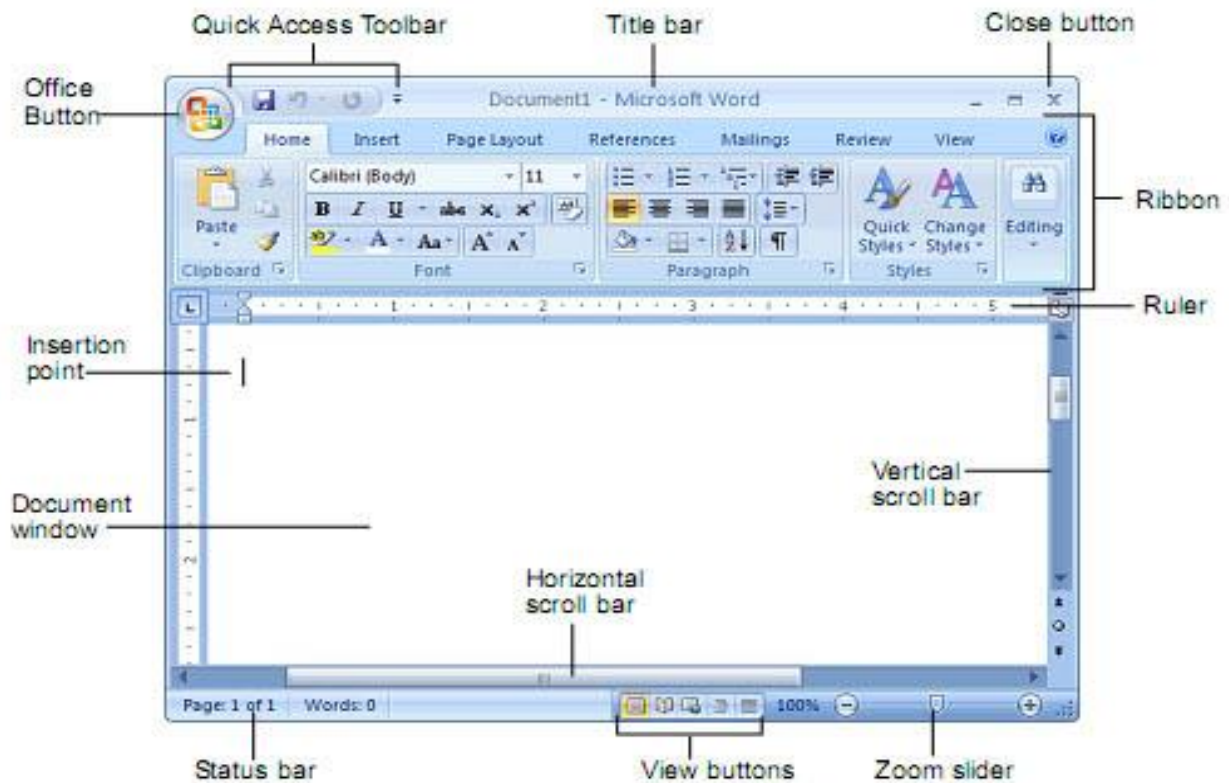


ANATOMY OF WINDOW

Microsoft Windows, the most widely used operating system in the world, employs the metaphor of a window for navigation and file management. Understanding the parts of a window is the first step to knowing how to navigate through the operating system.



The Title Bar

At the top of every window is the title bar. The center of the title bar displays either the name of the program you are currently working in or relevant information about what is happening in the program at any given moment. When the window is not maximized, this is where you can click and drag to move the window to a new location on the screen.

Minimize, Maximize, Close Buttons

In the upper right-hand corner of the window are the three buttons used to minimize, maximize, and close the window. Minimizing the window shrinks it to nothing and places it out of sight. Maximizing the window makes it fill the screen and locks it into position so that it cannot be moved by dragging the title bar. Closing the window shuts down the program.

The Scroll Bar

On the right side of the window is the scroll bar, which appears only if there is information to be displayed beyond the bottom range of the current window size. Clicking and dragging on

the slider in the scroll bar moves the contents of the window up or down so you can view all of the data available.

Status Bars

The Status bar **appears across the bottom of your screen**. The Status bar displays document information, such as word count, page numbers, language, and current display zoom percentage. The Status bar also display program controls, such as view shortcut buttons, zoom slider, and Fit To Window button.

