

A Brief History of PC Operating Systems

<i>Date</i>	<i>MS-DOS</i>	<i>Windows</i>	<i>Others</i>
August 1981	MS-DOS version 1 released		
August 1982	MS-DOS version 1.25 released		
October 1, 1982	PC-DOS 1.0 ships with the new IBM PC. Microsoft ships MS-DOS shortly afterwards and licenses MS-DOS to all comers		
March 1, 1983	MS-DOS 2.0, a substantial rewrite, introduced support for hard disks, larger programs, installable device drivers, and a new, Unix-like hierarchical file system. Still has cryptic eight-character filenames and a text-mode interface		
November 10, 1983		Microsoft announces Windows, an environment that extends the features of DOS with a graphical interface.	
June 1984	Microsoft launches MS-DOS v.3.0		
November 20, 1985		Windows 1.0 ships. Version 1.0 enables users to work with several programs at the same time, switching easily between them without having to quit and restart individual applications. But windows on Windows cannot overlap, crippling usability. Not enough software is written for Windows 1.0, and it fails to take hold in the marketplace.	
April 1986	MS-DOS 3.2 released		

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April 1, 1987			IBM and Microsoft announce OS/2 1.0, the Great Blue Hope of operating systems. Microsoft continues Windows development but hedges its bet on the next-generation PC operating system. OS/2 1.0 doesn't have a GUI, and it finally fails because of a lack of applications and hardware support, poor support for DOS apps, and confusion over whether you need to buy a PS/2 to use it (you don't)
April 1, 1987		Windows 2.0 ships. It uses a system of overlapping windows rather than the tiled windows scheme of previous versions. Can also utilize protected mode on 80286 systems or better, allowing programs to break out of the DOS 640K program size barrier. In June 1988, when Version 2.1 is released, it is renamed Windows 286.	
April 1, 1987	MS-DOS version 3.3 released, a considerable advance over over previous versions		
December 9, 1987		Windows 386-- a version of 2.0 optimized for Intel's latest chip—is released. It has some market impact, but mostly, by letting users multitask DOS programs in the 386 chip's "virtual machines," it lays the foundation for much of what emerges in Windows 3.0.	
March 1988			Digital Research launches DR-DOS, which the press considers superior to MS-DOS because of its powerful utilities. The first released version is 3.31, following on from the last version of CP/M
June 1988			DR-DOS 3.41 released
July 1, 1988	Microsoft release MS-DOS 4.0, to almost universal criticism. Many hardware manufacturers continue to ship their products with MS-DOS 3.3		

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October 31, 1988			IBM's OS/2 1.1 with Presentation Manager ships. The first OS/2 with a GUI, 1.1 is a major upgrade to OS/2 1.0, but it still has insufficient support for popular DOS applications and existing hardware. OS/2's problems encourage Microsoft to continue Windows development and IBM continues to develop OS/2. Sometime later, IBM complains that Microsoft is focusing on Windows, and the two part ways for good.
November 1, 1988	MS-DOS version 4.01 is released, which addresses some of the worst shortcomings of version 4.0, but this version is never popular, and allows DR-DOS to gain ground.		
May 22, 1990		Windows 3.0 ships; has significant usability improvements. Program Manager and the icon setup work much better than the old Windows 2 MS-DOS Executive. File Manager is new. Developer enhancements kick-start the Windows software boom. Stability is less than ideal, but Windows 3.0 immediately dominates the market thanks to widespread third-party hardware and software support and preloading by PC vendors. Microsoft's commitment to making Windows work finally pays off.	
June 1990			Digital Research launches DR-DOS 5.0 (there is, deliberately, no DR-DOS 4) to universal acclaim. The first DOS to exploit the features of the 80386 processor, its success is dampened by its high price. However, it is the preferred system for many and gains as much as 10% of the market.

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June 1991	Microsoft release MS-DOS 5.0, a vast improvement on version 4, and start to regain some of the ground lost to DR-DOS, even though the latter is still the more technically advanced.		
July 17, 1991			Digital Research merges with Novell. DR-DOS now officially Novell DR-DOS
September 1991			DR-DOS 6.0 released, to general approval although it breaks no new ground.
March 1992			OS/2 2.0 begins shipping. It offers good DOS/Windows 3.x support but is burdened by the complicated Object-Oriented Workplace Shell and by resource requirements that are heavy for the time. OS/2 still lacks widespread driver and third-party software support, and Windows emerges as the market leader
April 6, 1992		Windows 3.1 is released. It contains numerous bug fixes, is more stable, and adds a few new features, including scalable TrueType fonts. It also contains "spoiler" code designed to prevent its use with DR-DOS. Windows 3.x becomes the operating system most often installed on U.S. PCs and will remain so into 1997.	
May 1992			Novell hurriedly release DR-DOS 6.1, useable with Windows 3.1, and offer free upgrades to all users of DR-DOS 6

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July 4, 1992		Microsoft announces Win32, the next-generation API for 32-bit Windows NT. The first public mentions of "Chicago" appear (the code name for what will become Windows 95), as well as talk about how the NT product will eventually supplant the existing Windows architecture.	
October 27, 1992		Windows for Workgroups 3.1 ships. Integrates networking and workgroup capabilities, including electronic mail delivery, group meeting scheduling, file and printer sharing, and calendar management. Although 3.1 presages the small-LAN boom, it is a commercial failure, earning the ignominious nickname "Windows for Warehouses."	
April 1993			With Version 6.0, IBM begins marketing PC-DOS separately from Microsoft. PC-DOS 6.0 incorporates a different memory manager and optimizer from the one Microsoft licensed in the original 1981 IBM PC. Novell acquires DR-DOS and rereleases it, with fancier networking, in December 1993 as Novell DOS 7.0. Both of these efforts are too little, too late, as DOS is waning in significance. All the real PC innovation is happening in Windows and non-Microsoft OSs.
May 24, 1993		Windows NT (which stands for New Technology, although wags refer to it as Not Today, No Thanks, and Nice Try) is launched. Geared towards the power user and the server market from the start, the first version, 3.1, requires a high-end PC to run and is rough around the edges. But Windows NT is well received by developers because of its security, stability, and richer Win32 API, which makes it easier to write powerful programs. The project began as OS/2 3.0 but became a total rewrite of the code.	

