

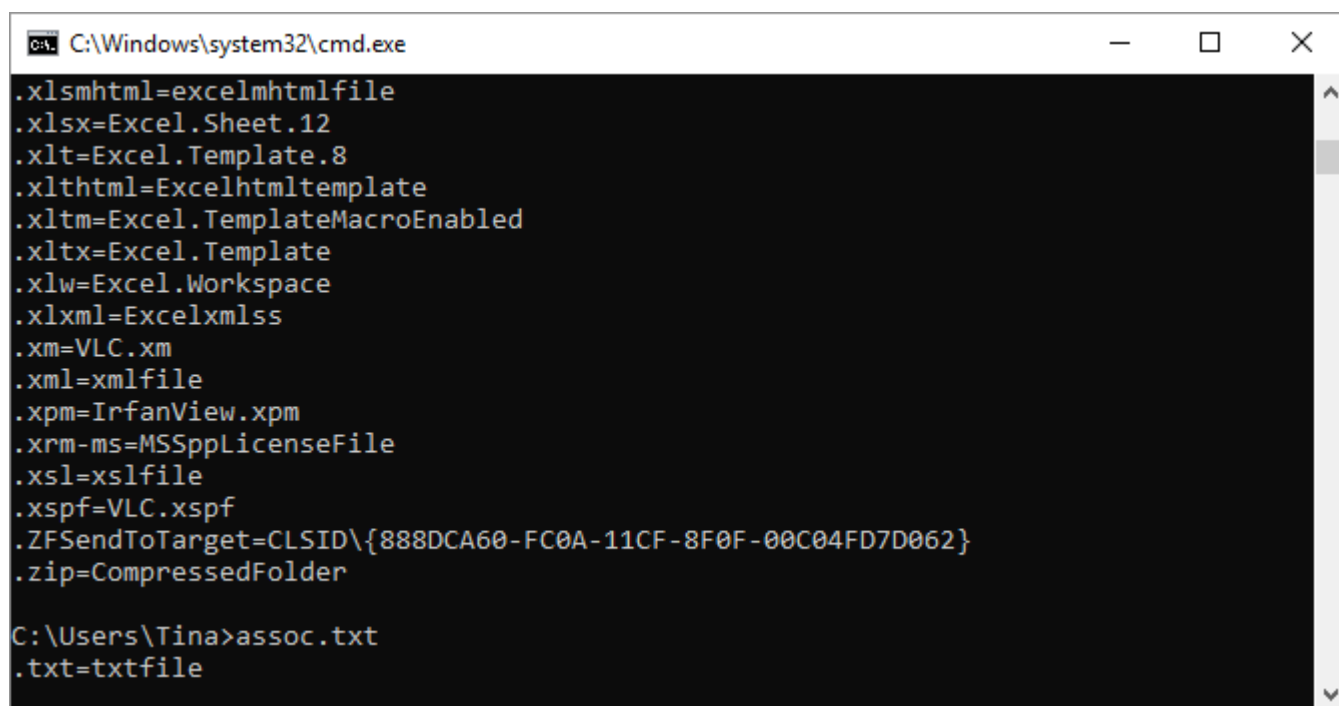
15 CMD Commands Every Windows User Should Know

<https://www.makeuseof.com/tag/15-cmd-commands-every-windows-user-know/>

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1. Assoc



```
C:\Windows\system32\cmd.exe
.xlsmhtml=excelmhtmlfile
.xlsx=Excel.Sheet.12
.xlt=Excel.Template.8
.xlthtml=Excelhtmltemplate
.xltm=Excel.TemplateMacroEnabled
.xltx=Excel.Template
.xlw=Excel.Workspace
.xml=Excel.xmlss
.xm=VLC.xm
.xml=xmlfile
.xpm=IrfanView.xpm
.xrm-ms=MSSppLicenseFile
.xsl=xslfile
.xspf=VLC.xspf
.ZFSendToTarget=CLSID\{888DCA60-FC0A-11CF-8F0F-00C04FD7D062}
.zip=CompressedFolder

C:\Users\Tina>assoc.txt
.txt=txtfile
```

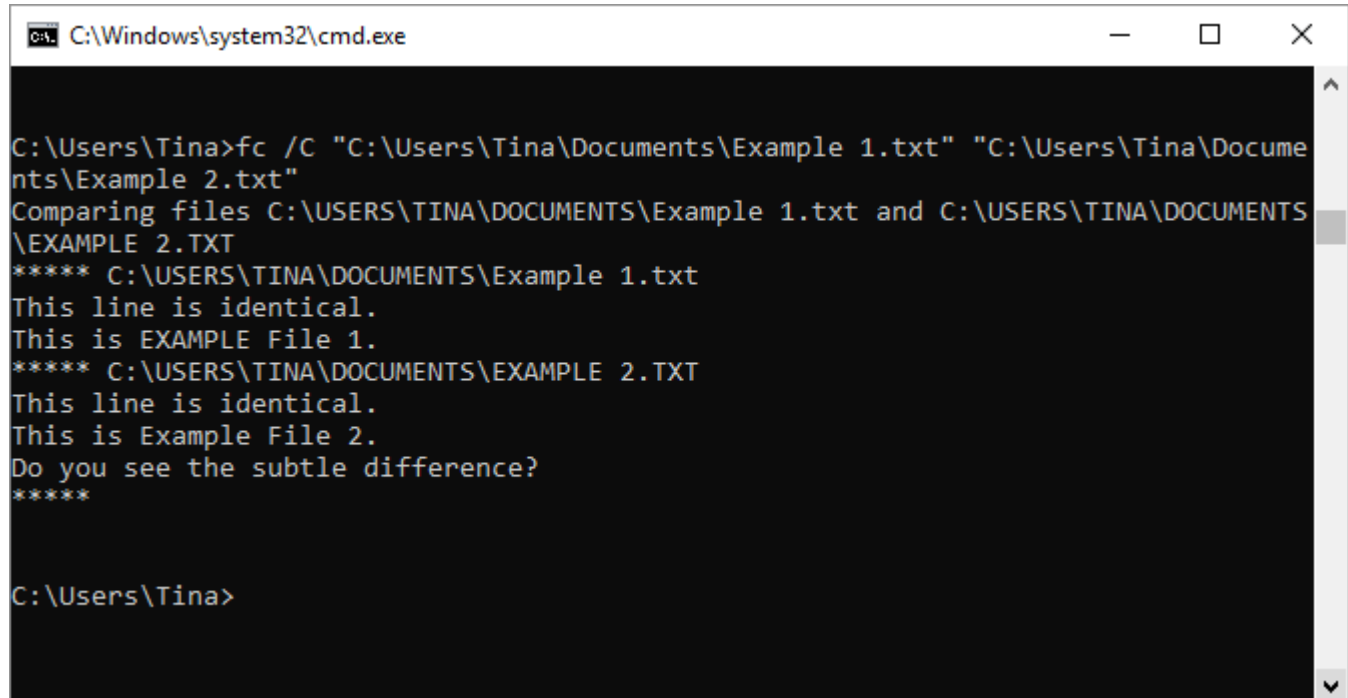
Most files in Windows are associated with a specific program that is assigned to open the file by default. At times, remembering these associations can become confusing. You can remind yourself by entering the command “assoc” to display a full list of file name extensions and program associations.

