

15. Replace the computer's housing, then turn the latch clockwise 90 degrees to lock it.

The computer will not turn on if the housing has not been replaced and the latch rotated to its original position.

16. Reconnect all cables and the power cord to your Mac Pro.

Install Expansion Cards in Mac Pro

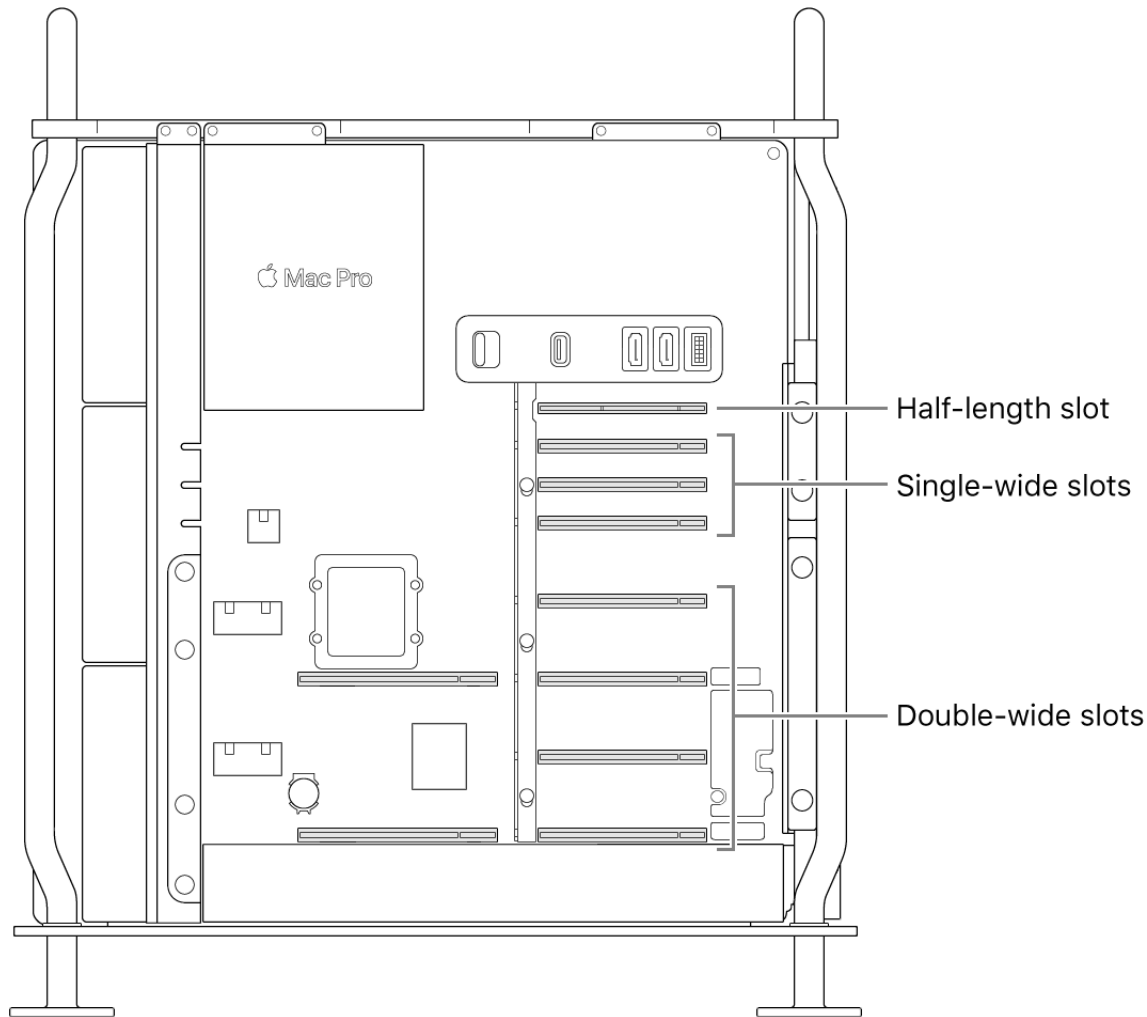
You can configure your Mac Pro by installing additional cards in the PCI Express expansion slots.

Slots 1 and 3 are x16 slots that directly connect to the CPU, providing highest performance and should be used first. After that, it is preferable to connect a card to a slot that has as at least as many lanes as the card. If you ordered an Apple Afterburner

card with your Mac Pro, the card comes preinstalled in slot 5. If you're installing an Afterburner card, use a PCI Express x16 slot for optimum performance. See the table below for details.

Slot	Number of lanes
Slot 8	x4 (Reserved for the rear I/O card)
Slot 7	x8
Slot 6	x8
Slot 5	x16
Slot 4	x16
Slot 3	x16 (Use first)
Slot 2	x8
Slot 1	x16 (Use first)

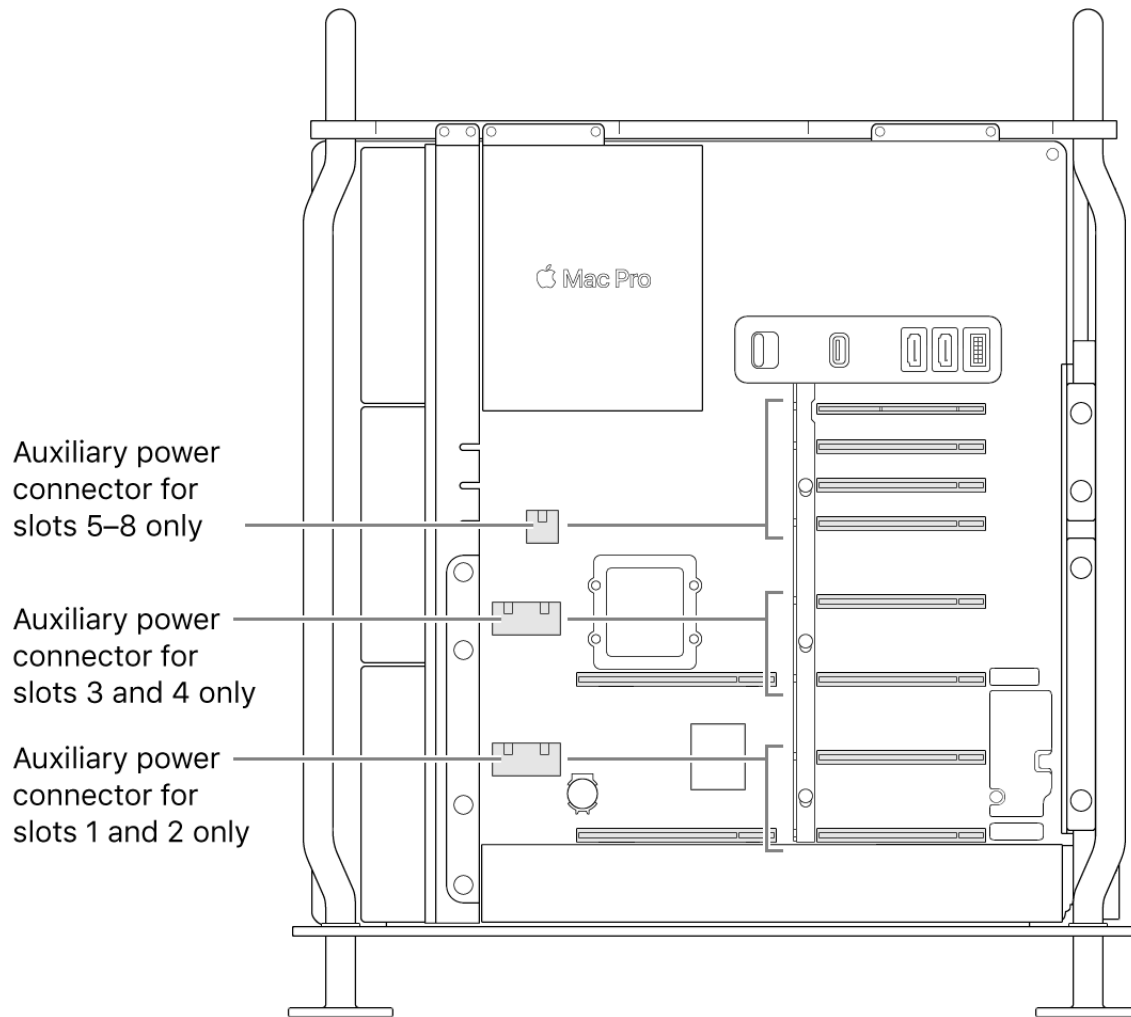
Mac Pro has four double-wide slots and three single-wide slots, which can be customized with cards to expand Mac Pro capabilities. The half-length slot is pre-populated by the Apple I/O card, but this card can be removed and other half-length PCIe cards installed.



