—or click Not Now if you want to adjust them later in System Settings.
- **Select Your Wi-Fi Network:** Setup Assistant next looks for a network connection. You see a screen called Select Your Wi-Fi Network. Select the network to which you want to connect and, if required, enter the password. Then click Continue. (If you connect to the internet some other way—or if you have no internet connection—click Other Network Options and select the appropriate option.)
- **Data & Privacy:** A Data & Privacy screen appears, showing a handshake icon. Read the screen to learn that this icon should appear when an Apple feature is asking for permission to use your personal information. Finally, click Continue.
- **Migration Assistant:** Next is the Migration Assistant screen (**Figure 7**), which enables you to transfer files from your backup. I cover this process next.

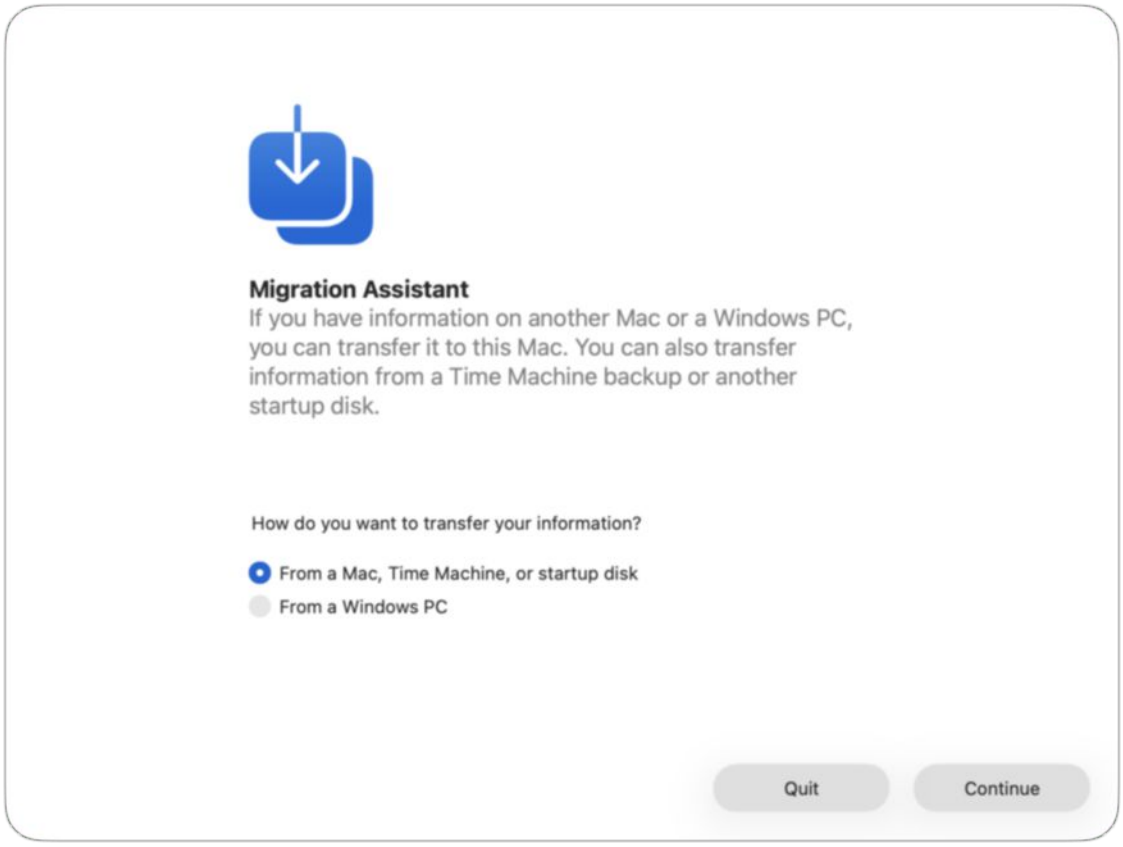


Figure 7: On this screen, you can begin the process of moving data from your backup to your Golden Gate volume.

Note: Although you could choose not to transfer your information now and use the standalone Migration Assistant app later, I generally find it quicker and more convenient to do it here. If you're tempted to skip this step in order to have a completely clean copy of Golden Gate, be sure to read the sidebar The Nuke-and-Pave Option.

Use Migration Assistant

Setup Assistant includes a built-in version of the Migration Assistant app (found in `/Applications/Utilities`), which can copy important files from another computer or another volume in an intelligent way. We use it here to transfer the data from your backup.

To transfer your old data to your new installation, begin by selecting "From a Mac, Time Machine backup or Startup disk," as shown in **Figure 7**, above. Click Continue. Then work your way through the following screens.

Transfer information to this Mac

Select your backup source—either an external drive containing a bootable or data-only duplicate, or a Time Machine volume—and click Continue. For Time Machine backups, another screen appears listing each available backup; select the one you want to use (almost certainly the most recent one) and click Continue again.

Note: If your source disk is a startup volume protected with FileVault, you'll be prompted to enter the disk's password.

Select the information to transfer

Now, select the kinds of data you want to transfer. The screen shows the size of each item. As you make your selections, the total size of the selected items, along with available space on your Golden Gate volume, updates automatically. (It may take a few minutes for the installer to initially display and calculate the size of each option.)

If the volume you're transferring from has only one user account, you may see only three checkboxes, all selected by default: Applications, Documents & Data (with an accompanying Edit button), and System & Network. If the volume has more than one user account, you'll see a scrolling list that contains numerous items—again, all selected by default: Applications, each user account listed by name, an Other Files & Folders entry, and System & Network.

Here's an explanation of each option, and my recommendations:

- **Applications:** This option transfers the contents of your previous `/Applications` folder (and its subfolders, such as Utilities), skipping any applications already installed as part of Golden Gate. Because you may find it tedious to reinstall your applications, leave this option selected, as it is by default.

Note: If you select Applications, the Golden Gate installer also copies the contents of `/Library` on your previous system. This is extremely good, because that folder contains many support files without which some apps can't run.

- **Documents & Data:** If you have just one user account, you'll see an option labeled Documents & Data—this refers to the data in your user account. Click Edit to view its contents. In the dialog that appears, you can deselect any top-level folder within the account, except for the Library folder. Along with the visible top-level folders is a folder called Other Data. Apple doesn't specify what this includes, so I suggest leaving it selected just in case it contains anything you need. Finally, there's an option labeled "Other files and folders." This refers to any files or folders at the root level of your old volume as well as anything in the `/Users/Shared` folder. I suggest leaving this enabled.

- **User accounts:** If you have more than one user account, each is shown at the top level of the list.

  This list may include "users" that don't have a conventional user account or home folder on your Mac, but which your Mac considers to have an account of a sort—people with whom you've shared files using System Settings > General > Sharing, for example, or special low-level accounts added by software such as MacPorts or a VPN service. It's best to leave such user accounts selected, even if they have no home folder or appear to contain no data.

  Transferring a user means copying the user's entire home folder (`/Users/SomeUserName`), if any, to the Golden Gate volume; once a user is transferred, the user can log in without having to set up an account again. You should transfer all the existing users unless you have accounts that are no longer in use. You can, if you like, deselect any individual (top-level) folders within a user's home folder to skip copying those to your Golden Gate volume. As for the unexplained Other Data folder (mentioned in the previous bullet point), the safest course is to leave it selected.

  If you don't transfer at least one account, your screens later in these steps will be slightly different. Also, if you *ever* want to transfer any of these accounts, now is by far the best time to do so; copying files manually may cause you no end of grief and even the standalone Migration Assistant may introduce unwanted complications.

- **Other Files & Folders:** As in the single-user account setting described in the second bullet point, this option refers to any files or folders at the root level of your old volume as well as anything in the `/Users/Shared` folder. I suggest leaving this enabled.
- **System & Network:** This category sometimes has up to three sub-items that you can select: System Settings includes certain system-wide settings, such as sharing settings, energy saver settings, and parental controls. Printers refers to your printer settings. Network includes the settings on your Network setting pane. I suggest leaving System & Network (and all sub-items, if present) checked.

After making your selections, click Continue.

Your Mac may display a screen asking you to set passwords for each user account that you're migrating to your new Golden Gate volume. You must set a password for at least one administrator account you want to migrate; administrator accounts for which you don't set a password can't be copied to your Golden Gate volume. So, click Set Password next to an account name, enter and repeat a password for that user (which can be the same as the password that user currently uses), and click Set Password. Repeat for each administrator account you want to migrate.

If you're asked to set up passwords and your backup contains accounts for any non-administrators, the installer screen automatically assigns them a new, temporary password. *Be sure to write this password down (or take a photo, or both), as it won't be shown again.* Alternatively, you can click Promote to Admin and follow the prompts to promote any or all of these users to administrators. (You can always demote them to standard users later by going to System Settings > Users & Groups.)

Transferring Your Information

Migration Assistant copies the selected items to your new Golden Gate volume, a process that may take just a few minutes or several hours, depending on how much data you are transferring. (And you should completely disregard any time estimates you see—as elsewhere in the

installer, they're wildly inaccurate.) Your Mac may restart during the transfer process.

Migration Completed

At the end of the migration process, and after one last restart, a Migration Completed screen appears, stating that your data has been migrated and is ready to use. Click Done to dismiss the window. At this point, your Mac should prompt you to log in, and then just a few questions remain.

Complete Setup Assistant

The next steps in Setup Assistant are mostly self-explanatory.

Depending on which version of macOS you're upgrading from, what information you transferred, and your previous settings, you may see one or more additional screens. Most of these are identical to those described earlier in Finish Setup Assistant; refer back there for descriptions. After each one, click Continue to advance through the remaining screens.

Regardless of what, if anything, Setup Assistant displays, Golden Gate itself may display any number of dialogs and alerts the first time you use it, such as password prompts, software update messages, and requests to enable various features. To learn how to deal with these and other immediate concerns, see Perform Post-Installation Tasks.

The Nuke-and-Pave Option

Some people want to do a truly *clean* clean install of macOS—that is, install a pristine copy of macOS completely from scratch, with *no* migration of older apps and files. The technical term for such people is *gluttons for punishment*, because (having done this a few times myself) I can guarantee that it will involve many frustrating hours of tedious work. It's virtually never necessary, and my professional opinion is that life is too short—you should avoid doing this.

Nevertheless, if you insist on this approach, let me offer a few tips:

- Follow everything in Plan B *except* the transfer part—on the Migration Assistant screen, click "Not Now."
- Besides the screens covered in Complete Setup Assistant, you may be asked to set up other items, such as iCloud Keychain, and to select your time zone.
- Once Golden Gate is running, you'll have to reinstall all your apps. It's pretty easy to do that for apps from the App Store. For everything else, you're on your own—and I hope you kept track of your license codes, because you'll have to reenter them all!
- You'll have to reset most of your settings from scratch. But…
- If you use iCloud, the settings and data for apps such as Mail, Contacts, and Calendar will restore themselves, as will your keychain contents (assuming you have the relevant switches enabled in System Settings > *Your Name* > iCloud).
- If you use Dropbox or similar cloud storage, you can log in and have all the files stored there sync back to your Mac—but be prepared for a long wait.
- You may want to copy at least some files—such as your Photos or Music libraries—from a backup if you don't already sync them via iCloud. Guard that backup carefully until you're *certain* that you have everything you need from it.

Perform Post-Installation Tasks

If everything has gone as expected, your Mac is now successfully running Golden Gate. (If things haven't gone as expected, flip forward

to Troubleshoot Upgrade Problems.) But there are still a few tasks left to do before you get to work—or play—with your new operating system. Here I cover some important initial setup and configuration activities you should get out of the way right now.

Respond to Immediate Questions

Depending on your starting point, configuration, and upgrade path, you may see a normal desktop and nothing more after installing. In other situations—especially when you have a lot of third-party software—you may be immediately confronted with a large stack of overlapping dialogs and notifications.

Among the most common questions are requests for your user account password or Apple Account password. For example, certain apps may once again need an administrator's authorization to make changes to your data, and apps that use your Apple Account may need you to sign in again. You'll also see requests to enable notifications; permit apps to have access to your contacts, calendars, bookmarks, and various resources in System Settings > Privacy & Security—among other alerts.

For example, you may see one or more notifications requesting for permission for apps to access other devices on your local network (**Figure 8**). This is not suspicious behavior, and it's fine to allow it.