The Menu Bar

Most programs will have a menu bar visible in the upper left-hand corner of the window. The menu bar appears as the text for most programs and usually starts with “File” at the far left. Accessing the menu allows you to view various commands available to that program, including closing the program or the window.

The Work Space

The workspace is all of the areas inside the window where data for the current program is displayed. Usually, the workspace will have a white background, but it is possible to customize this in all versions of Windows, and it may vary by program.

DESKTOP

A desktop is a computer display area that represents the kinds of objects one might find on top of a physical desk, including documents, phone books, telephones, reference sources, writing and drawing tools, and project folders.

A desktop can be contained in a window that is part of the total display area or can be full screen, taking up the total display area. Users can have multiple desktops for different projects or work environments they have and can switch between them.

DESKTOP ELEMENTS:

Icons

Icon is a small graphical representation of a program or file. When we double-click an icon, the associated file or program will be opened. For example, if we were to double-click on the My Computer icon, it would open Windows Explorer. Icons are a component of GUI operating systems, including Apple mac OS and Microsoft Windows. Icons help users quickly identify the type of file represented by the icon.

Types of Icons

- **System Icons:**

System Icons are displayed along left edge of screen. These icons are created automatically by windows during its installation. Example of some system icons are My Computer, Recycle Bin, My Documents, Internet Explorer etc.

- **Shortcut Icons:**

These are the icons with small arrows in the lower left corner. A shortcut icons provides easy access to some objects on our systems, such as a program, a document or a printer. **The shortcut icons only contain information about the location of the object but not the object itself.**

My Computer icon:

My Computer is a Microsoft Windows feature first found in Windows 95 and included with all later versions that allows us to explore and manage the contents of our computer drives. The name My Computer icon in Microsoft Windows XP, Vista and Windows 7, as well as the "This PC" icon in Windows 8 and in Windows 10. Although the name has changed, "This PC" still has the same functionality as "My Computer." This icon lets we browse through all the resources attached to our PC.



Recycle Bin

Recycle Bin is a trash location where deleted files remain stored. Once you delete any sort of file, it gets stored (automatically) into recycle bin; therefore, if you mistakenly deleted some important file, don't panic, go to recycle bin and restore it. However, if you deleted file from recycle bin as well, then it is very difficult to restore that permanently deleted file.



Taskbar

A **taskbar** is an element of a graphical user interface which has various purposes. It typically shows which programs are currently running.

The **taskbar** is an element of an operating system located at the bottom of the screen. It lets you locate and launch programs through Start and the Start menu or view any currently open program. On the right side of the taskbar is the Notification Area that lets you check the date and time, items running in the background. The taskbar was first introduced with Microsoft Windows 95 and is found in all subsequent versions of Windows.

The Windows taskbar has four main sections:

1. Start Button (labeled with "Start" and the Windows logo)
2. Quick Launch (allowing applications to be launched with a single click)
3. Running Programs (allowing easy access to running programs)
4. Notification Area (contains icons for small running programs such as the clock, calendar and volume control)



My Documents

Not to be confused with a written document, **My Documents** and **Documents** are Microsoft Windows folders that store computer documents and other files associated with programs on your computer. For example, when saving a file in Microsoft Word, the default folder is My Documents. Saving all your files into the My Documents folder makes them easier to backup and locate.



What is control panel in computer?

What is control panel in computer:- Hello friends, welcome to yourstudynotes.com, today we have brought information related to the control panel through this post, so stay tuned to our website.

Control panel:-

Control Panel is a very important thing in our computer or laptop, only with the help of this you can set up your computer, the information about the configuration or specification of your entire computer is in your Control Panel, you can change the setting of your computer. You can use Control Panel. These settings control almost everything about how a window should look and work, and you can also use them to set up Windows. Control Panel is the centralized configuration area in Windows. It is used to make changes to almost every aspect of the operating system. There are many categories in the Control Panel in the New Window, but 8 Categories are important in the Control Panel.

- System and Security
- Network and Internet
- Hardware and Sound
- Programs
- User Account and Family Safety.
- Appearance and Personalization
- Clock Language and Region
- Ease of Access

System and Security:-

In System and Security, we can fix the Computer's Status Backup Problem by searching, from this options the configuration of the computer can be found like which window is installed in your computer, how many GB RAM is there in your [computer](#), how much ROM What is the processor and how much speed of the processor, we can know all this in System and Security.

