Hillingdon U3A Computer Group

WINDOWS COMMAND PROMPT

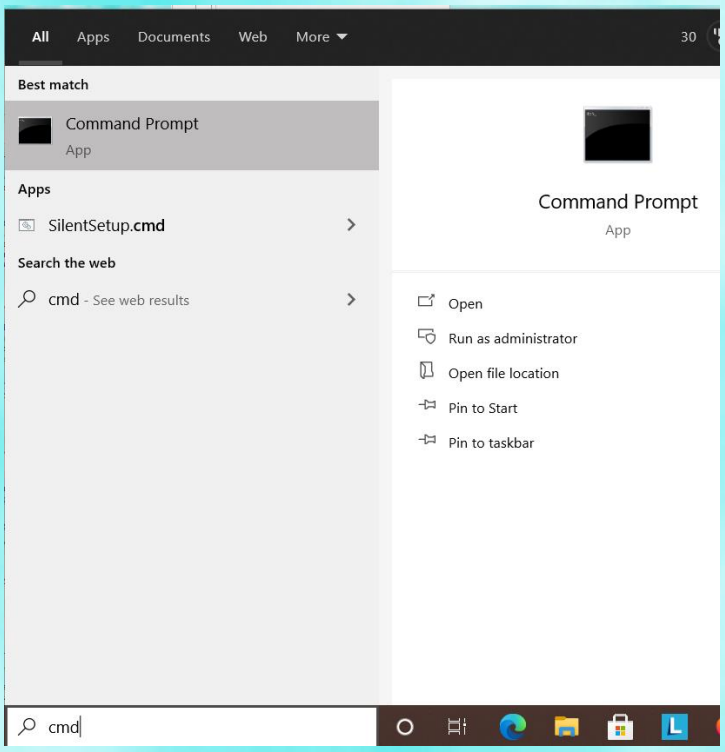
(Intermediate)

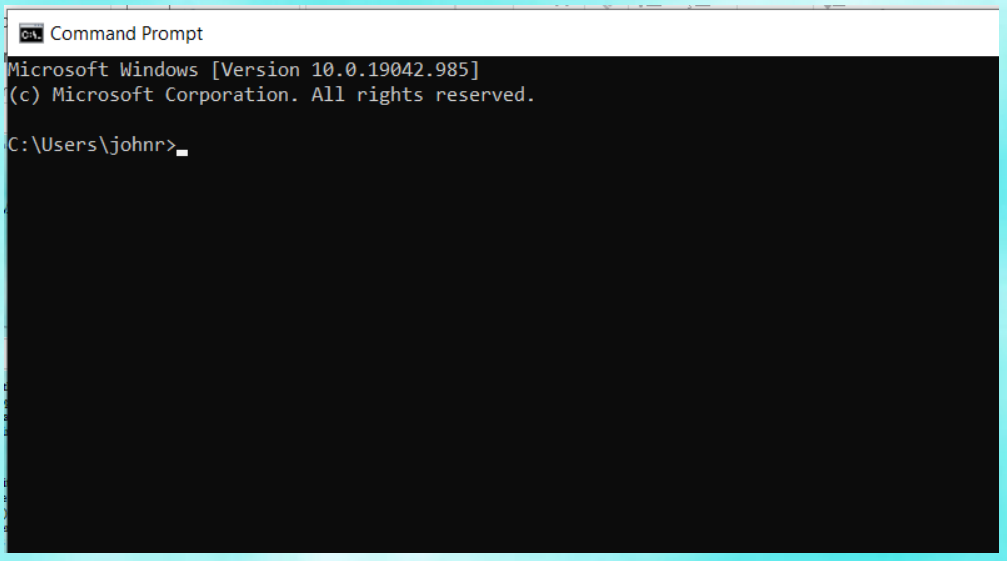
MS-DOS was the main command-line interface operating system for IBM PC compatible personal computers during the 1980s.

By the 1990's it had been replaced by the Graphical user interface (GUI) WINDOWS operating system, of which Windows 10 is the latest.

However a version of MS-DOS still exists within the WINDOWS operating system as the Command Prompt and can still be very useful.

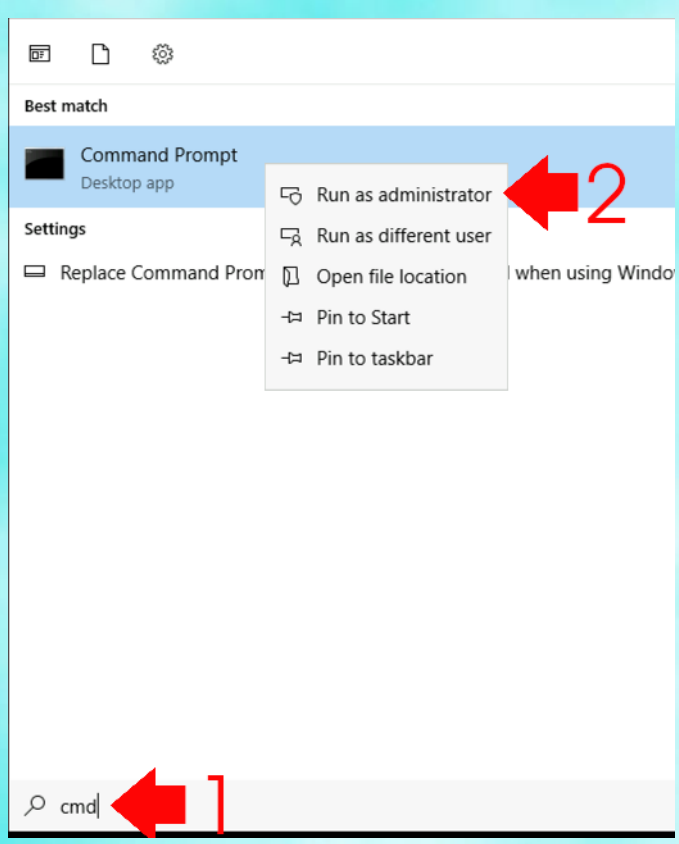
The Command Prompt is accessed using **cmd**





By default it opens in your **c:\users\[username]** folder

Sometimes **cmd** needs to be run in Administrator mode.
Right click on “Command Prompt” and select “Run as administrator”



For more information on all Command Prompts and their options
got to:

https://ss64.com/nt/

Commands are not case sensitive

Navigation

Navigate through the folders of your hard drive by typing the *change directory* command **cd**