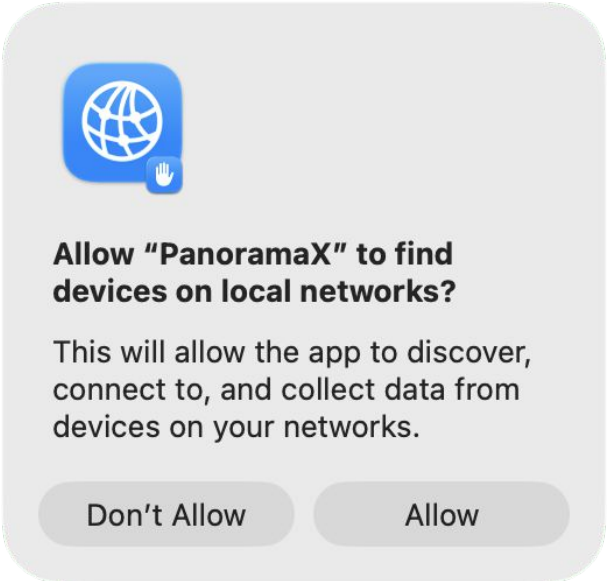


Figure 8: Every time a new app wants to access another device on your local network, you'll be required to approve it.

Work your way through any such dialogs you see, even if they seem redundant or if they ask for permissions you'd previously granted. After that one-time process, most of them will not reappear.

Handle Software Updates

The next thing you should do is to update macOS itself (and any other crucial Apple software) to the latest version. Sometimes Apple releases bug fixes and security updates almost immediately after a major upgrade, and if any such urgent updates are available, it's in your best interest to install them right away. (This can be true even if you immediately purchase a newly introduced Mac later this year that can only run Golden Gate and later. Those Macs were "imaged" with the version of Golden Gate 27.0 weeks before they shipped.)

Software Update and the App Store should automatically notify you when updates are available, but I recommend looking at the Software Update pane manually after your Mac starts up under Golden Gate for the first time. Start with System Settings > General > Software Update for updates to Golden Gate itself.

In addition to installing any updates, decide how you want Software Update to handle *future* updates. Your Mac automatically checks for and can optionally download and even install updates in the background.

Follow these steps to configure software updates:

1. Go to System Settings > General > Software Update (**Figure 9**). macOS checks for updates, and any available updates appear. To apply them, click Update Now.

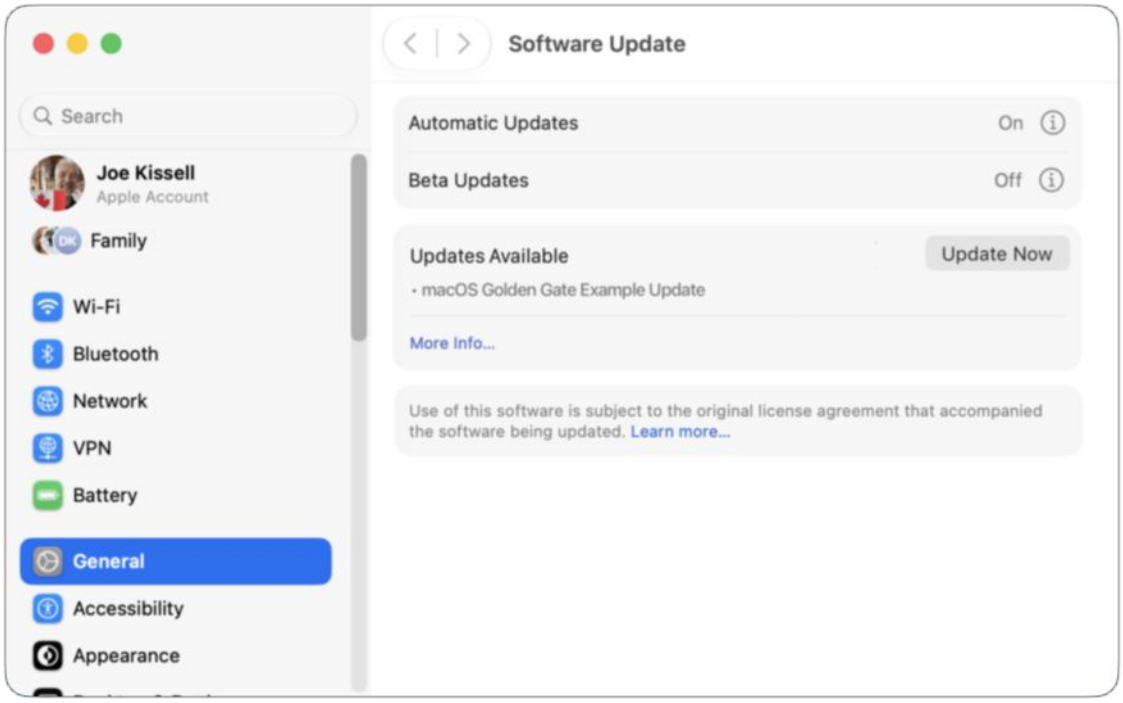


Figure 9: Install software updates in the Software Update view.

2. Click the Info ⓘ icon next to Automatic Updates. A dialog (**Figure 10**) appears.

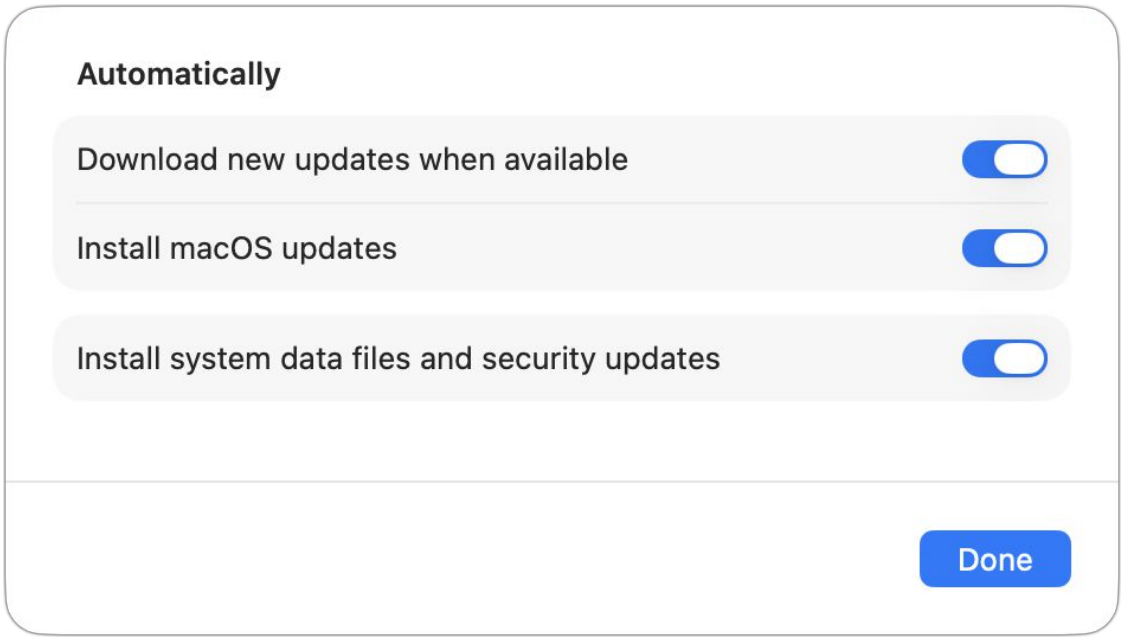


Figure 10: Select which types of automatic updates you want in this dialog.

3. macOS always checks for updates automatically. Whether it actually *does* anything when an update is available depends on your other choices here:

    - *Download new updates when available,* which not only notifies you of updates but also downloads them for you so you can install them as soon as you're ready (in the notification, click Install to install immediately; click Later and choose Try in an Hour, Try Tonight, or Remind Me Tomorrow from the pop-up menu to "snooze" the reminder; or click the notification itself to open the App Store and see which updates are available)
    - *Install macOS updates,* which downloads and installs updates to macOS itself and asks you to restart your Mac (you may be prompted for your password if you change this)
    - *Install system data files and security updates,* which automatically (without prompting you) installs these essential updates—without requiring a restart

For updates to other Apple software and third-party apps you've purchased from the App Store, choose Apple > App Store. Then click Updates in the sidebar. To update a single app or group of apps, click the Update button next to it. Or, to update all the listed apps at once, click Update All. The App Store downloads and installs the updates automatically. While you're at it, make sure App Store is set up for automatic updates. In Sequoia and earlier, the Software Update pane of System Settings included an "Install application updates from the App Store" switch. That's no longer there in Golden Gate; instead, it's right here: go to App Store > Settings and select Automatic Updates.

Deal With Other Surprises

You may encounter a couple of other peculiarities when first using Golden Gate that cause some initial surprise.

Apple Mail

The first time you launch Mail under Golden Gate, a window may inform you that it's "optimizing" your Mail database. This step should

take no more than a few minutes, and is necessary because the Golden Gate version of Mail has updated the database format it uses to store information about your messages.

System Settings

As a reminder for those upgrading from macOS 12 Monterey or earlier, the app formerly known as System Preferences is gone, replaced with a new one called System Settings, which looks quite a bit different. See Explore System Settings for details.

Siri and Search Optimization

The massive overhaul in Siri technology also comes with a complete redo of Spotlight searching in macOS. The new indexing process can apparently take longer—potentially far longer than the previous Spotlight indexing. You might see a note that Siri and Search are optimizing in Settings > Siri or Settings > Spotlight until this is complete.

However, Apple said it would release the indexing update to macOS 26 Tahoe, so that the task would slowly happen over the summer. Then, when you upgrade to Golden Gate, the index can be used immediately. I'm not sure how this will play out in practice.

Troubleshoot Upgrade Problems

Even if you diligently followed all the instructions in this chapter, you might encounter problems while upgrading. I can't anticipate every difficulty you may have (or provide solutions in every case), but here are two of the most likely issues and how to deal with them.

Can't Select Installation Volume…

If you run the Golden Gate installer, click Show All Disks when asked to choose a destination, and find that the volume on which you want to install Golden Gate isn't available, chances are excellent that if you click the volume in question, the installer will usually tell you *why* it can't be used and explain how to fix that problem.

Mac Won’t Start Up Under Golden Gate…

Following installation, if your machine will not start up under Golden Gate at all, if it gets stuck on a gray or black screen for more than about five minutes, or if you experience a kernel panic upon the first restart, try these steps in order until you are able to start up normally:

1. **Force a shutdown and restart:** Press and hold the power button for about 10 seconds until your Mac shuts down. Then press it again and wait for it to restart. You should give it plenty of time, as it may be performing a lot of disk integrity operations quietly underneath that black screen—again, five minutes is not unreasonable.

2. **Disconnect non-essential USB devices:** If your Mac gets stuck on a gray screen and won’t finish booting, try this:

   a. As in step 1, press and hold the power button for about 10 seconds until your Mac shuts down.

   b. Disconnect all USB cables from your Mac *except* any that go to a keyboard, mouse, or other pointing device.

   c. Press the power button again and wait for your Mac to start. If it starts normally, you can then reconnect your USB devices. If it’s still stuck after five minutes or so—or if it starts but then you experience a kernel panic—move on to the next step.

3. **Try safe mode:** Safe mode disables some third-party software and checks your disk for certain types of errors.

   To enter safe mode, choose Apple > Shut Down and wait until the Mac has fully shut down. Then press and hold the power button until you see “Loading startup options” on the screen. When the Options icon appears, select your startup disk, hold down the Shift key, click Continue in Safe Mode, and then release the Shift key.

   If Golden Gate starts up normally after a safe boot, a third-party extension or startup item may be the culprit. Check in `/Library/LaunchAgents`, `/Library/LaunchDaemons`, and `~/Library/LaunchAgents` for third-party items that haven’t been updated recently (older items are more likely to have compatibility problems).

If you find any that you explicitly recognize and suspect, look for an uninstaller from the developer, and if there is one, use it. If not, consult the documentation that came with the software, or the developer's website, for removal instructions.

Restart and see whether the problem is still gone. If so, reinstall the uninstalled items one at a time, restarting after each one, until you find the culprit or you've installed new copies of them all and your Mac is still working well.

If the problem does not go away after a safe boot, go to…

4. **Try recovery mode:** You can boot into recovery mode by shutting your Mac down and then pressing and holding the power button until you see "Loading startup options" on the screen; when the Options icon appears, click it and then click Continue. A few moments later, you'll see a macOS Utilities window; that means you're using recovery mode.

   Once in recovery mode, select Disk Utility and click Continue. When it opens, select the problematic Golden Gate volume in the sidebar, click First Aid, and follow the prompts to repair any problems that may have appeared on your Golden Gate volume. Choose Disk Utility > Quit Disk Utility to return to the macOS Utilities window. Then choose Apple > Restart.

5. **Remove any nonessential hardware:** Try restarting with only your Apple-supplied keyboard, mouse, and display attached, and (if you have a Mac Pro) without any third-party PCI or video cards. If this works, check for driver updates, and then reattach the devices one at a time, restarting after each one.

6. **Reinstall Golden Gate:** If you still can't start your Mac, consider reinstalling Golden Gate. Perform a clean install (described in Upgrade Using Plan B: Clean Install), omitting items in the Applications category when you work your way through the file transfer portion of the installation to eliminate any possibility of software conflicts. (You can add those items later using Migration Assistant.)

