

# Chapter- 8

## Microsoft Windows

Microsoft Windows (also referred to as Windows or Win) is a graphical operating system developed and published by Microsoft. It provides a way to store files, run software, play games, watch videos, and connect to the Internet. Microsoft Windows was first introduced with version 1.0 on November 10, 1983.

### History of Microsoft Windows

The history of Windows dates back to 1981 when Microsoft started work on a program called "Interface Manager". It was announced in November 1983 (after the Apple Lisa, but before the Macintosh) under the name "Windows", but Windows 1.0 was not released until November 1985. ... Instead all windows are tiled.

### Windows versions

#### Windows 1.0 – 2.0 (1985-1992)

Introduced in 1985, Microsoft Windows 1.0 was named due to the computing boxes, or “windows” that represented a fundamental aspect of the operating system. Instead of typing MS-DOS commands, Windows 1.0 allowed users to point and click to access the windows. In 1987 Microsoft released Windows 2.0, which was designed for the designed for the Intel 286 processor. This version added desktop icons, keyboard shortcuts and improved graphics support.

#### Windows 3.0 – 3.1 (1990-1994)

Windows 3.0 was released in May, 1990 offering better icons, performance and advanced graphics with 16 colors designed for Intel 386 processors. This version was the first release that provided the standard “look and feel” of Microsoft Windows for many years to come. Windows 3.0 included Program Manager, File Manager, Print Manager and games like Hearts, Minesweeper, and Solitaire. Microsoft released Windows 3.1 in 1992.

#### Windows 95 (August 1995)

Windows 95 was released in 1995 and was a major upgrade to the Windows operating system. This OS was a significant advancement over its precursor, Windows 3.1. In addition to sporting a new user interface, Windows 95 also included a number of important internal improvements. Perhaps most important, it supported 32-bit applications, which meant that applications written specifically for this operating system would run much faster. Although Windows 95 was able to run older Windows and DOS applications, it essentially removed DOS as the underlying platform. This resulted in the removal of many of the old DOS limitations, such as 640K of main memory and 8-character filenames. Other important features in this operating system were the ability to automatically detect and configure installed hardware (Plug-and-Play).

## **Windows NT 3.1 – 4.0 (1993 – 1996)**

A version of the Windows operating system. Windows NT (New Technology) was a 32-bit operating system that supported pre-emptive multitasking. There are actually two versions of Windows NT: Windows NT Server, designed to act as a server in networks, and Windows NT Workstation for stand-alone or client workstations.

## **Windows 98 (June 1998)**

Windows 98 supported a number of new technologies, including FAT32, AGP, MMX, USB, DVD, and ACPI. Its most visible feature, though, was the Active Desktop, which integrated the Web browser (Internet Explorer) with the operating system. From the user's point of view, there was no difference between accessing a document residing locally on the user's hard disk or on a Web server halfway around the world.

## **Windows ME – Millennium Edition (September 2000)**

The Windows Millennium Edition, called "Windows Me" was an update to the Windows 98 core and included some features that would be part of the Windows 2000 operating system. This version also removed the "Boot in DOS" option.

## **Windows 2000 (February 2000)**

Often abbreviated as "W2K," Windows 2000 was an operating system for business desktop and laptop systems to run software applications connect to Internet and intranet sites, and access files, printers, and network resources. Microsoft released four versions of Windows 2000: Professional (for business desktop and laptop systems); Server (both a Web server and an office server); Advanced Server (for line-of-business applications); and Datacenter Server (for high-traffic computer networks).

## **Windows XP (October 2001)**

Windows XP was released in 2001. Along with a redesigned look and feel to the user interface, the new operating system was built on the Windows 2000 kernel, giving the user a more stable and reliable environment than previous versions of Windows. Windows XP came in two versions, Home and Professional. Microsoft focused on mobility for both editions and including plug-and-play features for connecting to wireless networks. The operating system also utilized the 802.11x wireless security standard. Windows XP went on to become one of Microsoft's best-selling products.

## **Windows Vista (November 2006)**

Windows Vista offered advancement in reliability, security, ease of deployment, performance and manageability over Windows XP. New in this version were capabilities to detect hardware problems before they occurred, security features to protect against the latest generation of threats, a faster start-up time, and low power consumption when placed in the new sleep state. In many cases, Windows Vista was noticeably

more responsive than Windows XP on identical hardware. Windows Vista simplified and centralized desktop configuration management, which reduced the cost of keeping systems updated.

