Sidecar

Sidecar lets you expand your Mac workspace—and your creativity—with iPad and Apple Pencil.

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Overview

Key Features

Extended desktop

Expand your Mac workspace using your iPad as a second display. Place one app on each screen, or put your main canvas on one display and your tools and palettes on the other.

Apple Pencil

Use Apple Pencil for tablet input with your favorite creative professional Mac apps.

Sidebar

The handy sidebar puts essential modifier keys like Command, Control, Shift, and Option right at your fingertips.

Touch Bar

Touch Bar provides app-specific controls at the bottom of the iPad screen, even if your Mac does not have Touch Bar.

Gestures

Familiar gestures support pinch, swipe, and zoom; copy, cut, and paste; and undo and redo.

Wired or wireless

Use your iPad while connected to your Mac with a cable, or use it wirelessly up to 10 meters away.

Second display to go

iPad makes a gorgeous second display that you can take with you on the go.

Adding a second display has been a popular way for Mac users to extend their desktop and spread out their work. With Sidecar, Mac users can now do the same thing with their iPad. iPad makes a gorgeous second display that is perfect in the office or on the go. Plus Sidecar enables using Apple Pencil for tablet input on Mac apps for the very first time. Convenient sidebar and Touch Bar controls let users create without taking their hands off iPad. And they can interact using familiar Multi-Touch gestures to pinch, swipe, and zoom; as well as new iPadOS text editing gestures like copy, cut, paste, and more. Sidecar works equally well over a wired or wireless connection, so users can create while sitting at their desk or relaxing on the sofa.

iPad as second display
With Sidecar, iPad can serve as a portable, second display for Mac.

Easy setup

Log in with Apple ID

Sidecar works with Apple devices that are authenticated with the same Apple ID.
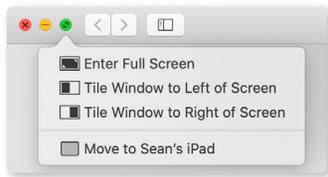
Connect from AirPlay menu

Connecting with Sidecar is the same as connecting any external display. Select the AirPlay menu item in the menu bar, then select iPad. The AirPlay icon will turn into an iPad icon while Sidecar is in use. Simply pull down from the iPad icon on the menu bar to see a host of options: Mirror Display, Hide or Show Sidebar, Show or Hide Touch Bar, Open Displays Preferences, and Open Sidecar Preferences.
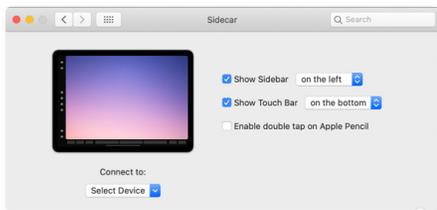
Position an app window

An app window can be manually dragged and dropped from Mac to the iPad using the cursor, or it can be automatically moved and scaled to fit the iPad screen using a new menu option. Hover over the green title bar button in the corner of an app window and select Move to iPad from the menu.

Reposition the sidebar and Touch Bar

The sidebar can be positioned on either side of the iPad screen, the Touch Bar can be located at the top or bottom, and both can be turned on or off. Controls are located in System Preferences > Sidecar.

Switch between Sidecar and iPadOS

Swipe up on iPad to access the Home screen or the App Switcher. Access iPad apps, or even use Split View and Slide Over to run an iPad app and Sidecar side by side. Tap the Sidecar icon in the Dock to switch back.

Disconnect and reconnect

Sidecar will remember the most recent configuration of tools and windows and place them in the same place when reconnected.

Use with other displays

Sidecar supports one iPad at a time, and can be used in conjunction with additional external displays.

Type with Smart Keyboard

Sidecar works with an iPad Smart Keyboard, both wired and wireless, just like any other keyboard.

Double-tap on Apple Pencil

Some apps enable special behavior by double-tapping the side of Apple Pencil. To turn this feature on, go to System Preferences > Sidecar and check "Enable double tap" on Apple Pencil.

iPad as second display

Extended desktop

Using an iPad to extend the Mac desktop is easy because it works just like any other second display. Position iPad on either side of Mac, and move the cursor from one screen to the other. The Dock and menu bar can be positioned on either screen, and apps can be placed as desired by dragging them back and forth.