In most cases, these steps will lead to a happy Golden Gate installation.

How to Downgrade macOS

In all likelihood, your experience using Golden Gate will be just fine, and if you're already using Sequoia, the odds are even more in your favor. However, if you find yourself with an intractable problem that the troubleshooting steps above don't help with and your only choice is to revert to your previous version of macOS, it is possible—though not convenient—as long as you have a full backup (see Back Up Your Disk).

macOS has no downgrade mechanism as such. All you can do is erase your disk—yes, you really do have to erase the whole thing—and then either restore the whole thing from a bootable duplicate *or* reinstall your older version of macOS and then separately migrate or restore the data from a data-only duplicate or a Time Machine backup. To erase your disk, you have to start from another volume—the logical options here are a bootable installer for your old version of macOS (see Make a Bootable Installer Volume) or a bootable duplicate. For this purpose, recovery mode won't work; see the sidebar Why Won't Recovery Mode Let Me Downgrade?.

Tip: If you have to downgrade to, say, Tahoe, and you don't have a bootable duplicate or a bootable installer volume, you're not necessarily out of luck. While running Golden Gate, you can still download the Tahoe installer and use it to create a bootable Tahoe installer volume. The same goes for older versions of macOS.

Why Won't Recovery Mode Let Me Downgrade?

Even though you can do lots of things after starting in recovery mode—including reinstalling macOS—you probably can't use recovery mode to downgrade to your old version because recovery mode doesn't let you install *arbitrary* previous versions of macOS. Your only option is the most recent version of macOS that will run on your computer: probably not what you need.

In case you were thinking you can restore from a Time Machine backup in recovery mode and use that to get back to your older system…sorry, but no. Although Time Machine used to back up your full startup volume, ever since Big Sur, it backs up only your Data volume, not macOS itself. That's why a Time Machine backup alone can't restore an older version of macOS.

The process is as follows:

1. Start up from another volume. To do this, attach the drive containing the other startup volume, go to System Settings > General > Startup Disk, select that volume, and restart your Mac.
2. Run Disk Utility and erase the *entire* disk (both system and Data volumes) containing Golden Gate:
    a. Choose View > Show All Devices.
    b. Select the topmost icon for the external drive in the list on the left.
    c. Click Erase.
    d. Fill in a name for the new volume, and make sure Format is set to APFS and Scheme is set to GUID Partition Map.
    e. Click Erase.
    f. When the Done button appears, click it. You'll then have a new volume with the name you entered in step d.
3. Reinstall your old version of macOS. If you already have the installer on your boot volume, you can simply run it; if not, you may have to download it from Apple first using Terminal.

4. Using Migration Assistant at the end of the installation, restore your data from your backup—whether that's a data-only duplicate or a Time Machine backup—following the instructions earlier in Use Migration Assistant.

See Liquid Glass Changes

The most controversial change in Apple's version 26 operating systems, including Tahoe, was the new Liquid Glass interface, which greatly increased the use of transparency and glass-like distortion effects that added some glitz to the screen without increasing usability. In many cases, the new appearance made text harder to read, icons more difficult to decipher, and windows more cumbersome to use.

Over subsequent Tahoe releases, Apple made some adjustments to Tahoe to address a few of the most frequent Liquid Glass criticisms. But in Golden Gate, Apple has gone further still, tacitly acknowledging that Liquid Glass went too far the first time around while retaining the overall look and feel introduced in Tahoe.

If you hated Liquid Glass in Tahoe, you'll probably find it less objectionable in Golden Gate, but make no mistake: the user interface looks far more like that of Tahoe than that of Sequoia.

In this chapter, I briefly review most of the visual changes, showing you side-by-side comparisons so you can see the difference.

The Liquid Glass Slider

In the WWDC keynote introducing the version 27 operating systems, Apple made a big deal about a new slider that ostensibly lets you decide how weak or strong the Liquid Glass transparency effects should be; it appears during installation and can also be adjusted at any time in System Settings > Appearance (**Figure 11**).

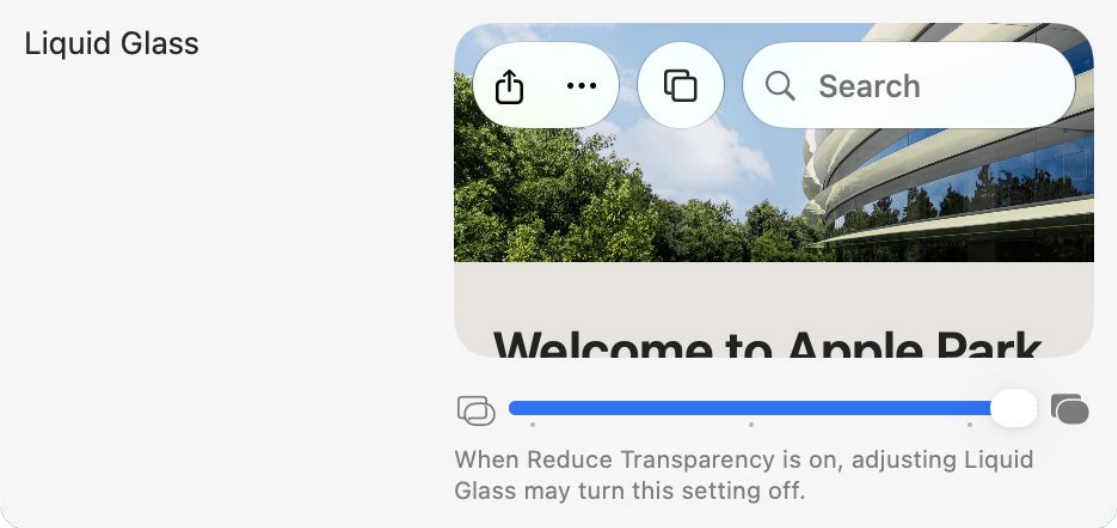


Figure 11: Use this slider, which also appears in the installer, to adjust the degree of Liquid Glass tint.

But, in fact, that's not quite what it does. It merely changes the level of tinting for a handful of interface elements—particularly menus, Control Center, Notification Center, Spotlight, toolbars, and sidebars—that become *a bit* more or less transparent based on where the slider is set. Instead of having just two choices (Clear or Tinted), as in Tahoe, you can now select any point in the range between the two. But the effect is subtle, and the slider doesn't change the transparency of the menu bar, Dock, Finder icons, or most other items.

Figure 12 illustrates the difference between the leftmost and rightmost slider positions for Control Center.

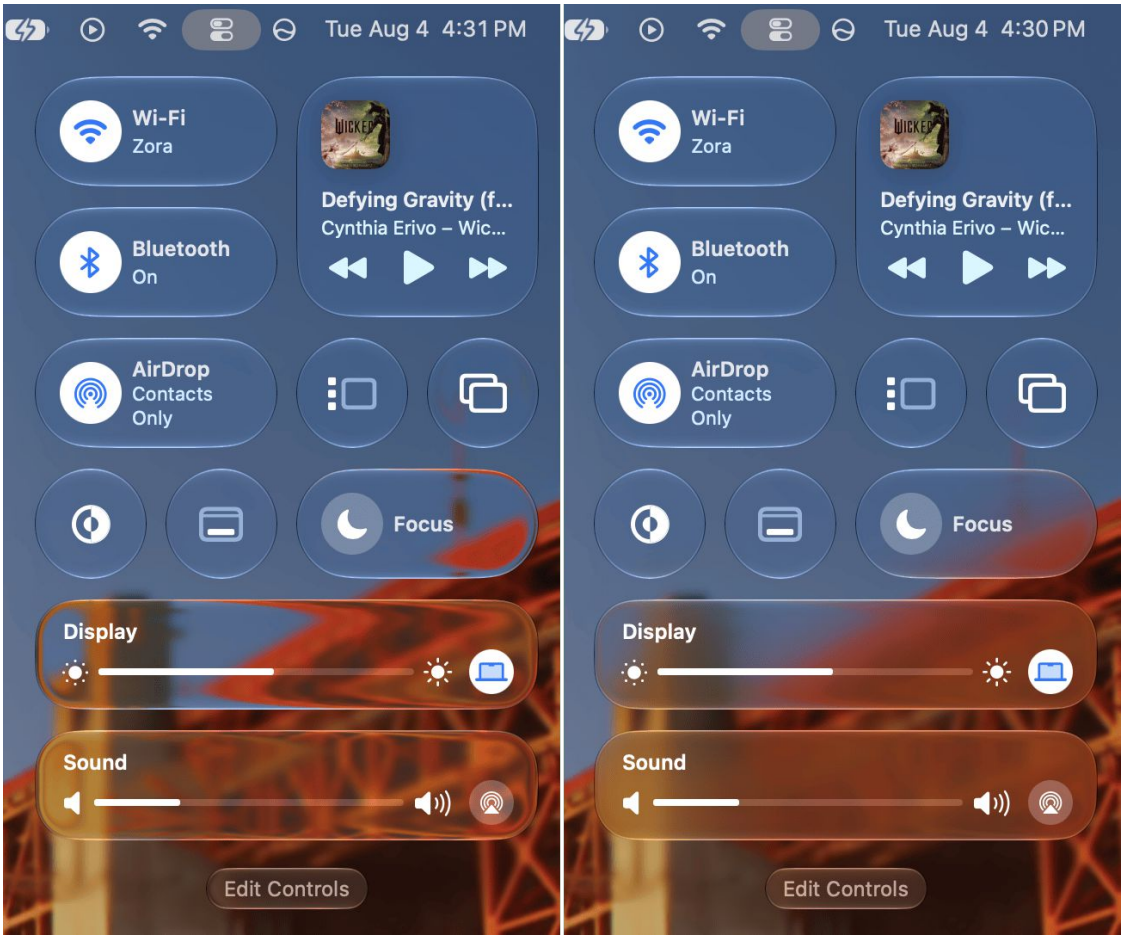


Figure 12: Control Center in Golden Gate. On the left, the Liquid Glass slider is all the way to the left (transparent), while on the right, it's all the way to the right (tinted).

If you want to get rid of most transparency altogether, you must still go to System Settings > Accessibility > Display and turn on "Reduce transparency." That makes the menu bar, menus, sidebars, and toolbars opaque, while greatly reducing the transparency of the Dock and certain other elements (**Figure 13**). However, paradoxically, it also removes the shading from sidebars, making them less clearly separated from the rest of the window.

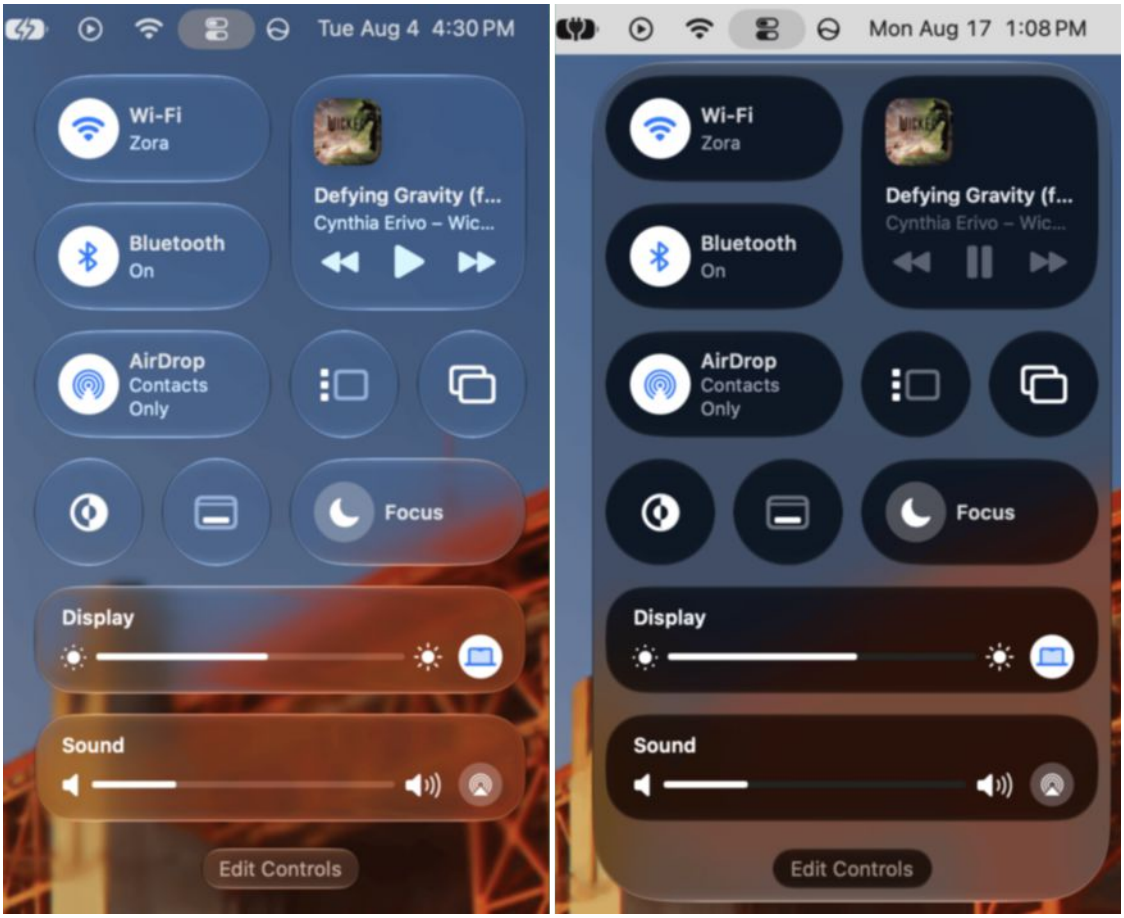


Figure 13: On the left is the image from **Figure 12** with the slider set all the way to tinted. On the right, what Control Center looks like with Reduce Transparency enabled. What a difference!

