

**New features available
with macOS Sonoma.**

Key Features and Enhancements

Screen Savers

Screen savers. Stunning screen savers featuring slow-motion videos of places around the world, like the skyline of Dubai at night, the backcountry of Yosemite National Park and Sonoma in the US. You can choose to shuffle by Landscape, Earth, Underwater or Cityscape themes.

New login experience. A condensed login experience makes space to celebrate your screen saver or wallpaper, complete with the time and date. A new picker shows avatars for multiple accounts. When you log in, imagery from new screen savers settles beautifully into your desktop.

Widgets

Interactive widgets. Take action on a widget on your desktop. Complete to-dos, play or pause your media, access your home controls and much more.

Widgets on the Mac desktop. Personalise your desktop and get information at a glance while you work. Widgets will automatically move to an open spot near your cursor, grouping with other widgets to create a layout that looks great on your desktop.

Widgets adapt to your desktop. Widgets intelligently tint based on the colour behind them to maintain legibility and the look of your desktop. Widgets adapt to be more colourful when in the foreground, and fade away when you're focusing on something else. You have the option to set colour preferences for widgets all the time.

Easily add widgets next to files. Place widgets next to your existing files and the system will automatically make room on your desktop. Files and stacks wrap around widgets, adapting to the space you have available.

Redesigned widget gallery. Browse widgets in the redesigned widget gallery, including widgets from your iPhone through Continuity.

iPhone widgets on Mac. Use widgets from your iPhone on your Mac with Continuity, all without needing the corresponding app installed. Your iPhone just needs to be nearby or on the same Wi-Fi network for a widget to update.

Larger widgets on desktop. Showcase richer information with the extra-large widget size on the Mac desktop. Includes widgets from Apple like Photos, Calendar, Podcasts, Contacts, Shortcuts and Apple TV.

Photos album widget. Select a specific album from the Photos app so photos from your favourite album appear in your Photos widget.

Contacts widget. See the location, messages, shared photos and more for your contacts with just a click.

Home widget. Access controls you've set up in your home.

Music widget. Play or pause a song or album, or see a dynamic list of the top charts and, for subscribers, recommendations.

Podcasts widget. Play or pause a podcast episode.

Safari widget. Get quick access to websites in your Safari Reading List.

Stocks widget. Business news relevant to the tickers you follow is surfaced in the Stocks widget.

Shortcuts widget. Run shortcuts from Mac with the new Shortcuts widget.

Video Conferencing

Presenter Overlay.² Remain a part of the conversation when you're sharing your screen on a video call by placing yourself on top of your presentation. Use a small overlay to place

yourself in a movable bubble or use a large overlay to keep yourself prominent while your shared screen is framed beautifully next to you.

Reactions and gestures.³ Layer screen effects like balloons, confetti, stormy rain, fireworks or laser beams directly into your camera feed. Trigger them with a click, or go hands-free and trigger reactions using your gestures alone.

Video menu bar item. A new menu bar item makes it easy to manage your camera feed and video effects.

Screen sharing picker. It's easier and more consistent to share your screen with a systemwide screen sharing picker that works in any video conferencing app.

Share multiple apps or windows. Add multiple windows or apps, or replace the current window when screen sharing, without having to stop sharing.

Share from the current window. Start sharing directly from the window you're in, without having to return to your screen sharing app and click a screen sharing button.

Screen share quality improvements. Sharing a single window results in up to twice the video quality.

Screen share preview. You'll always know exactly what is being shared with a preview of what you're screen sharing in the Video menu bar item.

Studio Light.³ Studio Light is available on macOS when using video conferencing apps on Studio Display and Mac models with Apple silicon, without using Continuity Camera.

Studio Light intensity.³ Control the intensity of Studio Light, further darkening the background and illuminating your face.

Portrait mode background blur.⁴ Control the amount of background blur, adding more or less blur to the depth-of-field effect.

Centre Stage improvements.⁵ Centre Stage ignores distractions behind you so the focus stays on you, such as when a colleague walks behind you on the way to their desk.

Centre Stage using the Main camera on iPhone.⁵ Centre Stage keeps you centred in the frame when using the Main camera on iPhone with Continuity Camera.

Recentre.⁵ Continuity Camera automatically detects your face and frames you in the centre, without enabling Centre Stage.