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August 1993	Microsoft release the buggy MS-DOS 6.0, followed shortly by the equally buggy MS-DOS 6.1		
November 8, 1993		Windows for Workgroups 3.11 ships. Offering improved support for NetWare and Windows NT, it also slips in numerous architectural changes that improve performance and stability and later find their way into Windows 95. Much better received by corporate America this time around.	
November 1993	MS-DOS 6.2 released, curing most of the bugs of the previous versions.		
December 1993			Novell release Novell DOS 7.0, but it is too late. Novell's market is shrinking.
March 1994			Linux 1.0, a new multiuser Unix operating system that began as a hobby project, is released. Launches the open source code movement wherein any third party can make its own improvements and contribute them to the main product. New hardware and software can be ported to Linux quickly, often before being available for Windows. Although Linux has never had a large commercial presence, it continues to intrigue (even Netscape has mused about integrating Linux and Communicator to take on Windows NT). Indeed, Linux has become the Unix of choice on PC systems, thanks in large part to its popularity with the Linux crowd.

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March 1994	Microsoft release MS-DOS version 6.21, which proves to have an embarrassing disk destroying bug		
April 1994	MS-DOS 6.22 released. A reliable, stable product, this proves to be Microsoft's last stand-alone release of MS-DOS, although the DOS part of Windows 95 defines itself as MS-DOS 7.0		
August 1994			Novell abandon Novell (DR)-DOS, although they subsequently sell the code to Caldera who update and release it as Caldera OpenDOS.
June 1995			IBM release PC-DOS 7.0, and keep the DOS flame alive.
August 24, 1995		After numerous delays and unprecedented prelaunch hype for a software product, Windows 95 ships. In the frenzy, some people line up to buy it even though they don't own a computer. The first Windows version that didn't require the user to install DOS first, Win 95 is the most user-friendly Windows yet and helps spur the mainstreaming of PCs. A much improved interface finally closes the gap with the Mac platform, ultimately marginalizing the Mac further. Win 95 also adds an integrated TCP/IP stack, Dial-Up Networking, and long filename support.	
Summer 1996			IBM launch OS/2 Version 3, known as "Warp". Although this is by far the best OS/2 so far, it lacks the ability to run programs designed for Windows 95, and its popularity is confined to a small but enthusiastic hard-core of supporters, especially those in the blossoming communications field, where it is clearly superior to Windows 95.

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July 31, 1996		<p>Microsoft ships Windows NT 4.0. A much-improved version from 3.51, it features the Windows 95 user interface, expanded device support, and numerous bundled server processes, like its Internet Information Server Web server. NT 4.0 firmly plants Microsoft in the enterprise space.</p> <p>Positioned as a Unix replacement, its presence in corporate America starts small but grows dramatically, and it increasingly becomes the platform for intranets and public Internet sites</p>	
October 1996		<p>OEM Service Release 2 (OSR2) for Windows 95 is made available to manufacturers for preinstallation. Contains interim bug fixes as well as improvements to many of the built-in features and applets of Windows 95 in the control panel. Some of the "new" features in Windows 98 make their debut here, including FAT32, which allows more efficient use of hard disk space, and improved Dial-Up Networking. OSR2 also included Internet Explorer 3.0, the first viable Web browser from Microsoft. This release more or less seals the Death Warrant for the struggling OS/2.</p>	
June 25, 1998		<p>Microsoft launches Windows 98, the last major version of Windows based on the old kernel running on top of DOS. Windows 98 integrates Internet Explorer 4 and supports numerous new device types, from USB to ACPI power management. Future consumer versions of Windows will be built on the NT kernel.</p>	
May 1999		<p>Windows 98 Second Edition released, with better and more comprehensive hardware support. The last Windows release to offer full DOS support.</p>	
February 2000		<p>Microsoft Windows 2000 The first Windows to merge the 9x and NT versions, and the first to lack support for DOS applications.</p>	

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July 2000		Windows Millennium Edition released, although nobody knows why. This hybrid release underwhelms the press and public, being inferior to both Windows 98SE and Windows 2000 which preceded it.	
August 2001		Microsoft launch Windows XP, the most significant release since Windows 95, any of the hype and hysteria surrounding the latter's release. XP is a true merging of NT and 9x technology, and despite the inevitable teething troubles proves to be a stable and modern platform.	The main European distribution of Linux, the German SuSE, has now reached version 7.3, and copies sold are numbered in hundreds of thousands.
February 2002	MS-DOS is officially dead.	Windows ME, Windows 2000 and Windows XP are the official Microsoft releases, although given the success of XP, and the preference for 98SE of those who shun XP, how long the first two will remain is a matter for conjecture.	IBM continue to market PC-DOS, now called PC-DOS 2000. DR-DOS is still alive and supported in various guises, the most high profile being OpenDOS, used by a small band of fans to play their much loved DOS games on. OS/2, now in version 5, is available for the corporate market, but is no longer on retail sale. Linux, meanwhile, in its various flavours, goes from strength to strength, and is the only significant alternative to the all-conquering Microsoft.