WARNING: For optimum ventilation, space cards out as you install them. If you remove a card and don't install a replacement, place a port access cover over the empty slot to keep foreign objects out of the enclosure. An uncovered slot affects the airflow that cools the internal components, and may cause damage.

Important: Connect cards to the appropriate power source, as illustrated below. Only use the original cables that came with your Mac Pro or cables sold online at apple.com or at an Apple retail store. Only cables made specifically for Mac Pro are approved for use with PCIe modules.

Care must be taken when connecting to the AUX connectors. When installing an accessory into your system that uses AUX power, first attach the AUX connector, then install the module. Be careful not to drop the module while connected to the AUX connector, as doing so may result in damage to the AUX connector or logic board. If the AUX connector becomes damaged, do not power on your computer because doing so may further damage it. Take your computer to an Apple authorized service center or Apple retail location for repair.



Follow these steps to install expansion cards in your Mac Pro.

1. Turn off your Mac Pro by choosing Apple menu  > Shut Down.

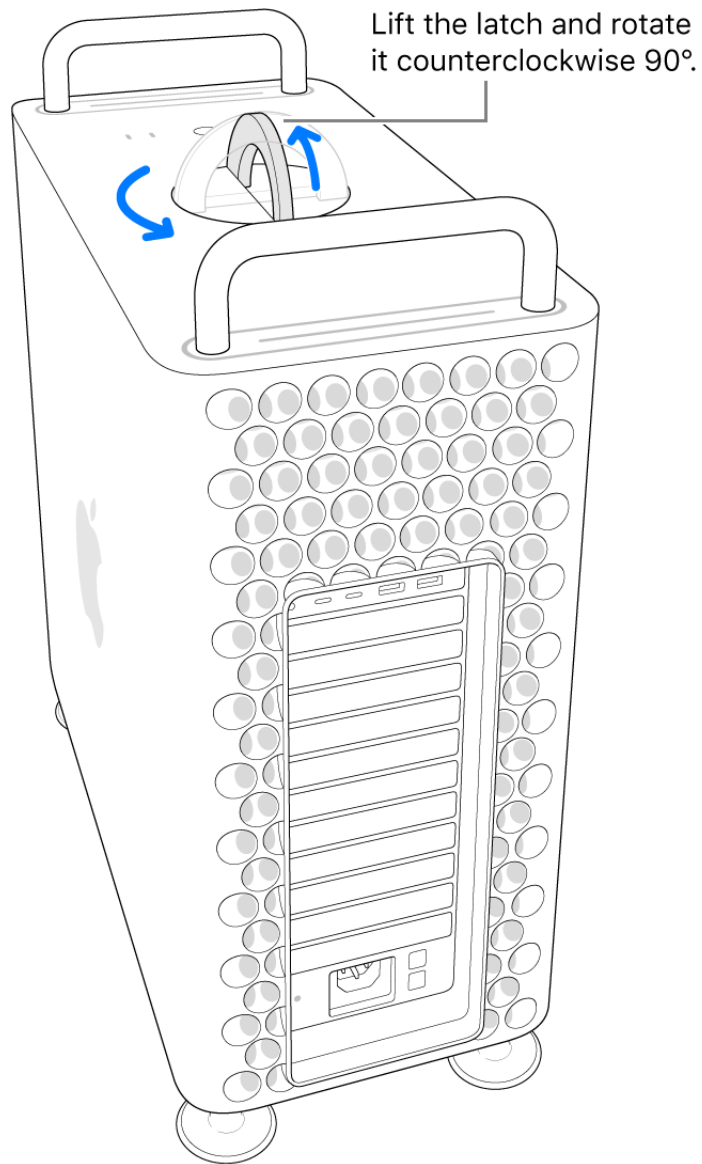
Let it cool down for 5 to 10 minutes before you touch the internal components, which may be hot.

2. Disconnect all cables and the power cord from your Mac Pro.
3. Touch the metal on the outside of your Mac Pro to discharge any static electricity.

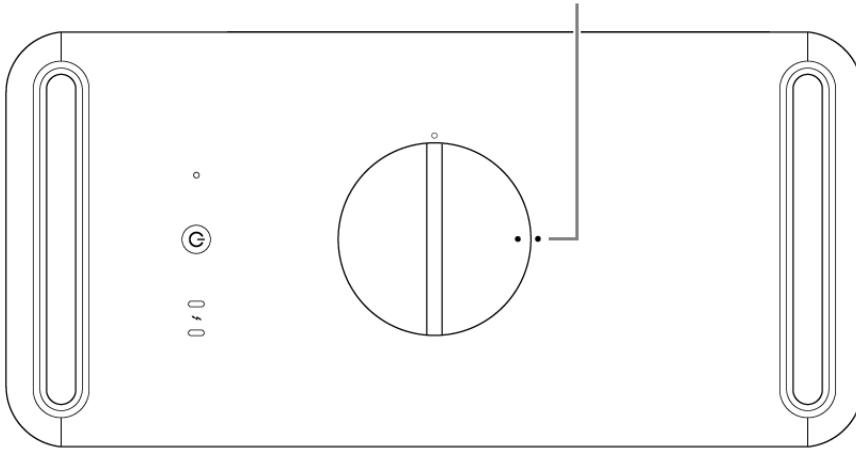
Note: Always discharge static before you touch parts or install components inside your Mac Pro. To avoid generating static, don't walk around the room until you finish installing the expansion cards.

