

A Beginner's Guide to the Windows Command Prompt

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A lot of Windows users have never touched the Command Prompt. With today's streamlined operating systems, it's easy to use a computer without ever worrying about entering old-school text commands in the command line.

However, it's a good idea to become familiar with command line basics in Windows. It helps you appreciate the OS more and can come in handy for some tasks. Here's a beginner's guide to the Windows Command Prompt for those who aren't yet familiar.

What Is the Command Prompt?

The Command Prompt, officially called the Windows Command Processor and often abbreviated to CMD, is the command line interface for Windows operating systems. A command line interface is a way of interacting with a computer directly using text commands.

These harken back to the early days of computers, when you had to type commands into a terminal to execute processes on the machine. Early PC operating systems, like MS-DOS, operated exclusively through command-line interfaces. There were no mouse cursor, window management, or similar graphical user interface (GUI) elements we take for granted today.



Watch Video At: <https://youtu.be/1bKNts8liWI>

Another term you should know is the word "shell," which is used to describe a program that allows the user to give commands to the computer. So a command line interface, as well as a GUI, are both shells.

Early versions of Windows, like Windows 3.1, effectively ran as a visual interface on top of DOS. Later versions, including Windows 95 through Windows ME, also included MS-DOS integration. These allowed you to run commands through the MS-DOS Prompt, as the Command Prompt was called at the time.

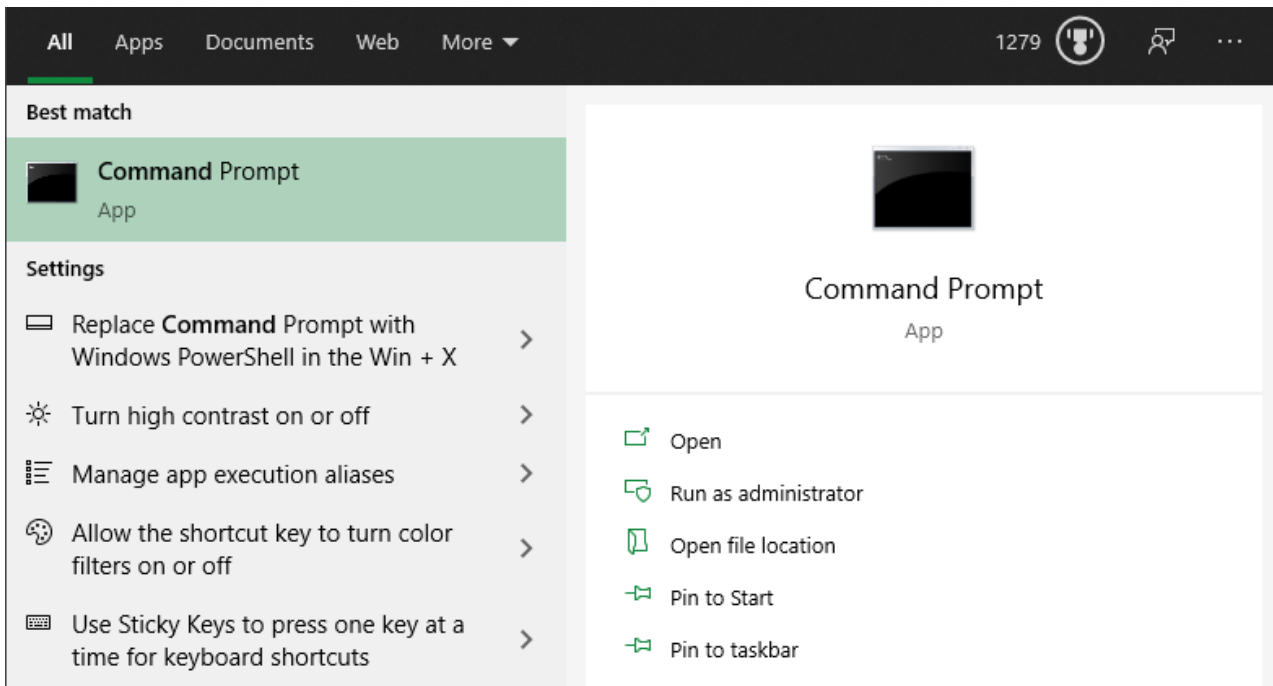
Starting with Windows XP, Windows broke away from MS-DOS. However, in modern versions of Windows, you can still use the Command Prompt to interface with your computer directly instead of clicking through various menus. The Command Prompt can also run batch files; these make automating tasks easy.

Power users prefer the Command Prompt for some tasks, as you can take actions with a few simple keystrokes that would require dozens of clicks in the GUI.