Zoom and pan.⁵ Take complete control over the composition of your video: Zoom in to 2x, zoom out to 0.5x or manually adjust the framing.

Safari

Profiles. Keep your browsing separate for topics like work and personal. Each profile has separate history, cookies, extensions, Tab Groups and favourites.

Web apps on Mac. Save your favourite websites to the Dock for easy access. Access them in a streamlined format for simplified browsing.

Locked Private Browsing. Private Browsing locks when you're not using it to keep your tabs protected from others with access to your device. Unlock with Face ID, Touch ID or device password.

Advanced tracker blocking and fingerprint protection in Private Browsing. Keeps your most sensitive browsing safe with more aggressive tracker blocking and fingerprinting protection.

Link tracking protection in Private Browsing. Removes tracking used to identify you from URLs.

Search engine in Private Browsing. Set a unique search engine for Private Browsing.

Multiple tab selection. Select multiple tabs at once to move them around the tab bar or into a Tab Group.

Streamlined search. Search in Safari is more responsive than ever and shows easier-to-read and more relevant suggestions.

Favicons in the Favourites bar. Identify sites in the Favourites bar more easily with favicons.

Enhanced extension control. You can now use per-site privacy settings to control access for all extensions with access to user data.

Reading List widget. Add your Safari Reading List to your desktop for easy access.

Passwords

Password and passkey sharing. Share passwords with the people you're closest with. Create a group to share with and add or edit passwords at any time.

One-time verification code autofill from Mail. One-time verification codes you receive in Mail now autofill in Safari, making it easy to log in without leaving the browser.

Passkeys for Apple ID on the web. Use a passkey when signing in with your Apple ID on the web.

Messages

Stickers. React to a message with any Live Sticker, Memoji or Animoji through the Sticker drawer or directly through the Tapback menu.¹

Search filters. Search with more precision by combining search filters such as people, keywords and content types like photos or links to find exactly the message you're looking for.

Catch-up arrow. Easily jump to your first unread message in a group conversation by clicking the arrow visible in the top-right corner.

Swipe to reply. Reply to a message inline by simply swiping to the right on any bubble.

Audio message improvements. When recording an audio message, you are now able

to pause and then continue recording the same message before sending. For received audio messages, play them back at up to 2x speed or view a transcription.

One-time verification code clean-up. One-time verification codes are automatically deleted from the Messages app after using them with autofill anywhere in the system.

iMessage features in MMS groups. MMS groups support more iMessage features, including tapbacks, effects, edit, replies and more, when using iMessage.

Messages in iCloud improvements.¹ Enabling Messages in iCloud will sync Messages settings such as Text Message Forwarding, Send and Receive accounts and SMS filters across devices.

PDFs

Intelligent form detection.¹ Fillable documents and forms can now be automatically identified across the system, like in Files, Mail or scanned documents.

Enhanced AutoFill.¹ Populate information such as names and addresses on forms even faster, as powerful on-device language models identify fillable fields and enable AutoFill.

Notes

Inline PDFs and document scans. PDFs and document scans are presented full width in your

note, making it easy to view and interact with them. It's quick to flip to a page of a document you're reviewing and great for previewing multiple PDFs in the same note.

Linked notes. Create links to other notes to connect ideas, content or any information. It's perfect to link together research notes or recipes, or even to create a lightweight wiki for your team. Type ">>" for a shortcut to add links while writing in your note.

Block Quote. Block Quote formatting makes it easy to visually offset a section of writing with a quote bar.

Monostyled text. Monospaced formatting has been updated to Monostyled, with inset text and a distinct background.

Open in Pages. Create a Pages document from your note with a quick selection from the Share menu.

Keyboard

Inline predictive text.⁶ Get single- and multi-word predictions directly in the text field based on what the keyboard predicts you're going to type, so you can complete what you're typing even faster by just pressing Space bar.¹

Improved autocorrect accuracy.⁷ Autocorrect fixes mistakes for you more accurately than ever before by leveraging a new transformer language model in English, French and Spanish keyboards. Additionally, enhanced on-device

language models make autocorrect more accurate across even more languages.

Easier autocorrect editing. Autocorrected words are temporarily underlined so you know what has been changed as you're typing.

Enhanced sentence corrections.⁶ Autocorrection of sentences can correct more types of grammatical mistakes. The keyboard also underlines corrections and suggestions, so they are easier to see and change if needed.