You can also extend the command to change file associations. For example, “assoc .txt=” will change the file association for text files to whatever program you enter after the equal sign. The “Assoc” command itself will reveal both the extension names and program names, which will help you properly use this command. You can probably do this more easily in the GUI, but the command line interface is a perfectly functional alternative.

command does. You can extend it to “driverquery -v” to obtain more information, including the directory in which the driver is installed.

[Take Back Control Over Driver Updates in Windows 10](#) [Take Back Control Over Driver Updates in Windows 10](#) A bad Windows driver can ruin your day. In Windows 10, Windows Update automatically updates hardware drivers. If you suffer the consequences, let us show you how to roll back your driver and block future... [Read More](#)

4. File Compare



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

C:\Users\Tina>fc /C "C:\Users\Tina\Documents\Example 1.txt" "C:\Users\Tina\Documents\Example 2.txt"
Comparing files C:\USERS\TINA\DOCUMENTS\Example 1.txt and C:\USERS\TINA\DOCUMENTS\EXAMPLE 2.TXT
***** C:\USERS\TINA\DOCUMENTS\Example 1.txt
This line is identical.
This is EXAMPLE File 1.
***** C:\USERS\TINA\DOCUMENTS\EXAMPLE 2.TXT
This line is identical.
This is Example File 2.
Do you see the subtle difference?
*****

C:\Users\Tina>
```

You can use this command to identify differences in text between two files. It’s particularly useful for writers and programmers trying to find small changes between two versions of a file. Simply type “fc” and then the directory path and file name of the two files you want to compare.

You can also extend the command in several ways. Typing “/b” compares only binary output, “/c” disregards the case of text in the comparison, and “/l” only compares ASCII text.

So, for example, you could use the following:

```
fc /l "C:\Program Files (x86)\example1.doc" "C:\Program Files (x86)\example2.doc"
```

The above command compares ASCII text in two word documents.

5. ipconfig

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

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : telus
    IPv6 Address. . . . .            : 
    Temporary IPv6 Address. . . . . : 
    Link-local IPv6 Address . . . . . : 
    IPv4 Address. . . . .            : 
    Subnet Mask . . . . .            : 
    Default Gateway . . . . .        : 

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . .            : Media disconnected
    Connection-specific DNS Suffix  . :
```

This command relays the IP address that your computer is currently using. However, if you're behind a router (like most computers today), you'll instead receive the local network address of the router.

Still, ipconfig is useful because of its extensions. "ipconfig /release" followed by "ipconfig /renew" can force your Windows PC into asking for a new IP address, which is useful if your computer claims one isn't available. You can also use "ipconfig /flushdns" to refresh your DNS address. These commands are great if the Windows network troubleshooter chokes, which does happen on occasion.

6. Netstat

```
C:\Windows\system32\cmd.exe - netstat

C:\Users\Tina>netstat

Active Connections

 Proto Local Address           Foreign Address         State
 TCP   [REDACTED]             DESKTOP-8GT[REDACTED] ESTABLISHED
 TCP   [REDACTED]             DESKTOP-8GT[REDACTED] ESTABLISHED
 TCP   [REDACTED]             DESKTOP-8GT[REDACTED] ESTABLISHED
 TCP   [REDACTED]             DESKTOP-8GT[REDACTED] ESTABLISHED
 TCP   [REDACTED]             DESKTOP-8GT[REDACTED] ESTABLISHED
 TCP   [REDACTED]             DESKTOP-8GT[REDACTED] ESTABLISHED
 TCP   [REDACTED]             DESKTOP-8GT[REDACTED] ESTABLISHED
 TCP   [REDACTED]             DESKTOP-8GT[REDACTED] ESTABLISHED
 TCP   [REDACTED]             DESKTOP-8GT[REDACTED] ESTABLISHED
 TCP   [REDACTED]             [REDACTED]             ESTABLISHED
 TCP   [REDACTED]             [REDACTED]             CLOSE_WAIT
```

Entering the command "netstat -an" will provide you with a list of currently open ports and related IP addresses. This command will also tell you what state the port is in – listening, established or closed.

This is a great command for when you're trying to troubleshoot devices connected to your PC or when you fear a Trojan infected your system and you're trying to locate a malicious connection.