4. Unlock the computer's housing by rotating the latch counterclockwise 90 degrees.

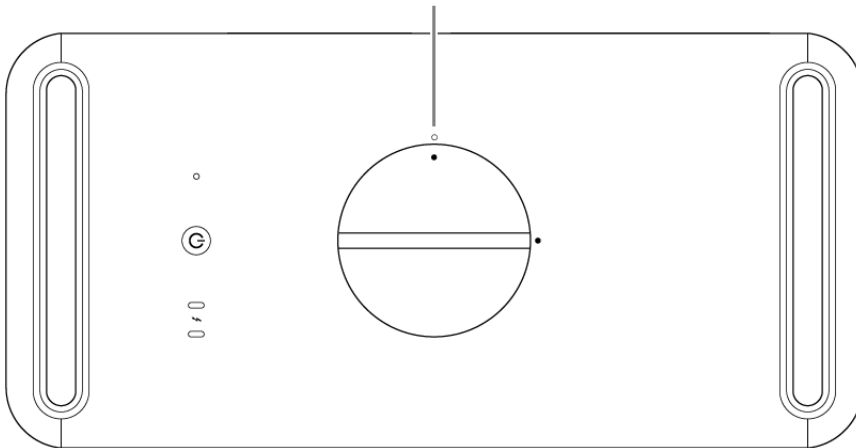
WARNING: Do not rotate the latch while the computer is turned on; doing so may cause the computer to shut down.



Locked position (dots match)

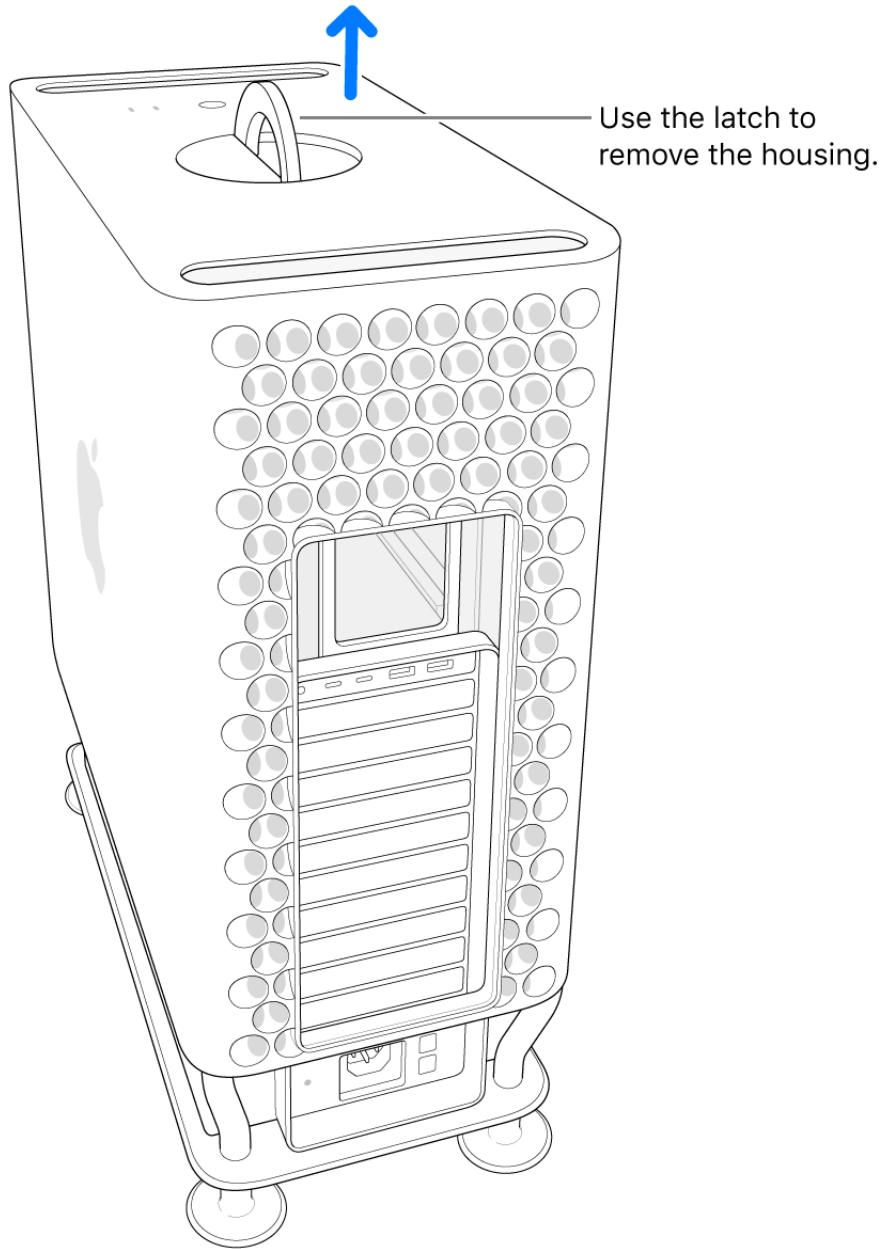


Unlocked position (dots don't match)