Explicit language handling. The keyboard will add explicit language that you use to your personal vocabulary list and will learn this usage for each different app. Explicit language that is learnt is used for autocorrect and suggestions.

Suggested emoji. The Character Viewer includes a suggested list that shows emojis that are relevant to the context of what you're typing, so it's easier to find what you're looking for.

Quick emoji selection. Pressing the Globe icon on your Mac keyboard pulls up a lightweight emoji picker that shows emoji relevant to the word you just typed.

Updated text cursor. The text cursor briefly displays an indicator that shows the current input language when you switch keyboard languages. The indicator can also signal helpful input details, like when Caps Lock is on.

New predictive text languages. Predictive text is supported for Hebrew, Polish and Romanian keyboards.

New keyboard layouts. New keyboard layouts are available for Chuvash, Hmong (Pahawh), Ingush, Kabyle, Mandaic, Mi'kmaw, N'Ko, Osage, Rejang, Tamazight (Standard Moroccan), Wancho and Wolastoqey.

New transliteration keyboard languages. Kannada, Malayalam, Tamil and Telugu keyboards include transliteration support, so you can type pronunciations using Latin characters that are automatically converted to the desired script as you type.

Gaming

Game Mode.² Provides smoother frame rates for gameplay and faster response times for wireless game controllers and AirPods.

Communication Safety

Sensitive content warning. You have the option to blur photos and videos containing nudity, allowing you to choose whether you want to see them.

Expanding protections for children. Children in iCloud families will now be protected in the system photo picker. Children will now be protected when sending or choosing to view sensitive videos, in addition to photos.

Privacy and Security

Photos privacy prompt improvements. An embedded photo picker for apps lets you

pick photos to share within the app's experience, without sharing your entire library. When an app does ask to access your entire library, you'll see details of how many and which photos will be shared before you make a decision. If you grant access, you'll receive reminders from time to time.

Add-only Calendar permission. A write-only permission for Calendar gives apps the ability to write new events to your device, without being able to see your information.

App privacy improvements. App developers can provide even more accurate Privacy Nutrition Labels using new tools that provide better transparency into the data practices of their partners.

Link tracking protection. Some websites add extra information to their URLs in order to track users across other websites. Now, this information will be removed from the links users share in Messages and Mail, and the links will still work as expected. This information will also be removed for links in Safari Private Browsing.

Lockdown Mode. Provides new networking defaults, safer media handling and even sandboxing and network security optimisations. Turning on Lockdown Mode further hardens device defences and strictly limits certain functionalities, sharply reducing the attack surface for those who need it.

Even More

Accessibility

Personal Voice.⁶ A speech accessibility tool for people who are at risk of losing their voice to create a voice that sounds like them privately and securely on Mac, and use it with Live Speech in phone and FaceTime calls.

Live Speech. Type what you want to say and have it spoken out loud in phone calls, FaceTime calls or in-person conversations.

Made for iPhone hearing device support.⁸ Pair your hearing device with your Mac and adjust it for your listening comfort within System Settings.

Automatically pause animated images. Pause animated images by default, such as GIFs in Messages and Safari, for your visual comfort.

Text size. Customise your font size across Mac apps, including Finder, Messages, Mail, Calendar and Notes, in one place within System Settings, with the option to set a single preferred reading size or customise app by app.

Multi-monitor zoom. Set zoom level per display independently when using zoom across multiple displays.

Virtual game controller with Switch Control. Turn your favourite set of switches — for

example, sound actions or facial expression — into a virtual game controller.

AirPlay

Intelligent device list. Easily find the TV or speaker you want to enjoy your content on; Mac uses on-device intelligence to learn your preferences over time to show devices in the AirPlay list in order of relevance.

AirPods

Adaptive Audio.⁹ Adaptive Audio is a new AirPods Pro (2nd generation) listening mode that automatically adjusts the level of noise control for you — adding Active Noise Cancellation in noisier environments and Transparency in quieter conditions — to make it easier and more convenient to use AirPods Pro through the changing environments and interactions every day.

Personalised Volume.⁹ Adjusts the volume of your media in response to your environment and listening preferences over time.

Conversation Awareness.⁹ When you start speaking, AirPods Pro will lower your media volume and enhance the voices in front of you, all while reducing background noise.

Press to mute and unmute.¹⁰ Press the AirPods stem, or the Digital Crown on AirPods Max, once to mute or unmute your microphone when on a call, and you can press twice to end a call.