7. Ping

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

C:\Users\Tina>ping

Usage: ping [-t] [-a] [-n count] [-l size] [-f] [-i TTL] [-v TOS]
           [-r count] [-s count] [[-j host-list] | [-k host-list]]
           [-w timeout] [-R] [-S srcaddr] [-c compartment] [-p]
           [-4] [-6] target_name

Options:
  -t           Ping the specified host until stopped.
               To see statistics and continue - type Control-Break;
               To stop - type Control-C.
  -a           Resolve addresses to hostnames.
  -n count     Number of echo requests to send.
  -l size      Send buffer size.
  -f           Set Don't Fragment flag in packet (IPv4-only).
  -i TTL       Time To Live.
  -v TOS       Type Of Service (IPv4-only. This setting has been deprecated
               and has no effect on the type of service field in the IP
```

Sometimes, you need to know whether or not packets are making it to a specific networked device. That's where ping comes in handy.

Typing "ping" followed by an IP address or web domain will send a series of test packets to the specified address. If they arrive and are returned, you know the device is capable of communicating with your PC; if it fails, you know that there's something blocking communication between the device and your computer. This can help you decide if the root of the issue is an improper configuration or a failure of network hardware.

8. PathPing

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

C:\Users\Tina>pathping

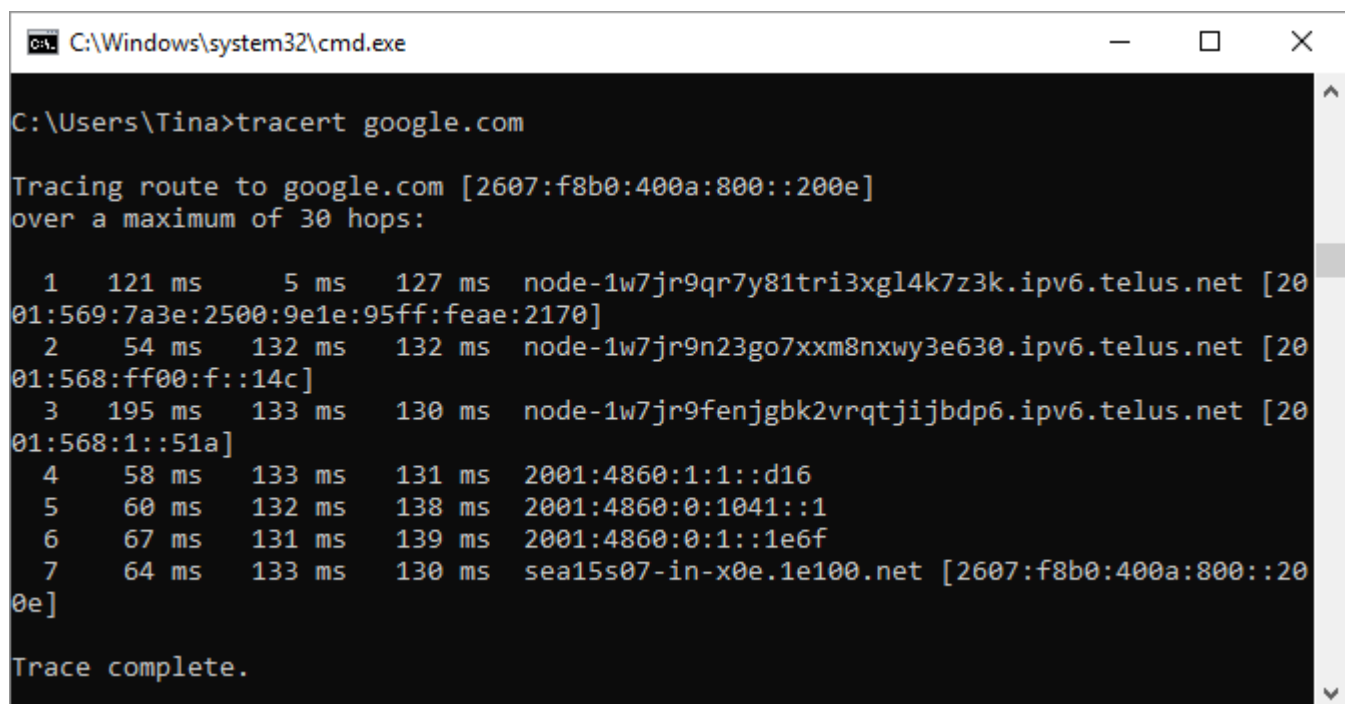
Usage: pathping [-g host-list] [-h maximum_hops] [-i address] [-n]
               [-p period] [-q num_queries] [-w timeout]
               [-4] [-6] target_name

Options:
  -g host-list  Loose source route along host-list.
  -h maximum_hops  Maximum number of hops to search for target.
  -i address     Use the specified source address.
  -n            Do not resolve addresses to hostnames.
  -p period      Wait period milliseconds between pings.
  -q num_queries  Number of queries per hop.
  -w timeout      Wait timeout milliseconds for each reply.
  -4            Force using IPv4.
  -6            Force using IPv6.

C:\Users\Tina>
```

This is a more advanced version of ping that's useful if there are multiple routers between your PC and the device you're testing. Like ping, you use this command by typing "pathping" followed by the IP address, but unlike ping, pathping also relays some information about the route the test packets take.

