OS X El Capitan

OS X El Capitan (/εl ˌkæpɪ ˈtɑːn/ el-KAP-i-TAHN) (version 10.11) is the twelfth major release of OS X (renamed to macOS in 2016), Apple Inc.'s desktop and server operating system for Macintosh. It focuses mainly on performance, stability, and security. [4] Following the Northern California landmark-based naming scheme introduced with OS X Mavericks, El Capitan was named after a rock formation in Yosemite National Park, signifying its goal to be a refined version of Yosemite. El Capitan is the final version to be released under the name OS X. El Capitan received far superior reviews when compared to Yosemite.

The first beta of OS X El Capitan was released to developers shortly following the <u>WWDC</u> keynote on June 8, 2015. The first public beta was made available on July 9, 2015. There were multiple betas released after the keynote. OS X El Capitan was released to end users on September 30, 2015, as a free upgrade through the Mac App Store. [7]

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OS X 10.11 El Capitan

A version of the <u>macOS</u> operating system





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Developer	Apple Inc.	
OS family	$\underline{Macintosh} \cdot \underline{Unix^{[1]}}$	
Source model	Closed, with open source components	
Released to manufacturing	September 30, 2015	
Latest release	10.11.6 (15G22010) / July 9, 2018	
Update method	Mac App Store	
Platforms	<u>x86-64</u>	
Kernel type	Hybrid (XNU)	
License	APSL and Apple EULA	
Preceded by	OS X 10.10 Yosemite	
Succeeded by	macOS 10.12 Sierra	
Official website	OS X - Overview - Apple (http s://web.archive.org/web/201609 02012446/https://www.apple.co m/osx/) at the Wayback Machine (archived September 2, 2016)	
Support status		

Unsupported as of September 2018. iTunes is no

System requirements

All Macintosh computers that can run Mountain Lion, Mavericks, or Yosemite can run El Capitan, although not all of its features will work on older computers. For example, Apple notes that the newly available Metal API is available on "all Macs since 2012".

longer being updated, but is able to download driver updates to sync to newer devices.^[2] (iTunes is replaced by separate apps in macOS Catalina, including Music, TV, Podcasts, and Finder for syncing devices.)^[3]

These computers can run El Capitan, provided they have at least 2GB of RAM:[11]

■ <u>MacBook</u>: Late 2008 or newer

MacBook Air: Late 2008 or newer
 MacBook Pro: Mid 2007 or newer

■ iMac: Mid 2007 or newer

■ Mac Pro: Early 2008 or newer

Mac Mini: Early 2009 or newer

■ Xserve: Early 2009

Of these computers, the following models were equipped with 1GB RAM as the standard option on the base model when they were shipped originally. They can only run OS X El Capitan if they have at least 2GB of RAM.

■ iMac: Mid 2007 - Early 2008

Mac Mini: Early 2009

The following computers support features such as <u>Handoff</u>, <u>Instant Hotspot</u>, <u>AirDrop</u> between Mac computers and iOS devices, as well as the new Metal API: [12]

iMac: Late 2012 or newer

MacBook: Early 2015 or newer
 MacBook Air: Mid 2012 or newer
 MacBook Pro: Mid 2012 or newer

Mac Mini: Late 2012 or newer

Mac Pro: Late 2013

The upgrade varies in size depending upon which Apple Mac computer it is being installed on, in most scenarios it will require about 6 GB of disk space. [13]

Features

OS X El Capitan includes features to improve the security, performance, design and usability of OS X. Compared to OS X Yosemite, Apple says that opening PDFs is four times faster, app switching and viewing messages in Mail is twice as fast and launching apps is 40% faster. The maximum amount of memory that could be allocated to the graphics processor has been increased from 1024 MB to 1536 MB on Macs with an Intel HD 4000 GPU. OS X El Capitan supports Metal, Apple's graphics API introduced in iOS 8 to speed up performance in games and professional applications. Apple's typeface San Francisco replaces Helvetica Neue as the system typeface. OS X El Capitan also adopts LibreSSL in replacement of OpenSSL used in previous versions.

Window management

OS X El Capitan introduces new window management features such as creating a full-screen split screen limited to two app windows side by side in full screen limited to two app windows side by side in full screen of the window or Control+Cmd+F keyboard shortcut, then snapping any supported other window to that full screen application. This feature is slightly similar to, although less extensive than, the snap-assist feature in Windows 7 (and later) and several Linux desktop environments, such as GNOME. OS X El Capitan improves Mission Control to incorporate this feature across multiple spaces. It also enables users to spot the pointer more



An example of the $\underline{\text{split screen}}$ view in OS X El Capitan

easily by enlarging it by shaking the mouse or swiping a finger back and forth on the trackpad. [22]

Applications

Messages and Mail

OS X El Capitan adds <u>multi-touch</u> gestures to applications like Mail and <u>Messages</u> that allow a user to delete or mark emails or conversations by swiping a finger on a multi-touch device, such as a trackpad. OS X also analyzes the contents of individual emails in Mail and uses the gathered information in other applications, such as <u>Calendar</u>. For example, an invitation in Mail can automatically be added as a Calendar event.

