

MOST Important command prompt commands that every developer should know!

Here's a cheat sheet of the most important CMD (Command Prompt) commands that every developer should know when working with Windows:

System Information and Control

systeminfo: Displays detailed system configuration, OS, and hardware information.

hostname: Shows the computer's hostname.

ipconfig: Displays the IP configuration of network interfaces. Use **ipconfig /all** : for detailed info.

tasklist: Lists all running processes.

taskkill /F /PID <PID>: Terminates a process by its PID (process ID).

shutdown /s /t 0: Shuts down the computer. The **/s**: flag means shutdown, and **/t 0**: is the time in seconds (0 means immediate).

shutdown /r /t 0: Restarts the computer.

chkdsk: Checks the file system and disk for errors.

File and Directory Operations

Command Description

cd <directory>: Changes to the specified directory. Use **cd ..**: to go up one level.

dir: Lists files and folders in the current directory.

mkdir <directory>: Creates a new directory.

rmdir /S /Q <directory>: Deletes a directory and all its contents ("/S" removes all files; **/Q**: suppresses confirmation).

del <file> : Deletes a specified file.

copy <source> <destination> : Copies a file from the source to the destination.

move <source> <destination> : Moves a file from the source to the destination.

xcopy <source> <destination> /E : Copies directories and subdirectories, including empty ones.

attrib +r/ r <file> : Adds/removes the read only attribute to/from a file.

ren <old name> <new name> : Renames a file or directory.

Network Operations

Command Description

ping <hostname> : Sends ICMP packets to test the network connection to the specified hostname or IP address.

tracert <hostname> : Traces the route packets take to reach a host.

netstat an : Shows active connections and listening ports.

nslookup <domain> : Queries the DNS to find the IP address of a domain.

arp a : Displays the ARP cache (IP to MAC address mappings).

route print : Displays the current routing table.

File System and Disk Operations

Command Description

diskpart : Opens the Disk Partition tool to manage disk drives.

format <drive> : Formats a disk drive (e.g., **format D:** formats drive D).

vol <drive> : Shows the volume label and serial number for a disk.

sfc /scannow : Scans and repairs system files.

wmic : Displays system information (like CPU, memory, disk, etc.).

Examples:**wmic cpu** ; **wmic diskdrive** .

cipher /E : Encrypts data on NTFS drives.

cipher /W:<directory> : Wipes deleted files securely.

User and Permission Management

Command Description

net user : Lists all users on the system.

net user <username> : Displays detailed information about the specified user.

net user <username> <password> : Changes the password for a user account.

net user <username> /add : Creates a new user account.

net localgroup administrators <username> /add : Adds a user to the **administrators** : group (admin rights).

runas /user:<username> cmd : Opens a Command Prompt as another user.

Batch File and Task Automation

Command Description

echo <text> : Prints text to the command line (useful in batch scripts).

cls : Clears the screen.

pause : Pauses batch file execution and waits for user input.

for /R %f in () do <command> : Iterates over files in a directory and runs a command on each.

start <application> : Opens a new instance of the specified application.

schtasks : Schedules and manages tasks. For example, uses **schtasks /create** : to create a scheduled task.

Environment Variables and System Management

Command Description

set : Displays or sets environment variables.

setx <variable> <value> : Sets a system or user environment variable permanently.

echo %<variable>% : Displays the value of an environment variable.

assoc : Displays or modifies file extension associations.

path : Displays or sets the system **PATH** : variable.

ver : Displays the OS version.

Registry and System Settings

Command Description

reg query <key> : Queries the Windows registry for a key or value.

reg add <key> /v <value> /t <type> /d <data> : Adds a value to the Windows registry.

reg delete <key> /v <value> : Deletes a value from the registry.

gpupdate /force : Forces a Group Policy update.

wmic startup get caption,command : Lists all programs that start on system boot.

Security and Permissions

Command Description

icacls <file> : Displays or modifies access control lists (ACLs) for files.

cacls <file> : Displays or modifies file access permissions.

takeown /F <file> : Takes ownership of a file or directory.

whoami : Displays the current user and group permissions.

Shortcuts for Quick Access

Command Description

Ctrl + C : Stops the current command.

Ctrl + Z : Marks the end of text input.

Ctrl + A : Selects all text in the Command Prompt window.

F7 : Displays a command history in a graphical interface.

F3 : Repeats the last command.

Tips

Command Chaining : Use**&&** : to run a second command only if the first succeeds. For example:**mkdir myDir && cd myDir** :.

*Redirect Output : Use > : to redirect output to a file, and >> : to append output to an existing file. Example: **dir > files.txt** .*