9. Tracert



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

C:\Users\Tina>tracert google.com

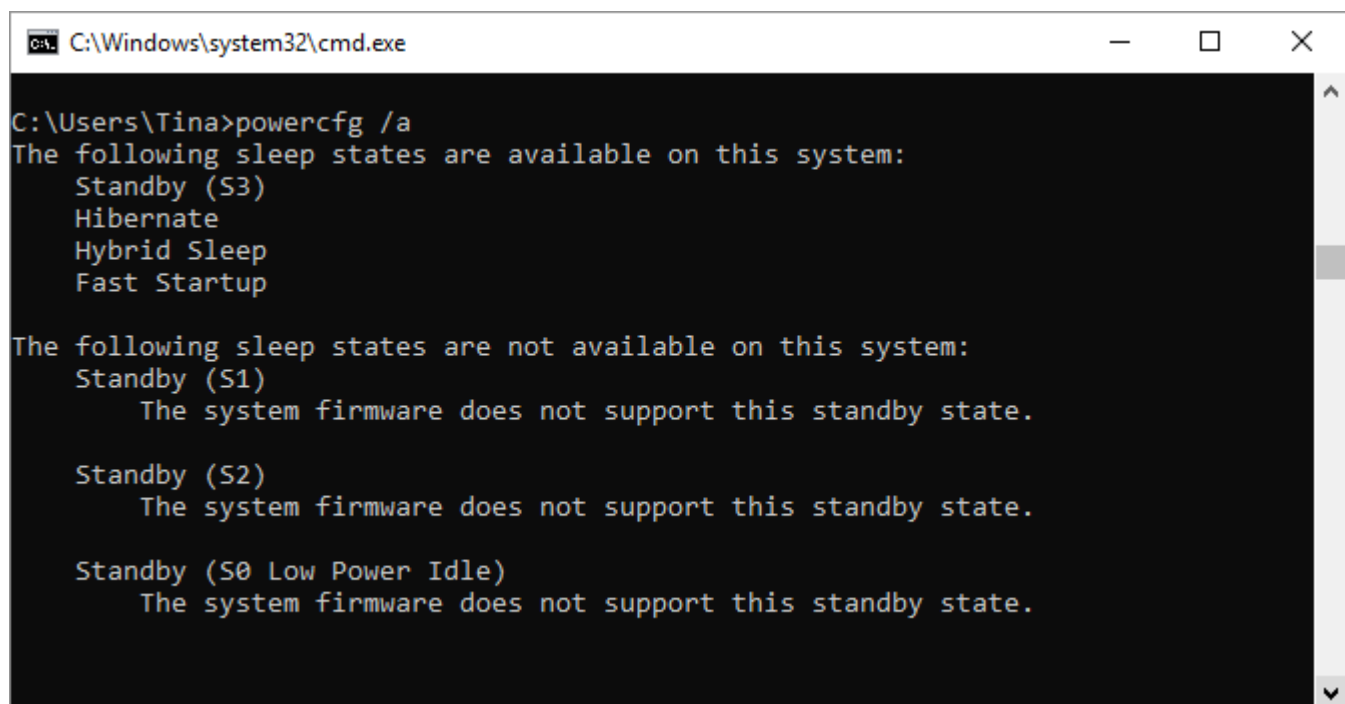
Tracing route to google.com [2607:f8b0:400a:800::200e]
over a maximum of 30 hops:

  1  121 ms    5 ms    127 ms    node-1w7jr9qr7y81tri3xgl4k7z3k.ipv6.telus.net [20
01:569:7a3e:2500:9e1e:95ff:feae:2170]
  2   54 ms   132 ms   132 ms    node-1w7jr9n23go7xxm8nxwy3e630.ipv6.telus.net [20
01:568:ff00:f::14c]
  3  195 ms   133 ms   130 ms    node-1w7jr9fenjgbk2vrqtjijbdp6.ipv6.telus.net [20
01:568:1::51a]
  4   58 ms   133 ms   131 ms    2001:4860:1:1::d16
  5   60 ms   132 ms   138 ms    2001:4860:0:1041::1
  6   67 ms   131 ms   139 ms    2001:4860:0:1::1e6f
  7   64 ms   133 ms   130 ms    sea15s07-in-x0e.1e100.net [2607:f8b0:400a:800::20
0e]

Trace complete.
```

The “tracert” command is similar to pathping. Once again, type “tracert” followed by the IP address or domain you’d like to trace. You’ll receive information about each step in the route between your PC and the target. Unlike pathping, however, tracert also tracks how much time (in milliseconds) each hop between servers or devices takes.

10. Powercfg



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

C:\Users\Tina>powercfg /a
The following sleep states are available on this system:
  Standby (S3)
  Hibernate
  Hybrid Sleep
  Fast Startup

The following sleep states are not available on this system:
  Standby (S1)
    The system firmware does not support this standby state.

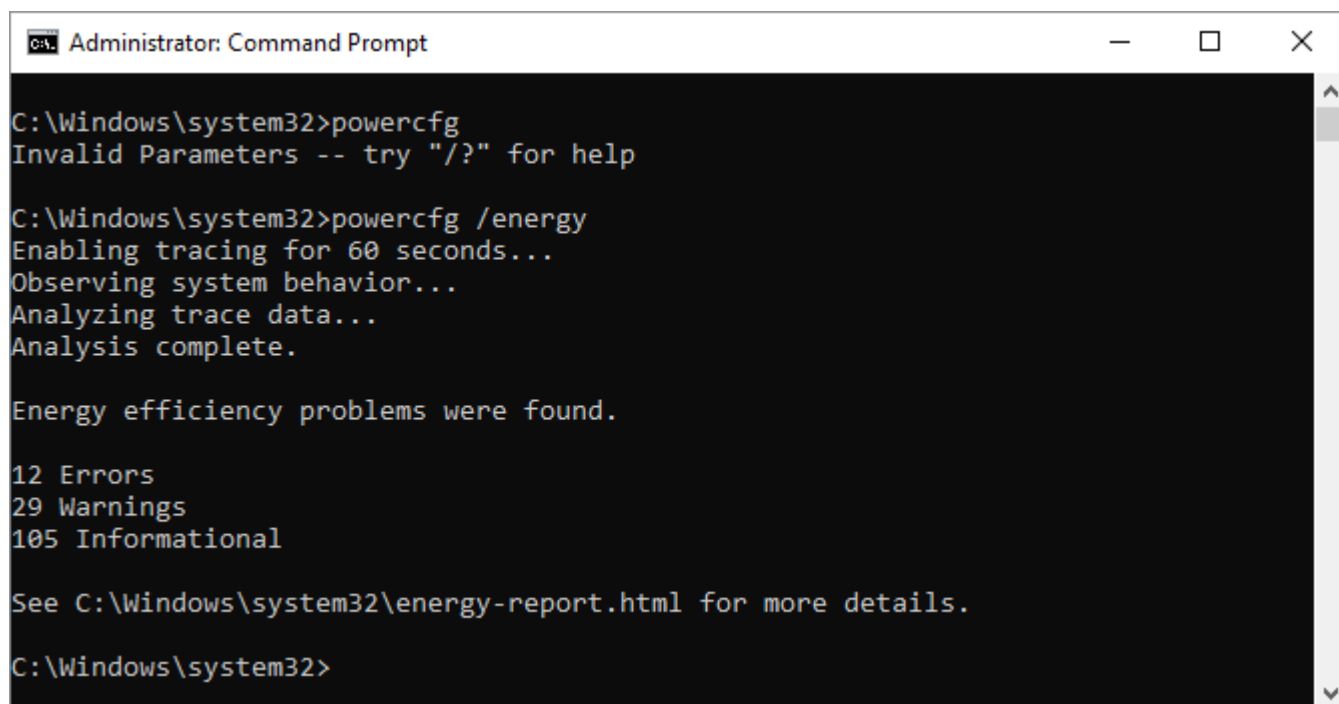
  Standby (S2)
    The system firmware does not support this standby state.

  Standby (S0 Low Power Idle)
    The system firmware does not support this standby state.
```

Powercfg is a very powerful command for managing and tracking how your computer uses energy. You can use the command “powercfg hibernate on” and “powercfg hibernate off” to manage hibernation, and you can also use the command “powercfg /a” to view the power-saving states currently available on your PC.

