

macOS Big Sur

macOS Big Sur (version 11.0)^[5] is the seventeenth and next major release of macOS, Apple Inc.'s operating system for Macintosh computers. It is the successor to macOS Catalina (version 10.15) and was announced at Apple's Worldwide Developers Conference on June 22, 2020, with official public release scheduled for later in 2020.^{[6][5]} It is named after the coastal region of Big Sur in the Central Coast of California.

macOS Big Sur features a major user interface redesign, and is designed to take advantage of Apple-designed ARM processors in future Macs. On those ARM-based Macs, it will support running iOS and iPadOS apps.

In a symbolic gesture accompanying Apple's transition of the Mac lineup to their own in-house Apple-designed processors,^[7] the operating system's major version number has been incremented, from 10 to 11, for the first time since the release of the Mac OS X Public Beta in 2000.^[8]

macOS 11.0 Big Sur

A version of the macOS operating system

macOS Big Sur



macOS Big Sur's desktop in "light mode".

Developer	<u>Apple Inc.</u>
OS family	<u>Macintosh</u> · <u>Unix</u>
Source model	<u>Closed</u> , with <u>open source</u> components
General availability	Fall 2020 ^[1]
Latest preview	11.0 beta 7 ^[2] (20A5374g) ^[3] (September 17, 2020) [±] (https://en.wikipedia.org/w/index.php?title=Template:Latest_preview_software_release/macOS_Big_Sur&action=edit)
Update method	<u>Software Update</u>
Platforms	<u>x86-64</u> , <u>ARM64</u> ^[4]
Kernel type	<u>Hybrid</u> (XNU)
License	<u>APSL</u> and Apple <u>EULA</u>
Preceded by	<u>macOS 10.15 Catalina</u>
Official website	apple.com/macOS/big-sur-preview (https://www.apple.com/macOS/big-sur-preview)
Support status	
<u>Beta</u>	

Contents

Development history

System requirements

Changes

Design

Interface

Control Center

Notification Center

System

Support for Apple-designed processors

Support for iOS and iPadOS applications

Signed system volume

Software updates

Spotlight

Time Machine

Encryption

Other changes

Application features

Safari

Messages

[App Store](#)

[Notes](#)

[Photos](#)

[Maps](#)

[Release history](#)

[References](#)

[External links](#)

Development history

Providing some indication as to how the pre-release operating system was viewed internally at Apple during its development cycle, documentation accompanying the initial beta release of macOS Big Sur referred to its version as "10.16", and when upgrading to the beta release from prior versions of macOS using the Software Update mechanism, the version referred to was "10.16", with the exception of the Developer Transition Kit, which has always reported the system version as "11.0".^[9] As of macOS Big Sur Beta 3, the system version is reported as "11.0" on all Macs running the beta.

System requirements

Unlike [macOS Catalina](#), which supported every standard configuration Mac that [Mojave](#) supported, Big Sur drops support for various Macs released in 2012 and 2013. Big Sur runs on the following Macs:^[10]

- [MacBook](#): Early 2015 or newer
- [MacBook Air](#): Mid 2013 or newer
- [MacBook Pro](#): Late 2013 or newer
- [Mac Mini](#): Late 2014 or newer
- [iMac](#): Mid 2014 or newer
- [iMac Pro](#)
- [Mac Pro](#): Late 2013 or newer
- [Developer Transition Kit \(2020\)](#)

Changes

Design

macOS Big Sur introduces a refresh of the design of the user interface, described by Apple as the biggest change since the introduction of Mac OS X.^[6] The operating system introduces refinements to the interface such as translucency and a new color palette. All standard apps, as well as the Dock and the Menu Bar, are redesigned and streamlined. The application icons are also redesigned to look more similar to those on iOS and iPadOS, and use the same rounded-square shape.^[11] Compared to iOS, Big Sur's icons include more shading and highlights to give a three-dimensional appearance. Its aesthetic has been described as "neumorphism", a portmanteau of new and [skeuomorphism](#).^{[12][13]} System sounds are redone as well.