Apple ID

Sign in with email or phone number. When signing in with an Apple ID and password, you no longer need to remember your exact Apple ID email address. You can use any email address or phone number on file in your account.

Passkeys for Apple ID on the web. Use a passkey when signing in with your Apple ID on the web.

Books

Search by series and genre. Discover series and genre pages via search, and navigate directly to these pages to find curated content.

Personalised Read Now. Explore personalised top picks and content recommended for you based on your favourite books and genres on the Read Now tab.

Clock

Multiple timers.¹ Run several timers on Mac simultaneously, perfect for when you're cooking

and need to keep track of different steps and dishes.

Labelled timers. Name timers so you know what each is counting down for.

Timer presets. Start a timer quickly with a range of preset options when creating a new timer.

Recents. Restarting your most-used timers is as simple as a click with a new recents view.

Contacts

Add pronouns. Contact cards include a field for entering pronouns. Pronouns are stored on device and are not shared.

Dictation

Improved speech recognition.¹¹ Dictation has improved accuracy and supports more languages on device using an all-new speech recognition model.

Dictate and type.¹¹ Fluidly move between dictating, typing with the keyboard and more, without needing to stop Dictation. Dictation intelligently pauses the microphone while you type with the keyboard and resumes when you stop typing.

Cursor animation.¹¹ The redesigned Dictation cursor animates and glows, improving the look and feel while also indicating that Dictation is active.

Dictionary

New dictionaries. System dictionaries and the Dictionary app now include Bulgarian, Catalan, English–Greek, English–Malay, English–Swedish, Greek, Malay, Polish, Punjabi and Romanian.

FaceTime

Reactions and gestures.³ Layer screen effects like balloons, confetti, stormy rain, fireworks or laser beams directly into your camera feed. Trigger them with a click, or go hands-free and trigger reactions using your gestures alone.

Remote access. Point to areas of interest or even take control of someone’s screen when they’re sharing it with you in FaceTime. This is great for helping someone learn a new skill on their Mac.

Family Sharing

Share an iCloud Drive folder. Provide easy access to family documents, photos and more when you share an iCloud Drive folder with people in your family group.

Expanded Family Checklist. Get the most out of Family Sharing with new recommendations and a reorganised checklist. Quickly turn on features and manage settings for the whole family.

Find My

Item sharing. Up to five other people can share an AirTag or Find My network accessory. Everyone in the sharing group will be able to see the item’s location, get directions to the item and use Play Sound to help pinpoint a shared item’s location when nearby.

Freeform

Better diagramming. Quickly build diagrams and flowcharts by dragging connector handles to connect objects.

Follow Along. Guide collaborators around your board so that they can see what you see as you move around the canvas.

Share to Freeform. Use the share sheet to add content from other apps to your Freeform boards.

Explore 3D objects. Explore 3D objects embedded on your canvas using QuickLook.

Home

Activity history.¹² See a recent history for door locks, security systems and contact sensor events directly in the Home app.

iCloud

iCloud Passwords extension for macOS. Autofill passwords and verification codes from

iCloud Keychain into websites in Chrome and Edge with the iCloud Passwords extension.

iCloud+

Hide My Email in Apple Pay. iCloud+ subscribers can use Hide My Email to keep their personal email private when making Apple Pay purchases.

Inclusive Language

New term of address languages. Term of address now supports German and European Portuguese.

Live Text

Vertical text recognition. Live Text recognises vertically oriented Chinese, Japanese and Korean text.

Improved handwriting recognition. Live Text recognises handwritten text even better.

New Live Text languages. Add support for Live Text in Thai and Vietnamese.

Table recognition. Copy and paste the contents of formatted tables.

Mail

One-time verification code. One-time verification codes that are sent to your email will now autofill in the password field so you no longer need to search in your Mail messages,

and they are automatically deleted after you use them.

Travel Instant Answers in Search. Travel-related messages, like hotel and flight confirmations, will appear at the top of your search results when your travel date is near.

Big emoji. Automatically add a big emoji to your email messages for more expressive communication.

Maps

EV routing improvements.¹³ Select a preferred charging network when planning a route for your electric vehicle. Apple Maps will show you charger availability on the map and in search results. Search for chargers based on plug type, network and more.