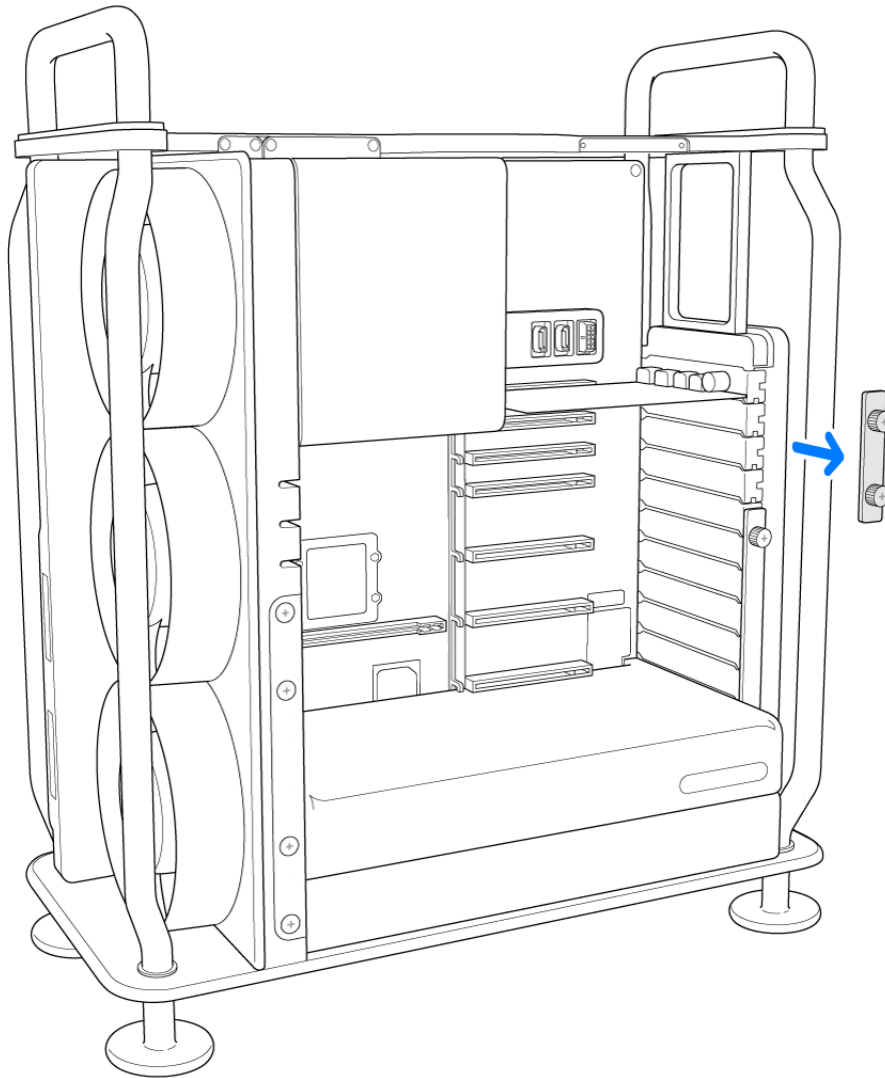


5. Remove the computer's housing by pulling it up by the latch.

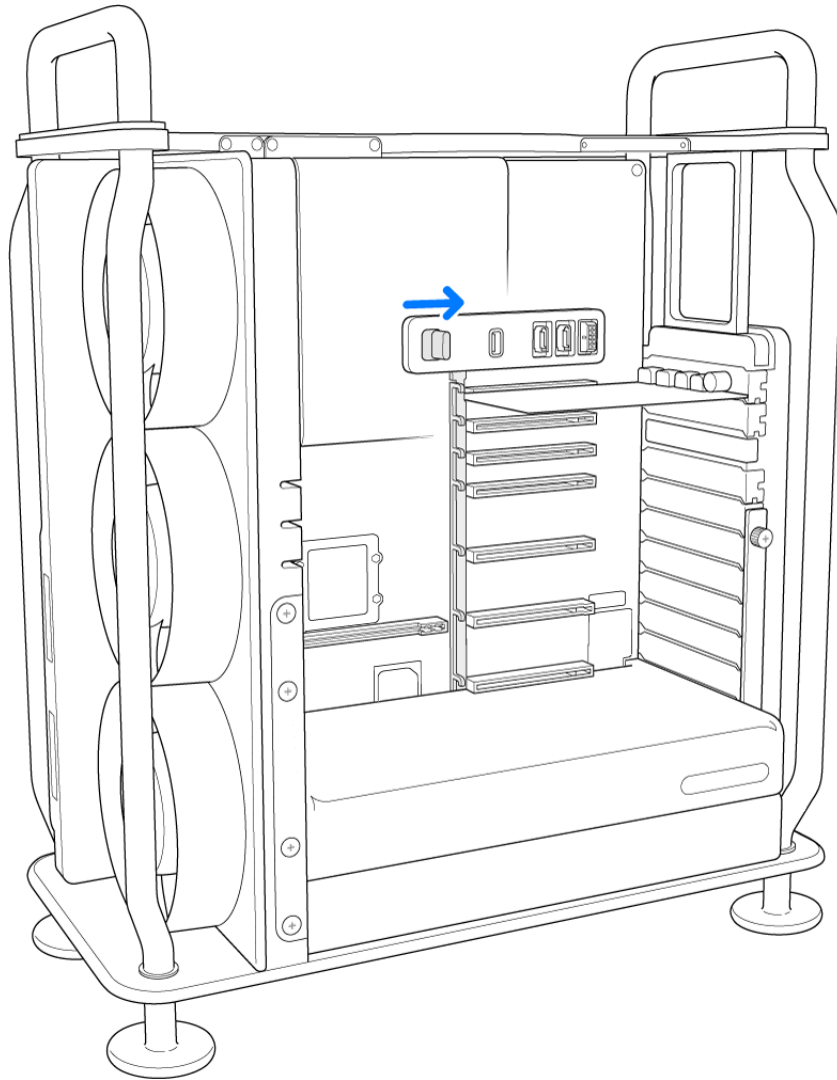
Note: Mac Pro will not start up when the housing is removed.



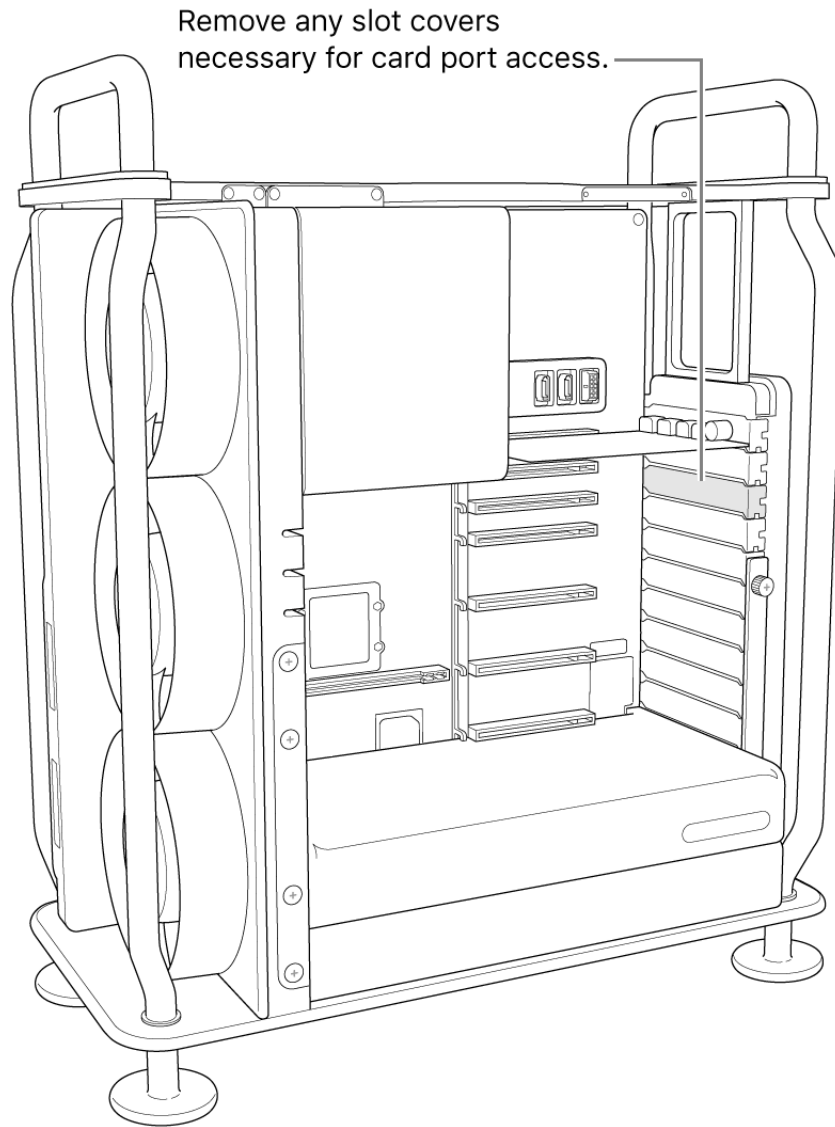
6. Remove the side bracket.