Another useful command is “powercfg /devicequery s1_supported”, which displays a list of devices on your computer that support connected standby. When enabled, you can use these devices to bring your computer out of standby — even remotely. You can enable this by selecting the device in **Device Manager**, opening its properties, going to the **Power Management** tab and then checking the **Allow this device to wake the computer** box.

“Powercfg /lastwake” will show you what device last woke your PC from a sleep state. You can use this command to troubleshoot your PC if it seems to wake from sleep at random.



```
C:\Windows\system32>powercfg
Invalid Parameters -- try "/" for help

C:\Windows\system32>powercfg /energy
Enabling tracing for 60 seconds...
Observing system behavior...
Analyzing trace data...
Analysis complete.

Energy efficiency problems were found.

12 Errors
29 Warnings
105 Informational

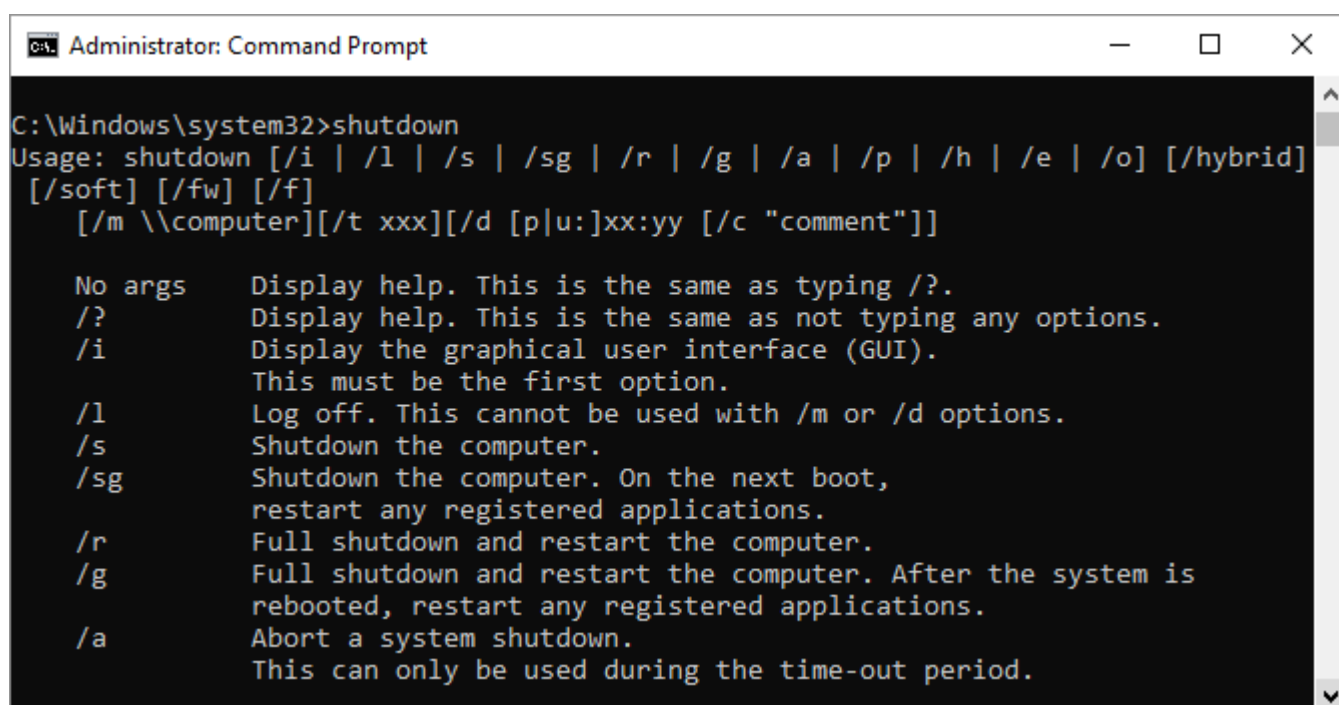
See C:\Windows\system32\energy-report.html for more details.

C:\Windows\system32>
```

You can use the “powercfg /energy” command to build a detailed power consumption report for your PC. The report saves to the directory indicated after the command finishes. This report will let you know of any system faults that might increase power consumption, like devices blocking certain sleep modes, or poorly configured to respond to your power management settings.

Windows 8 added “powercfg /batteryreport”, which provides a detailed analysis of battery use, if applicable. Normally output to your Windows user directory, the report provides details about the time and length of charge and discharge cycles, lifetime average battery life, and estimated battery capacity.