Such as: **cd c:\users**

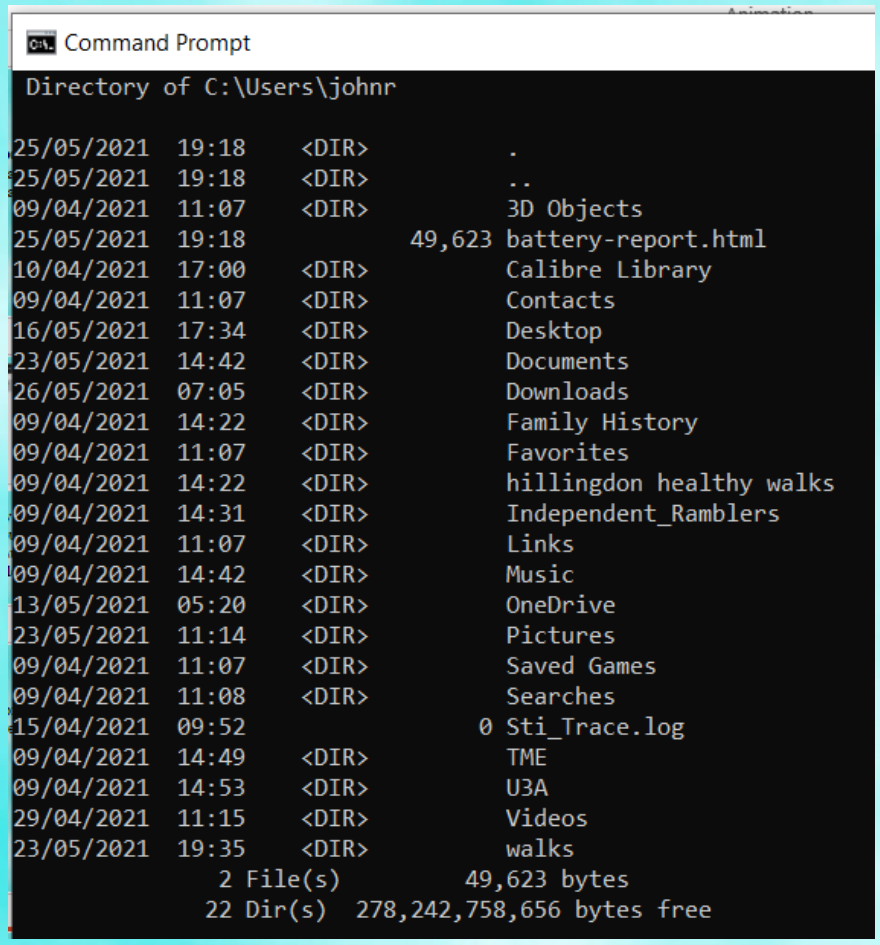
List Files in Directory/Folder

List the files in a folder by using the *Directory* Command prompt

dir

To list the files in sub folders as well use the /s option

dir /s



CMD Command Options

Nearly all Commands allow options to vary the result of the Command

For **dir**:

To list the files in sub folders as well as the main directory use the /s option
dir /s

Copying and Moving Files

It is easier to do this using the Windows File Explorer but it can also be done by using the Command prompts **copy** and **move**.

To copy the file myphoto.jpg from the current folder to folder c:\photobackup, you would enter:

copy myphoto.jpg c:\photobackup

To copy all jpg files in the current folder to folder c:\photobackup, you can use a wildcard “*” and would enter:

copy *.jpg c:\photobackup

You can also use a question mark to represent individual characters, thus to copy all Word documents starting with “letter” followed by one extra character (letter1, letter2….):

copy letter?.txt c:

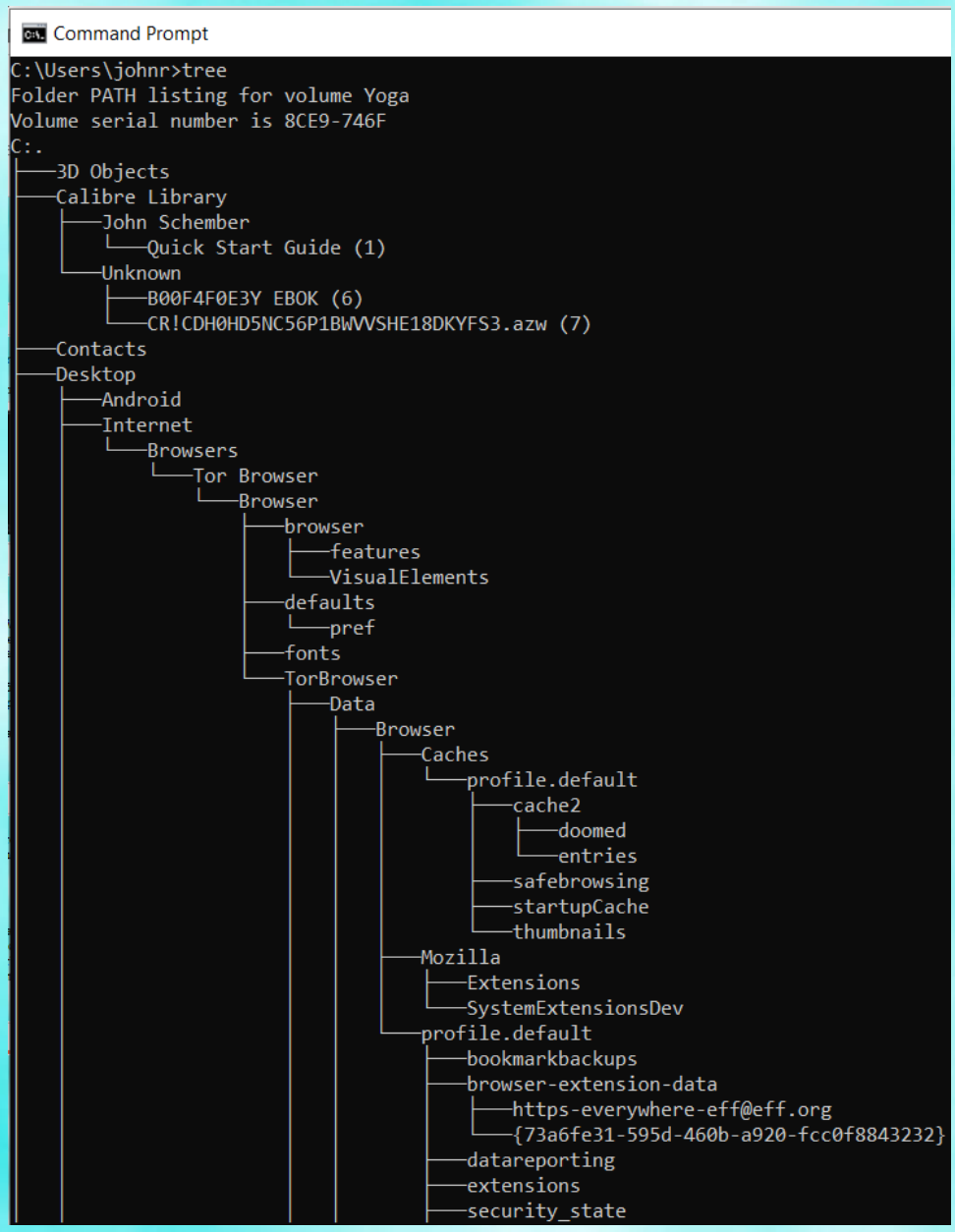
Files can be deleted using the *Delete* Command prompt **del**

del c:\photobackup\me.jpg

del also accepts the wildcard “*”

View a map of your folders

Use Command prompt **tree**



Redirect Command Output to a File

To do this use the operator “>”

dir c:\users > c:\output.txt

File Commands

File Commands generally work only on TEXT files.