Network and Internet:-

With the help of Network and Internet, we can manage the work related to internet connections like Network, Status, Modem, and sharing, this is the most important part of our Control Panel.

Hardware and Sound:-

All the devices and sounds of the computer like keyboard, mouse, printer, etc. And whatever audio setting is there, we can help with this option, and with the help of this option, we can set different sounds for different events, but for this, it is necessary to have sound card in computer.

Programs:-

All the software installed in our computer are in the option of programs and with the help of this option you can easily find out the version and size of all the software and we can easily install this software with the help of this option. Can also delete from the computer. With the help of this option, you can keep any program by setting it by default. And you can also remove them.

User Account and Family Safety:-

With the help of user account and family safety, we can create a new user in our computer and remove the old user already existing and with the help of this option, by putting a password on our computer, it can be shared with children or any other person to share our private information. can save

Appearance and Personalization:-

Appearance and Personalization With the help of this option, we can change the themes, background, screen resolution of our computer, in this you can change the design of your computer and in this we can install new themes.

Ease of Access:-

Ease of Access This option is for handicapped people, such as those who cannot see, cannot write, they can also run the computer with the help of this option, in which Speech Recognition, Magnifier, Mouse Color and Size and on Screen Keyboard, etc. can manage

Defragmentation

Defragmentation describes reorganizing a hard drive's data to help increase the proficiency of accessing the data and prevent file fragmentation. After the hard drive data is organized, the computer's overall speed will seem faster, and it'll take less time to run a program and open files.

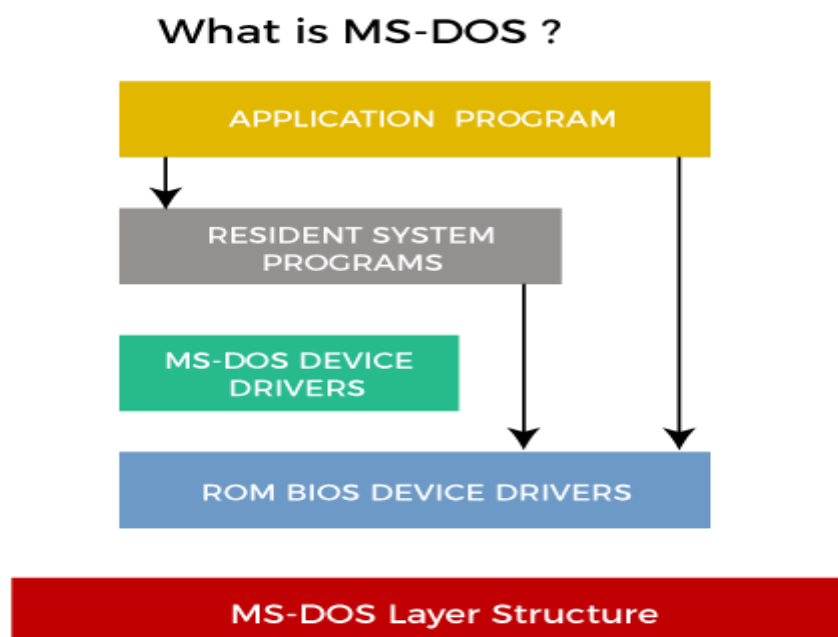
Why does defragmentation speed up the computer?

A mechanical hard drive with a read/write actuator arm must move to a data location on the platter to read and write data. If that data is scattered around the platter, it takes longer to access it. However, if all of the data is in the same location, it can be accessed faster.

MS-DOS

MS-DOS was the main operating system for IBM PC compatible personal computers during the 1980s. It was gradually superseded by operating systems offering a graphical user interface (GUI) in various graphical Microsoft Windows operating system generations.

DOS is also used to describe several similar command-line disk operating systems. Early computers, such as the Commodore 64, Atari 800, and Apple II, all featured a disk operating system, including Commodore Business Machines DOS, Atari DOS, and Apple DOS, respectively. DOS/360 was an OS for IBM mainframes, which first appeared in 1966, but it is unrelated to the 8086-based DOS of the 1980s.