11. Shutdown



```
C:\Windows\system32>shutdown
Usage: shutdown [/i | /l | /s | /sg | /r | /g | /a | /p | /h | /e | /o] [/hybrid]
[/soft] [/fw] [/f]
      [/m \\computer][/t xxx][/d [p|u:]xx:yy [/c "comment"]]

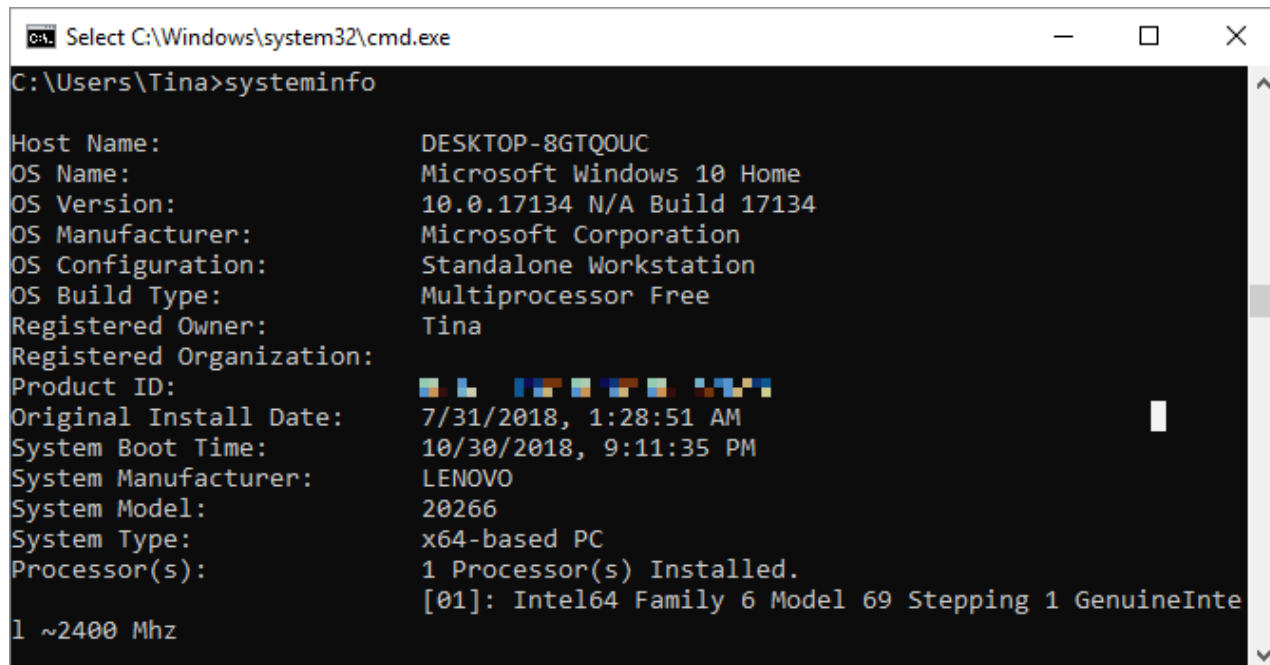
No args   Display help. This is the same as typing /?.
/?        Display help. This is the same as not typing any options.
/i        Display the graphical user interface (GUI).
           This must be the first option.
/l        Log off. This cannot be used with /m or /d options.
/s        Shutdown the computer.
/sg       Shutdown the computer. On the next boot,
           restart any registered applications.
/r        Full shutdown and restart the computer.
/g        Full shutdown and restart the computer. After the system is
           rebooted, restart any registered applications.
/a        Abort a system shutdown.
           This can only be used during the time-out period.
```

Windows 8 introduced the shutdown command that—you guessed it!—shuts down your computer.

[How to Shutdown or Sleep Windows 10 With a Keyboard Shortcut](#) [How to Shutdown or Sleep Windows 10 With a Keyboard Shortcut](#) The fastest way to shut down or sleep a Windows 10 computer is not with a mouse -- it's with the keyboard! [Read More](#)

This is, of course, redundant with the already easily accessed shutdown button, but what's not redundant is the "shutdown /r /o" command, which restarts your PC and launches the Advanced Start Options menu, which is where you can access Safe Mode and Windows recovery utilities. This is useful if you want to restart your computer for troubleshooting purposes.

12. Systeminfo



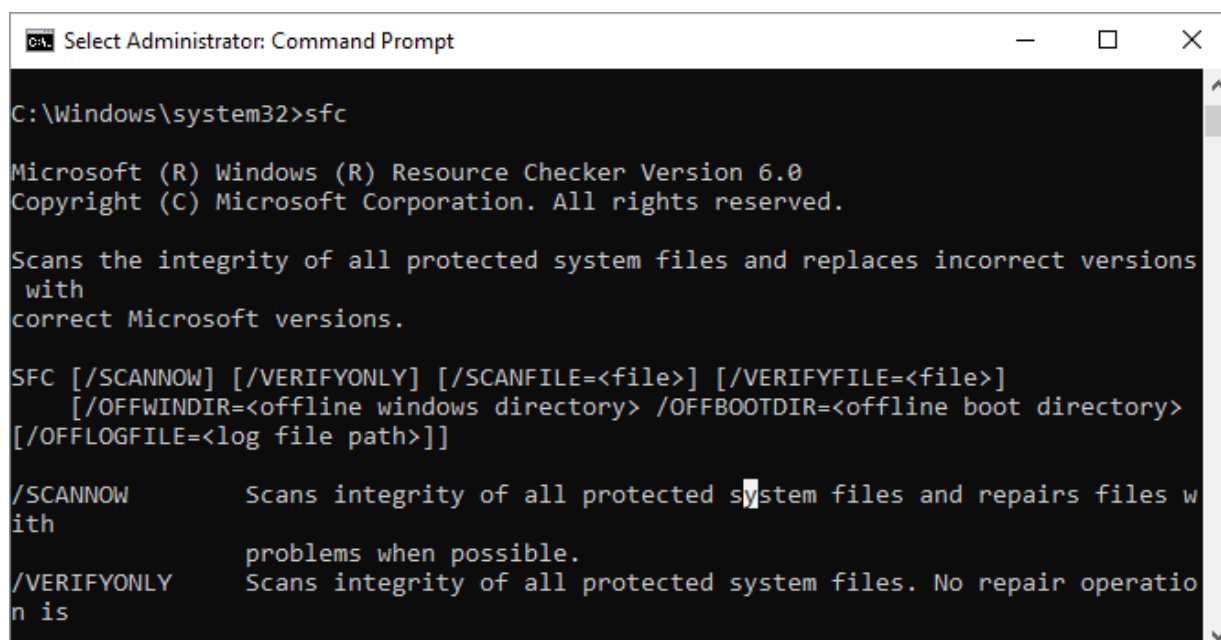
```
C:\Users\Tina>systeminfo

Host Name:                DESKTOP-8GTQOUC
OS Name:                   Microsoft Windows 10 Home
OS Version:                10.0.17134 N/A Build 17134
OS Manufacturer:         Microsoft Corporation
OS Configuration:         Standalone Workstation
OS Build Type:              Multiprocessor Free
Registered Owner:          Tina
Registered Organization:
Product ID:                 [REDACTED]
Original Install Date:      7/31/2018, 1:28:51 AM
System Boot Time:           10/30/2018, 9:11:35 PM
System Manufacturer:        LENOVO
System Model:                20266
System Type:                 x64-based PC
Processor(s):                1 Processor(s) Installed.
                             [01]: Intel64 Family 6 Model 69 Stepping 1 GenuineInte
l ~2400 Mhz
```

This command will give you a detailed configuration overview of your computer. The list covers your operating system and hardware. For example, you can look up the original Windows installation date, the last boot time, your BIOS version, total and available memory, installed hotfixes, network card configurations, and more.