The new OS also brings further integration with Apple's SF Symbols, enabling easier use by third-party developers as UI elements for their applications through UIKit, which makes it possible to unify third party applications with the existing Apple-made [design language](#).^[14]

Interface

Control Center

An interface with quick toggles for Wi-Fi, Bluetooth, screen brightness and system volume has been added to the menu bar.^[11] This interface is functionally and visually similar to Control Center on iOS and iPadOS.

Notification Center

The Notification Center is redesigned, featuring interactive notifications and a transparent user interface. Notification Center also features a new widget system similar to that in iOS 14, displaying more information with more customization than previously available.^[6]

System

Support for Apple-designed processors

macOS Big Sur marks the beginning of the transition of Apple's Macintosh line of personal computers from Intel x86-64-based processors to Apple's ARM64-based processors, referred to as "Apple silicon".^[15] The chip mentioned in demo videos, and used in the Developer Transition Kit, is the A12Z Bionic, which is the same chip used in the 2020 iPad Pro. This is the first release of macOS to support ARM-based Macs, although Apple stated that it would support Intel Macs "for years to come."^{[15][16]} Most software that has not completed the transition to Apple silicon can use Rosetta 2, an update of a compatibility mechanism first utilized during the PowerPC to Intel x86 transition.

Support for iOS and iPadOS applications

On Macs based on Apple Silicon, macOS Big Sur will run iOS and iPadOS applications natively and without any modifications needed from developers.^[15]

Signed system volume

The system volume is cryptographically signed to prevent tampering.^[17] This includes adding a SHA-256 hash for every file on the system volume.^[18]

Software updates

Software updates can begin in the background before a restart, thus requiring less downtime to complete. Because system files are cryptographically signed, the update software can rely on them being in precise locations, thus permitting them to be effectively updated in place.^[19]

Spotlight

Spotlight, the file system indexing and search mechanism first introduced in Mac OS X 10.4 Tiger, is more optimized for speed, and the interface has been refined. Additionally, Spotlight is now the default search mechanism in several applications including Safari, Pages, and Keynote.^{[20][19]}

Time Machine

Time Machine, the operating system's backup mechanism first introduced in Mac OS X 10.5 Leopard, can now backup to APFS-formatted drives (in prior versions of macOS, Time Machine could only backup to HFS+-formatted drives).^{[21][22]} Apple's macOS 11 beta release notes document that "APFS-formatted backup volumes are now supported for faster, more compact, and more reliable backups. New local and network Time Machine backup destinations are formatted as APFS by default. Time Machine will continue backing up to existing HFS backup volumes."^[23]

Encryption

macOS Big Sur supports encryption at the file level (this more granular capability contrasts with the prior version of macOS, which supported encryption only at the level of entire volumes).^[22] As of June 2020, this capability is known to be compatible with Macs based on Apple silicon; it is unclear whether it is compatible with Intel-based Macs.^[22]

Other changes

- Bilingual dictionaries in French-German, Indonesian-English, Japanese-Simplified Chinese, and Polish-English
- Better predictive input for Chinese and Japanese users
- New fonts for Indian users
- Podcasts "Listen Now" feature
- FaceTime sign language prominence
- macOS startup sound is enabled by default (it had been disabled by default in recent releases of macOS), and a graphical interface has been implemented to manually enable/disable this functionality, per user preference

Application features

Safari

Safari in Big Sur now features a new customizable start page and an improved tab design. In addition, enhancements in Safari 14 include:

- Built-in web page translation in English, Spanish, German, French, Russian, Chinese, and Portuguese. The feature is currently in beta.
- Enhanced privacy features such as "Privacy Report"
- Password monitoring; Safari will notify the user if their password has been compromised
- Enhanced performance and power efficiency
- Extension privacy management



The Safari 14 start page with Wikipedia on the reading list.

