

- **Disk Operating System:**

Disk operating system is an open-source operating system, provided by Microsoft.

Some of the main features of DOS are as follows:

- a) It is a single user OS.
- b) It is a single tasking OS.
- c) It can manage memory of machine.
- d) It manages peripheral devices.
- e) It can control input and output unit of the system.
- f) It works on textual format that means, there is no use of mouse in DOS.
- g) DOS support:
 - Internal command
 - External command
 - Batch files (.bat)

- **Internal commands:**

The DOS commands which are inbuilt inside the DOS system files are called internal commands.

1. cls (Clear the screen):

This command is used to clear the screen.

C:\> cls

NOTE: The C:\> is known as DOS prompt, C prompt or generally as prompt.

2. date (Date command):

It can show and modify the current system date.

C:\> date MM/DD/YY

3. time (Time command):

This command can be used to show or modify current system time.

C:\> time

4. copy con (File creating command):

To create a new file in current directory.

C:\> copy con abc.txt

Press ctrl+z to save file.

5. type (File opening command):

To show content of a file.

C:\> type abc.txt

6. copy (Copy command):

To copy files from one directory to other directory.

C:\> copy abc.txt folder

To merge files into one file.

C:\> copy a1.txt+a2.txt a3.txt

7. ren (Rename command):

Used to rename file or directory.

C:\> ren abc.txt bcd.txt

C:\> ren s1 s2

8. md (Make a directory):

Used to make a new directory in current or desired directory.

C:\> md new1

9. cd (Change directory):

Used to change the current directory.

C:\> cd new1

10. cd.. (Change directory to parent directory):

Used to change directory to immediate parent directory.

C:\new1> cd..

11. cd \ (Root directory):

Used to change directory to root directory.

*C:\new1> cd *

12. rd (Remove a directory):

Used to remove a blank directory.

C:/> rd new1

13. dir (Directory command):

Used to show all components of desired directory.

C:\> dir

Switches:

- a. /p: Shows components pagewise.
C:\> dir/p
- b. /w: Shows components in multiple columns.
C:\> dir/w
- c. /AD: Shows only directories.
- d. /A-D: Shows only files.
- e. /AH: Shows only files with 'hidden' attribute.
- f. /AR: Shows only files with 'Read-only' attribute.
- g. /AS: Shows only files with 'system' attribute.
- h. /AA: Shows only files with 'archive' attribute.
- i. /ON: Ordered by Name (Asc).
- j. /O-N: Ordered by Name (Desc).
- k. /OE: Ordered by extension (Asc).
- l. /O-E: Ordered by extension (Desc).
- m. /OS: Ordered by size (Asc).
- n. /O-S: Ordered by size (Desc).
- o. /OD: Ordered by date (Asc).
- p. /O-E: Ordered by date (Desc).
- q. /S: Show sub-directories.

14. ver (Version command):

Show current system version.

C:\> ver

15. vol (Volume command):

Show label, serial number of the current volume.

C:\> vol

16. color (Color command):

Used to change foreground and background color.

C:\> color/?

- **External commands:**

The commands which are present in additional files other than system files, are called external commands.

1. **attrib (Attribute command):**

Attribute command is used to add/ remove attributes to the given file.

Switches:

- a. +H: Add hidden
- b. -H: Remove hidden
- c. +A: Add archive
- d. -A: Remove archive
- e. +S: Add system
- f. -S: Remove system
- g. +R: Add read only
- h. -R: Remove read only

2. **xcopy:**

Better version of copy command.

/s: Copies directories and sub-directories with all files.

C:\> xcopy abc bcd /s

3. **CHKDSK:**

To check disk error and partition error.

C:\> CHKDSK E:

4. **diskcopy:**

To copy an entire disk to another disk or partition.

C:\> diskcopy A: D:

5. **more:**

To show results pagewise.

C:\> type abc.txt /more

6. **print:**

To print textual file from default printer.

C:\> print R.txt

7. edit:

This command provides a better editing experience for a file. In edit window, we can edit any line or any column.

```
C:\> edit r.txt
```

8. label:

This command is used to change, modify, add or remove the label of any desired drive or partition.

```
C:\> label D:
```

9. format:

It is used to format a drive or a partition.

Switches:

- a. /q: to quick format
- b. /s: to copy system files to formatted drive

```
C:\> format E: /q
```

10. fc:

It is used to compare files, if two files have different information.

```
C:\> fc abc.txt bcd.txt
```

11. mem:

To inspect memory usage.

```
C:\> mem
```

12. find:

To search content inside a given file. It can search required text and its details.

Switches:

- a. /n: to check line number
- b. /l: to ignore case sensitivity
- c. /c: to count number of output
- d. /v: to show results except given string.

```
C:\> find "a" abc.txt /l
```

13. **doskey:**

To show history.

C:\> doskey/history

- **Batch files:**

A batch file or batch job is a collection, or list, of commands that are processed in sequence often without requiring user input or intervention. With a computer running a Microsoft operating system such as Windows, a batch file is stored as a file with a .bat file extension.

Batch files are often used to help load programs, run multiple processes at a time, and perform common or repetitive tasks.

For example, a batch job could be used to back up files, process log files, run several calculations or diagnostics, or any other job that require multiple commands to run. A batch job can accomplish multiple tasks without interaction from the user, freeing up the user's time for other tasks.

- **Types of files in DOS:**

- 1. Configuration files:**

CONFIG.SYS is a configuration file on DOS systems.

It is a text file that contains the settings and commands to load drives in a DOS system.

The CONFIG.SYS file is read every time a DOS system is booted. The system then reads that file and executes the command following it. Users can easily make changes as per their requirements by simply saving changes in the CONFIG.SYS file. Since it is a text file, it can be edited in any editing program.

This file is located in the root directory of the drive; this is the same location from where system is booted.

2. COM files:

A COM file is an executable program capable of being run by MS-DOS and Windows. It is saved in a binary format and is similar to an .EXE file, but differs in that it has a maximum size of roughly 64KB and it has no header or metadata. COM files are commonly used for executing a set of instructions whereas EXE files are used for fully developed programs.