## **Windows 7 (October, 2009)**

Windows 7 was released by Microsoft on October 22, 2009 as the latest in the 25-year-old line of Windows operating systems and as the successor to Windows Vista. Windows 7 was released in conjunction with Windows Server 2008 R2, Windows 7's server counterpart. Enhancements and new features in Windows 7 included multi-touch support, Internet Explorer 8, improved performance, faster start-up time, Aero Snap, Aero Shake, support for virtual hard disks, a new and improved Windows Media Centre, and improved security.

## **Windows 8**

Windows 8 was released on August 1, 2012. It was a completely redesigned operating system that's been developed from the ground up with touch screen use in mind as well as near-instant-on capabilities that enable a Windows 8 PC to load and start up in a matter of seconds rather than in minutes.

Windows 8 replaced the more traditional Microsoft Windows OS look and feel with a new "Metro" design system interface that first debuted in the Windows Phone 7 mobile operating system. The Metro user interface primarily consisted of a "Start screen" made up of "Live Tiles," which linked to applications and features that were dynamic and updated in real time. Windows 8 supported both x86 PCs and ARM processors.

## **Windows 10**

Windows 10 was the successor to Windows 8. Windows 10 debuted on July 29, 2015, following a "technical preview" beta release of the new operating system (Fall 2014) and a "consumer preview" beta (Early 2015). Windows 10 featured fast start-up and resume, built-in security, and the return of the Start Menu in an expanded form. This version of Windows also featured Microsoft Edge, Microsoft's new browser. Any qualified device (such as tablets, PCs, smart phones and Xbox consoles) was able to upgrade to Windows 10, including those with pirated copies of Windows.

## **Windows 11**

As of Sept. 2020, Microsoft had no plans for Windows 11 and planned to continue to update and support Windows 10 (see Microsoft's Windows lifecycle fact sheet).

## What is GUI?

There are two types of user interface -

GUI mean **Graphical User Interface** and CLI mean **Command Line Interface**

### GUI (Graphical User Interface) based Operating System

A graphics-based operating system interface that uses icons, menus and a mouse (to click on the icon or pull down the menus) to manage interaction with the system. The graphics library provides a high-level graphics programming interface. ...



### Graphical User Interface

The graphical user interface (or GUI) is a type of operating system that makes use of:

- # Windows
- # Icons
- # Menus
- # Pointers.

Icons and options on menus represent folders, applications and other commands which are activated when selected and clicked by the pointer.

A mouse is normally used to direct the pointer around the screen.

### CLI Command Line Interface based Operating System

Abbreviated as CLI; a **Command Line Interface** connects a user to a computer program or operating system. Through the CLI, users interact with a system or application by typing in text (commands). The command is typed on a specific line following a visual prompt from the computer.

```

C:\Users\Mark Nicholls\Documents\My Files>dir
Volume in drive C has no label.
Volume Serial Number is 8CBE-2A36

Directory of C:\Users\Mark Nicholls\Documents\My Files

14/09/2012  16:10    <DIR>          .
14/09/2012  16:10    <DIR>          ..
14/09/2012  16:07                0 JUNK.txt
04/09/2012  19:26                75 osoul account.txt
14/03/2012  08:48           10,560 Southern Gothic Horrors.docx
24/02/2012  18:07           10,607 website domain and hosting.docx
11/12/2011  19:43                75 WIN 7 Pro.txt
               5 File(s)          21,317 bytes
               2 Dir(s)  35,198,140,416 bytes free

C:\Users\Mark Nicholls\Documents\My Files>del junk.txt_
    
```

Command Line Interface:  
Commands are entered at the prompt

```
C:\Users\Mark Nicholls>
```

### Command Line Interface

A Command Line Interface operating system works via the user entering **typed commands with a keyboard**. There is **no use for a mouse**.

Command Line Interfaces do not use windows, icons, menus or pointers.

There are over **270 commands** available for functions such as delete, open, run etc.

Commands must be entered precisely with no spelling mistakes. These commands can be difficult to remember and, as a result, this type of interface is considered **more difficult to use when compared to a GUI**.

In the example on the left I am using a version of MSDOS to delete a file named **JUNK.txt**