Media

Faster video encoding. Encode video faster in Final Cut Pro, Compressor and third-party video applications on Mac computers using M1 Ultra or M2 Ultra.

Memoji

More stickers. Three additional stickers come to Memoji: Smirk, Angel Halo and Peekaboo.

Music

Collaborate on playlists.¹ Invite friends to join your playlist and everyone can add, reorder and remove songs. In Now Playing, you can use emoji to react to the song choices.

Favourite Songs playlist.¹ Quickly get back to your favourite songs in this new playlist. Find the Favourite Songs playlist in your Library.

Even more to favourite. Select your favourite songs, albums, playlists and artists. Your favourite music is automatically added to your Library and improves your recommendations.

Motion in Now Playing. Album art now appears full screen in the music player, including motion where available, creating an even more immersive playback experience that showcases your favourite artists.

Photos

Pets in the People album. Individual pets are now surfaced in the People album just like friends or family members.

Siri Suggestions in the People album. Photos will intelligently suggest matches from Contacts in the People album to help you name individuals faster.

Improved People album accuracy. People album recognises significantly more photos of your favourite people, even if they're turned away from the camera.

Drag to reorder in a memory. Reorder photos and videos within a memory by dragging and dropping them into a new position in the timeline.

Add content to a memory. Add any photo or video from your library to a memory.

Smart copy and paste edits. Copied and pasted edits now intelligently match exposure and white balance between images.

Improvements to iCloud Photos syncing. iCloud Photos syncing will be paused less frequently, and when syncing is paused a Sync Now control will appear.

iCloud Links on macOS. Share photos and videos stored in iCloud Photos by generating an iCloud Link.

Podcasts

Improved playback controls. Easily access your queue, playback speed and sleep timer.

New Up Next design. Quickly play and follow your favourite shows, now with episode art.

Connect subscriptions. Get subscriber-only podcasts from Apple Music and top apps.

Search filters. Easily filter search results by shows, episodes and channels.

Reminders

Grocery Lists. Grocery Lists automatically group related items into sections (dairy,

produce, etc.) as you add them. You're able to change how the items are grouped and the list remembers your preferences.

Early reminder. Specify a time to get notified before your reminder is due.

Suggested reminders. Quickly recreate reminders you've completed before in as little as a single click.

Sections. Organise reminders within a list by creating headers to group related reminders.

Column view. Reminders sections can be organised in columns across your screen, making it easy to visualise your tasks or even plan with simple kanban boards.

Complete from widget. Click on a reminder in the widget to complete it without opening the app.

Shortcuts

New widgets. Run shortcuts from Mac with the new Shortcuts widget.

Spotlight

Enhanced visual results. Find what you are looking for faster with search results that pop with familiar colours and iconography.

Video search. Search through the videos on your devices by scene, people and activities. When you click into a video result, a new

scrubber interface will indicate where in the video your search appears.

Settings in Top Hits. When you search for settings such as "Airplane Mode", "Wi-Fi", "Dark Mode" and more, Spotlight will offer you a toggle for the setting in the Top Hit.

Data Detector quick actions. Phone numbers, email, dates and times typed into the Spotlight search bar will now offer quick actions such as call number, create contacts, send email and create calendar event.

Stocks

Business news in widget. Business news relevant to the tickers you follow is surfaced in the Stocks widget.

System Settings

Search suggestions. Searching is easier with suggestions based on your most-used settings and a refined results view.

Refined panes. Settings are even more streamlined for easy configuration. Wallpaper features a new compact design and iCloud Photo Albums enhancements, Displays features new resolution controls and the ability to select a preferred view and more.

New navigation controls. Step backwards and forwards while managing multiple settings with new controls and an overall faster navigation

experience. Click and hold to see a history of recently visited panes.

Translate

New languages. Systemwide translation and Safari web page translation support Ukrainian.

Text Display

Text clipping and collision. Character spacing dynamically adjusts to better accommodate non-Latin scripts with characters that may collide with one another or be vertically clipped.

Punctuation white space. Reduced punctuation white space in Chinese and Japanese scripts improves overall readability and design.

Improved line breaks. Enhanced line-breaking logic results in better readability of rendered text results.

Visual Look Up

Expanded domains. Discover similar recipes from photos of food, map routes to stores identified in photos and the meaning of signs and symbols on things like laundry tags.

Lift multiple subjects from background. Lift multiple subjects from the background of photos and videos and place them in apps like Messages.