Video output in Final Cut Pro
One person can watch the final video on the iPad as it is being edited by another user on the Mac.

Extended desktop allows users to spread out their workspace across two displays, such as working on a document on one screen, while referencing a web page on the other. Or creating a page layout on one screen by pulling assets from a Finder window on the other, without having app windows stacked on top of each other.

Many creative apps let users leverage two displays with a single app. For example, place Photoshop canvas on one display, and the tools and palettes on the other. In Keynote, a viewer can see the final presentation on iPad while the presenter reads presenter notes and scans upcoming slides on Mac. The Final Cut Pro video output feature allows the presenter to send just the video of their project to iPad, while editing in their preferred workspace on Mac.

Users can also mirror their Mac to their iPad, so both screens display the same content.
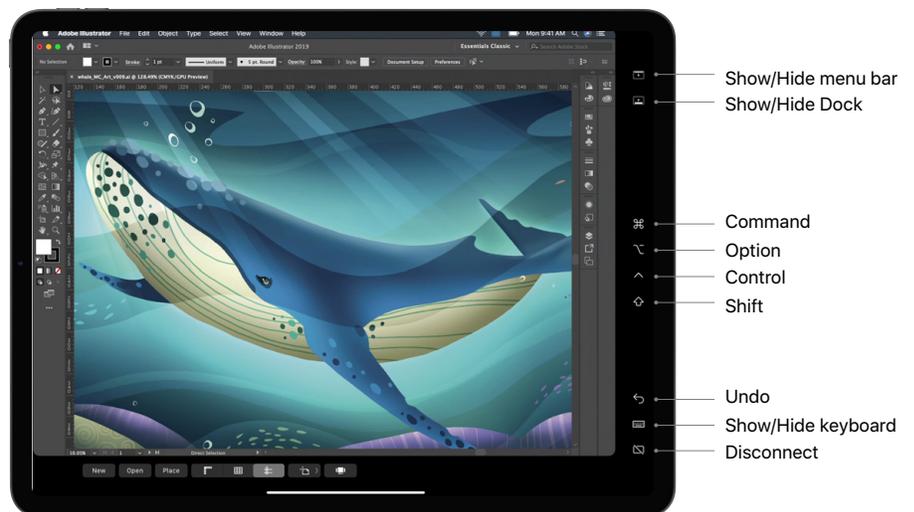
iPad as tablet input device

Apple Pencil

Apple Pencil set the standard for how a digital input device should feel when it was introduced for iPad. Now, Sidecar brings the intuitiveness and precision of Apple Pencil to Mac apps. Use Apple Pencil for tablet input to draw in Illustrator, edit photos in Affinity Photo, manipulate 3D objects in ZBrush, and more.

Apple and third-party Mac apps that support stylus input already work with Apple Pencil, including Photoshop, Final Cut Pro, and Maya. With Apple Pencil, the user can also select menus and click user interface controls like they would with a mouse.

Sidebar

The sidebar is designed to help users create with Apple Pencil without moving their hands from the iPad. Users can access frequently used modifier keys—Command, Option, Control, and Shift—with one hand while drawing with the other. For example, while sculpting a model in ZBrush, an artist can use the modifier keys in the sidebar to zoom, rotate, and pan around their model as they draw with Apple Pencil. Double-tapping a modifier key will keep it active, allowing more prolonged work without the need to hold it down. An additional tap will deactivate the key.

The sidebar contains other handy controls, such as an undo button that lets users quickly go back a step. Users can also display or hide the Dock, menu bar, or keyboard with a simple tap.

Sidebar
The sidebar contains a consistent set of controls and modifier keys that allow users to create without taking their hands off the iPad.

Touch Bar

Sidecar brings the context-specific controls of the Touch Bar to the iPad screen—even for users who have a Mac without a Touch Bar. The Touch Bar puts advanced app functions close at hand so users don't have to reach to the keyboard or switch displays to access desired functions. For example, in Adobe Illustrator, a user can easily create and open a document; place a file; show or hide rulers, grids, and guides; and work with artboards—all without moving their hands from their iPad.

Depending on how users position their iPad while working, the Touch Bar controls can be placed at the top or bottom of the screen or be hidden.