7. Slide the lock to the right.



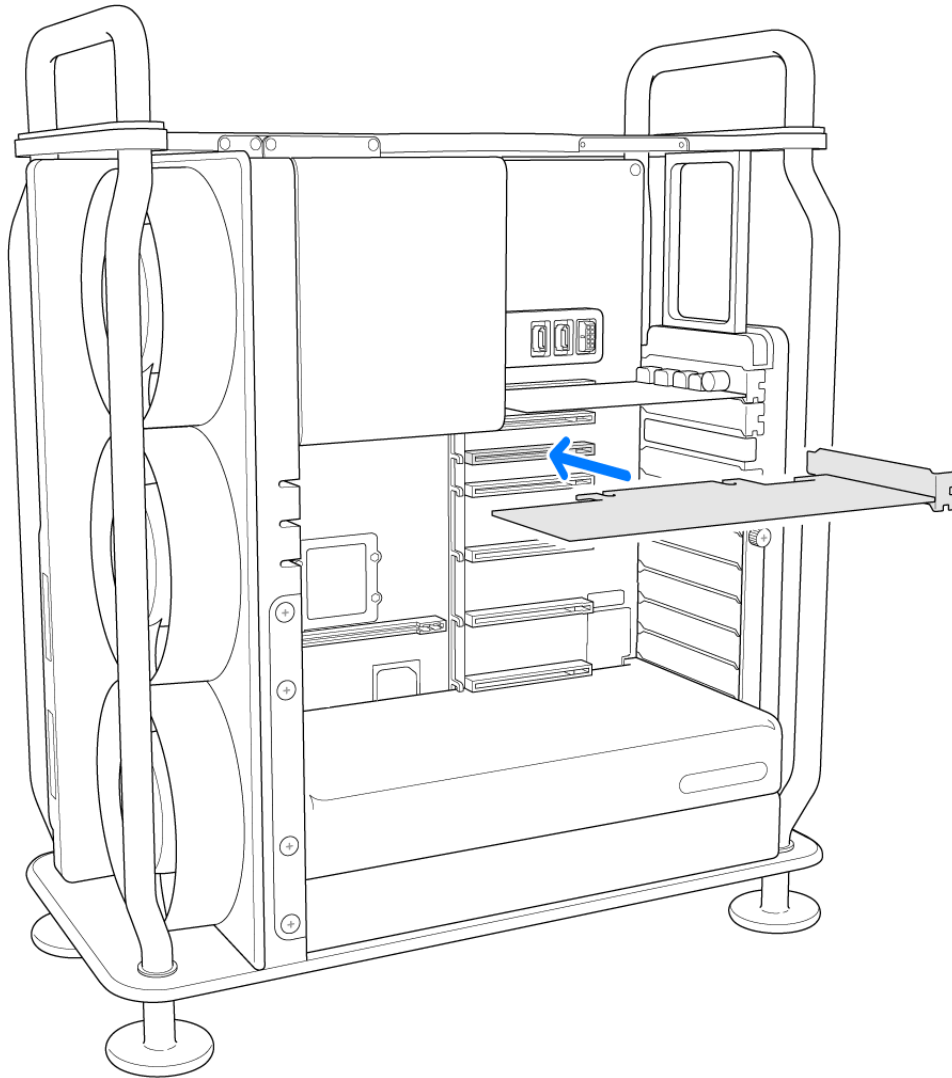
8. Remove the slot covers.



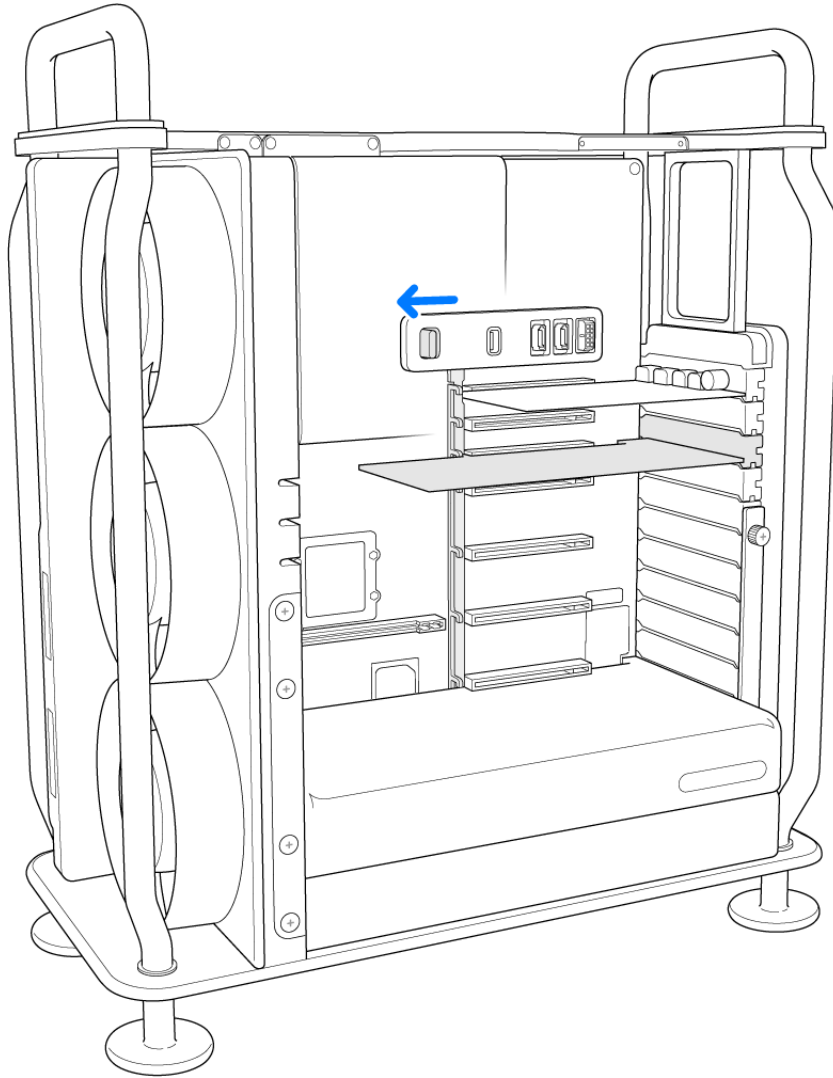
9. Remove the new card from its static-proof bag and hold it by its corners. Don't touch the gold connector or the components on the card.