Sidebar Improvements

In Tahoe, window sidebars were inset from the window edges, reducing the amount of usable window space. In Golden Gate, sidebars once again reach the edge of the window. In addition, Golden Gate brings color back to certain sidebar icons, all of which were uniformly dark gray in Tahoe. **Figure 14** illustrates both changes.

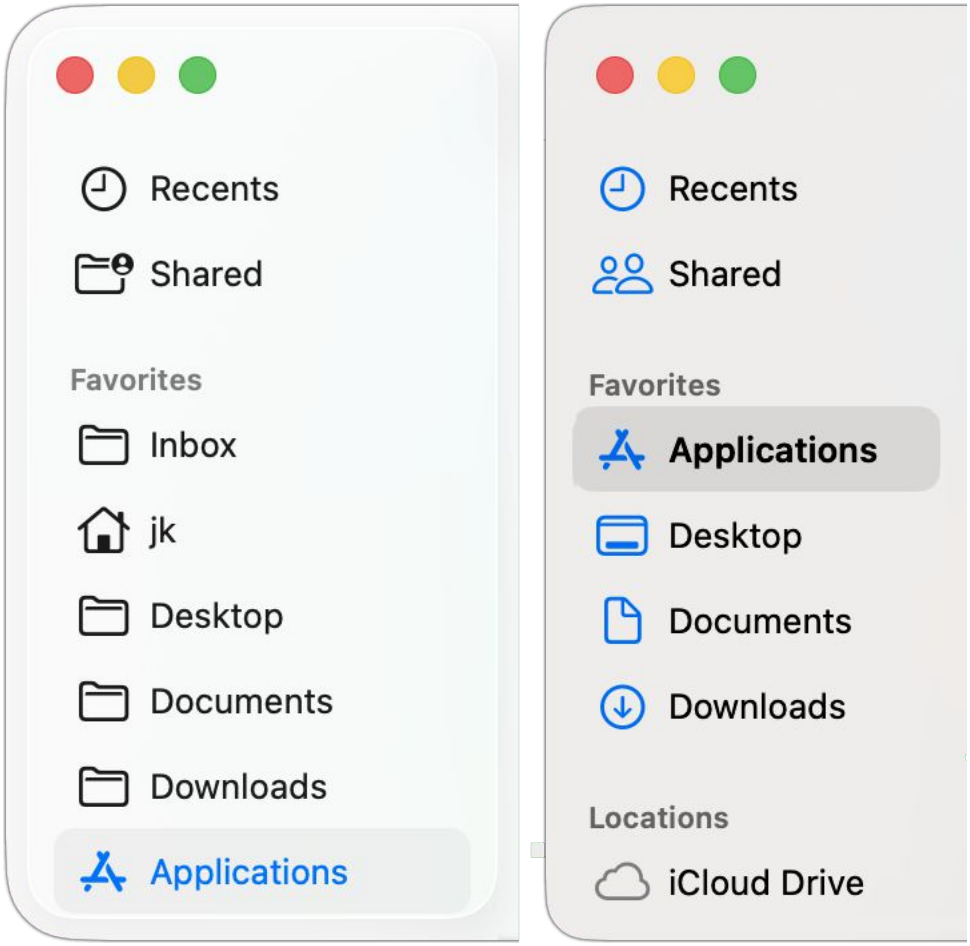


Figure 14: The sidebar in a Finder window in Tahoe (left) and Golden Gate (right).

Window Improvements

Golden Gate makes two overall changes to windows: showing the active window more prominently and adjusting the corner radius.

In Tahoe, it could be difficult to figure out which window on screen was active. Golden Gate adds cues to make that more evident: the sidebar's color is darkened, and color icons appear only in the front-most window.

Another small detail that irritated a lot of people was that Tahoe made window corners much rounder (supposedly to match the curvature of laptop screen corners), which—like the inset sidebars—reduced the amount of usable space in windows. But not all windows got this treatment, meaning some windows had much rounder corners than

others, which looked awkward. In Tahoe, all window corners have the same amount of roundness (**Figure 15**).

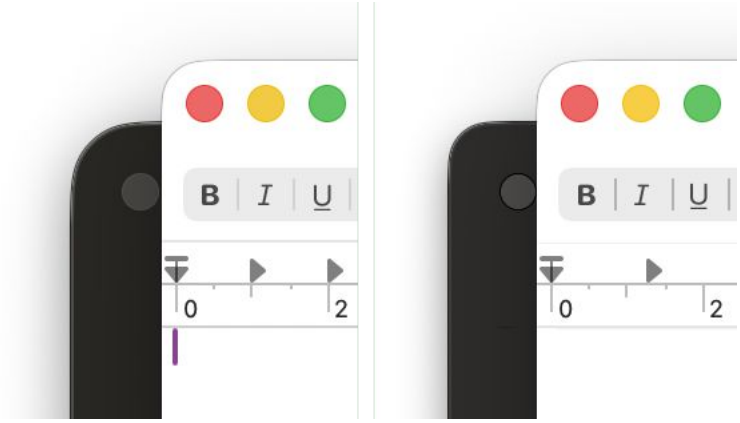


Figure 15: A TextEdit window in front of Calculator. On the left, Tahoe; notice how much different the curves are. On the right, Golden Gate.

Fewer Menu Icons

Tahoe added icons next to most menu commands, a change with no evident utility (and against Apple's long-standing human interface guidelines) that made menus more cluttered and inconsistent in indentation. In Golden Gate, those superfluous icons are gone (**Figure 16**), though icons that existed pre-Tahoe are still there.

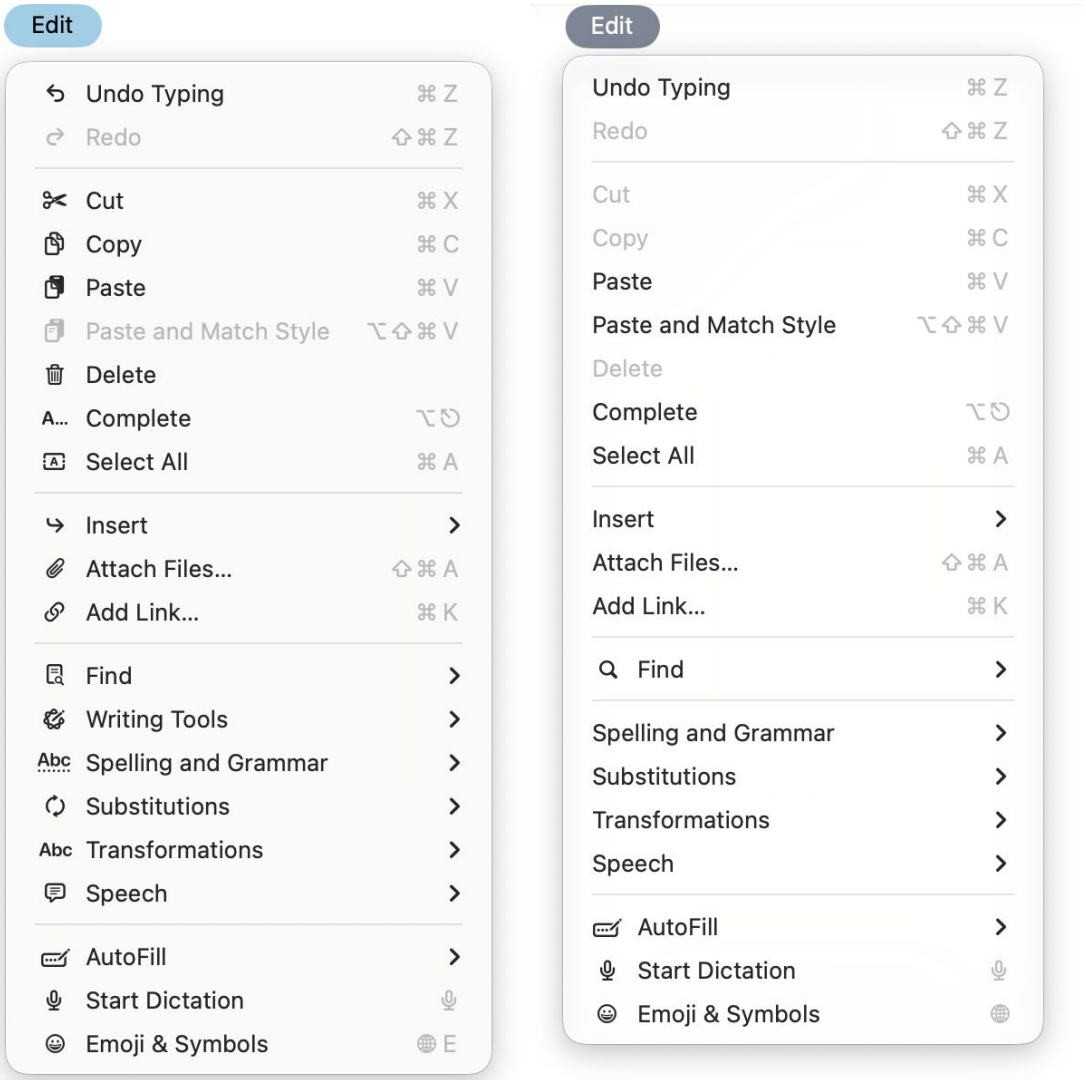


Figure 16: An Edit menu in Tahoe (left) vs. the same menu in Golden Gate (right). Most (but not all) of the icons have disappeared.

Updated App Icons

Tahoe enforced the rounded-rectangle (or “squircle”) shape for all app icons from Apple and apps downloaded from the App Store. (Apps distributed outside the App Store could optionally work around this requirement.) In addition, Apple’s icons adopted a new look and feel that, unfortunately, also made them less distinctive. The icons haven’t changed dramatically in Golden Gate, but they have become crisper and slightly more saturated.

Explore Siri AI & Apple Intelligence

Anyone with even a casual awareness of the news about the version 27 operating systems will have heard that the marquee feature is the long-promised and long-delayed Siri, now called Siri AI.

Unlike the original Siri, the new version—first promised for macOS 15 Sequoia in 2024—has conversational capabilities similar to other modern digital assistants like Alexa and Google Assistant, plus hooks into many parts of macOS and individual apps. It can function as a chatbot in the same vein as ChatGPT or Claude, and can incorporate information from the public web into its responses.

In short, Siri AI is now (close to) what it should have been many years ago, and reasonably on par with its competitors. It's far more useful, and easier to work with, than any previous version of Siri. Unlike existing chatbots, Siri AI can access your private data—like email, photos, local files, and calendar events—to provide background information for answering questions. Even better, it doesn't upload your data—Apple says private data doesn't leave your device—or use it to teach their AI models.

Meanwhile, Apple Intelligence, a collection of features across Apple devices that incorporate Apple's take on artificial intelligence, has expanded, and the lines between what's now considered part of Siri and what's considered part of Apple Intelligence have blurred. Apple appears to be leaning more heavily on the Siri branding for certain features that were previously called Apple Intelligence. In any case, it's all of a piece now: enabling or disabling Siri (in System Settings > Siri) also enables or disables most of the other Apple Intelligence features.

As I was working on this book and Glenn Fleishman was working on *Take Control of iOS 27 and iPadOS 27*, we realized that the vast majority of the new Siri AI and Apple Intelligence features were the

same across macOS, iOS, and iPadOS (and, to a somewhat lesser extent, watchOS and visionOS). So, rather than each of us writing about all those features separately—and making readers who have multiple Apple devices slog through two versions of the same information—we've collaborated on a separate book that covers it all in one place: *Take Control of Siri AI and Apple Intelligence*.

Note: If you bought the book you're now reading from the Take Control Books website, it included *Take Control of Siri AI and Apple Intelligence* as a bundle!