If you want to process information from other types of file such as WORD documents.

1. Open the file in the correct software.
2. Select all the data and copy
3. Open Notepad
4. Past the copied data
5. Save the text file

To view contents of file

Type c:\output.txt

To sort a file redirecting output

Sort c:\input.txt > c:\output.txt

To search for a text string in a text file

Findstr “Name" Address.txt

Search for "granny" OR "Smith" in the files Apples.txt or Pears.txt

Findstr "granny Smith" Apples.txt Pears.txt

Search for "granny Smith" in Contacts.txt

Findstr /C:"granny Smith" Contacts.txt

Pipe Command output to another Command

To do this use the operator “|”

Pipe the output of a DIR command into SORT

DIR /b “c:\demo\" | SORT

/b Bare format (no heading, file sizes or summary)

Pipe the output from DIR into SORT, reverse the list and save into a file

DIR /b | SORT /r /o demo.txt

/R[EVERSE] Reverse the sort order (Z to A, 9 to 0)

/O[UTPUT] [*drive*:][*pathname*]

Find Files

Find files in a folder by using the **Where** Command

List all the .CSV files in both the work and play folders:

WHERE c:\work\;c:\Play\:*.csv

Create a Virtual Drive

WINDOWS only recognises Partitions and physical drives as separate drives.

Using the *Substitute* Command prompt **subst**, you can change any folder into a virtual drive:

subst f: c:\users\[username]\Pictures

To remove a virtual drive use the /d switch
subst f: /d

File Associations

File Associations dictate what program your file will open in. Thus a .doc or .docx file will usually open in MS WORD.

To see the current associations use the Command prompt **assoc**

```
.dll=dllfile
.doc=Word.Document.8
.dochtml=wordhtmlfile
.docm=Word.DocumentMacroEnabled.12
.docmhtml=wordmhtmlfile
.docx=Word.Document.12
.docxml=wordxmlfile
.dot=Word.Template.8
.dothtml=wordhtmltemplate
.dotm=Word.TemplateMacroEnabled.12
.dotx=Word.Template.12
.dqy=dqyfile
.drc=VLC.drc
```

Check if file is a duplicate

If you have two files which you think are duplicates then use the *File Compare* Command prompt **fc** to check.

fc c:\users\[username]\test.txt c:\test2.txt

Encrypt files
(not available on Windows 10 Home)

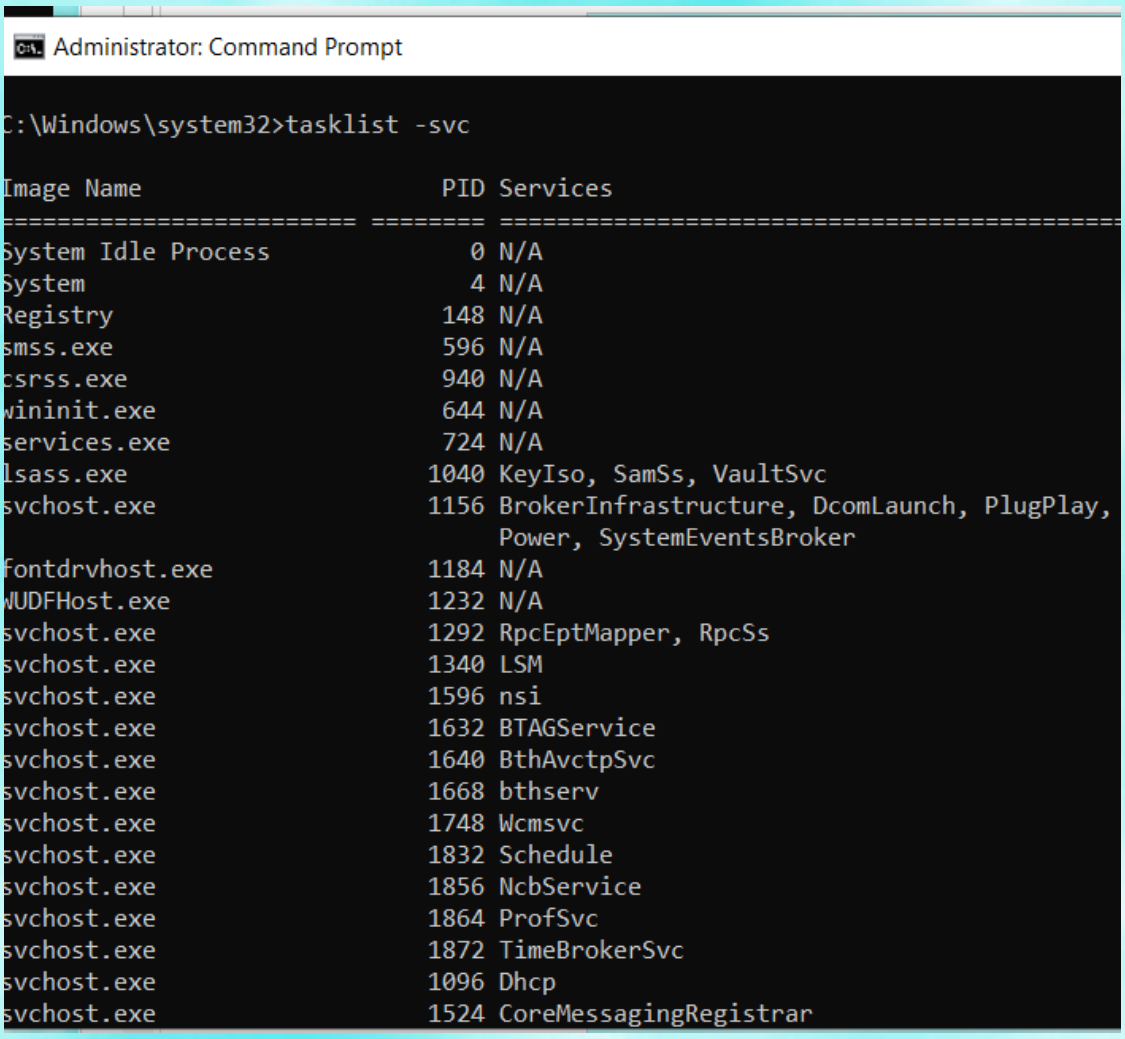
To encrypt a folder so that the files can only be accessed using your login

cipher /e c:\vault
(replace c:\vault with the required folder)