Note: Use only PCIe modules that are safety certified (CSA, UL, or equivalent) and specifically state that they are compliant with the industry standard PCIe specification. Non-certified, non-compliant modules may not keep different input power sources separated, resulting in a possible burn hazard.

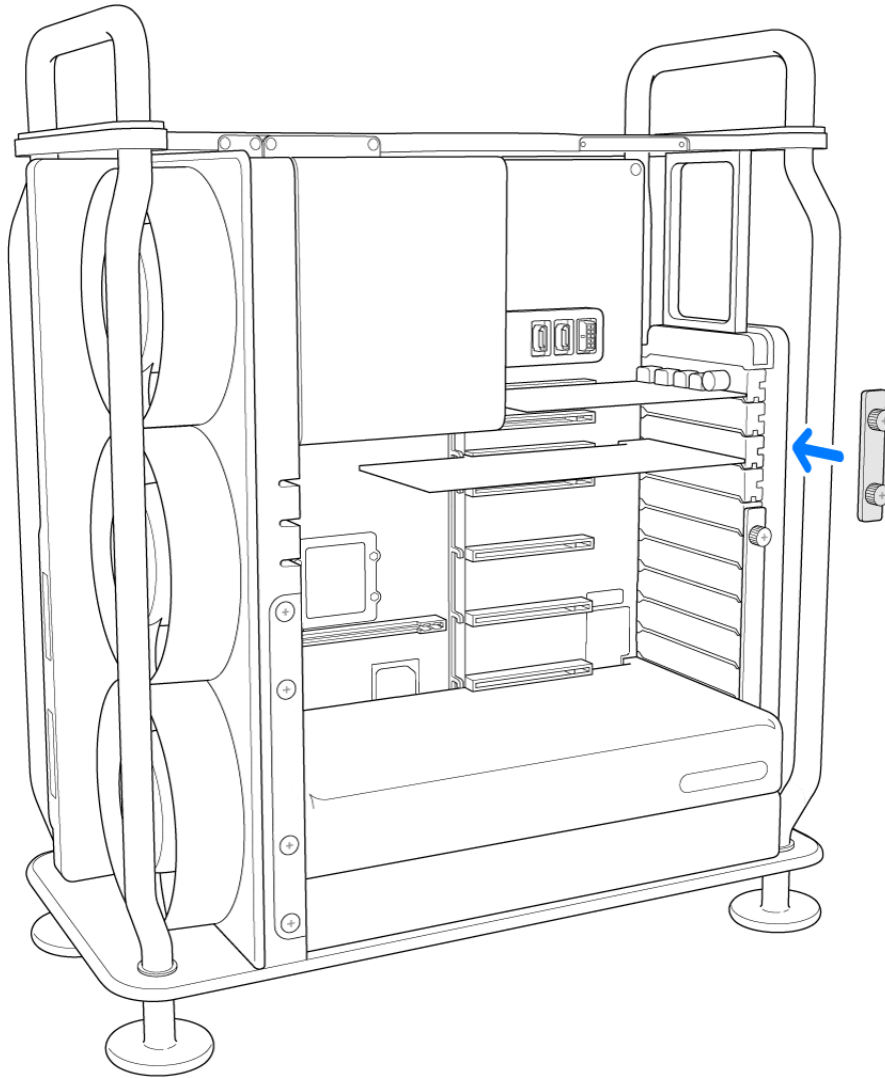
10. Slide the card into place.



11. Slide the lock to the left.



12. Reinstall the side bracket.



13. Replace the computer's housing, then turn the latch clockwise 90 degrees to lock it.

The computer will not turn on if the housing has not been replaced and the latch rotated to its original position.

14. Reconnect all cables and the power cord to your Mac Pro.
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Apps

Apps included with your Mac

Your Mac Pro comes with a collection of great apps for things you do every day, like surfing the web, sending mail and messages, and arranging your calendar. It also comes with apps like Photos, Apple Music, Apple Podcasts, the Apple TV app, Pages, Numbers, and Keynote—so you can be creative and productive right from the start. The apps that come with your Mac Pro are described in the following sections.

Note: Some macOS apps are not available in every region or language.



Find even more apps. Click the App Store icon  in the Dock to find apps for everything you want to do. To learn more, see [App Store](#).

Get help for any app. Click the Help menu (in the menu bar at the top of the screen) when you're using an app.

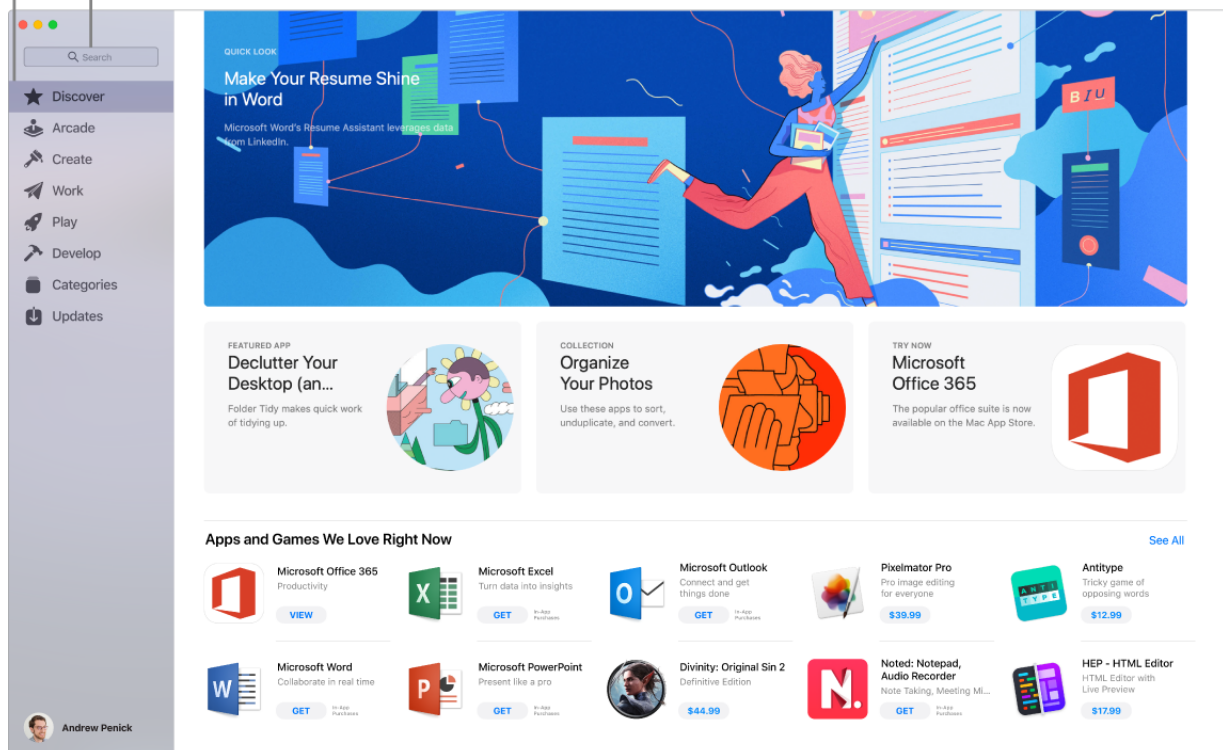
App Store

Search the App Store to find and download apps, and get the latest updates for your apps.