Features of DOS

Here are some of the distinguishing features of a disk operating system, such as:

- MS-DOS does not offer GUI (Graphical User Interface) and doesn't accept mouse inputs. It is a character-based interface system where all commands are entered in the text at the command-line prompt.
- A disk operating system manages files, folders and allows program loading and execution. It can control hardware devices such as disk, memory and allocate resources.
- MS-DOS offers a file system to organize, read and write files to the disk storage.
- It is a single-user operating system and performs various tasks to ensure the proper operation of systems.
- It uses a 16-bit file allocation table (FAT16), and a 16-bit interface is used to define the location of the memory of each file uniquely. These identifiers are stored in a tabular format with the name File Allocation table.
- MS-DOS does not support a multiuser operating system, and it is less secure and does not have a concept of user roles. It is very lightweight due to its basic interface and limited features.

Limitations of MS-DOS

Here are the following limitations of the disk operating system, such as:

- **Built-in security:** DOS does not have built-in security, such as file ownership and permissions.
- **No multiuser or multitasking:** It also does not support multiuser or multitasking. It can only run one program at a time, but it provides direct access to the basic I/O system and underlying hardware.
- **Challenging interface:** A user must type in commands and remember commands to run programs and other OS tasks. For example, typing the command *cd* *\directory_name* changes the current working directory to the named directory, and typing the command *dir* lists the files in the current directory. This approach makes it difficult for beginners to use.

Advantages

So the following are the advantages:

- We have direct access to the BIOS and its underlying hardware.
- Its size will “boot” much faster than any windows version; thus, it will run in a smaller system.
- It is very lightweight, so it does not have the overhead of the multitasking operating system.
- It is good for making workarounds for managing/administering an MS system and for combining programs.

Disadvantages

With the advantages, it has many disadvantages too, which are listed below:

- No multi-tasking supported by the OS.
- Difficulty in memory access when addressing more than 640 MB of RAM.
- Interrupt levels for hardware needs to be managed by our self.
- The OS does not support automatic IRQ ordering.

Types of MS-DOS Commands

An instruction given to a computer to perform a specific task is known as a command. The MS-DOS has many commands to perform each task, and these commands are stored in the DOS directory of the disk. The MS-DOS commands are of two types, internal command, and external command.

1. **Internal Command:** Internal commands are built-in commands of MS-DOS, stored in the command interpreter file (COMMAND.COM). These commands reside in memory if the system is at prompt (C:\>) level. Some of the internal commands are DATE, TIME, DIR, VER, etc.
2. **External Command:** External commands are separate program (.com) files that reside in the DOS directory.

MS-DOS is not case-sensitive so that commands can type in either uppercase or lowercase. However, other disk operating systems have case-sensitive CLIs. DOS commands include the following.

DOS Internal Commands with Syntax and Examples

1. MD COMMAND (Make Directory)

MD command is used to create a new directory or subdirectory in the Disk.

Syntax-

C:\>md (directory name)

Example-

c:\> md ram

2. CLS COMMAND (Clear)

CLS is one of the internal DOS commands that is used to clear the DOS screen. If you can clear whatever command you ran on the screen through the CLS command.

Syntax-

C:\>cls

3. CD COMMAND (Change Directory)

CD is internal dos command used to change the directory (to insider or come out). If you want to go from one directory to another, then you can go with the CD command.

Syntax-

C:\>cd (Directory name)

Example-

C:\>cd sonu

4. COPY CON COMMAND

COPY CON command is used to basically create a file. The only disadvantage of the command is that the created by COPY CON command cannot be modified.

Syntax-

C:\copy con (file name with extension)

Example-

C:\copy con krishna.txt

5. COPY COMMAND

The COPY command is used to copy the file and move the file to another location or folder or drive.

Syntax-

C: \> Copy <File Name> <New Name>

C: \> Copy <Path File Name> <Target Drive>

Example-

C:> Copy C:\ABC.* D:\sonu and, Press enter.*

6. DATE COMMAND

The Date command is used to view the system's current date. if you want to modify the date then you can easily do it from the date command.

Syntax-

C: \> date

Example

C:>date

The current date is: 10/12/2021

Enter the new date: (dd-mm-yy) 09/12/2021

7. TIME COMMAND

The time command is used to view the system's current date. if you want to modify the date then you can easily do it from the time command.

Syntax-

C: \>time

Example-

C:>time

The current time is: 23:23:27.63

Enter the new time: 23:25:50.43

8. DEL COMMAND

A DEL command is used to remove a file from the disk. To delete any files or directory from any drive you would define the path and folder.

Syntax-

C:\> Del (file name) delete only one file.

*C:\>ABC Del *.* delte all files from ABC folder.*

9. RD or RMDIR

RD or RMDIR command is used to remove a particular directory or subdirectory from the disk. Only an empty directory or subdirectory can remove.