That book explains not just the new features but everything Siri AI and Apple Intelligence can do. It's strictly for people whose devices run the version 27 (or later) operating systems, and it goes into detail about how the new Siri works and how you can use it in your day-to-day activities. It covers what Apple Intelligence services are available in various apps and how to go far beyond the basics.

Note: Siri AI initially operates only in English, and a few features require an M3 or later Mac with at least 12 MB of RAM.

For that reason, I want to spend just a couple of pages here briefly reviewing what's new with Siri AI and Apple Intelligence for Golden Gate users:

- **Siri works more like a chatbot now:** Activities that previously required an AI chatbot like ChatGPT or Claude, or a smart speaker-based system like Alexa or Google Assistant, can now be handled directly by Siri. You can have more natural and extensive back-and-forth conversations, with Siri being more aware of the context of what you're asking than it did previously. You can drill down on responses or ask it to refine its results.
- **Siri can access the web:** As you may have inferred from that example, Siri was using information that wasn't on my Mac or on Apple's servers, but rather, "out there" on the web. So, you can ask about nearly any topic, and instead of merely being shown a list of

potentially helpful webpages as in the past, now you get the information directly.

- **Spotlight and Siri share an interface:** In Golden Gate, when you press the Spotlight shortcut (⌘-Space by default), you get a text field that serves both purposes (see Spotlight); the gray text in the field even reads Search or Ask. You can type the name of an app or file, and it will give you the same results as Spotlight always has. But you can also ask questions that Siri will answer from its nearly unlimited storehouse of information. Or you can use a plain-language description of what you're looking for on your Mac and Siri will find it.
- **Siri knows more about you:** Siri can now understand what Apple calls "personal context," which is to say, information that can be pulled from the various apps on your Mac—Calendar, Contacts, Mail, Messages, Notes, Photos, Reminders, and so on. That means Siri can incorporate information found in any of those apps into its responses and actions.
- **Visual Intelligence comes to macOS:** Visual Intelligence was first introduced in iOS and iPadOS, letting your device describe what it saw in a screenshot or the Camera app—or act on it, like extracting information from a poster or a bill. Now your Mac has it, too. This means you can ask Siri about anything on your screen, or have it do something with information on screen. To use this feature, you can simply invoke Siri (for example, by pressing ⌘-Space) and ask a question about something you see on your screen. Or, you can use a new screenshot mode that doesn't automatically save screenshots. Press ⌘-Shift-6 and highlight a portion of your screen to ask Siri about something in that specific area, or press ⌘-Shift-Space to ask Siri about the frontmost window. Even if you don't ask Siri anything, it may automatically identify plants, animals, and other elements found in screenshots. (macOS doesn't yet apply Visual Intelligence to the FaceTime camera or Continuity camera.)

  A new switch in System Settings > Siri, Automatic Visual Look Up, is labeled "Identify objects and places that appear in screenshots."

However, I'm unsure what effect this is intended to have, as I am seeing Visual Intelligence hints in screenshots whether or not this switch is turned on.

- **The Siri app is new:** There has always been an app on your Mac called Siri, but opening it did nothing more than display the Siri field for you to enter a request. Now, however, the Siri app shows you your previous conversations, and even lets you continue them. Siri conversations sync across your devices using iCloud.
- **More actions are available:** Siri could already take certain actions, such as changing your Mac's volume or turning VoiceOver on or off. In Golden Gate, thanks to an underlying framework called App Intents, Siri can take a much wider set of actions in a larger number of apps. For example, you could ask Siri to send a message in Messages containing the title of the song now playing in Music. Most of Apple's apps already support actions like these, and third-party apps are getting there.
- **You can customize Siri's voice even more:** In System Settings > Siri, click Voice, and you can select a base voice and then drag the Pace and Expressivity sliders as sample responses are played to dial in exactly the tone you prefer.

Note: This feature requires an M3 or later processor and at least 12 GB of RAM.

- **Writing Tools look different:** If you select text you want to adjust using Apple Intelligence, you no longer see a Writing Tools submenu on the Edit menu or a Writing Tools badge, but rather a Siri badge (in most apps, anyway), which you can click to reveal the existing tools but arranged differently (**Figure 17**) and without the "Writing Tools" label. (Some apps give you access to the same tools via a Siri toolbar button.)

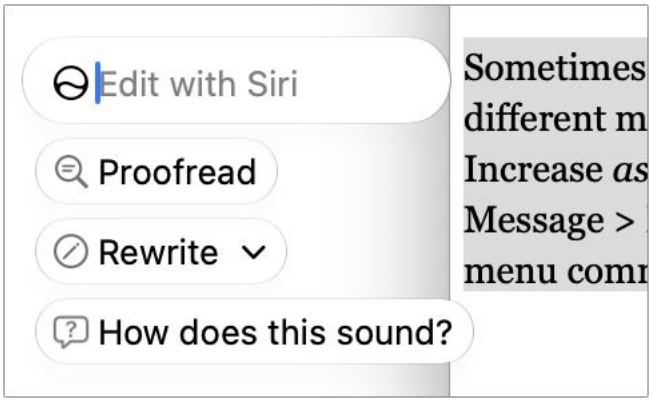


Figure 17: Writing Tools look a bit different in Golden Gate.

Note: Apple Intelligence features are currently available in Chinese (Simplified), Chinese (Traditional), Danish, Dutch, English, French, German, Italian, Japanese, Korean, Norwegian, Portuguese, Spanish, Swedish, Turkish, and Vietnamese.

Once again, you can learn all about this and much more in *Take Control of Siri AI and Apple Intelligence*.

Use Child Safety Features

Golden Gate expands the existing Family features parents and guardians can use to restrict their kids' screen usage, with an emphasis on safety. (You must first enable a Family account and add family members in System Settings > Family.) These new features require that both the parents' and kids' devices are running version 27 or later of their respective operating systems; if you haven't already done so, a message at the top of the Family setting pane reminds you.

Note: Because I'm unable to update my kids' devices before the official release of version 27, I can only describe these features generally, not show them to you or give exact, step-by-step instructions. I hope to expand this chapter later, in an update to this book.

Beyond the specific new features I discuss ahead, the Family pane offers a simplified interface that lets parents review their kids' screen usage time, pause device use, temporarily lift restrictions, or change a schedule with just a few clicks.

Grant Per-Website Browsing Permission

For years, families have been able to use the Ask to Buy feature, in which children must have an adult's explicit approval to purchase apps from the App Store. In Golden Gate, this concept expands to include websites. If you enable Ask to Browse for a child, each visit to a website that's not already approved pops up an Ask to Browse message on the child's device. If the child requests permission, the parent(s) see a request in Messages showing the website in question, along with Approve and Decline buttons.

Note: Ask to Browse works in Safari and other WebKit browsers, but not in Firefox or Chromium-based browsers, which means that any child who can figure out how to download an alternative browser can bypass this feature with trivial ease.

Enforce Communication Safety

Communication Safety is an existing feature that, if enabled, warns children before displaying nude images in apps such as FaceTime and Messages, whether those images are incoming or outgoing. Golden Gate expands this to block violent or gory images, giving the child a way to end the conversation without seeing the objectionable material.

Set Time Allowances and Schedules

Parents now have detailed controls available for restricting when, and for how long, children can use certain types of apps (including games and social media apps). You can, for example, restrict your child to playing games for just an hour a day, or set up a schedule with fine-grained controls, such as “you can use apps A, B, and C before or after school, but only D or E while at school, and F and G only in the evenings.”

Explore System Settings

With each new release of macOS, Apple adds, removes, relocates, and renames a bunch of controls in System Settings. Golden Gate is no different, although the changes from Tahoe are quite minor.

To open System Settings, click its Dock icon, double-click System Settings in the Applications folder, or choose Apple > System Settings (**Figure 18**).

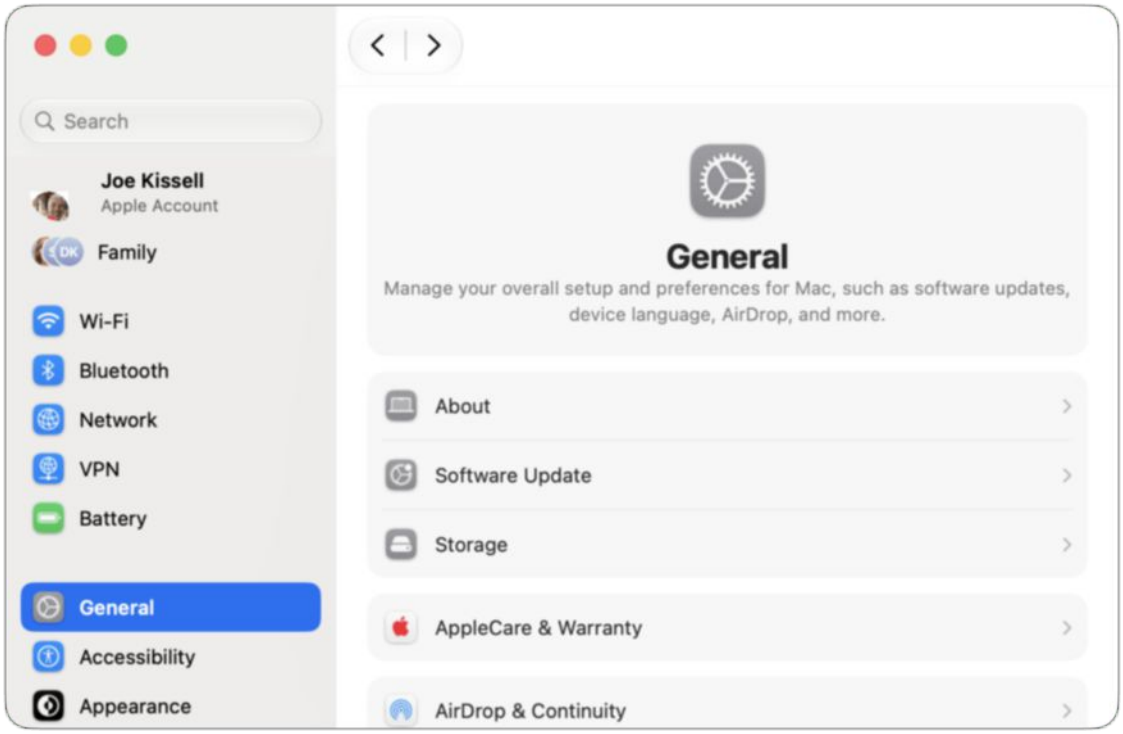


Figure 18: The System Settings app in Golden Gate, which opens to the General pane by default.

As always, it can be difficult to locate a particular setting among the hundreds in System Settings. If you happen to know where a setting is, you can select a category in the sidebar on the left and then navigate to the desired spot on the right. If not, your best bet is to use the Search field, which nearly always shows you what you're looking for—even if you don't know the exact name of a feature or setting.

Tip: You can see an alphabetical list of all the panes on the View menu; choose a pane to go directly to it.

In this chapter, I want to acquaint you with just what has changed between Tahoe and Golden Gate, and which is *not covered elsewhere in this book*. In the topics that follow, I look mainly at what *capabilities* are new or significantly different, ignoring most minor changes to layout, wording, and the like. Panes are listed in the order they appear in the sidebar.

Battery Settings

Where Tahoe had a Low Power Mode pop-up menu with options Only on Battery, Only on Power Adapter, Never, or Always, Golden Gate instead has two pop-up menus, one for "On battery" and the other for "On power adapter." For each one, you can choose Automatic, Low Power, or High Power.

General Settings

In the AutoFill & Passwords category, there's a new "AutoFill from" switch, with entries indicating which app(s) can be used to supply AutoFill data. By default, Passwords is the only option (turned on by default), but if you have one or more third-party password managers, they may also appear here.

Accessibility Settings

The following categories of Accessibility settings have changes:

- **Display:** There's a new "Show borders" switch, which adds borders around toolbar controls, Search fields, and various other interface items to more clearly distinguish their boundaries; this replaces and significantly improves on the previous setting "Show toolbar button shapes."

- **Subtitles and Captioning:** This category, which replaces Captions, adds three new controls to fine-tune when and where subtitles/captions appear: “Show when muted,” “Show on skip back,” and “Apply across apps.”

Menu Bar Settings

A new “Show suggestions in Control Gallery” switch lets macOS display suggestions when you click Add Controls. Turn it off to remove the suggestions.

Siri Settings

The short-lived Apple Intelligence & Siri setting pane is no more. In its place is a Siri pane, complete with a new  icon. (For more about Siri, flip back to Explore Siri AI & Apple Intelligence.)

Note: In order for the new version of the pane, with its new icon, to appear, the Language setting on the pane must currently be set to English (United States). Set it to anything else—even English (Canada)—and you get the old icon with the Tahoe-era Siri features. Language support should expand in the future.