Touch Bar for Illustrator
With the Touch Bar, users can access Illustrator features and controls right in the context of their current task on the main screen. The Touch Bar supports familiar gestures, such as tap, drag, and slide.

Gestures

Sidecar supports existing Multi-Touch gestures for Mac and new text editing gestures in iPadOS. Users can swipe, scroll, and pinch to zoom using gestures they are already familiar with on the Mac trackpad. For example, they can easily enlarge their artwork on iPad by pinching out to zoom in on a detail. They can also use the new iPadOS text editing gestures to copy, cut, paste, and undo, without ever lifting their hands from the onscreen keyboard:

- Copy: Three-finger pinch in
- Cut: Double three-finger pinch in
- Paste: Three-finger pinch out
- Undo: Three-finger swipe left
- Redo: Three-finger swipe right

Additional features

Wired or wireless

Connect iPad to Mac with a cable to keep it charged while working at a desk, or use it wirelessly to take iPad to the sofa or the kitchen island—anywhere within 10 meters of the Mac—to draw and sketch in Mac apps. Depending on the iPad model, a user can use either a Lightning or USB-C cable. To switch from wired to wireless mode, the user must first disconnect iPad from Mac using the Sidecar menu bar or the disconnect button in the sidebar, and then reconnect. The same procedure applies when moving from wireless to wired mode. To work wirelessly, both devices need to have Bluetooth, Wi-Fi, and Handoff turned on.

Second display to go

Many users appreciate the benefits of a second display while at home or in the office. Sidecar now makes it easy for them to bring a second display when they're on the go, with the ultralight and portable iPad. With Sidecar, iPad is the perfect traveling companion for your Mac.

Portable second display
Users can take their iPad with them to use as a second display, wherever they go.

Technology

Sidecar uses virtual display technology to send a second, virtual display to an iPad using an encrypted encoded stream. The low-latency connection sends display video from Mac to iPad, and tablet events from iPad to Mac. Sidecar leverages the same technology as all Continuity features, using Bluetooth for initial detection, and then point-to-point Wi-Fi for data transfer once connected.

Supported hardware
Sidecar requires Mac with Skylake processors and later models, and iPad models that support Apple Pencil.

Sidecar-supported Mac models:

• MacBook introduced in 2016 or later

• MacBook Air introduced in 2018 or later

• MacBook Pro introduced in 2016 or later

• Mac mini introduced in 2018 or later

• iMac introduced in late 2015 or later

• iMac Pro introduced in 2017 or later

• Mac Pro introduced in 2019

Sidecar-supported iPad models:

• 12.9-inch iPad Pro

• 11-inch iPad Pro

• 10.5-inch iPad Pro

• 9.7-inch iPad Pro

• iPad (6th generation or later)

• iPad mini (5th generation)

• iPad Air (3rd generation)

Continuity Sketch and Markup will work with all Mac systems running macOS Catalina, iPad devices running iPadOS, and iPhone devices running iOS 13.

App support

Sidecar support is included at the system level for all apps—it just works. This includes both general navigation and drawing with Apple Pencil. Mac apps that already support drawing tablets are also supported by Sidecar. Apps that want to enable advanced stylus support can use tablet events in AppKit to turn on pressure and tilt for Apple Pencil. Additionally, developers can specify custom behavior for double-tap on the side of Apple Pencil through a changeMode event.

Continuity Sketch and Markup

Use Mac together with iPad for a variety of everyday tasks via Continuity. Continuity Sketch lets users create a sketch on their iPad or iPhone that easily inserts into any document on their Mac. And Continuity Markup lets users sign documents, correct papers, or circle important details in images using Apple Pencil on iPad or their finger on iPhone. It's just another example of the seamless ways Apple devices work together.

To use Continuity Sketch, click "Insert from iPad" from within a document and select Add Sketch. A blank window will appear on iPad with markup controls. For Continuity Markup, select a file and then press the Space bar to enable Quick Look. Click the Annotate tool in the Quick Look window to display the file on iPad with markup controls. The same steps apply for iPhone. Once a user is finished, they can simply select Done and the sketch or marked-up document will be available on Mac.

Continuity Markup
Users can mark up a PDF on Mac with iPad and Apple Pencil.