Find the perfect app. Know exactly what you're looking for? Type the name in the search field, then press Return.

Click a tab to browse apps.

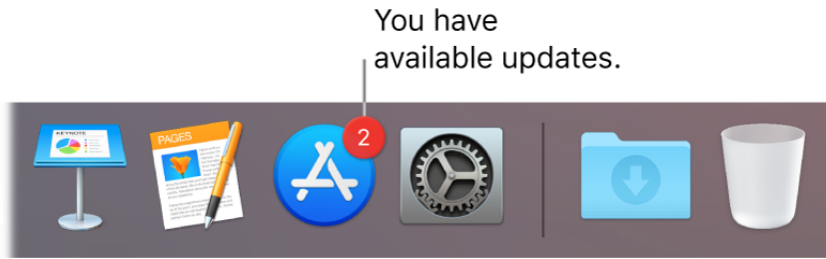
Search for an app by name.




Note: Apple Arcade is not available in all countries or regions.

All you need is an Apple ID. To download apps, sign in with your Apple ID—choose Store > Sign In, or click Sign In at the bottom of the sidebar. If you don't have an Apple ID yet, click Sign In, then click Create Apple ID. If you have an Apple ID but don't remember your password, click Forgot to recover it.

Get the latest updates. If you see a badge on the App Store icon in the Dock, there are updates available. Click the icon to open the App Store, then click Updates in the sidebar.



 **Tip:** You can spread the word about your favorite apps to your friends. While viewing an app, click the down arrow next to the price, then choose Tell a Friend.

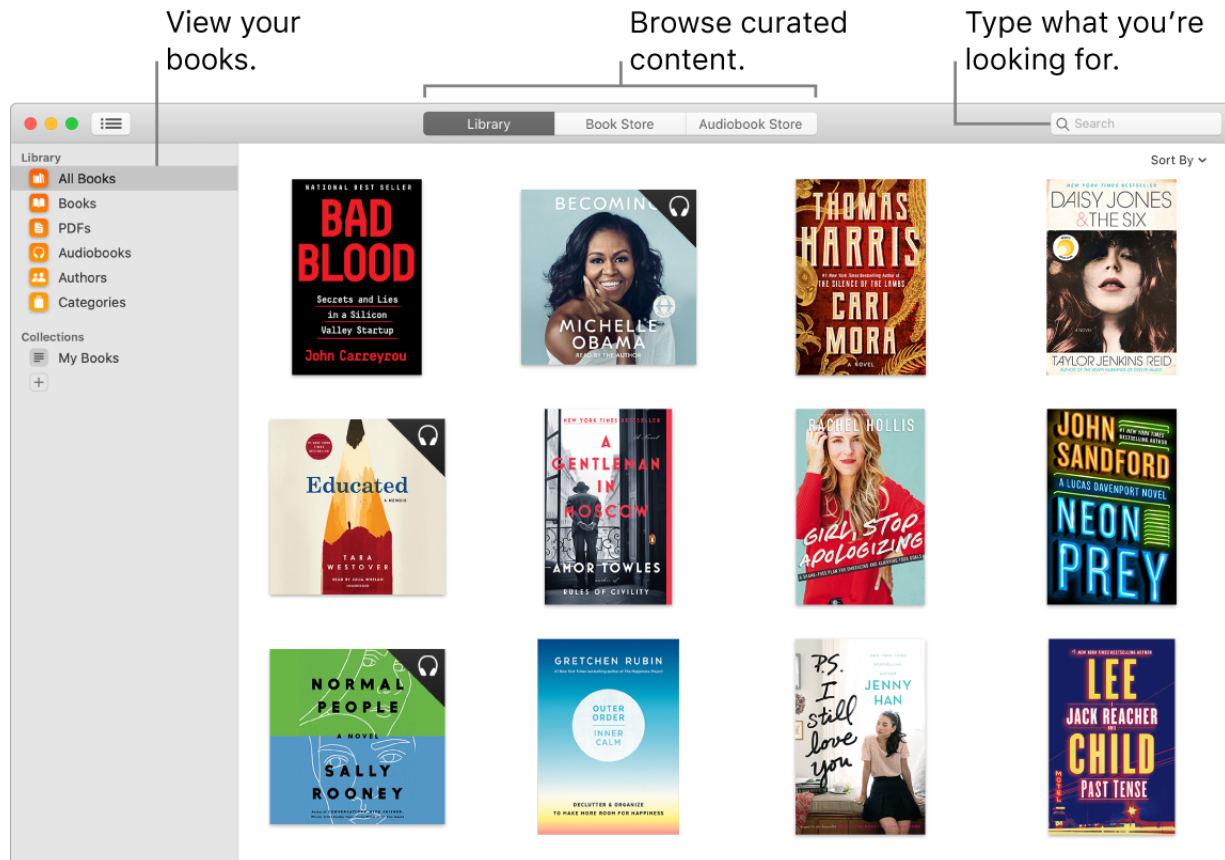
Learn more. See the [App Store User Guide](#).

Books


Use Apple Books to read and organize your library of books and audio books, and to purchase new books on your Mac.



Note: Apple Books is not available in all countries or regions.

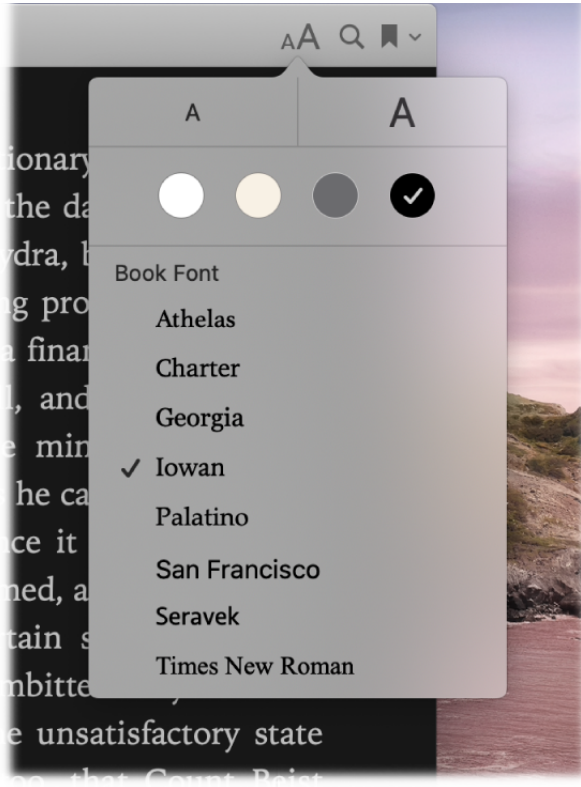
A bookshelf on your Mac. Browse or search all the items in your library—or click Book Store to find new books and other publications. To buy an item, just sign in with your Apple ID (choose Store > Sign in).