Maps

<u>Apple Maps</u> in El Capitan shows public transit information similar to Maps in <u>iOS 9</u>. [14] This feature was limited to a handful of cities upon launch: <u>Baltimore</u>, <u>Berlin</u>, <u>Chicago</u>, <u>London</u>, <u>Los Angeles</u>, <u>Mexico City</u>, New York City, Paris, Philadelphia, San Francisco, Shanghai, Toronto and Washington D.C.

Notes

The <u>Notes</u> application receives an overhaul, similar to Notes in iOS 9. Both applications have more powerful <u>text-processing</u> capabilities, such as <u>to-do lists</u> (like in the <u>Reminders</u> application), inline webpage previews, photos and videos, digital sketches, map locations and other documents and media types. Notes replaces traditional IMAP-based syncing with iCloud, which offers better end-to-end encryption and faster syncing. [23]

Safari

<u>Safari</u> in El Capitan lets users pin tabs for frequently accessed websites to the tab bar, similar to <u>Firefox</u> and <u>Google Chrome</u>. Users are able to quickly identify and mute tabs that play audio without having to search for individual tabs. Safari supports <u>AirPlay</u> video streaming to an <u>Apple TV</u> without the need to broadcast the entire webpage. <u>Safari extensions</u> are now hosted and signed by Apple as part of the updated Apple Developer program and they received native support for <u>content blocking</u>, allowing developers to block website components (such as advertisements) without <u>JavaScript</u> injection. <u>[24]</u> The app also allows the user to customize the font and background of the Reader mode.

Spotlight

<u>Spotlight</u> is improved with more contextual information such as the weather, stocks, news and sports scores. It is also able to process queries in natural language. For example, users can type "Show me pictures that I took in Yosemite National Park in July 2014" and Spotlight will use that request to bring up the corresponding info. [26] The app can now be resized and moved across the screen. [27]

Photos

Photos introduced editing extensions which allows Photos to use editing tools from other apps. [28]

System Integrity Protection

OS X El Capitan has a new security feature called <u>System Integrity Protection</u> (SIP, [29] sometimes referred to as "rootless" [30][31]) that protects certain system <u>processes</u>, <u>files</u> and <u>folders</u> from being modified or tampered with by other processes even when executed by the <u>root user</u> or by a user with root privileges (<u>sudo</u>). Apple says that the root user can be a significant <u>risk factor</u> to the system's security, especially on systems with a single user account on which that user is also the administrator. System Integrity Protection is enabled by default, but can be disabled. [32][33]

Release history

Unsupported

Version	Build	Date	Darwin	Notes	Standalone download
10.11	15A284	September 30, 2015		Original Mac App Store release	N/A
10.11.1	15B42	October 21, 2015	15.0.0	About the OS X El Capitan v10.11.1 Update (https://support.apple.com/HT205360)	OS X El Capitan 10.11.1 Update (https://support.apple.c om/kb/dl1845)
10.11.2	15C50	December 8, 2015	15.2.0	About the OS X El Capitan v10.11.2 Update (https://suppor t.apple.com/HT205579)	OS X El Capitan 10.11.2 Update (https://support.apple.com/kb/DL1849) OS X El Capitan 10.11.2 Combo Update (https://support.apple.com/kb/DL18 50)
10.11.3	15D21	January 19, 2016	15.3.0	About the OS X El Capitan v10.11.3 Update (https://support.apple.com/HT205356)	OS X El Capitan 10.11.3 Update (https://support.apple.com/kb/DL1858) OS X El Capitan 10.11.3 Combo Update (https://support.apple.com/kb/DL1859)
10.11.4	15E65	March 21, 2016	15.4.0	About the OS X El Capitan v10.11.4 Update (https://support.apple.com/kb/DL186 8)	OS X El Capitan 10.11.4 Update (https://support.apple.com/kb/dl1868) OS X El Capitan 10.11.4 Combo Update (https://support.apple.com/kb/DL18 69)
10.11.5	15F34	May 16, 2016	15.5.0	About the OS X El Capitan v10.11.5 Update (https://support.apple.com/HT206230)	OS X El Capitan 10.11.5 Update (https://support.apple.com/kb/dl1877) OS X El Capitan 10.11.5 Combo Update (https://support.apple.com/kb/dl1876)
10.11.6	15G31	July 18, 2016	15.6.0	About the OS X El Capitan v10.11.6 Update (https://support.apple.com/HT206770)	OS X El Capitan 10.11.6 Update (https://support.apple.com/kb/dl1884) OS X El Capitan 10.11.6 Combo Update (https://support.apple.com/kb/dl188 5)
	15G1004	September 1, 2016		About the security content of Security	Security Update 2016-001 El Capitan