How to Open the Command Prompt in Windows 10 and Windows 11

There are a few ways to open the Command Prompt in Windows. Below are the most convenient:

1. Type "command prompt" into the Start menu to search for it. You can also type "cmd" (the short name of the executable that runs the Command Prompt) if you prefer.
2. Press **Win + R** to open the Run box, then type "cmd" and hit **Enter** to open it.
3. Press **Win + X** (or right-click the Start button) and choose **Command Prompt** from the menu.
 1. Depending on your Windows settings, this may show **Windows PowerShell** or **Windows Terminal** instead. The new Windows Terminal and PowerShell are both more powerful than the Command Prompt, but are backward-compatible with all CMD commands.



Any of these will open the Command Prompt with regular permissions. A lot of useful commands require you to have administrator permissions, which will fail with a regular CMD window.

To run the Command Prompt as an admin, hold **Ctrl + Shift** when you launch either of the first two options above. If you use the third option, pick **Command Prompt (Admin)** (or the corresponding option that appears for you) instead. This will require you to accept a UAC prompt, so you'll need to be logged into an admin account or provide an admin password.

How to Use the Windows Command Prompt: Basics

When you open a Command Prompt window, you'll see some basic info about your current Windows version. Below this, you'll see a line like the below:

```
C:\Users\[Username]>
```

This is your current location. Any commands you run that rely on location (such as deleting files) will take place in this folder. Other CMD commands are more general and don't rely on you being in a specific location.

It's important to know that when working in the Command Prompt, you must type commands exactly as the system expects. Since you're issuing commands directly to your computer, it won't understand if you type something wrong.

If you type a command that your computer doesn't recognize, you'll see a message that says '**[Command]** is not recognized...' and Windows won't do anything.

```
0% Select C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19041.746]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\stegn>makeuseof
'makeuseof' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\stegn>
```

This isn't a problem; what's more of a risk is accidentally typing the wrong command, or using a command in a way you didn't intend. For example, when trying to delete one file, you might accidentally tell it to delete an entire folder instead.

The command line will run whatever you tell it, as long as it's a valid option. So you should always double-check what you're about to do before you fire it off, and don't use an admin Command Prompt for general purposes.

Basic Command Prompt Commands for Beginners

There are lots of Command Prompt commands, and most of them aren't intuitive for newcomers. Learning them takes some time, so it's best to pick up a few at a time and slowly build your knowledge.

Let's look at a handful of CMD commands that illustrate its use for a beginner. These are just a very small sampling of what the Command Prompt can do, however. When you're ready to move on, have a look at [more CMD commands you should know](#), as well as our [cheat sheet of handy Windows commands](#).

Getting Help

```
C:\WINDOWS\system32\cmd.exe
SYSTEMINFO    Displays machine specific properties and configuration.
TASKLIST     Displays all currently running tasks including services.
TASKKILL     Kill or stop a running process or application.
TIME         Displays or sets the system time.
TITLE        Sets the window title for a CMD.EXE session.
TREE         Graphically displays the directory structure of a drive or
             path.
TYPE         Displays the contents of a text file.
VER          Displays the Windows version.
VERIFY       Tells Windows whether to verify that your files are written
             correctly to a disk.
VOL          Displays a disk volume label and serial number.
XCOPY        Copies files and directory trees.
WMIC         Displays WMI information inside interactive command shell.

For more information on tools see the command-line reference in the online help.

C:\Users\stegn>time /?
Displays or sets the system time.

TIME [/T | time]

Type TIME with no parameters to display the current time setting and a prompt
for a new one. Press ENTER to keep the same time.
```

Typing **help** will list many common commands that you can use. These will get you started, so you don't have to go looking for command names on your own.

If you'd like more specific information about how to use a certain command, type it followed by **/?**. This will give you more help, plus additional options for modifying how it works.

Listing and Changing Directories

```
C:\WINDOWS\system32\cmd.exe
C:\Users\stegn>cd..

C:\Users>dir
Volume in drive C is Samsung-OS
Volume Serial Number is ██████████

Directory of C:\Users

10/20/2020  10:51    <DIR>          .
10/20/2020  10:51    <DIR>          ..
06/13/2020  11:44    <DIR>          defaultuser0
06/15/2020  13:22    <DIR>          defaultuser100000
09/28/2020  17:14    <DIR>          dummy
11/09/2020  22:40    <DIR>          Public
01/06/2021  00:42    <DIR>          stegn
10/20/2020  10:52    <DIR>          TEMP
             0 File(s)          0 bytes
             8 Dir(s)  30,609,559,552 bytes free

C:\Users>_
```

The **dir** command, which is short for **directory**, will list the contents of the folder that you're currently in. As mentioned earlier, you can check this by looking at the folder that appears to the left of your current command.

To change your current location, use **cd** (short for **change directory**) followed by the folder you want to visit. Available folders are marked with **<DIR>** when you run the **dir** command.