Never lose your place or your markups. Your purchased books, collections, highlights, notes, bookmarks, and the current page you're reading are available automatically on your Mac, iOS devices, and iPadOS devices, as long as you're signed in on them with the same Apple ID.

Find your way back. You can quickly go to pages you've bookmarked. Click the arrow next to  to view your list of bookmarks.

 **Tip:** Change to Night theme to read more easily in low-light situations. Choose View > Theme, then choose Night, or click the Appearance button , then click the black circle. Not all books support Night theme.

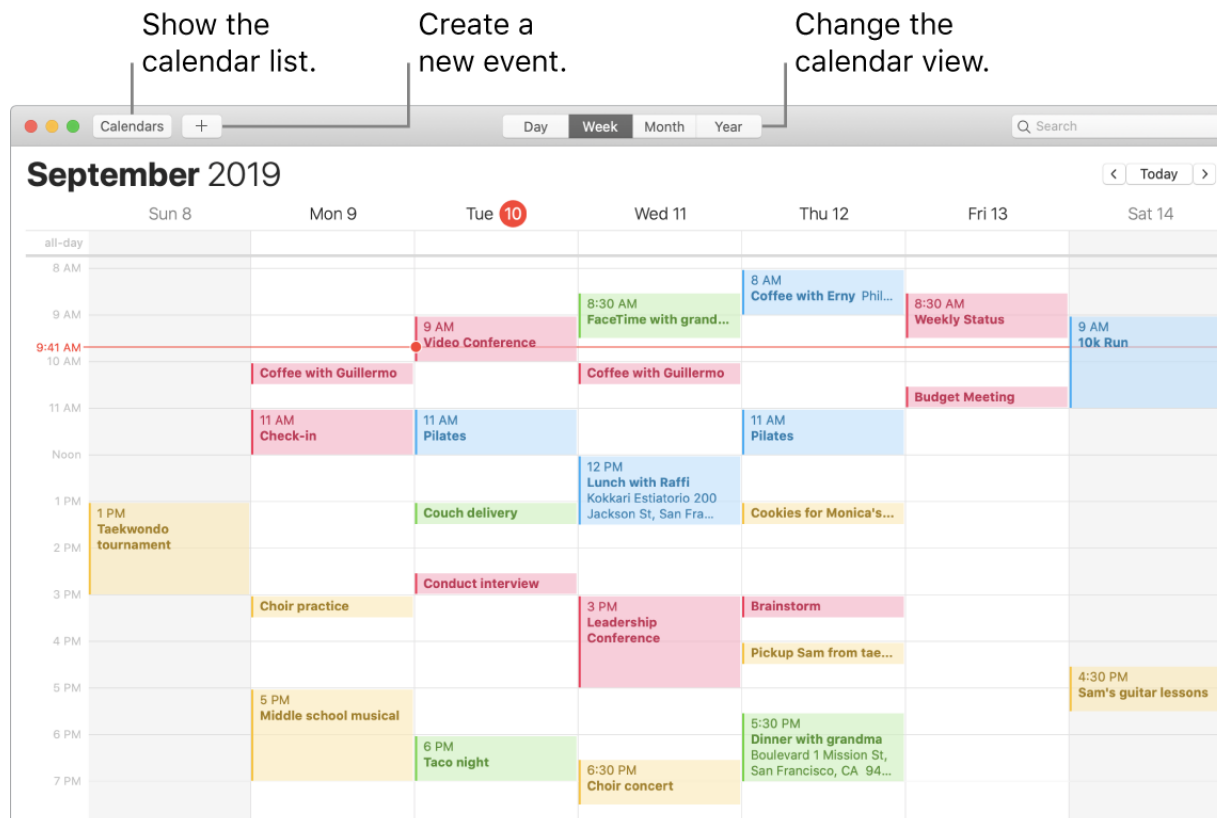


Learn more. See the [Apple Books User Guide](#).

Calendar

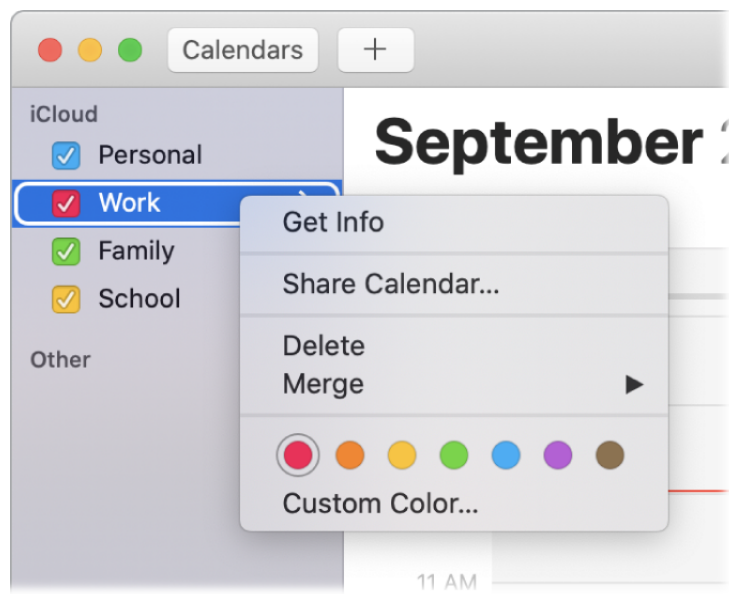
Never miss an appointment with Calendar. Keep track of your busy schedule by creating multiple calendars, and manage them all in one place.

Create events. Click \oplus to add a new event, or double-click anywhere in a day. To invite someone, double-click the event, click the Add Invitees section, then type an email address. Calendar lets you know when your invitees reply.




See all your calendars—or just a few. Click the Calendars button to see a list of all your calendars; click the ones you want to see in the window.

A calendar for every part of your life. Create separate calendars—for example, for home, work, and school—each with its own color. Choose File > New Calendar to create a calendar, then secondary click (that is, right-click) each calendar to choose a new color.



Share across your devices and with others. When you're signed in to iCloud, your calendars are kept up to date on all your Macs, iOS devices, iPadOS devices, and Apple Watch. You can also share calendars with other iCloud users.

 **Tip:** If you add a location to an event, Calendar shows you a map, estimated travel time and time to leave, and even the weather forecast.


Learn more. See the [Calendar User Guide](#).

FaceTime

Make video and audio calls from your Mac with FaceTime. (Requires an external camera and microphone. Accessories are sold separately at apple.com, your local Apple Store, or other resellers.)

Video or audio only? Connect a camera and microphone to your Mac Pro to make FaceTime video calls. If it's not convenient to make a video call, click the Audio button to make an audio-only call.

When you receive a FaceTime invitation, you can choose to join with just video, just audio, or both.

 **Tip:** While a video call is in progress, you can drag the small picture-in-picture window to any corner of the FaceTime window.