The most prominent change is that unlike the old pane, the new one no longer has either an Apple Intelligence switch or a Siri switch at the top. That is, you can no longer disable Apple Intelligence completely, and if you want to disable Siri (along with portions of Apple Intelligence), you must scroll to the bottom of the pane, click the red Turn Off Siri button, read a long description of all the things that will stop working if you do, and then click Turn Off Siri.

Interesting to note, however, is that even if you turn off Siri, “Visual Intelligence will continue to work but with more limited capabilities,” though Apple doesn’t spell out what those limitations are, and other Apple Intelligence features such as Writing Tools, Image Playground, and Shortcuts continue to work. All this is Apple’s heavy-handed way

of pushing these new features, even if you actively dislike them and don't ever want to use them.

Assuming you're using English as your language—and that's the only language supported in the initial release of Golden Gate—the pane adds three settings regarding the Siri App:

- **Opens To:** Select what appears when you open the app: either Recent Conversations or A New Conversation.
- **Keep Conversations:** Select 30 Days, 1 Year, or Forever. Note that there's no longer a Delete Siri & Dictation History button, though you can manually delete any or all of the history items in the Siri app.
- **Preview:** Select None or 1–5 lines.

In addition, the Requests entry replaces the previous "Listen for" pop-up menu (where you can select "Siri" or "Hey Siri," "Hey Siri," or Off), and the Responses item gives you only two options: Spoken Response or Silent Response. (Tahoe had an Automatic option, along with Prefer Silent Responses and Prefer Spoken Responses.) Instead of clicking Siri Suggestions & Privacy to specify each app's Siri settings, you now click App Access. And there are some additional ChatGPT options, for anyone who connects Siri to ChatGPT.

Note: I mention the Automatic Visual Look Up setting in Explore Siri AI & Apple Intelligence.

Finally, Tahoe let you set the keyboard shortcut used to invoke Siri, but Golden Gate does not. You can invoke Siri with either ⌘-Space (the Spotlight shortcut) or 🌐S; you can also press and hold 🌐S to speak to Siri even if Requests is turned off. Although you can still change the Spotlight keyboard shortcut (in System Settings > Keyboard > Keyboard Shortcuts > Spotlight), there's no evident way to change the 🌐S shortcut to anything else.

Note: Control Siri conversations syncing among your devices in System Settings > *Your Name* > iCloud: click See All, then click Siri. You can disable Sync this Mac (enabled by default). The Keep Conversations setting is synced with the main Siri retention setting: change it here, and it's changed globally, not just for iCloud.

Wallpaper Settings

As usual, Golden Gate features new static and dynamic wallpapers, and a new screen saver. You'll never guess which bridge appears in the new images.

Lock Screen Settings

A new "Show user name and photo" switch is on by default, giving you the same behavior seen in Tahoe and earlier. But if you turn it off, usernames and photos no longer appear when your Mac is locked, which might be better for privacy in settings where a Mac may be visible to the public.

Keyboard Settings

The "Auto-punctuation" switch under Dictation is gone, presumably because automatic punctuation is always on and, according to Apple, greatly improved in Golden Gate.

Discover Other System Improvements

In addition to the bigger features that each deserved their own chapter, Golden Gate includes dozens of smaller changes, some of which are quite significant. In this chapter, I offer a quick overview of new things that apply to multiple apps or to the system as a whole.

Tip: For app-specific changes, see the next chapter, Explore Other App Improvements.

As I said in the Introduction, Apple claims many other small improvements, but most of them are either so minor or described so superficially that I can't tell you anything more about them. As a result, I'm mentioning only things I tell enough about from my research and testing in the beta versions to describe with some certainty.

iCloud

Apple is no longer using the term "collaborate" for iCloud sharing in which the live document is shared, as opposed to a static copy. Instead, the command on the pop-up menu is now Share a Link. (Similarly, participants are no longer "Only invited people" but rather "People you choose.") But the behavior is slightly different now.

If you right-click or Control-click a file or folder in iCloud Drive and choose Share, then choose Share a Link from the pop-up menu, you now see a couple of changes in the interface:

- If you click the text under that menu ("People you choose can view/edit"), the display expands as usual to show who can access the item and with what permissions. But there's a new "Allow access requests" checkbox here. If you select that, then send a link to a *group* (as opposed to a single person), each recipient must explicitly

request permission to access it, and you must approve that request. Only then is that person added to the Participants list.

- A new Copy Link command appears on the Share menu. If you choose that, a dialog (**Figure 19**) appears, with two options: click Continue to share in the normal way (keeping in mind the extra step described above if you share it with a group), or click Allow Anyone with the Link to copy the shareable link to your clipboard with no constraints on who can use it.

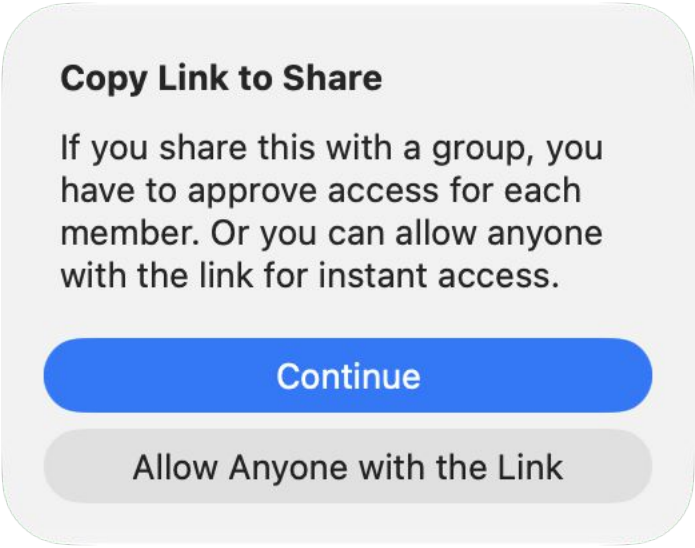


Figure 19: This somewhat confusingly worded dialog appears when you use the new Copy Link command.

International/Multilingual Features

Apple is continually expanding macOS's capabilities to support more languages, keyboards, and regional features. Of course, as a U.S. company, Apple usually releases features in U.S. English first, then slowly spreads them to other languages (and other forms of English). The rate at which this happens is often frustratingly slow, but at least progress is occurring.

Since my knowledge of other languages is insufficient to test most of these features, I can't tell you much about them, but here's the list:

- Keyboards are now available for Afrikaans, Basque, Baybayin, Blackfoot, Comanche, Cree, English (Philippines), Galician, Guarani, Kiowa, Luxembourgish, Tsuu'tina, Xhosa, and Zulu.
- Typing suggestions are available for the Vietnamese VNI keyboard.
- Automatic punctuation occurs with most keyboards, regardless of language, with punctuation suggestions appearing as you type in Chinese.
- You can now set the interface language for macOS itself to English (Canada)—woo hoo!—and English (Philippines) in System Settings > General > Language & Region > Preferred Languages.
- Conversion from Pinyin to Simplified Chinese and Kana to, I'm presuming, kanji, has improved. (The way Apple worded this feature on a slide in the WWDC keynote read oddly to me.)
- Live Captions are available in FaceTime for Traditional Chinese.
- Call Recording transcriptions are now available for Traditional Chinese, Japanese, and Brazilian Portuguese, while Live Voicemail transcription are available for English (Singapore) and Japanese.
- When you use grammar checking (via Edit > Spelling and Grammar > Check Grammar with Spelling in supported apps), multilingual grammar checking is now supported.
- In Reminders, autocategorization is available for different (unspecified) languages.
- Apple's feature list also included "Natural language time formats for Chinese and Hindi," "Holiday-aware alarms in China," "Chaizi typing," "Alternate calendars for India support current time zone while traveling," and "Smart language and keyboard configuration suggestions," though I don't know enough about any of these features to describe them further.

Ethernet Indicator

When you connect an Ethernet cable to your Mac (which, for laptops, requires an adapter), the Wi-Fi icon on the menu bar changes to an Ethernet icon; clicking this displays information about your Ethernet connection.

Swipe Down to Refresh

In any app that already has a refresh or reload mechanism (such as Mail and Safari), you can swipe down with two fingers on a laptop's built-in trackpad, a Magic Trackpad, or a Magic Mouse to refresh the page, just as you would (with one finger) on an iPhone or iPad.

Touch Control in Sidecar

Sidecar is a feature that lets you use an iPad as a secondary display for a Mac—either mirroring your Mac's screen or extending the desktop. That's a cool trick, but if you wanted to not merely *see* what's on your Mac's display but also *control* it, Sidebar has always offered extremely limited capabilities. (For example, you could scroll with two fingers but you couldn't tap individual icons or menu items for Mac apps.)

In Golden Gate, Apple has extended Sidecar in such a way that, for the most part, your finger acts as a proxy for your mouse pointer. You can tap any icon or other control, scroll with one finger, use menus normally, and so on.

Note: This feature requires that your iPad also be running iPadOS 27.

Mac news and rumor sites claim this feature isn't so much about having more control from your iPad, but rather part of the groundwork for a hypothetical future touch-screen Mac, which would presumably allow a similar form of interaction.

Explore Other App Improvements

The previous chapter, Discover Other System Improvements, reviewed changes in Golden Gate that affected the entire system or multiple apps. In this final chapter, I walk you through some of the most interesting changes to specific apps. Although fewer apps received noteworthy updates in Golden Gate than in past versions of macOS, there are still some new and useful things to discover.

Once again, I cover these in alphabetical order, not in order of importance.

Calendar

The big change in Calendar is that you can now add and edit events just by giving a textual description. For example, you can click the plus + icon to create a new event, type “Lunch with Peter at noon on Thursday at Moxies” (**Figure 20**) and Calendar figures out how to translate that into the event you’re expecting. You can later double-click the description and edit it.

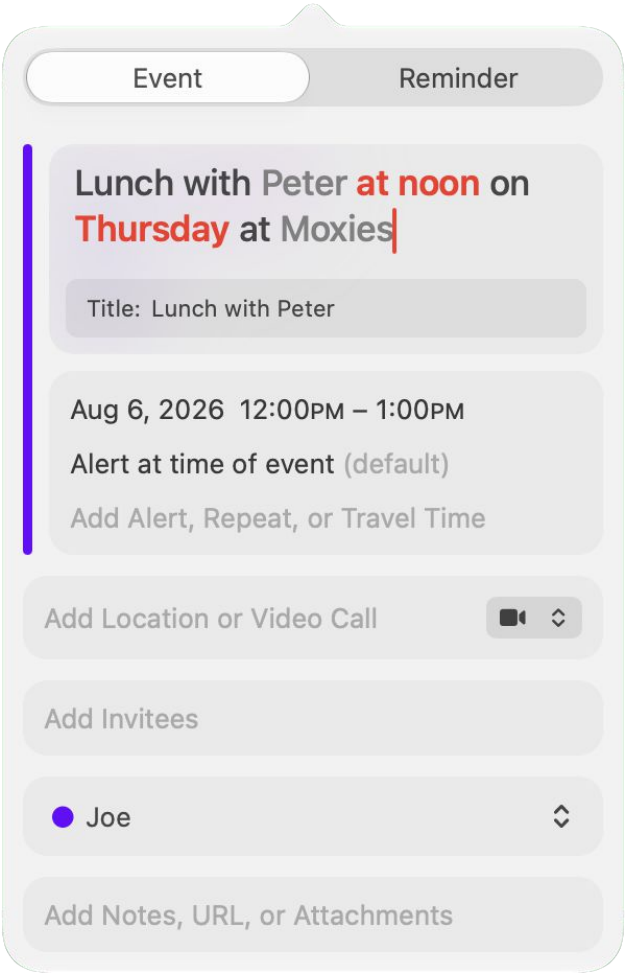


Figure 20: Calendar interprets what I type to create an event. Not shown: the prompt asking me to choose which location I meant.

I found this feature to be rather hit-or-miss. For example, if I added "and remind me two hours ahead," that didn't change the alert time. And if I omitted the time but rather said, "breakfast," "lunch," or "dinner," Calendar unfailingly scheduled the event at 10 A.M.

Another small change in Calendar is support for styled text in notes, which some calendar apps (such as Google Calendar) support. That is, if you've used styling such as bold or italics on a note you created somewhere else, that styling appears in Calendar, too (**Figure 21**).

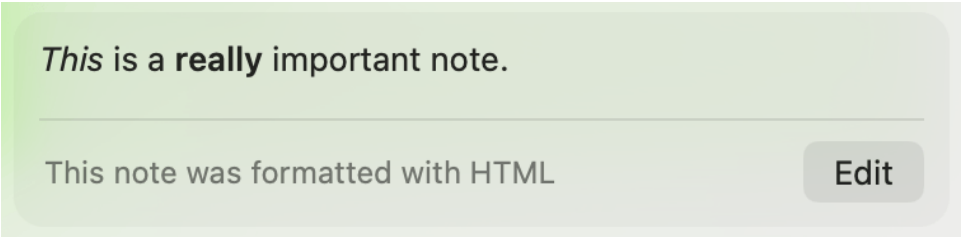


Figure 21: This note on a calendar event features styled text.