Visual Look Up in video. Look up information about objects that appear in paused video frames.

Wallet

Multi-device provisioning. When adding eligible payment cards to your Mac, you will be able to add the cards to your other Apple Pay-capable devices with one easy step.

Weather

Richer precipitation forecasts. Prepare for potential precipitation conditions using the chance of precipitation forecast by the hour over the next 10 days.

Wind overlay in maps. Conveniently observe wind patterns including direction and speed for the next 24 hours through an animated wind map visualisation.

Historical trends. Plan your future travels and events using visualisations of seasonal averages of temperature and precipitation conditions.

Yesterday's weather. Quickly understand how today's precipitation and temperature conditions compare to those from the day before.

More specific location names.¹⁴ See the neighbourhood name for which the weather is being forecasted. This feature will be limited to your current location and selected cities.

Intricate details about the moon. Learn specific details about the moon on a given day,

including illumination, moonrise and moonset times, countdown to the next full moon and the geocentric distance of the moon from Earth. An all-new lunar phase calendar describes moon phase transitions.

Improved support for standard units. Weather conditions are displayed in standard units based on the region.

Enhanced visual effects.² Experience delightful depictions of weather conditions through visual effects that reflect the position of the sun and moon, wind direction and cloud cover, as well as rainy and frosty conditions.

Features are subject to change. Some features, applications and services may not be available in all regions or all languages.

¹Coming in an update later this year. ²Available on Mac computers with Apple silicon. ³Available when using the built-in camera on Mac computers with Apple silicon, or on any Mac when using Continuity Camera with iPhone 12 and later. ⁴Available when using the built-in camera on Mac computers with Apple silicon, or on any Mac when using Continuity Camera with iPhone XR and later. ⁵Available when using a Studio Display or Continuity Camera with iPhone Xs and iPhone XR or later. ⁶Available in English. ⁷Available in Arabic, Dutch, German, Hebrew, Italian, Korean, Polish, Portuguese, Romanian and Thai. ⁸Available on MacBook Pro (14-inch, 2021), MacBook Pro (16-inch, 2021), Mac Studio (2022) and all Mac computers with M2 chip. ⁹Available on AirPods Pro (2nd generation) with the latest firmware. ¹⁰Available on AirPods (2nd and 3rd generation), AirPods Pro (1st and 2nd generation) and AirPods Max, with the latest firmware. ¹¹Available in Arabic (Saudi Arabia), Cantonese (China mainland, Hong Kong), Danish (Denmark), Dutch (Belgium, Netherlands), English (Australia, Canada, India, Ireland, New Zealand, Singapore, South Africa, UK, US), Finnish (Finland), French (Belgium, Canada, France, Switzerland), German (Austria, Germany, Switzerland), Hebrew (Israel), Italian (Italy, Switzerland), Japanese (Japan), Korean (South Korea), Malay (Malaysia), Mandarin Chinese (China mainland, Taiwan), Norwegian Bokmål (Norway), Portuguese (Brazil), Russian (Russia), Spanish (Latin America, Mexico, Spain, US), Swedish (Sweden), Thai (Thailand) and Turkish (Türkiye). Requires download of speech models. ¹²Available for homes using the new Home architecture and Apple TV running as a home hub. ¹³Electric vehicle routing requires iPhone and a compatible vehicle. ¹⁴Neighbourhood names available in San Francisco, Los Angeles and New York City.

© 2023 Apple Inc. All rights reserved. Apple, the Apple logo, AirDrop, AirPlay, AirPods, AirPods Max, AirPods Pro, AirTag, Animoji, Apple Music, Apple Pay, Apple TV, Apple Wallet, Digital Crown, Face ID, FaceTime, Final Cut Pro, Find My, iMac, iMac Pro, iMessage, iPhone, Live Text, Mac, MacBook, MacBook Air, MacBook Pro, Mac mini, macOS, Mac Pro, Mac Studio, Memoji, Pages, Safari, Siri, Spotlight and Touch ID are trademarks of Apple Inc., registered in the US and other countries. Apple Studio Display and Centre Stage are trademarks of Apple Inc. Apple News+, Apple News+, iCloud, iCloud Drive and iCloud Keychain are service marks of Apple Inc., registered in the US and other countries. iCloud+ is a service mark of Apple Inc. Other product and company names mentioned herein may be trademarks of their respective companies. September 2023