So for example, to move to your Desktop folder from your default user folder, you would type **cd Desktop**. You can move up one folder by using the **cd..** shortcut.

Creating and Deleting Files and Folders

Use **mkdir [new folder name]** (make directory) to create a new folder. For instance, **mkdir Awesome Pics** will make a folder called **Awesome Pics**.

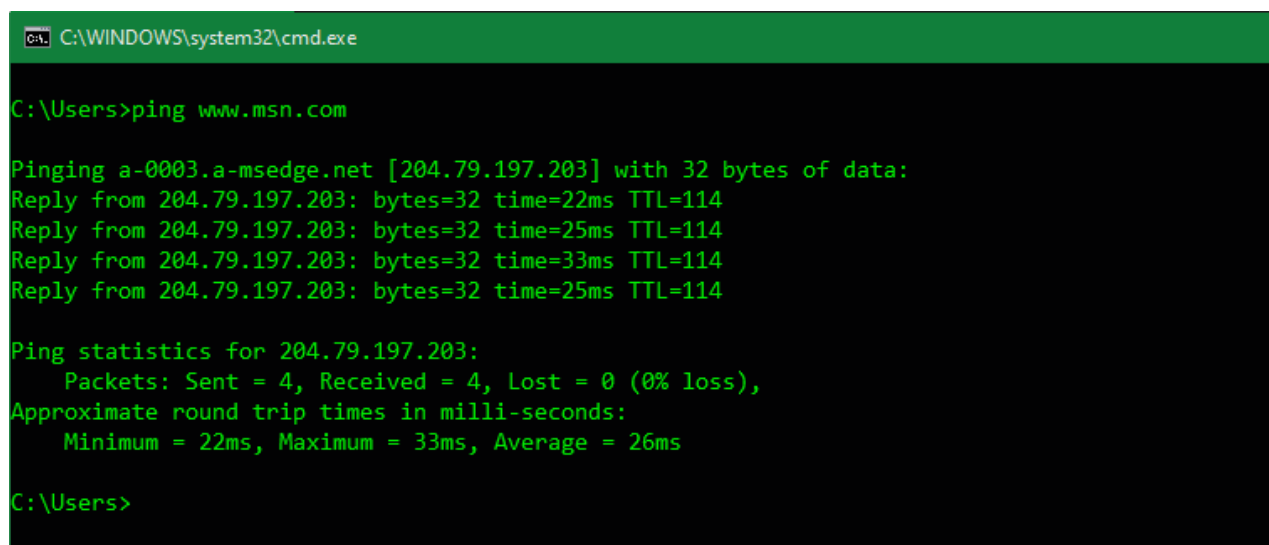
Similarly, **rmdir [folder name]** (remove directory) will delete a folder, but only if it's empty. To delete a file, use **del [file name]**.

CMD Management

If there's too much clutter on the Command Prompt's screen, type **cls** to clear the contents and start fresh. And if there's a command running that you want to cancel (maybe it's taking too long), hit **Ctrl + C** to end it.

Networking Commands

Some of the most useful Command Prompt commands deal with networking. Commands like **ping** let you see if your computer can reach a remote destination and how long it takes. Meanwhile, **ipconfig** lets you see the network overview for your current connection.



```
C:\WINDOWS\system32\cmd.exe

C:\Users>ping www.msn.com

Pinging a-0003.a-msedge.net [204.79.197.203] with 32 bytes of data:
Reply from 204.79.197.203: bytes=32 time=22ms TTL=114
Reply from 204.79.197.203: bytes=32 time=25ms TTL=114
Reply from 204.79.197.203: bytes=32 time=33ms TTL=114
Reply from 204.79.197.203: bytes=32 time=25ms TTL=114

Ping statistics for 204.79.197.203:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 22ms, Maximum = 33ms, Average = 26ms

C:\Users>
```

Learning about [CMD commands for managing networks](#) is thus a great use of the tool.

Commands for Troubleshooting

A common use for firing up the Command Prompt is to run one of several troubleshooting commands. CHKDSK lets you scan your storage drives for errors, while SFC allows Windows to detect and fix corrupt system files. For more, see our [comparison of CHKDSK, SFC, and DISM](#).

Taking the Command Prompt to the Next Level

Now you're familiar with the basics of the Command Prompt, even if you've never used it before. Some tasks, like managing files and folders, will probably feel clunky in the command line if you're used to doing these with the GUI. But for other tasks, like checking your IP address, running a quick CMD command is much more convenient than clicking through a bunch of menus.

While most CMD commands are specific to the Windows environment, Windows 10 and later also allow you to run the Bash shell used by Linux, macOS, and many other OSes. This is worth learning about if you use multiple platforms.