If you click Edit, Calendar shows you the raw HTML source of the note (**Figure 22**), which you can adjust as you like.

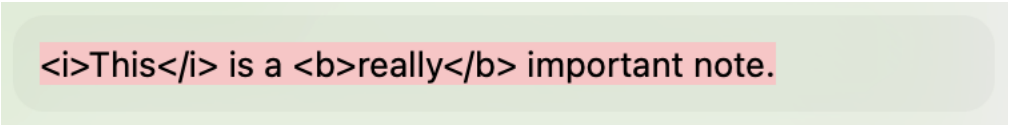


Figure 22: You can edit the raw HTML that produces the styling.

Although Calendar doesn't let you directly enter styled text in a note, you can manually enter HTML (like that shown above) when you create a note. If you then close the popover or Info pane and reopen it, you see the styled text. And—bonus!—this works *even* for events on iCloud calendars! In other words, it's a global feature; it's just that Apple hasn't oddly not bothered yet to add styling controls to that field.

Find My

Apple decided in the version 27 releases to make the iOS, iPadOS, and macOS Find My interactions consistent. Previously, you had to click a person, device, or item, then click the Info icon on the map to reveal information. It was a fussy way to do it, particularly when you could just tap one of those people or things on an iPhone or iPad and reveal an action sheet, where you could access Directions, Contact, or Play, among other features.

Now, Find My on all three platforms is a single operation: click (or tap) a person, device, or item in the sidebar to reveal basic information about the location (like Nearby or their distance, street, and city), along with contextually relevant buttons right below it (**Figure 23**). To get more information, you click (or tap) the the More icon for full details, including all the other information previously found on the Info popover.

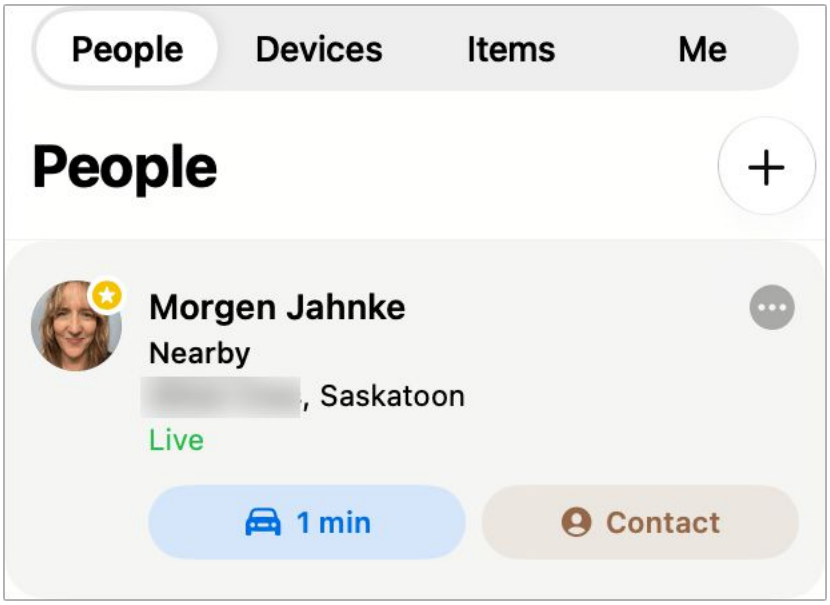


Figure 23: Select someone in the list and you can see important details and controls immediately.

There's also a top-level Me tab, giving you more direct access to your own information, something already present for years in Find My for iPhone and iPad.

Finder

The Finder has two interesting new features:

- **Autosize and reset columns:** In column view, right-click or Control-click in any column, choose Show View Options, and check "Resize columns to fit filenames." The columns autosize to the width of the longest names in each one. Uncheck that box to go back to regular sizing. You can also right-click or Control-click the double-bar icon at the bottom of a column divider to show a menu with Right Size This Column, Right Size All Columns Individually, and Right Size All Columns Equally, where "right size" is Apple's term for sizing determined by filename length.
- **Auto name files and folders:** This new Apple Intelligence feature attempts to help you name items. Select a file or folder and press Return to select the name. Hover over it with your pointer and one or more suggested names appear in a pop-up menu (**Figure 22**). Click one of these to use it as the new name.

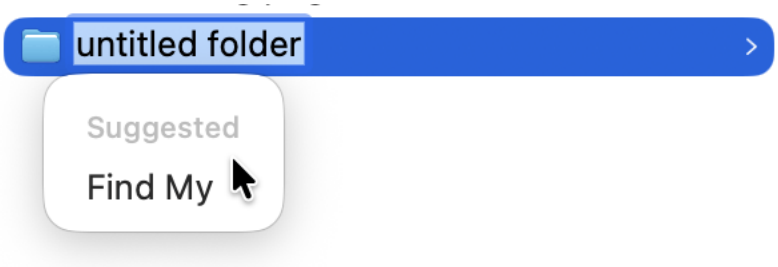


Figure 24: I made a new folder and added a few screenshots with "Find My" in their titles. Sure enough, that's the suggested name.

If you dislike this feature, you can turn it off: Go to Finder > Settings > General and uncheck "Suggest file names."

Golden Gate also suggests names for new, untitled documents you create in most apps once they have a bit of content. The suggested names appear in the title bar and in the Save dialog when you save the file for the first time. I've found these suggestions to be wildly inaccurate, but your experience may be different.

The naming may also happen automatically when you use AirDrop to transfer files from another Apple device, such as the contents of a screenshot when you AirDrop it from an iPhone to a Mac. In this case, you're not prompted to approve the name.

Freeform

The Freeform app now supports drawing tools, just as many iPhone and iPad apps have done for years (click the Add Drawing icon on the toolbar). You can also add folders to organize your boards (click the Folder icon on the toolbar), and each folder can be shared with others (hover over the folder name, click the More icon, and choose Share). When sharing boards or folders, Freeform may suggest recipients based on the contents of what you're sharing. In addition, Freeform now supports Dark Mode.

Home

The Home app now offers a single interface in which you can see multiple cameras and search for events, as well as 4K camera recordings (**Figure 25**).

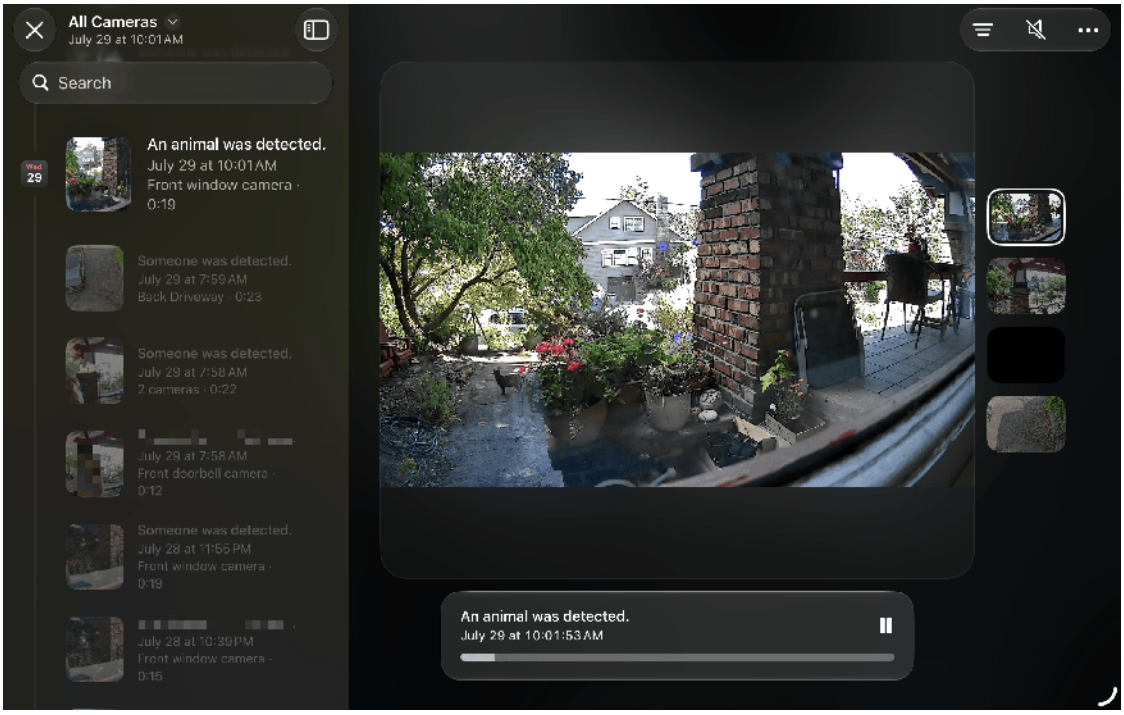


Figure 25: If you have multiple cameras, you can now see them via a single interface, which allows searching.

Note: Additional features Apple announced are synthesized images from multiple cameras and natural-language search. These extras require at least a 2 TB iCloud+ plan, and I believe a 3rd-generation Apple TV running tvOS 27. I haven't yet seen these features appear, nor has my editor. I'll update this when we have more information.

Image Playground

The Image Playground app, which lets you alter or create AI images in various styles using a text prompt, now has a much simpler interface. Instead of making you choose a style from a menu, for example, you simply describe exactly what you want. You can also describe changes, and the image adjusts accordingly.

iPhone Mirroring

Previously, the iPhone Mirroring app had only three sizes: Small, Actual Size, and Large. Now, you can resize it by any arbitrary amount, either by dragging a corner with your mouse or by using the zoom controls (View > Zoom In or Zoom Out, ⌘-+ and ⌘-– (minus), respectively).

In addition, you can now, finally, access Control Center on your iPhone from iPhone Mirroring—choose View > Control Center or press ⌘-4. And you can even watch copy-protected videos (such as those from Apple TV) on your iPhone while using iPhone Mirroring.

Journal

The Journal app now automatically adds a time stamp to new journal entries, rather than just a date. It also raises the attachment limit (though Apple doesn't say by how much).

Mail

Apple says that Mail in Golden Gate has improved, more relevant search results. When you type in the Search field, a banner (**Figure 26**) appears telling you that Mail looks for meaning beyond the specific words you enter, presumably using Apple Intelligence. I can't say I noticed any improvements during my limited testing, but perhaps those will become more evident over time.



Figure 26: This banner promises expanded search results.

Suggestions may appear, too, when Mail notices something in a conversation that you may want to take action on; Apple's examples are

adding a calendar event or searching for a photo. I have not yet seen these suggestions in my testing.

If you have a bulleted or numbered list in a message you're composing, you can now choose Remove List Formatting from the Format > Lists submenu or from the Lists  pop-up menu to revert the list to regular text.

Maps

The Maps app now shows Guides for more locations, and, for certain locations, Satellite view yields more detailed images (enhanced, of course, with Apple Intelligence). I tried zooming in on Apple Park in Cupertino and the improved clarity was quite striking. The same was true for a few other urban locations in the United States that I spot-checked. But all the Canadian locations I tried, including Toronto and Vancouver, looked the same. Whether or when that will change, I have no idea.

Messages

Messages has improved searching. For example, if you enter a contact's nickname or a portion of their phone number, the search lists both names and conversations that match, not just individual messages containing that exact text. Searching for media is also reportedly better, though I have so far been unable to produce any good examples.

Like Mail, Messages may offer suggestions as to actions you can take relevant to the current conversation. Smart Replies may also attempt, possibly without success, to mimic your style. And, if a message fails to send, Messages now retries it automatically.

Notes

Notes has four significant new features:

- **Drawing:** As in Freeform, drawing tools are available in Notes: click the Add Drawing icon on the toolbar.
- **Copy as Markdown:** You can also use Edit > Copy as Markdown to copy styled text from a note with Markdown tags, ready to paste elsewhere.

Note: Oddly, as of publication time, there's no corresponding Paste as Markdown command, but perhaps that's coming in the future.

- **Section links:** If you use section headings in your note, you can insert links elsewhere in your note that jump to them. Choose Edit > Add Link (⌘-K), choose the section heading from the Link to Section pop-up menu, and click OK.
- **Divider lines:** Finally, you can now add horizontal divider lines in your notes by choosing Edit > Insert Divider Line (⌘-L).

Passwords

Passwords can already identify passwords that are too weak, or that have appeared in data breaches. Passwords like these that need changing are marked with a red exclamation point and feature a Change Password button that takes you to the appropriate page on the website. Golden Gate takes that concept further, where Passwords automates the process: it goes to the site, chooses a strong new password, saves your new password on the site, and stores the new password in Passwords—all with one click. But this works only on a limited number of sites that support the mechanism Apple requires.