To decrypt use the /d switch:
cipher /d c:\vault

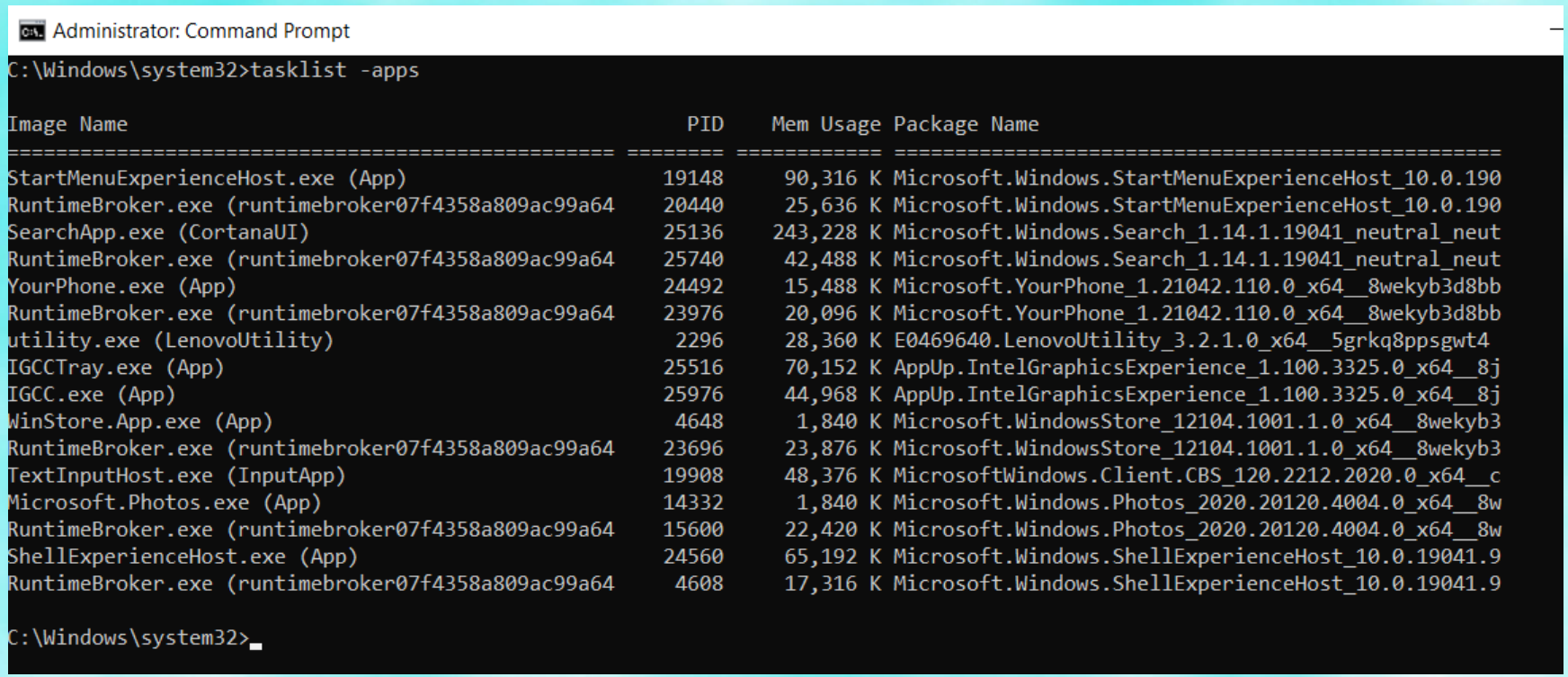
View running tasks and related services

tasklist -svc



View running Window Apps

tasklist -apps



To stop an App you need to use **taskkill**

taskkill /PID 14332 /f

SOLVE PROBLEMS USING CMD

Your Windows computer keep crashing or appears to not be working correctly.

Check and fix a corrupt Windows Operating System

cmd (run as Administrator)

Check for system file corruption with the *System File Checker* Command prompt:
sfc /scannow

To repair:
DISM /Online /Cleanup-Image /RestoreHealth

While the SFC command checks the integrity of system files, you can use the *Check Disk* Command prompt **chkdsk** to scan an entire drive.

The /f switch will automatically Fix file system errors on the disk.

cmd (run as Administrator)

chkdsk /f C:

Network Problems?

Find out your computer's name on the network

Use Command prompt **hostname**

Display details of your network

Use the *Configure IP* Command prompt **ipconfig /all**

Check if connected to internet

Use *Test Network Connection* Command prompt **ping** to connect to a known website

