

Windows command line (MS-DOS)

Open cmd.exe terminal

- Press the "windows key" or "command key"
- Type "command prompt" or "cmd"
- Open the Command Prompt

Help page - help

- Most command prompt commands have a help function
- > help
 - o This will display all available commands
- > help commandname
- > commandname /?

Clear Screen - cls

• > cls

Make a variable

- > set variablename=variablevalue
- Print variable
- > echo %variablename%

File structure

Print your working directory.

> CC

List all files and directories (folders) in your working directory.

- > dir
- > dir /B (prints bare minimum)

Change to a different directory

- > cd directory
- > cd directory\directory





Go to your home directory (User Directory)

• > cd %HOMEPATH%

Make this easier? Yes

- > set ~=%HOMEPATH%
- > cd %~%

Go back to parent directory (C:\>)

> cd /

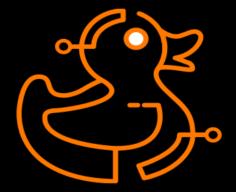
Go back one or more directory(ies) (C:\>)

- > cd ..
- > cd ..\..

Example output:

```
Command Prompt
C:\Users\IEUser>cd Desktop
C:\Users\IEUser\Desktop>dir
Volume in drive C is Windows 10
Volume Serial Number is B009-E7A9
Directory of C:\Users\IEUser\Desktop
04/06/2021 16:03
                     <DIR>
04/06/2021 16:03
                     <DIR>
19/03/2019 14:00
                                896 eula.lnk
01/06/2021 18:21
                     <DIR>
                                    Example
04/06/2021 16:03
                                 13 hello.txt
                                    909 bytes
               2 File(s)
               3 Dir(s) 25,728,454,656 bytes free
C:\Users\IEUser\Desktop>cd %HOMEPATH%
C:\Users\IEUser>cd /
C:\>
```





Creating and editing files

Make a directory

• > mkdir directoryname

Create a file in that directory

- Change directory:
 - o > cd directoryname
- Then create the file using:
 - > echo > filename.txt
 - copy con filename.txt (this opens the file and we can input text from command line, to close ctrl+c)
- (Or > command directoryname\filename.txt if we don't want to move into the directory)

Place text in the file

- > echo Hello World > filename.txt
- To add more text to the file:
- > echo Hello World 2 >> filename.txt
- Note that > will overwrite anything in the file whereas >> adds to the existing content.

View file

> more filename.txt

Open file (view and edit)

- > notepad filename.txt
- >preferredtexteditor filename.txt (text editor needs to be on system path)

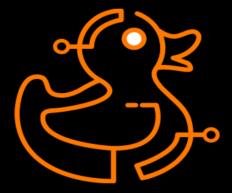
Remove file

- > del /P filename
- /P does a check before removal (type y when check appears)

Remove directory

- > rmdir directoryname
- > rmdir /S directoryname
- /S means remove directory and all subdirectories





Example output:

```
C:\Users\IEUser\Desktop>mkdir Academy
C:\Users\IEUser\Desktop>cd Academy
C:\Users\IEUser\Desktop\Academy>copy con Test.txt
Hello World
         1 file(s) copied.
C:\Users\IEUser\Desktop\Academy>more Test.txt
Hello World
C:\Users\IEUser\Desktop\Academy>dir
 Volume in drive C is Windows 10
 Volume Serial Number is B009-E7A9
 Directory of C:\Users\IEUser\Desktop\Academy
04/06/2021 18:47
04/06/2021 18:47
                                    13 Test.txt
04/06/2021 18:47
                3:47 13 Test.txt
1 File(s) 13 bytes
2 Dir(s) 25,728,069,632 bytes free
C:\Users\IEUser\Desktop\Academy>dir /B
Test.txt
C:\Users\IEUser\Desktop\Academy>del /P Test.txt
C:\Users\IEUser\Desktop\Academy\Test.txt, Delete (Y/N)? Y
C:\Users\IEUser\Desktop\Academv>cd ...
C:\Users\IEUser\Desktop>rmdir Academy
C:\Users\IEUser\Desktop>_
```

More file commands

Copy

> copy filename1.txt filename2.txt

Move

- Move filename2.txt to filename3.txt will rename filename2.txt to filename3.txt
- > move filename2.txt filename3.txt
- (We can also give file paths e.g. > move filename2.txt
 C:\Users\admin\Desktop\filename4.txt

Display contents of a file

- > type filename1.txt
- We can easily send the output to a new (or existing) file using the ">" operator:
- > type filename1.txt > filename4.txt

Joins two files together

> copy filename1.txt+filename3.txt filename4.txt





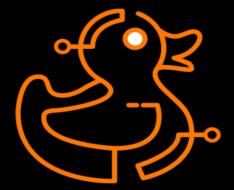
Search

- > find /I "Hello" filename4.txt
- This searches for the word Hello in filename4.txt. // means ignore case.
- To search through all files that begin with file and end with .txt:
- > find /l "Hello" file*.txt
- The output will indicate which file each result comes from.

Example output:

```
C:\Users\IEUser\Desktop\Academy>type file1.txt
Hello
C:\Users\IEUser\Desktop\Academy>copy file1.txt file4.txt
       1 file(s) copied.
C:\Users\IEUser\Desktop\Academy>type file4.txt
Hello
C:\Users\IEUser\Desktop\Academy>move file4.txt file5.txt
       1 file(s) moved.
C:\Users\IEUser\Desktop\Academy>type file4.txt
The system cannot find the file specified.
C:\Users\IEUser\Desktop\Academy>type file5.txt
Hello
C:\Users\IEUser\Desktop\Academy>type file5.txt > file6.txt
C:\Users\IEUser\Desktop\Academy>type file6.txt
Hello
C:\Users\IEUser\Desktop\Academy>find /I "Hello" *.txt
     ---- FILE1.TXT
Hello
----- FILE2.TXT
Hello1
 ----- FILE3.TXT
Hello2
----- FILE5.TXT
Hello
----- FILE6.TXT
Hello
C:\Users\IEUser\Desktop\Academy>
```





Combining commands

Piping

- We can pipe "|" the output from one command to another command.
- For example, if I want to sort the text in a file, I could first run > type filename1.txt and then pipe the output to sort:
- > type filename1.txt | sort

Multiple commands

- Use && to run a second command
 - > program1 && program2 && program3
 - Note this will only run the next program in sequence if the previous one runs.
- If we want the next program to run, <u>no matter the outcome</u> of the previous one then we can use ";"
 - > program1 & program2 & program3

Tips

Tab completion

- If you begin typing a file or directory name press tab to autocomplete it.
- If there is only one option for autocompletion, it will choose this option
- If there are multiple options then it will display all options

Previously typed commands

- To re-run the same command again press the up arrows on your keyboard to load previously typed commands and press enter to execute.
- Press F7 to get a GUI interface

Change cmd color scheme

- color (This will revert the color scheme to default)
- > color /? (This will show available colors)
- > color fc (This will produce light red on bright white)

For more explanation: Follow the steps in the lecture!

