Think Different.

Jobs1970s.jpg

Apple\_Garage.jpg

The story begins in the late 1970s when Steve Jobs, Steve Wozniak, and Ronald Wayne founded Apple.

The success of the Apple II computer provided the company with a strong foundation, but Jobs envisioned a more accessible and user-friendly computing experience.

This vision led to the successor, the Apple Lisa, in 1982, which featured a Graphical User Interface rather than the command line interfaces accustomed to by the market. But lack of software support and high costs led to poor sales especially compared to the widely popular IBM PC. But Apple still had a trick up its sleeve.

mac128kproto.jpg

The Macintosh project aimed to create a complete low-cost computer that would follow the Lisa’s vision. The project faced numerous challenges, chiefly the internal conflicts between Jef Raskin and Steve Jobs for the control on the project. With the latter gaining majority power at the end.

The breakthrough came with the creation of the Macintosh 128K, which was officially launched on January 24, 1984. This computer featured a revolutionary graphical interface and introduced the concepts of icons, windows, and popularized the mouse, making it easier for users to interact with the machine. However, the original Macintosh System Software (later known as Classic Mac OS) was not without its limitations.

Video:

<https://youtu.be/VtvjbmoDx-I>

Quiz Locked

System 1

System 1, officially known as "System Software 1.0," was the first operating system for the original Macintosh computer. It was released on January 24, 1984, alongside the launch of the Macintosh 128K. System 1 marked a significant milestone in the history of personal computing, introducing a revolutionary graphical user interface (GUI) that departed from the command-line interfaces of its contemporaries.

System1desktop.png

System 1 featured a groundbreaking graphical interface that made use of icons, windows, and a mouse. This departure from command-line interfaces made computing more accessible to a broader audience. Users could interact with the Macintosh by pointing and clicking, rather than relying on text commands.

One of the defining features of System 1 was the desktop metaphor. The desktop displayed icons representing files and folders, providing users with a visual representation of their digital workspace. This metaphor has endured and remains a fundamental aspect of modern operating systems.

Video:

<https://youtu.be/3vq9p00T08I>

The System 1 included the Finder, a file management application that allowed users to navigate through files and folders using the graphical interface. The Finder played a crucial role in shaping the Macintosh user experience.

System 1 came bundled with several built-in applications, including MacWrite and MacPaint. MacWrite was a word processing application, while MacPaint allowed users to create and edit digital drawings. These applications showcased the capabilities of the Macintosh and demonstrated the potential of graphical computing.

It also had limited support for multitasking. While users could run multiple applications simultaneously, the system's capabilities were constrained compared to later versions of the Macintosh operating system.

System 1 was designed to run on the original Macintosh 128K, the first Macintosh model released by Apple. The hardware specifications of this early Macintosh included a Motorola 68000 processor running at 8 MHz, 128 KB of RAM, and a 400 KB floppy disk drive.

System 1 laid the foundation for the Macintosh operating system and established many conventions that would persist in subsequent versions. System 1 ushered in a revolution in GUI-based interactions and made many foundational designs in User Accessibility and Experience.

Video:

<https://youtu.be/2B-XwPjn9YY>

Quiz Locked

Internal conflicts between Jobs and the rest of the board led to Jobs ousting from the company in September 1985. After the loss of the company he started, he founded NeXT; another software & hardware company to continue his vision of the future of computing.

Back at Apple, development for subsequent revisions of the Macintosh, and by association, System Software continued, with the introduction of System 2.0 in 1985 that introduced the LaserWriter and AppleTalk technologies, 2.1 introduced partial implementation of Hierarchical File System.

System 3.0, debuted with Macintosh Plus in 1986, fully incorporated HFS and tweaked the GUI.

System 4.0

In 1987, System Software 4.0 and 4.1 was released with the Macintosh SE and Macintosh II respectively, it introduced the AppleShare; an easy-to-use file server program to quickly share files over the network, support for a new processor (Moto 68020), expansion slots, the Apple Desktop Bus and color graphics.

System4.webp

In general, Apple would follow a more iterative approach compared to Microsoft’s infrequent but substantial version updates.

System 5.0

MacII.jpg

The first system update to be available in retail, System Software 5.0 brought in more stability and more features.

But the star of the show was the evolution of Finder. MultiFinder

A cooperative multitasking extension to Mac OS that allowed users to run multiple programs at once by giving computer resources to the background applications only if the foreground application yield power, guaranteeing full system resources for the active application, but it is more risky and dangerous if the app does not relinquish control due to bugs, poor programming or program hangs. A problem that will haunt Apple as it ventures into the 90s.