Syntax-

C: \> RD <DIR name>

Example-

C: \> RD <Modi>

10. PROMPT COMMAND

A Promot command is used to change the MS-DOS command the user can on/off the prompt by using this command.

Syntax-

C: \> prompt_name

Example-

C: \> prompt_games

11. REN COMMAND

A REN command is basically used to change the name of an existing file or folder. If you want to change any folder name by the REN command you can easily change the folder name. Syntax and example are as below-

Syntax-

C: \> REN <Old File Name> <New File Name>

Example-

C: > REN sonu.txt monu.txt

12. TYPE COMMAND

Type command is an internal command used to view the content of any file. If you want to see what is saved in that file then you can see by type command.

Syntax-

C:\ > TYPE <DIR name>

EXAMPLE-

C: > RD rawatji.txt

13. VER COMMAND

If you want to see your Windows Operating system then you can see the version information by the VER command. Follow the syntax and example are below-

Syntax-

C:>ver

Microsoft Windows [Version 10.0.19043.1348]

14. MOVE COMMAND

The move is an internal command used to change the name of any directory. Follow the syntax and example are below-

Syntax-

C:/> move old dir(name) new dir (name)

C:/> move sonu monu

15. COLOR COMMAND

The COLOR command is used to change the default color of the background. IF you want to change the default background color of the DOS or Windows command line, from the use of color command you can easily change.

The color attributes are as follow-

0- Black	8- Gray
1- Blue	9- Light Blue
2-Green	A- Light Green
3-Aqua	B- Light Aqua
4- Red	C- Light Red

5- Purple	D- Light Purple
6- Yellow	E- Light Yellow
7- White	F- Bright White

Syntax-

color (attribute)

Example-

C:\Users\Woodland>color ab

16. VOL

It displays the disk volume label and serial number, if they exist for the drive specified. If no drive is specified it displays for the active drive.

Syntax is **VOL [drive:]**

```
C:\>vol
Volume in drive C has no label.
Volume Serial Number is EC21-77CD

C:\>vol e:
Volume in drive E is New Volume
Volume Serial Number is 60B4-4F09

C:\>
```

Most Commonly Used External DOS Commands

1. EDIT

This command is used to modify or change the data of a file.

Syntax is **EDIT [/B] [/H] [/R] [/S] [filename(s)]**

2. XCOPY

This command is used to copy files and directory trees from one disk to another disk.

Syntax is **XCOPY source [destination]**

3. DISKCOPY

This command copies the data from particular position on the source disk to exactly the same position on the destination disk. Syntax **Diskcopy A: B:**

4. **CHKDSK**

This command is used to check a disk and display a status report with properties of disk like serial number, volume label, memory and other properties along with errors on the disk if any.

Syntax is **CHKDSK [volume path] [/F] [/V] [/R] [/X] [/I] [/C] [/L[:size]]**

5. **TREE**

This command is very useful to view the list of directories and subdirectories present on the disk in graphical form. If you wanted to include files also with directories and subdirectories, then you'll have to give the command line as tree/f which presents the tree view of all the content on your disk. Here is the syntax for this command with allowed switches:

Syntax: **CHKDSK [d:] [/f] [/v]**

Parameters: [d:] = Drive upon which to perform **CHKDSK.DELTREE**

This command is used to remove a directory along with its contents.

Syntax is **deltree [drive:path]**

6. **FORMAT**

This command creates a new root directory and a File Allocation Table (FAT) for the disk. In order for MS-DOS to be able to use a new disk you must use this command to format the disk.

Syntax: **FORMAT [d:]**

Parameters: [d:] = Drive which is to receive the format.

7. **Attrib Command**

Using the **ATTRIB** command, **you can change a file's read/write attribute or set the archive attribute**. If you use this command to specify a file as read-only, the file can be accessed, but not altered or deleted. If a file has an attribute of **-R**, it can be both read from or written to (it is referred to as read/write).

Syntax – **Attrib [+/- Attribute] [path\ Directory or file name] ↵**

Example – **C:> Attrib + r D:\abc (read only attribute)**

C:> Attrib -r D:\abc (remove read attribute)

8. **Defrag**

Microsoft **Defrag** is a software utility capable of organizing and optimizing the files on the hard drive to improve system performance.

defrag <volume> /T

```
defrag c:
```