In addition, if "Show password hints" is turned on and you begin typing your password on the Lock Screen, a small question mark icon appears to its right. Click that, and a message appears along with

a Reset Password button, which you can click if you need to reset your password.

Phone

If you're on a voice call in the Phone app, relevant information (pulled from other apps like Calendar, Contacts, Mail, and Messages using Apple Intelligence) may appear on screen. For example, if you're calling a hotel, you may see the email they sent you when you booked your room.

I have not yet encountered a situation in which I used the Phone app on my Mac and also had contextually relevant information, so I can't say precisely what this surfaced information looks like.

Photos

The list of changes in the Photos app is much longer than in any other app, though most of them are small. I won't describe them all here, though I refer you to Jason Snell's *Take Control of Photos*; Jason is currently updating it for the version 27 operating systems.

However, I do want to call attention to a few of the most prominent changes:

- **Shared album improvements:** When you share an album via iCloud, other participants can now see and interact with it even on Windows PCs and Android phones. In addition, you can "upgrade" your shared albums to show photos and videos at full resolution and enable several other features. To do so, right-click or Control-click an album in the sidebar and choose Upgrade Shared Album; this walks you through a series of steps, after which Photos spends a considerable amount of time—perhaps hours—thinking.

At the end of the process, a Manage Shared Album icon appears at the top of the window. Click this to open a dialog with extensive sharing options:

- **Permissions:** Click the More ··· icon next to any participant to change their permission to any of three levels: Can View and Comment, Can Add Photos, or Can Manage Album and Photos. You can also show each person's contact info or remove the participant, and you can invite new participants.
- **Copy Album Link:** You can get a link to the shared album and set whether it works for People You Choose or Anyone with the Link.
- **Access Requests:** Turn this on to permit other people with the link to request access, which you must then manually approve.
- **Make Album Temporary:** If you turn this on, the album becomes ephemeral, disappearing from Photos after 30 days. To prevent any photos or videos in the album from disappearing too, you must save them to your library first.
- **Allow Notifications:** Turn this on to be notified when there are changes to the shared album.
- **Delete Shared Album:** Click this to delete the album completely.

Note: Other devices must be running version 27 operating systems to use the upgraded features.

There's a downside to upgrading, though: these higher-resolution shared photos now count toward your iCloud Drive quota, which may require you to buy a more expensive iCloud+ plan.

- **New Clean Up:** Apple has rebuilt the Apple Intelligence-driven Clean Up feature rolled out in macOS 26 (and on other platforms), and it works substantially better.

- **Spatial Reframing:** If a photo was taken from an inauspicious angle, you can now adjust the angle, within limits, for a more pleasing effect, thanks to Apple Intelligence.
- **Extending:** Suppose a photo is cropped too narrowly, or that the subject is off-center. Photos can now use Apple Intelligence to fill in areas adjacent to the area actually captured by generating new pixels that seamlessly blend in with what's already in the photo.

Note: Both Spatial Reframing and Extending are inventing details, not extracting data from the photo. Be sure you want photo-generated components in your image. I say more about both features in *Take Control of Siri AI and Apple Intelligence*.

Podcasts

When you're watching a video podcast in Podcasts, there's now a Hide Video button beneath the progress bar that does just that (while keeping the audio going); bring back the video by clicking Show Video.

Safari

Safari has three notable new features, all of which rely on Apple Intelligence:

- **Automatic tab grouping:** If you go to Safari > Settings > Tabs and choose Automatically Create Topics from the "Organize tabs" pop-up menu, Safari examines the contents of each page and groups them by similarity (**Figure 27**), reducing the amount of space taken up by open tabs. Click a group to expand its contents.



Figure 27: Each tab group (in gray, at left) indicates the subject matter and the number of tabs it contains.

- **Notify Me:** Safari can now monitor a webpage and let you know when it changes. To set a notification, click the Page icon in the address bar and choose Notify Me. Describe the type of change you're looking for (such as a new news article or a change in a particular number), click Edit to adjust when and how often Safari should check, and click Done.
- **Describe an extension:** Can't find the extension you need? Safari can create a custom extension for you on the fly. It syncs to your other devices via iCloud but can't be shared with anyone else. To create an extension, click the Page icon in the address bar and choose Describe an Extension.

Note: Again, I describe all these features in more detail in *Take Control of Siri AI and Apple Intelligence*.

Shortcuts

The Shortcuts user interface was overhauled significantly to steer users away from manually creating shortcuts and toward its major new feature: the Apple Intelligence-powered "Describe a shortcut." When you click the plus + icon on the toolbar, you now see a big "What do you want your shortcut to do?" banner (**Figure 28**).

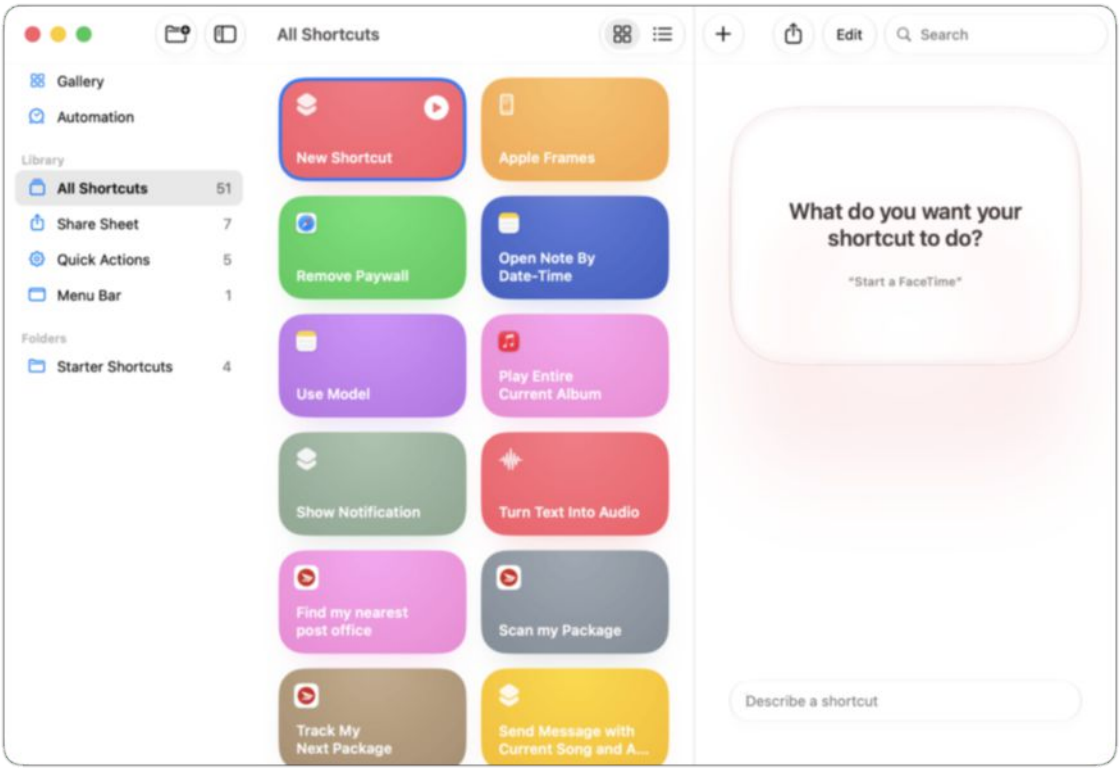


Figure 28: Shortcuts now wants you to describe your shortcut rather than building it manually.

In the "Describe a shortcut" field at the bottom, type out what you'd like your shortcut to do. Apple Intelligence then takes a first stab at it. You can try out the shortcut and, if it doesn't work quite right, type a correction in the "Describe a change" field. With any new or existing shortcut, you can select it and click the Edit button on the toolbar to bring up the full Shortcuts editor, which has been rearranged a bit and now includes a Pinned section.

Although the existing interface for creating Automations is still there, a new method is available, too: when editing a shortcut, go to the Automation category in the right-hand sidebar and double-click an automation (such as Time of Day or Message). This adds it to the top of the shortcut so you can configure it while creating or editing a shortcut.

Shortcuts features several new systemwide actions:

- **Notification:** This action runs when you receive a notification from a specified app.
- **Screenshot:** This action runs when you save a screenshot to Photos, Files, and/or your Clipboard.

- **Store Content, Get Stored Content, and Delete Stored Content:** You can now store data within Shortcuts itself, rather than having to create and manage external files.

In addition, there are new actions for several Apple apps:

- **Mail:** There's a new Find Message action for Mail.
- **Messages:** New actions for Messages include Delete Conversations, Delete Messages, Mark as Read, Open Inbox, Search in Messages, and Send Tapback.
- **Photos:** The new actions for Photos are Auto Enhance Photo, Delete Albums, Delete Photos, Favorite Albums, Find Albums, and Hide Photos.
- **Reminders:** The Reminders app has new Create Group, Create Section, Delete Groups, Delete Lists, Delete Sections, and Edit List actions.

In addition, some actions have expanded capabilities:

- **Get What's On Screen** now lets you specify a data type, such as Images, Text, or Web Pages.
- **If** now lets you specify multiple conditions, evaluated with Any or All (much like rules in Mail). To add conditions, click the plus + button in the If action.

Spotlight

In Golden Gate, Spotlight as such behaves similarly to how it did in Tahoe—though with, Apple claims, more relevant search suggestions. However, as I mentioned in Explore Siri AI & Apple Intelligence, the Spotlight interface has been merged with the Siri AI interface. That is to say, what you see on screen when you invoke Spotlight (via ⌘-Space or whichever custom keyboard shortcut you set) is exactly the same as what you see when you invoke Siri (via the Siri menu bar icon), and you can treat the field in which you type either as a search term or as a

prompt (**Figure 29**). Instead of the former Search, rendered in gray text in the field, it now reads Search or Ask.



Figure 29: The new, combined Siri + Spotlight window.

As in Tahoe, either before or after you enter a search term, you can narrow the search to various categories. Move the mouse or press the down ▼ arrow key to show them (Tahoe, by contrast, used the Tab or right ▶ arrow key), as shown in **Figure 30**. You can then click a category or use the arrow keys and Return to select it. Alternatively, you can press the associated keyboard shortcut shown to access each category directly.

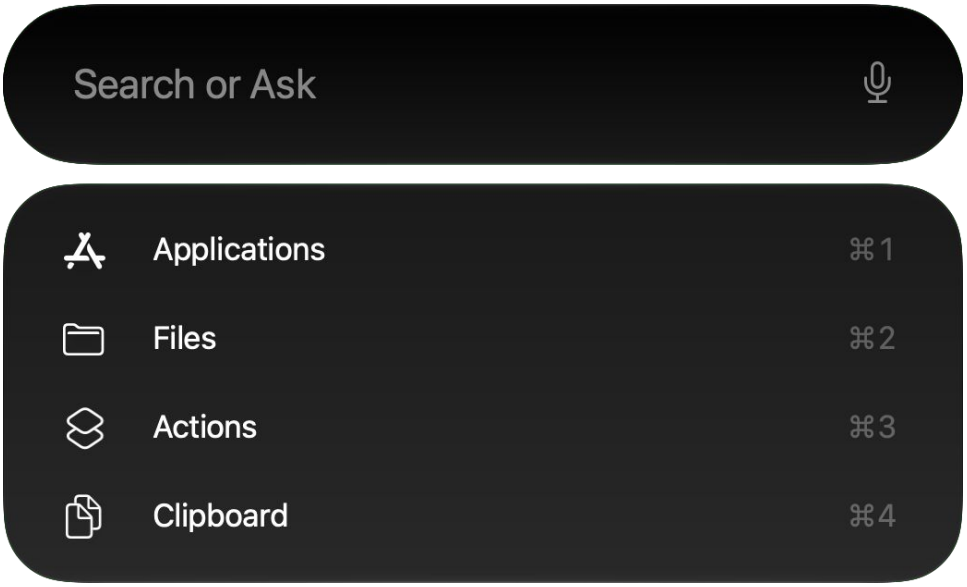


Figure 30: Press the down ▼ arrow key to show these additional categories.

Here are the four categories:

- **Apps (⌘-1):** In this view, only apps are shown (regardless of where they’re located on your Mac). Recently used apps appear at the top, until you start typing.

- **Files (⌘-2):** Similarly, in this view, only files and folders appear, but that includes apps, too! Again, recent files appear at the top (below Suggestions, explained in a moment) until you start typing.

Note: Results in Apps and Files categories include items on your iPhone, if you've set up iPhone Mirroring.

- **Actions: (⌘-3):** Actions are activities (some provided by Apple, others provided by third-party apps) that you can access directly from Spotlight without opening apps or performing additional steps. See my book *Mac Basics* for details.
- **Clipboard (⌘-4):** Spotlight can keep track of things you've put on your clipboard previously, including them in search results, as long as this feature is enabled (as it is by default): go to System Settings > Spotlight, scroll to the bottom, and turn Results from Clipboard on or off.

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