Use "systeminfo /s" followed by the host name of a computer on your local network, to remotely grab the information for that system. This may require additional syntax elements for the domain, user name, and password, like this: "systeminfo /s [host_name] /u [domain]\[user_name] /p [user_password]"

13. System File Checker



```
C:\Windows\system32>sfc

Microsoft (R) Windows (R) Resource Checker Version 6.0
Copyright (C) Microsoft Corporation. All rights reserved.

Scans the integrity of all protected system files and replaces incorrect versions
with
correct Microsoft versions.

SFC [/SCANNOW] [/VERIFYONLY] [/SCANFILE=<file>] [/VERIFYFILE=<file>]
  [/OFFWINDIR=<offline windows directory> /OFFBOOTDIR=<offline boot directory>
  [/OFFLOGFILE=<log file path>]]

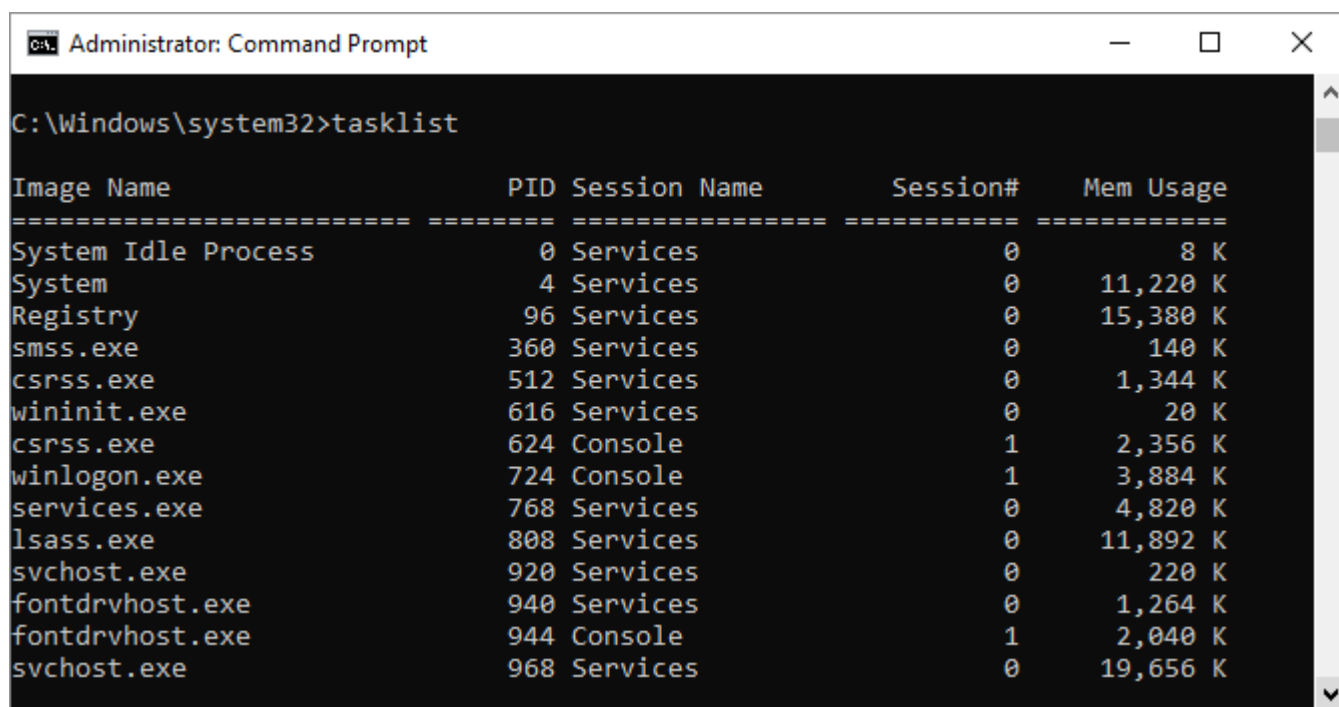
/SCANNOW           Scans integrity of all protected system files and repairs files w
ith
                   problems when possible.
/VERIFYONLY        Scans integrity of all protected system files. No repair operatio
n is
```


System File Checker is an [automatic scan and repair tool](#) that focuses on Windows system files.

[How to Fix a Corrupted Windows 10 Installation](#) [How to Fix a Corrupted Windows 10 Installation](#) System corruption is the worst that could happen to your Windows installation. We show you how to get Windows 10 back on track when suffering from BSODs, driver errors, or other unexplained issues. [Read More](#)

You will need to run the command prompt with administrator privileges and enter the command “sfc /scannow”. If SFC finds any corrupt or missing files, it will automatically replace them using cached copies kept by Windows for this purpose alone. The command can require a half-hour to run on older notebooks.