System 6.0

It’s 1988, and a new type of computing was born. Portable computing, the power of number crunching machines that can be taken from home to work. Apple would not let such an emerging new segment of the hardware market untouched. System 6.0 was made specifically to tailor to their offering, the Macintosh Portable.

Macport.jpg

Sadly, many of what Apple released, be it software or hardware, did not see much growth compared to the behemoth that was IBM and Microsoft, the company was slowly bleeding.

System 7.0

A huge leap forward, a herculean effort by Apple engineers to bring Apple from the cusp of irrelevancy, System Software 7.0 “Big Bang”, released on May 13th 1991, revamped the user interface, baked in MultiFinder’s cooperative multitasking feature deep into the OS’s design, a move to 32-bit memory addressing, introduction of virtual memory support to improve system stability, streamlined extension support and a plethora of customization options.

System7.png

The user experience was made more efficient and seamless, AppleScript let users automate menial tasks easily, networking was massively overhauled to brace for the explosive World Wide Web.

Programs for creative professionals were also a huge selling point of the Macintosh, with support for fast 32-bit color imaging with the QuickDraw API, computer art never looked more beautiful.

Subsequent updates were mostly hardware support for PowerPC and bugfixes.

System 7 was positively received by Apple customers, but it didn’t grow as much as Apple hoped.

System 7 brought Apple computers to near feature parity with its competitors, and the California-based company sought to a complete overhaul for it’s next version, codenamed Copland.

Copland Disaster

Starting development in 1988, Copland was Apple’s next generation operating system, a PowerPC-first modern system, to claw the company back into stardom, but such high aspirations, makes the fall even more crushing.

Copland was stuck in development hell, feature creep and system instability marred the project, Microsoft’s Windows was changing the landscape faster than what Apple can match, the cooperative multitasking model proved unsustainable as programs become more complex.

Announced in 1994 with the introduction of the first PowerPC powered Macs, Copland was highly anticipated, which added to the pressure.

Shareholders growing more impatient, development lingered and the competition speeding away, major restructuring was in order, were in a bid for damage control, the new CEO halted all funding for the Copland project, as the codebase was deemed too broken to be repaired.

A hunt for a new operating system was underway as a last ditch effort to save Apple, from bankruptcy.

Talks with purchasing BeOS fell through. Mere weeks away from bankruptcy, Apple found it’s savior from one of it’s founding fathers.

MacOS81.png

Steve Jobs NeXTSTEP OS has found considerable success for an upstart company, and in 1996, NeXT was absorbed into Apple, Steve Jobs was reinstated in the board of directors and was given full control on the development of the next generation of Macintosh operating systems.

What was left of Copland was quickly cobbled together to become Mac OS 8 in 1997, to cut their losses, lick their wounds, and let go of the past.

Many Apple customers bought Mac OS 8 “To keep the company afloat”, even some prominent pirate groups refused to redistribute the software in solidarity.

Mac OS 9 would subsequently release in 1999, as a last hooray for the Classic Mac OS.

Rhapsody: Mac OS X

Using NeXTSTEP as a base for their next version, Mac OS X would usher a new chapter for Apple, one where they were no longer the underdogs, but the setters of innovative design.

Mac OS X was revealed in MacWorld 2000, and released in 2001, was a major shift from Classic Mac OS, bringing it to modern standards at the time, it’s new Aqua interface was also an eye-catcher.

Video:

<https://youtu.be/2GkoAa5718Y>

Skepticism from the general public, especially after the 1990s, was slowly being turned to amazement as major revisions were pumped out every year with drastic changes that eclipsed the competition.

Apple was back from the edge of death, it’s exponential growth and rebound shocked all. Starting with

Mac OS X 10.0 (Cheetah) :

On March 24, 2001, Apple released Mac OS X 10.0 (internally codenamed Cheetah). This initial version was slow, incomplete, barebones. Software support was limited. But many saw it in a good light as it marked Apple’s escape from the wilderness.

Mac OS X 10.1 (Puma) :

Later that year on September 25, 2001, Mac OS X 10.1 (internally codenamed Puma) was released. It featured increased performance and provided missing features, such as DVD playback. Apple released 10.1 as a free upgrade CD for 10.0 users, in addition to a boxed version for people running Mac OS 9.

On January 7, 2002, Apple announced that Mac OS X was to be the default operating system for all Macintosh products by the end of that month.

Mac OS X 10.2 Jaguar:

On August 23, 2002, Apple followed up with Mac OS X 10.2 Jaguar, the first release to use its code name as part of the branding. It brought great raw performance improvements, a sleeker look, and many powerful user-interface enhancements, including Quartz Extreme for compositing graphics directly on an ATI Radeon or Nvidia GeForce2 MX AGP-based video card with at least 16 MB of VRAM, a system-wide repository for contact information in the new Address Book, and an instant messaging client named iChat.