ping www.google.co.uk

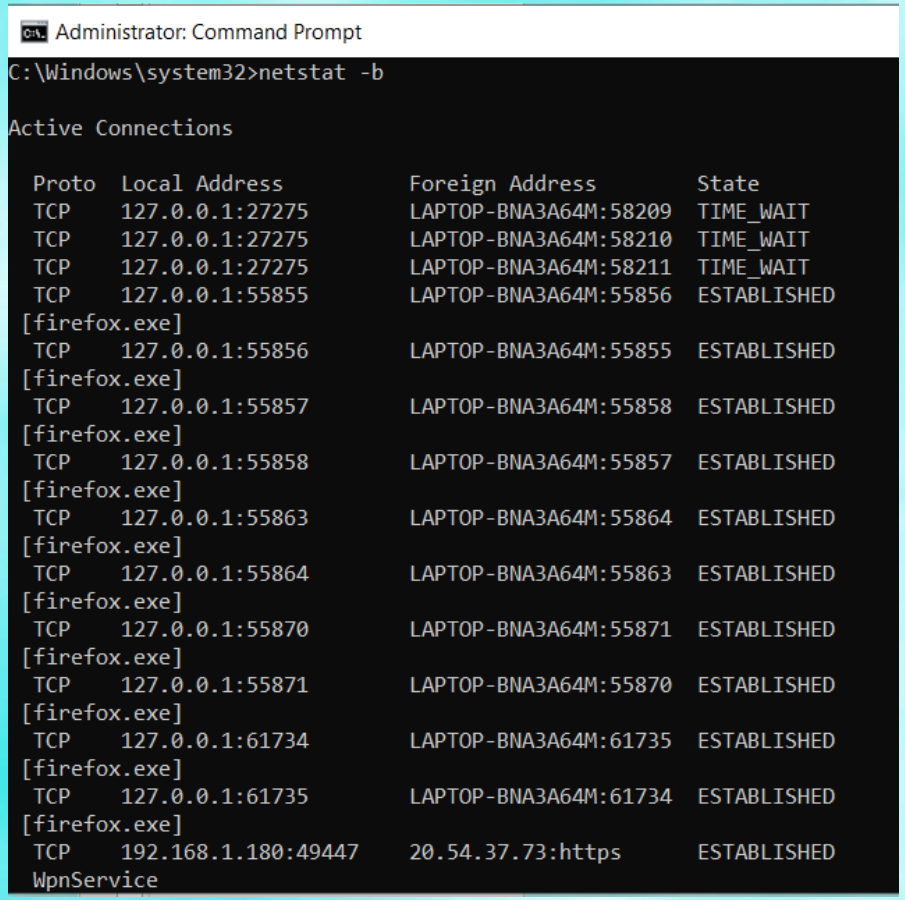
```
C:\Users\johnr>ping www.google.co.uk

Pinging www.google.co.uk [2a00:1450:4009:823::2003] with 32 bytes of data:
Reply from 2a00:1450:4009:823::2003: time=7ms
Reply from 2a00:1450:4009:823::2003: time=6ms
Reply from 2a00:1450:4009:823::2003: time=6ms
Reply from 2a00:1450:4009:823::2003: time=6ms

Ping statistics for 2a00:1450:4009:823::2003:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 6ms, Maximum = 7ms, Average = 6ms
```

Reveal which programs are connected to the web

cmd (run as Administrator)

Now use the *Display Networking Statistics* Command prompt:

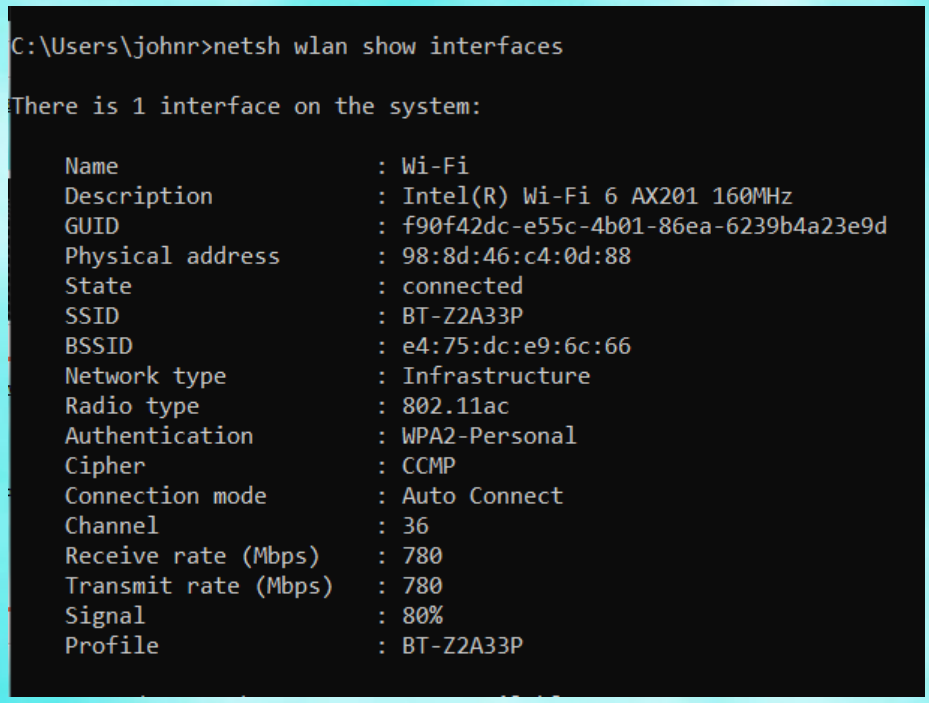
netstat -b



Wi-fi not be working correctly or slow

Check signal strength:
netsh wlan show interfaces

If < 50% try moving your router to another position.



If signal strength is not the problem.

Try resetting the Winsock Settings (if they get corrupted you will loose access to your network):

netsh winsock reset

Reset your computer's IP Address (if two devices have the same IP address, both will fail). To release:
ipconfig /release

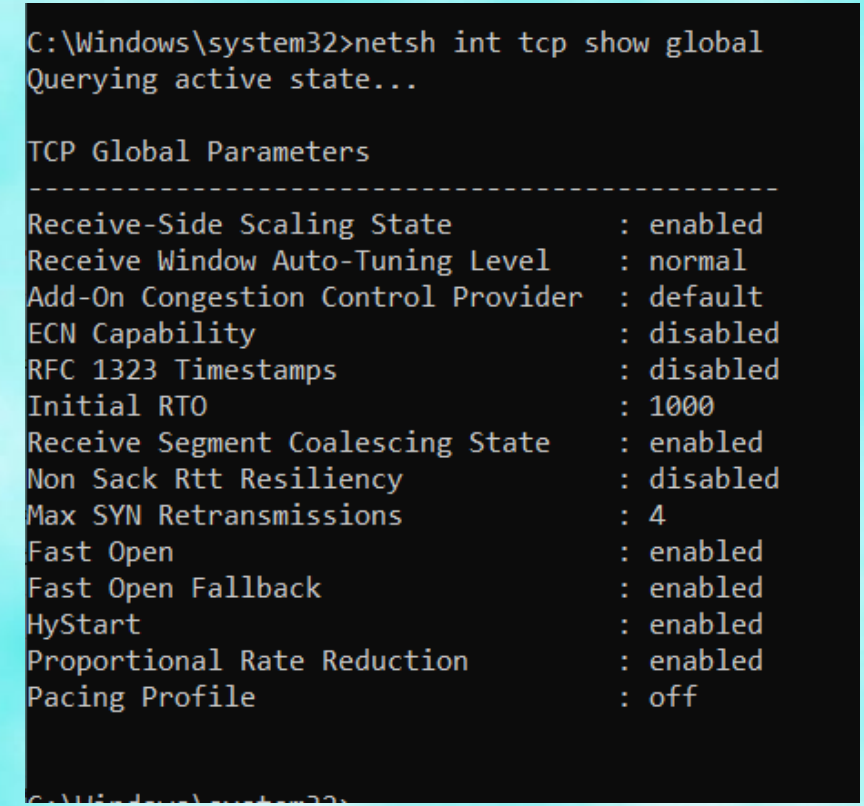
To renew:
ipconfig /renew

Also worth purging your DNS history:
ipconfig /flushdns

If your wi-fi is still slow.