- WebExtensions API support
- Page previews
- Importing of passwords from Chrome
- Support for Adobe Flash Player has been removed

Messages

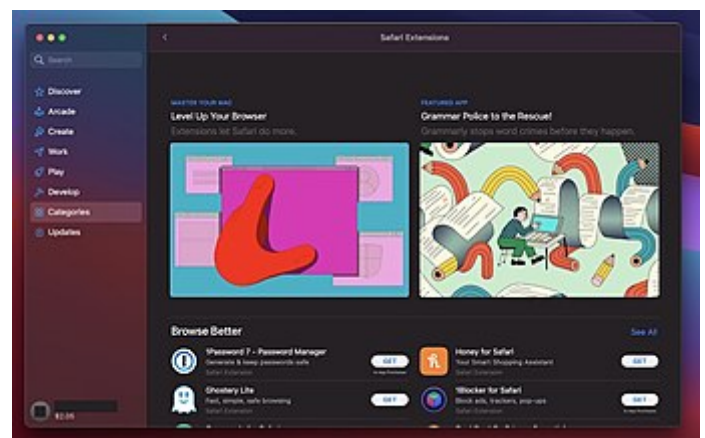
The Messages app was rewritten to be based upon Apple's Catalyst technology. This enables the app to have feature parity with its iOS counterpart. Alongside a refined design, the messages app brings:

- Conversation pinning for up to nine conversations that sync across iOS, iPadOS, and macOS.
- Message searching
- Name and photo sharing
- Group chat photo logos
- Mentioning individuals
- Replying inline
- Memoji stickers and editor
- A new photo picker
- Localized message effects for users in India

App Store

Refinements and new features of the Mac App Store include:

- A section dedicated to the privacy information of an app
- A new Safari extensions category
- Third party Notification Center widgets
- Family sharing of app subscriptions



The Mac App Store showing the Safari Extensions category.

Notes

- Collapsible pinned section
- Quick text style and formatting options
- Scanning enhancements

Photos

- New editing capabilities
- Improved Retouch tool
- New zooming feature in views

Maps

- "Look Around" interactive street-level 360° panoramas, first implemented in the iOS 13 version of Maps, have been incorporated into the macOS version of Maps.
- Availability of directions for cyclists.
- Electric vehicle routing, based on proximity to charging stations and monitoring of battery levels (on selected car models).

Release history

	Previous Beta		Latest Beta	
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Version	Build	Date	Darwin	Release notes
11.0 developer beta 1	20A4299v	June 22, 2020	20.0.0	Updates in macOS Big Sur 11 Beta (https://developer.apple.com/documentation/macos-release-notes/macos-big-sur-11-beta-release-notes#Updates-in-macOS-Big-Sur-11-Beta)
11.0 developer beta 2	20A4300b	July 7, 2020		Not available
11.0 developer beta 3	20A5323l	July 22, 2020		Updates in macOS Big Sur 11 Beta 3 (https://developer.apple.com/documentation/macos-release-notes/macos-big-sur-11-beta-release-notes#Updates-in-macOS-Big-Sur-11-Beta-3)
11.0 developer beta 4	20A5343i	August 4, 2020		Updates in macOS Big Sur 11 Beta 4 (https://developer.apple.com/documentation/macos-release-notes/macos-big-sur-11-beta-release-notes#Updates-in-macOS-Big-Sur-11-Beta-4)
11.0 public beta 1	20A5343j	August 6, 2020		Not available
11.0 developer beta 5	20A5354i	August 19, 2020		Updates in macOS Big Sur 11 Beta 5 (https://developer.apple.com/documentation/macos-release-notes/macos-big-sur-11-beta-release-notes#Updates-in-macOS-Big-Sur-11-Beta-5)
11.0 public beta 2		August 20, 2020		Not available
11.0 developer beta 6	20A5364e	September 3, 2020	20.1.0	Updates in macOS Big Sur 11 Beta 6 (https://developer.apple.com/documentation/macos-release-notes/macos-big-sur-11-beta-release-notes#Updates-in-macOS-Big-Sur-11-Beta-6)
11.0 public beta 3		September 8, 2020		Not available
11.0 developer beta 7	20A5374g	September 17, 2020		macOS Big Sur 11 Beta 7 Release Notes (https://developer.apple.com/documentation/macos-release-notes/macos-big-sur-11-beta-release-notes)

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External links

- [macOS Big Sur \(https://www.apple.com/macos/big-sur-preview\)](https://www.apple.com/macos/big-sur-preview) – official site

Preceded by macOS 10.15 (Catalina)	macOS 11 (Big Sur) 2020	Incumbent
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