The Happy Mac which had appeared during the Mac OS startup sequence for almost 18 years was replaced with a large grey Apple logo.

Mac OS X 10.3 Panther:

Mac OS X v10.3 Panther was released on October 24, 2003. It significantly improved performance and incorporated the most extensive update yet to the user interface. Panther included as many or more new features as Jaguar had the year before, including an updated Finder, incorporating a brushed-metal interface, Fast user switching, Exposé (Window manager), FileVault, Safari, iChat AV (which added video conferencing features to iChat), improved Portable Document Format (PDF) rendering and much greater Microsoft Windows interoperability.

Support for some early G3 computers such as "beige" Power Macs and "WallStreet" PowerBooks was discontinued..

Mac OS X 10.4 Tiger :

Mac OS X 10.4 Tiger was released on April 29, 2005. Apple stated that Tiger contained more than 200 new features. As with Panther, certain older machines were no longer supported.

Tiger.png

Tiger requires a Mac with 256 MB and a built-in FireWire port. Among the new features, Tiger introduced Spotlight, Dashboard, Smart Folders, updated Mail program with Smart Mailboxes, QuickTime 7, Safari 2, Automator, VoiceOver, Core Image and Core Video.

The initial release of the Apple TV used a modified version of Tiger with a different graphical interface and fewer applications and services. On January 10, 2006, Apple released the first Intel-based Macs along with the 10.4.4 update to Tiger. This operating system functioned identically on the PowerPC-based Macs and the new Intel-based machines, with the exception of the Intel release lacking support for the Classic environment.

Mac OS X 10.5 Leopard:

Mac OS X 10.5 Leopard was released on October 26, 2007.

It was called by Apple : "the largest update of Mac OS X". It brought more than 300 new features.

Leopard.png

Leopard supports both PowerPC- and Intel x86-based Macintosh computers; support for the G3 processor was dropped and the G4 processor required a minimum clock rate of 867 MHz, and at least 512 MB of RAM to be installed. The single DVD works for all supported Macs (including 64-bit machines).

New features include a new look, an updated Finder, Time Machine, Spaces, Boot Camp pre-installed, full support for 64-bit applications (including graphical applications), new features in Mail and iChat, and a number of new security features. Leopard is an Open Brand UNIX 03 registered product on the Intel platform. It was also the first BSD-based OS to receive UNIX 03 certification. Leopard dropped support for the Classic Environment and all Classic applications.

It was the final version of Mac OS X to support the PowerPC architecture.

The new iPhone was also revealed to run on Mac OS X, dubbed “iOS”.

Mac OS X 10.6 Snow Leopard:

Mac OS X 10.6 Snow Leopard was released on August 28, 2009. Rather than delivering big changes to the appearance and end user functionality like the previous releases of Mac OS X, Snow Leopard focused on "under the hood" changes, increasing the performance, efficiency, and stability of the operating system. For most users, the most noticeable changes were: the disk space that the operating system frees up after a clean install compared to Mac OS X 10.5 Leopard, a more responsive Finder rewritten in Cocoa, faster Time Machine backups, more reliable and user-friendly disk ejects, a more powerful version of the Preview application, as well as a faster Safari web browser. Snow Leopard only supported machines with Intel CPUs, required at least 1 GB of RAM, and dropped default support for applications built for the PowerPC architecture (Rosetta could be installed as an additional component to retain support for PowerPC-only applications).

Snow Leopard also featured new 64-bit technology capable of supporting greater amounts of RAM, improved support for multi-core processors through Grand Central Dispatch, and advanced GPU performance with OpenCL.

The 10.6.6 update introduced support for the Mac App Store, Apple's digital distribution platform for macOS applications.

OS X 10.7 Lion:

OS X 10.7 Lion was released on July 20, 2011. It brought developments made in Apple's iOS, such as an easily navigable display of installed applications called Launchpad and a greater use of multi-touch gestures, to the Mac. This release removed Rosetta, making it incompatible with PowerPC applications.

Changes made to the GUI include auto-hiding scrollbars that only appear when they are used, and Mission Control which unifies Exposé, Spaces, Dashboard, and full-screen applications within a single interface. Apple also made changes to applications: they resume in the same state as they were before they were closed, similar to iOS. Documents auto-save by default.

OS X 10.8 Mountain Lion:

OS X 10.8 Mountain Lion was released on July 25, 2012. Following the release of Lion the previous year, it was the first of the annual rather than two-yearly updates to OS X (and later macOS), which also closely aligned with the annual iOS operating system updates. It incorporates some features seen in iOS 5, which include Game Center, support for iMessage in the new Messages messaging application, and Reminders as a to-do list app separate from iCal (which is renamed as Calendar, like the iOS app). It also includes support for storing iWork documents in iCloud.

