**MAC SYSTEM 7.0**

**History**

On May 13, 1991, System 7 was released. It is a major upgrade to the Mac OS, adding a significant user interface overhaul, new applications, stability improvements and many new features. Its introduction coincides with the release of and provided support for the 68040 Macintosh line. The System 7 era saw numerous changes in the Macintosh platform including a proliferation of Macintosh models, the 68k to Power Macintosh transition as well as the rise of Microsoft Windows, increasing use of computer networking and the explosion in popularity of the Internet.

**Function and features**

One of the most significant features of System 7 is virtual memory support, which previously had only been available as a third-party add-on. Accompanying this was a move to 32-bit memory addressing, necessary for the ever-increasing amounts of RAM available to the Motorola 68030 CPU, and 68020 CPUs with a 68551 PMMU. This process involves making all of the routines in OS code use the full 32-bits of a pointer as an address—prior systems used the upper 8 bits as flags. This change is known as being "32-bit clean". While System 7 itself is 32-bit clean, many existing machines and thousands of applications were not, so it was some time before the process was completed. To ease the transition, the "Memory" control panel contains a switch to disable this feature, allowing for compatibility with older applications.

Another notable System 7 feature is built-in cooperative multitasking. In System Software 6, this function was optional through the MultiFinder. System 7 also introduced aliases, similar to shortcuts that were introduced in later versions of Microsoft Windows or shadows in IBM OS/2. System extensions were enhanced by being moved to their own subfolder; a subfolder in the System Folder was also created for the control panels. In System 7.5, Apple includes the Extensions Manager, a previously third-party program which simplified the process of enabling and disabling extensions.

The Apple menu, home only to desk accessories in System 6, was made more general-purpose: the user could now make often-used folders and applications—or anything else they desired—appear in the menu by placing aliases to them in an "Apple Menu Items" subfolder of the System Folder. System 7 also introduced the following: AppleScript, a scripting language for automating tasks; 32-bit QuickDraw, supporting so-called "true color" imaging, previously available as a system extension; and TrueType, an outline font standard.

The Trash, under System 6 and earlier, empties itself automatically when shutting down the computer—or, if MultiFinder is not running, when launching an application. System 7 reimplements the Trash as a special hidden folder, allowing files to remain in it across reboots until the user deliberately chose the "Empty Trash" command.

**Updates**

*System 7.1*

System 7.1 is mainly a bugfix release, with a few minor features added. System 7.1 is not only the first Macintosh operating system to cost money (all previous versions were free or sold at the cost of the floppies), but also received a "Pro" sibling with extra features. System 7.1.2 was the first version to support PowerPC-based Macs. System 7.1 also introduces the System Enablers as a method to support new models without updating the actual System file. This leads to extra files inside the system folder (one per new model supported).

*System 7.5*

System 7.5 introduces a large number of new features, many of which are based on shareware applications that Apple bought and included into the new system. On the newer PowerPC machines, System 7.5 may have stability problems partly due to a new memory manager (which can be turned off),[citation needed] and issues with the handling of errors in the PowerPC code (all PowerPC exceptions map to Type 11). These issues do not affect 68k-architecture machines. System 7.5 is contemporary with Apple's failed Copland effort as well as the release of Windows 95, which coincides with Apple's purchase of several shareware system enhancements to include as new system features.

*Mac OS 7.6*

Stability improved in PowerPC-based Macs with Mac OS 7.6, which dropped the "System" moniker as a more trademarkable name was needed in order to license the OS to the growing market of third-party Macintosh clone manufacturers. Mac OS 7.6 required 32-bit-clean ROMs, and so it dropped support for every Mac with a 68000 processor, as well as the Mac II, Mac IIx, Mac IIcx, and Mac SE/30.

**Advantages**

1. Simple but powerful user interface: Both macOS and Windows have easy-to-use graphical user interface or GUI. But OS X offers a more straightforward approach to computing. Those who are accustomed with the GUI of iOS found in iPhone and iPad will find macOS somewhat familiar.

2. Fewer viruses and other security issues: One of the advantages of macOS is that it is considerably safer than Windows. Of course, some Apple loyalists would argue that Macs are completely invincible from viruses or malware. This is no longer true.

3. Seamless integration between OS and hardware: Apple is both a software developer and a device manufacturer. This means that they have optimised the macOS to work seamlessly with all of the hardware components of a Mac device. It also ensures that all hardware components work hand-in-hand.

4. Comes preloaded with productivity apps: Standard Windows OS usually does not come with Microsoft Office Suite. Both are sold separately most of the time. In addition, new Windows-based laptop and desktop computers come with random software or apps that merely bloat the entire system and external storage.

5. Effective and unparalleled multitasking feature: Multitasking is another notable advantage of macOS. Mac computers have hardware specifications designed for multitasking. And because macOS integrates seamlessly with Mac hardware components, the overall operation is smooth and responsive.

6. Integration with other Apple products: One of the strengths of Apple is that most of the products under the brand are completely integrated. The iPhone or iPad works best with a Mac computer. This advantage of macOS is exclusive for Apple users—or those individuals with several Apple devices.

**Disadvantages**

1. Mac computers are considerably expensive: The fact remains that Apple sells expensive computers whether it is the new MacBook Pro with Retina or a Mac Mini. This is more noticeable when comparing the price point of Mac computers with their Windows counterpart.

2. Inflexible when it comes to hardware upgrades: A standard Mac computer cannot be upgraded easily because most of its hardware components are integrated both at a design and engineering levels. This is a macOS disadvantage that is unacceptable for hobbyists.

3. Lack of game titles and advanced gaming experience: There are more game titles available for Windows than in macOS. This is another noteworthy disadvantage of macOS. Some titles from independent producers that have gained large following are unavailable for Mac computers.

4. App ecosystem is still lacklustre: Windows has more software or applications. Developers, especially small and independent software companies, often consider building software for Windows first because of greater reach.