15G1011	
15G1108	October 24, 2016
15G1212	December 13, 2016
15G1217	January 17, 2017
15G1421	March 27, 2017
15G1510	May 15, 2017
15G1611	July 19, 2017
15G17023	October 31, 2017
15G18013	December 6, 2017
15G19009	January 23, 2018
15G20015	March 29, 2018
15G21013	June 1, 2018
15G22010	July 9, 2018

Update 2016-001 El Capitan	
About the security content of Security Update 2016-002 El Capitan	Security Update 2016-002 El Capitan (https://support.apple.c om/kb/dl1891)
About the security content of Security Update 2016-003 El Capitan	Security Update 2016-003 El Capitan (https://support.apple.c om/kb/DL1908)
About the security	Security Update 2016-003 El Capitan (https://support.apple.c om/kb/DL1908)
content of Security Update 2016-003 El Capitan	Security Update 2016- 003 Supplemental (10.11.6) (https://support. apple.com/kb/DL1908)
About the security content of Security Update 2017-001 El Capitan	Security Update 2017-001 El Capitan (https://support.apple.c om/kb/dl1914)
About the security content of Security Update 2017-002 El Capitan	Security Update 2017-002 El Capitan (https://support.apple.c om/kb/DL1920)
About the security content of Security Update 2017-003 El Capitan	Security Update 2017-003 El Capitan (https://support.apple.c om/kb/DL1932)
About the security content of Security Update 2017-004 El Capitan	Security Update 2017-004 El Capitan (https://support.apple.c om/kb/DL1939)
About the security content of Security Update 2017-005 El Capitan	Security Update 2017-005 El Capitan (https://support.apple.c om/kb/DL1945)
About the security content of Security Update 2018-001 El Capitan	Security Update 2018-001 El Capitan (https://support.apple.c om/kb/DL1955)
About the security content of Security Update 2018-002 El Capitan	Security Update 2018-002 El Capitan (https://support.apple.c om/kb/DL1961)
About the security content of Security Update 2018-003 El Capitan	Security Update 2018-003 El Capitan (https://support.apple.c om/kb/DL1967)
About the security content of Security Update 2018-004 El Capitan	Security Update 2018-004 El Capitan (https://support.apple.c om/kb/DL1972)

Reception

Upon release, OS X El Capitan was met with positive reception from both users and critics, with praise mostly going towards the overall functionality of the new features and improved stability. Dieter Bohn of $\underline{The\ Verge}$ awarded the operating system a score of 8.5 out of $10;^{\underline{[34]}}$ while $\underline{Jason\ Snell}$ of $\underline{Macworld}$ was also positive, rating it 4.5 out of $5.^{\underline{[35]}}$ Many people criticized Apple's native apps for not improving them beyond third-party applications.

Issues

After the 10.11.4 update, many users started reporting that their MacBooks were freezing, requiring a <u>hard reboot</u>. This issue mostly affects Early 2015 <u>MacBook Pro</u> computers, although many others have reported freezes in other models. Several users created videos on <u>YouTube</u> which showed the freezes. Soon after this, Apple released the 10.11.5 update, which contained stability improvements. Apple later acknowledged these problems, recommending their users to update to the last point release.

After the December 13, 2016 release of Security Update 2016–003, users reported problems with the WindowServer process becoming unresponsive, causing the GUI to freeze and sometimes necessitating a hard reboot to fix. [42] In response, on January 17, 2017, Apple released Security Update 2016-003 Supplemental (10.11.6) (https://support.apple.com/kb/DL1908) to fix "a kernel issue that may cause your Mac to occasionally become unresponsive" and at the same time released an updated version of Security Update 2016-003 which includes the fix released in the supplemental. [43] Users who have not previously installed Security Update 2016-003 are advised to install the updated version to reach build 15G1217, while users who have already installed the December 13, 2016 Security Update 2016-003 only need to install the supplemental update.

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External links

- OS X El Capitan (https://web.archive.org/web/20160902012446/http://www.apple.com/osx) at the Wayback Machine (archived September 2, 2016) official site
- OS X El Capitan (https://support.apple.com/en-gb/HT206886) download page at Apple

Preceded by	OS X 10.11 (El Capitan)	Succeeded by
OS X 10.10 (Yosemite)	09/2015	macOS 10.12 (Sierra)

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This page was last edited on 11 September 2020, at 12:41 (UTC).

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