Notification Center, which makes its debut in Mountain Lion, is a desktop version similar to the one in iOS 5.0 and higher. Application pop-ups are now concentrated on the corner of the screen, and the Center itself is pulled from the right side of the screen. Mountain Lion also includes more Chinese features including support for Baidu as an option for Safari search engine, QQ, 163.com and 126.com services for Mail, Contacts and Calendar, Youku, Tudou and Sina Weibo are integrated into share sheets.

Starting with Mountain Lion, Apple software updates (including the OS) are distributed via the App Store. This updating mechanism replaced the Apple Software Update utility.

Maverick.png

OS X 10.9 Mavericks:

OS X 10.9 Mavericks was released on October 22, 2013. It was a free upgrade to all users running Snow Leopard or later with a 64-bit Intel processor. Its changes include the addition of the previously iOS-only Maps and iBooks applications, improvements to the Notification Center, enhancements to several applications, and many under-the-hood improvements.

OS X 10.10 Yosemite:

OS X 10.10 Yosemite was released on October 16, 2014. It features a redesigned user interface similar to that of iOS 7, intended to feature a more minimal, text-based 'flat' design, with use of translucency effects and intensely saturated colors.

Apple's showcase new feature in Yosemite is Handoff, which enables users with iPhones running iOS 8.1 or later to answer phone calls, receive and send SMS messages, and complete unfinished iPhone emails on their Mac. As of OS X 10.10.3, Photos replaced iPhoto and Aperture.

OS X 10.11 El Capitan:

Capitan.png

OS X 10.11 El Capitan was released on September 30, 2015. Similar to Mac OS X 10.6 Snow Leopard, Apple described this release as emphasizing "refinements to the Mac experience" and "improvements to system performance".

Refinements include public transport built into the Maps application, GUI improvements to the Notes application, adopting San Francisco as the system font for clearer legibility, and the introduction of System Integrity Protection.

The Metal API, first introduced in iOS 8, was also included in this operating system for "all Macs since 2012".

According to Apple, Metal accelerates system-level rendering by up to 50 percent, resulting in faster graphics performance for everyday apps. Metal also delivers up to 10 times faster draw call performance for more fluid experience in games and pro apps.

macOS 10.12 Sierra :

macOS 10.12 Sierra was released to the public on September 20, 2016. New features include the addition of Siri, Optimized Storage, and updates to Photos, Messages, and iTunes.

macOS 10.13 High Sierra:

macOS 10.13 High Sierra was released to the public on September 25, 2017.

Like OS X El Capitan and OS X Mountain Lion, High Sierra is a refinement-based update having very few new features visible to the user, including updates to Safari, Photos, and Mail, among other changes.

The major change under the hood is the switch to the Apple File System, optimized for the solid-state storage used in most new Mac computers.

macOS 10.14 Mojave :

macOS 10.14 Mojave was released on September 24, 2018.

The update introduced a system-wide dark mode and several new apps lifted from iOS, such as Apple News. It was the first version to require a GPU that supports Metal. Mojave also changed the system software update mechanism from the App Store (where it had been since OS X Mountain Lion) to a new panel in System Preferences. App updates remain in the App Store.

macOS 10.15 Catalina:

macOS 10.15 Catalina was released on October 7, 2019.

Updates included enhanced voice control, and bundled apps for music, video, and podcasts that together replace the functions of iTunes, and the ability to use an iPad as an external monitor. Catalina officially dropped support for 32-bit applications.

macOS 11 Big Sur:

Bigsur.jpg

macOS Big Sur was announced during the WWDC keynote speech on June 22, 2020, and it was made available to the general public on November 12, 2020. This is the first time the major version number of the operating system has been incremented since the Mac OS X Public Beta in 2000. It brings ARM support for the new Apple Silicon Macs, new icons, and aesthetic user interface changes to the system.

macOS 12 Monterey:

macOS Monterey was announced during the WWDC keynote speech on June 7, 2021, and released on October 25, 2021, introducing Universal Control (which allows input devices to be used with multiple devices simultaneously), Focus (which allows selectively limiting notifications and alerts depending on user-defined user/work modes), Shortcuts (a task automation framework previously only available on iOS and iPadOS expected to replace Automator), a redesigned Safari Web browser, and updates and improvements to FaceTime.

macOS 13 Ventura :

macOS Ventura was announced during the WWDC keynote speech on June 6, 2022 and released on October 24, 2022.

It came with the redesigned System Preferences to a more iOS-like settings, and now with the new Weather and Clock app for Mac. Users can use an iPhone as a webcam for video conferencing.