14. [Tasklist](#)



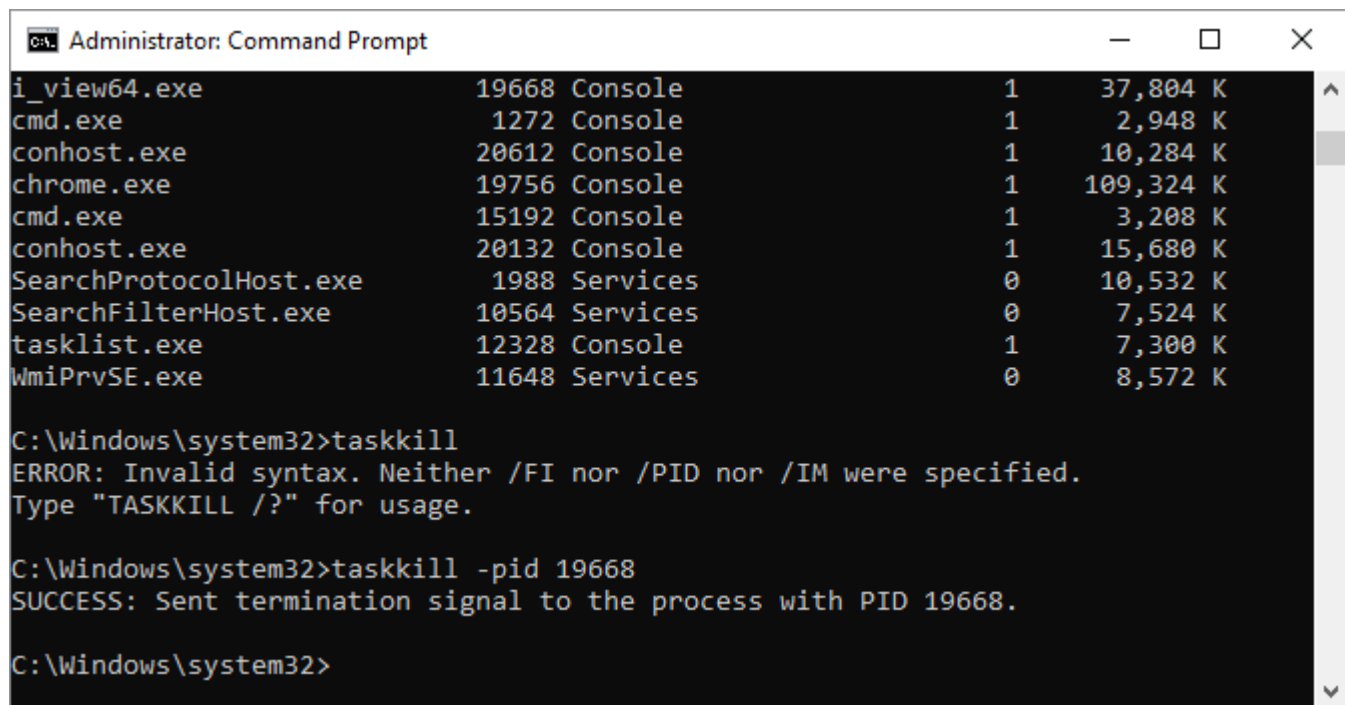
```
C:\Windows\system32>tasklist
```

| Image Name | PID | Session Name | Session# | Mem Usage |
|---------------------|-----|--------------|----------|-----------|
| System Idle Process | 0 | Services | 0 | 8 K |
| System | 4 | Services | 0 | 11,220 K |
| Registry | 96 | Services | 0 | 15,380 K |
| smss.exe | 360 | Services | 0 | 140 K |
| csrss.exe | 512 | Services | 0 | 1,344 K |
| wininit.exe | 616 | Services | 0 | 20 K |
| csrss.exe | 624 | Console | 1 | 2,356 K |
| winlogon.exe | 724 | Console | 1 | 3,884 K |
| services.exe | 768 | Services | 0 | 4,820 K |
| lsass.exe | 808 | Services | 0 | 11,892 K |
| svchost.exe | 920 | Services | 0 | 220 K |
| fontdrvhost.exe | 940 | Services | 0 | 1,264 K |
| fontdrvhost.exe | 944 | Console | 1 | 2,040 K |
| svchost.exe | 968 | Services | 0 | 19,656 K |

You can use the “tasklist” command to provide a current list of all tasks running on your PC. Though somewhat redundant with Task Manager, the command may sometimes find tasks hidden from view in that utility.

There’s also a wide range of modifiers. “Tasklist -svc” shows services related to each task, use “tasklist -v” to obtain more detail on each task, and “tasklist -m” will locate .dll files associated with active tasks. These commands are useful for advanced troubleshooting.

15. Taskkill



```
C:\Windows\system32>tasklist
i_view64.exe           19668 Console           1      37,804 K
cmd.exe                1272  Console           1        2,948 K
conhost.exe            20612 Console           1     10,284 K
chrome.exe             19756 Console           1    109,324 K
cmd.exe                15192 Console           1        3,208 K
conhost.exe            20132 Console           1     15,680 K
SearchProtocolHost.exe  1988  Services          0     10,532 K
SearchFilterHost.exe   10564 Services          0        7,524 K
tasklist.exe           12328 Console           1        7,300 K
WmiPrvSE.exe           11648 Services          0        8,572 K

C:\Windows\system32>taskkill
ERROR: Invalid syntax. Neither /FI nor /PID nor /IM were specified.
Type "TASKKILL /?" for usage.

C:\Windows\system32>taskkill -pid 19668
SUCCESS: Sent termination signal to the process with PID 19668.

C:\Windows\system32>
```

Tasks that appear in the “tasklist” command will have an executable and process ID (a four- or five-digit number) associated with them. You can force stop a program using “taskkill -im” followed by the executable’s name, or “taskkill -pid” followed by the process ID. Again, this is a bit redundant with Task Manager, but you can use it to kill otherwise unresponsive or hidden programs.

CMD Commands Recommended by Readers

These are the commands our readers use regularly:

- **nbstat**: “For looking up names of computers on your network.” (Vferg)
- **netstat -ano | find “est”**: “To get a list of processes with established CP connections.” (Eric)
- **tasklist | find “[process id]”**: “To get the name of the executable associated with the particular process id that I’m interested in.” (Eric)
- **cacls**: This command is “most handy to manually access hidden files and folder. (A41202813)
- **net use**: “To map drives of networked CNC machines.” (Jimbo)
- **chkdsk /f C:** “Checks your C: partition hard disk for errors and fixes bad sectors.” (Kai M)
- **Schtasks**: To schedule tasks. (Teddy)