netsh int tcp show global

“Receive Windows Auto-Tuning Level” should be set to normal

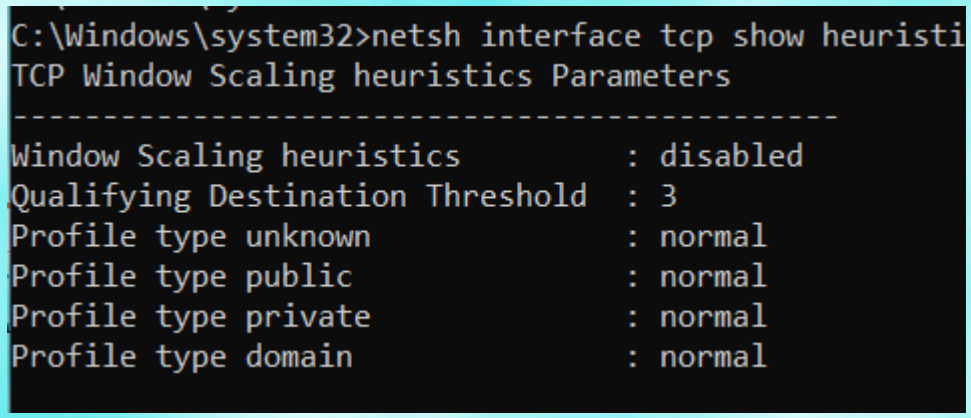


If “Receive Windows Auto-Tuning Level” is not set to normal

netsh int tcp set global autotuninglevel=normal

netsh interface tcp show heuristics

“Windows Scaling heuristics” should be set to disabled



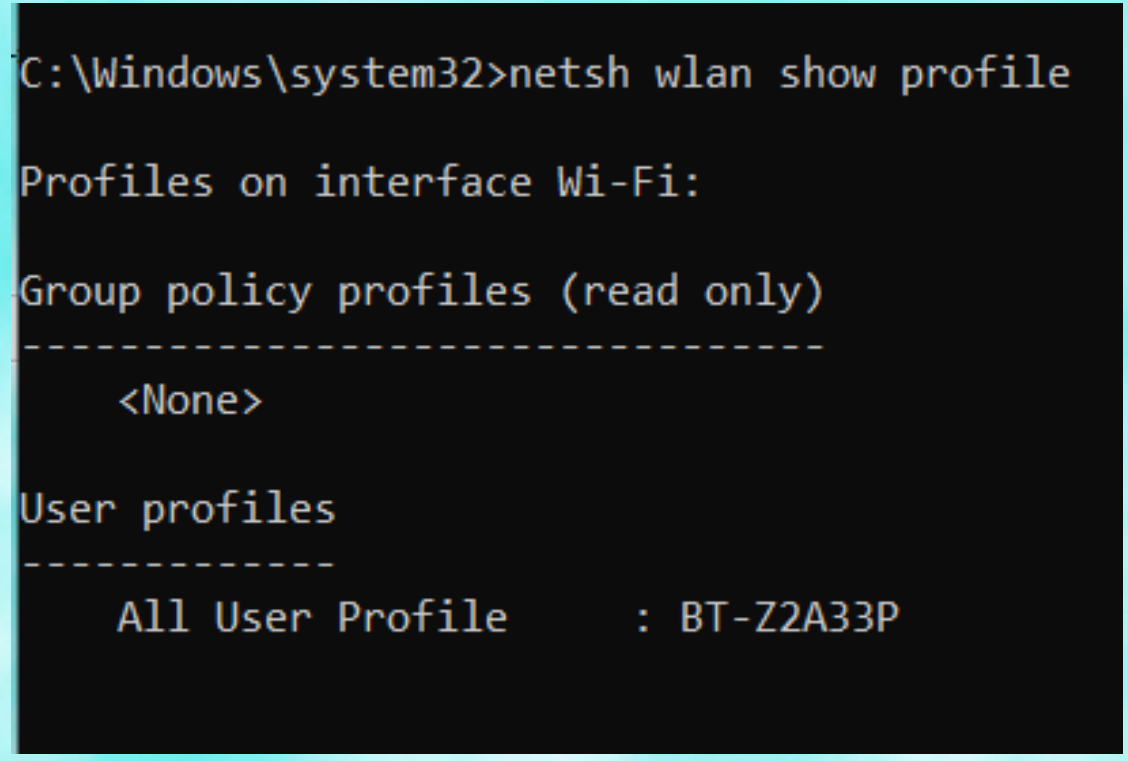
If “Windows Scaling heuristics” is set to enabled

netsh int tcp set heuristics disabled

Restart your computer and test your wi-fi

Forgotten your Wi-fi password:

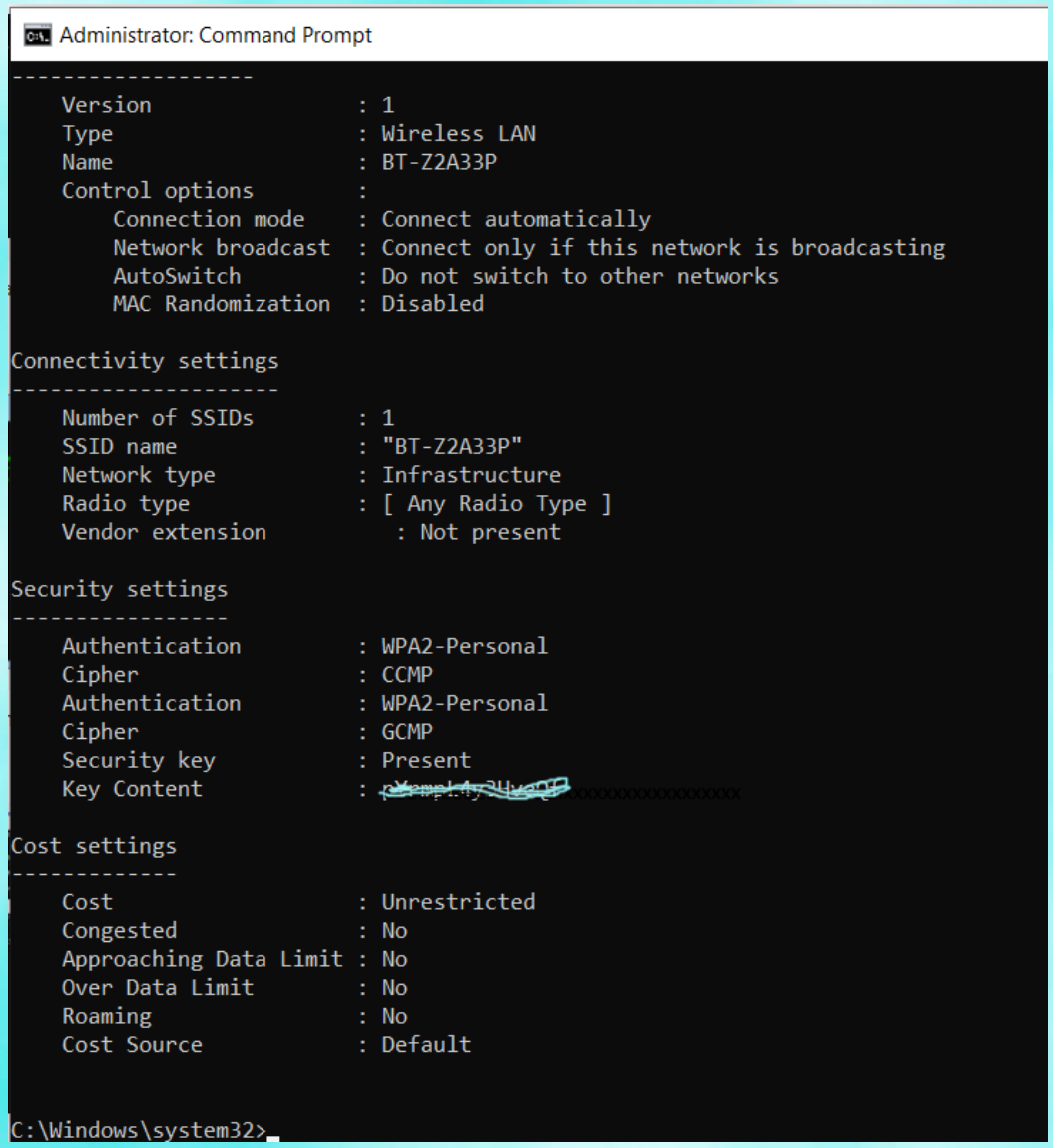
netsh wlan show profile



This will show your Wifi-name

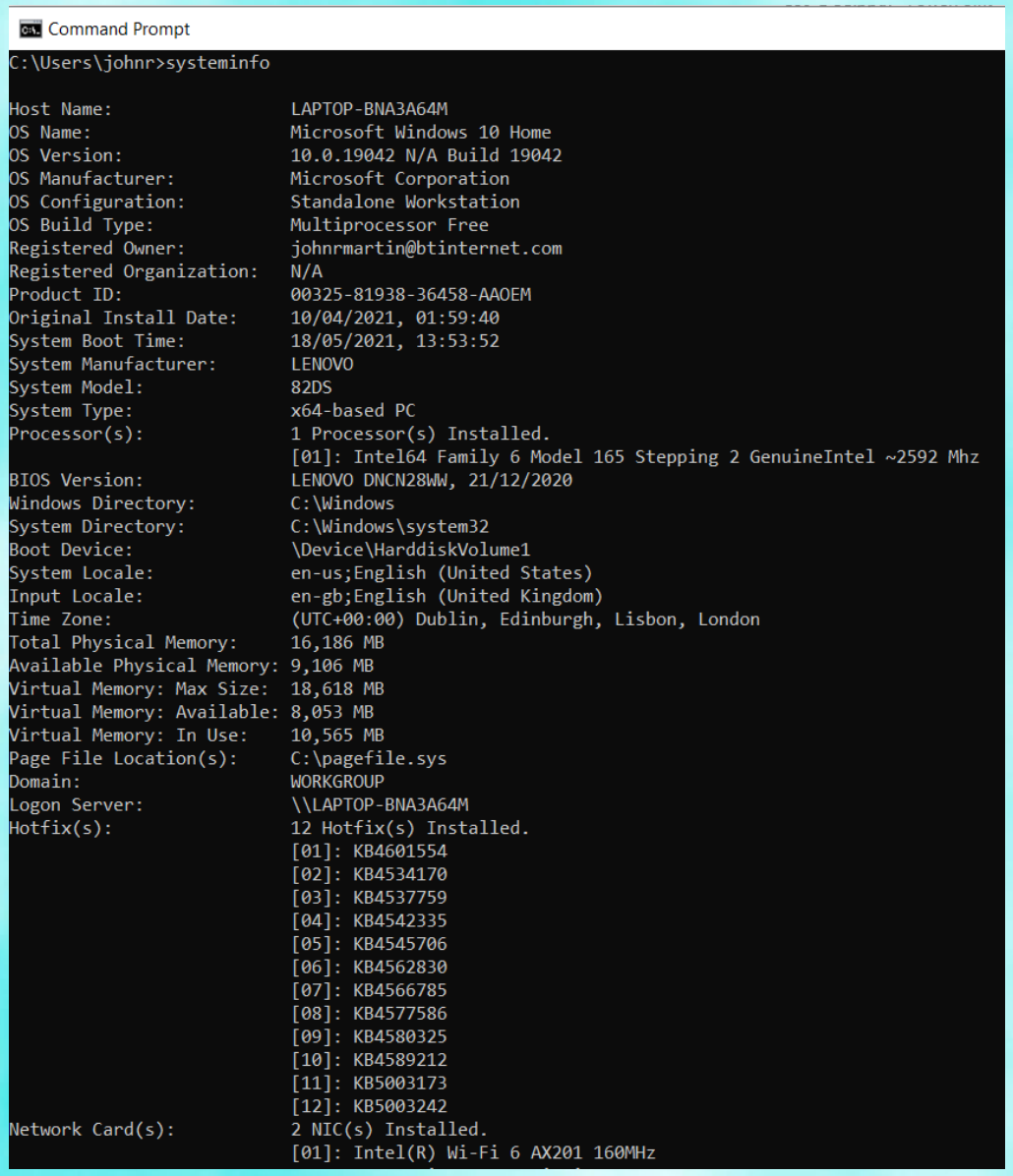
netsh wlan show profile [WIFI-name] key=clear

The Wi-fi password is shown against “Key Content” under “Security settings”



System Information.

Use the Command prompt:
systeminfo

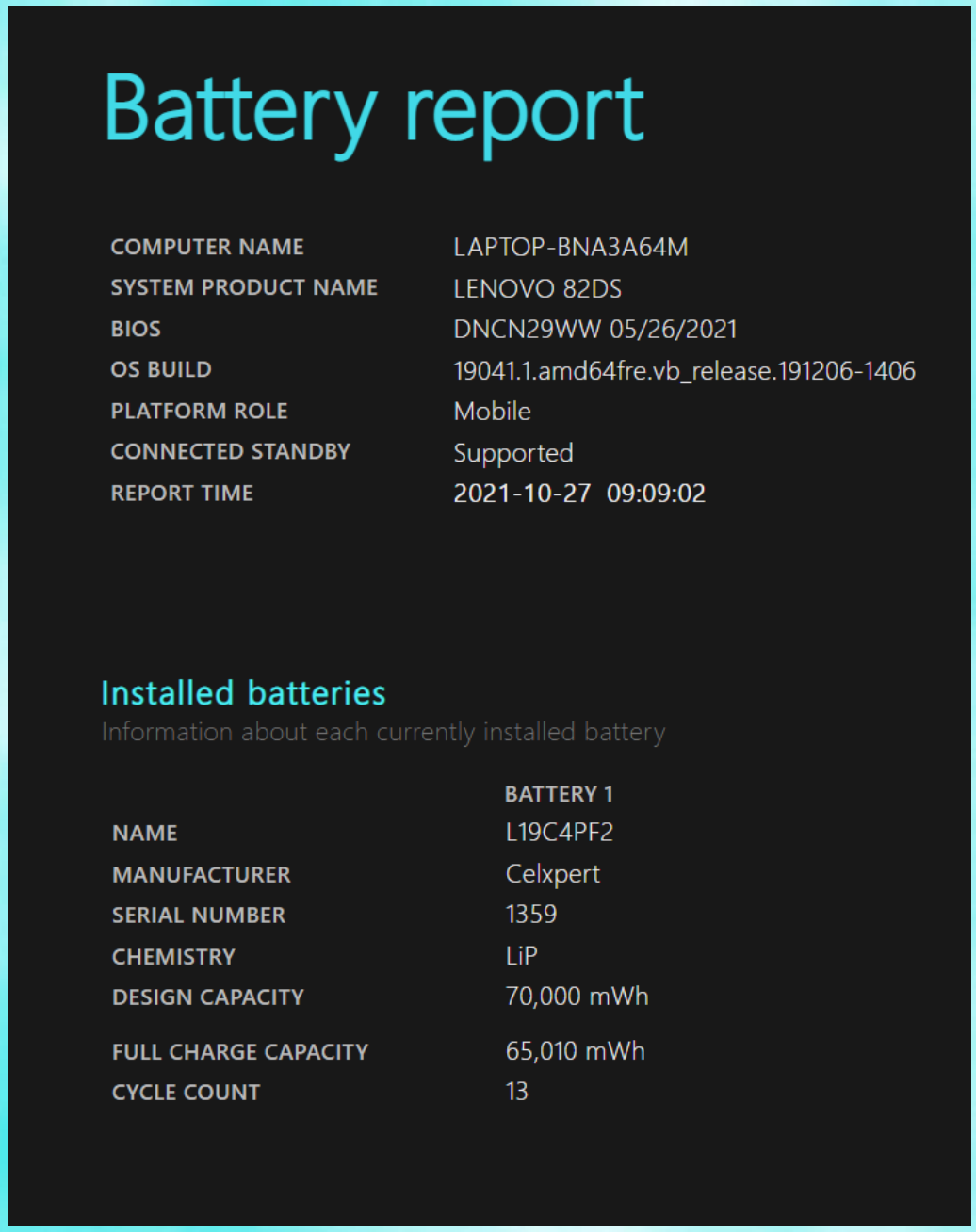


Check your laptops battery.

Use the *Configure Power Settings* Command prompt:

powercfg /batteryreport

Open the file that has been created



Battery report

COMPUTER NAME	LAPTOP-BNA3A64M
SYSTEM PRODUCT NAME	LENOVO 82DS
BIOS	DNCN29WW 05/26/2021
OS BUILD	19041.1.amd64fre.vb_release.191206-1406
PLATFORM ROLE	Mobile
CONNECTED STANDBY	Supported
REPORT TIME	2021-10-27 09:09:02

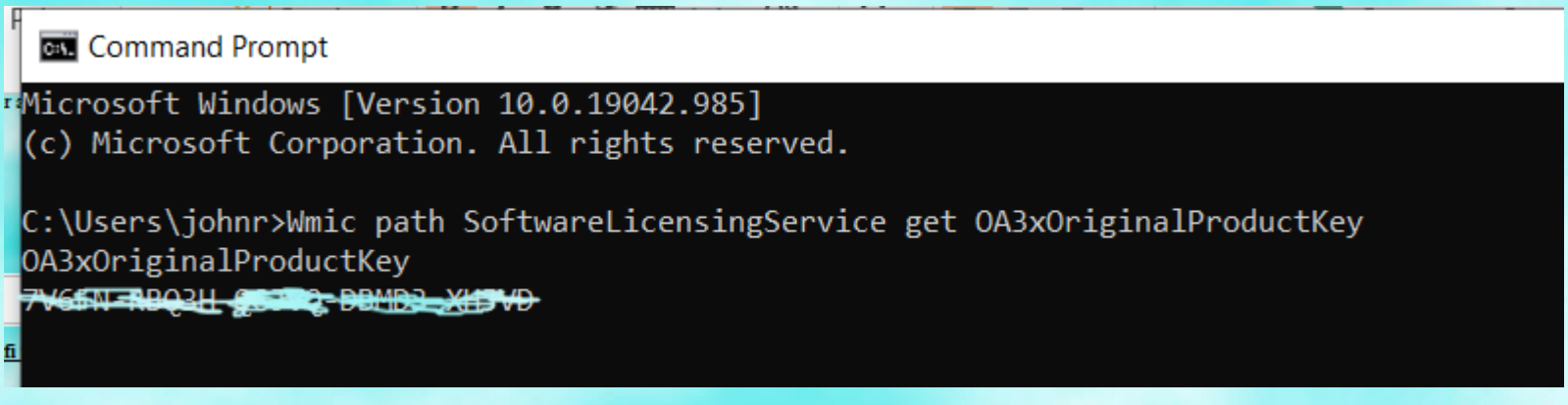
Installed batteries

Information about each currently installed battery

	BATTERY 1
NAME	L19C4PF2
MANUFACTURER	Celxpert
SERIAL NUMBER	1359
CHEMISTRY	LiP
DESIGN CAPACITY	70,000 mWh
FULL CHARGE CAPACITY	65,010 mWh
CYCLE COUNT	13

Find your Windows product key.

Wmic path SoftwareLicensingService get OA3xOriginalProductKey



Change a forgotten Windows password.

If someone who uses your computer forgets their Windows login, then you can reset the password:

cmd (run as Administrator)

net user Steve newpass
(where Steve is the username and newpass the new password)

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