



CONTROL PANEL

Part -3

Topics Covered



ADMINISTRATIVE TOOLS.
CONFIGURING DEFAULT
PROGRAMS



POWER MANAGEMENT TOOLS.



SYSTEM APPLET

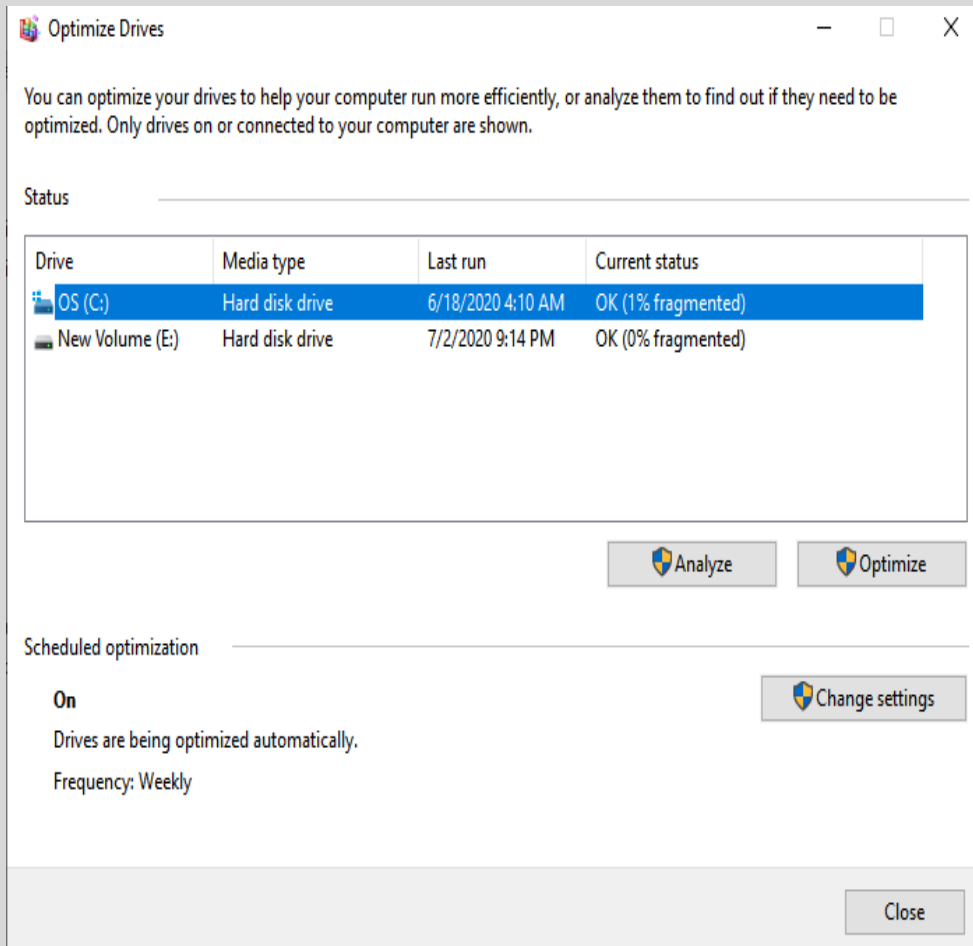
References

- Microsoft Windows Operating System Essentials-Tom Carpenter
- <https://docs.microsoft.com/en-us/windows/client-management/administrative-tools-in-windows-10>

Windows PowerShell Modules

- It simply runs a PowerShell session with all available modules loaded automatically.
- In the PowerShell interface if we execute the `Get-Module cmdlet` we get a list of loaded modules.
- When executed with no parameters, `Get-Module` lists only the loaded modules.
- We can use `the Get-Command cmdlet` with the `-Module` parameter to view the commands available for a specific module.
- We may observe that some modules may not load, because of the script execution policy.

Defragment and Optimize Drive

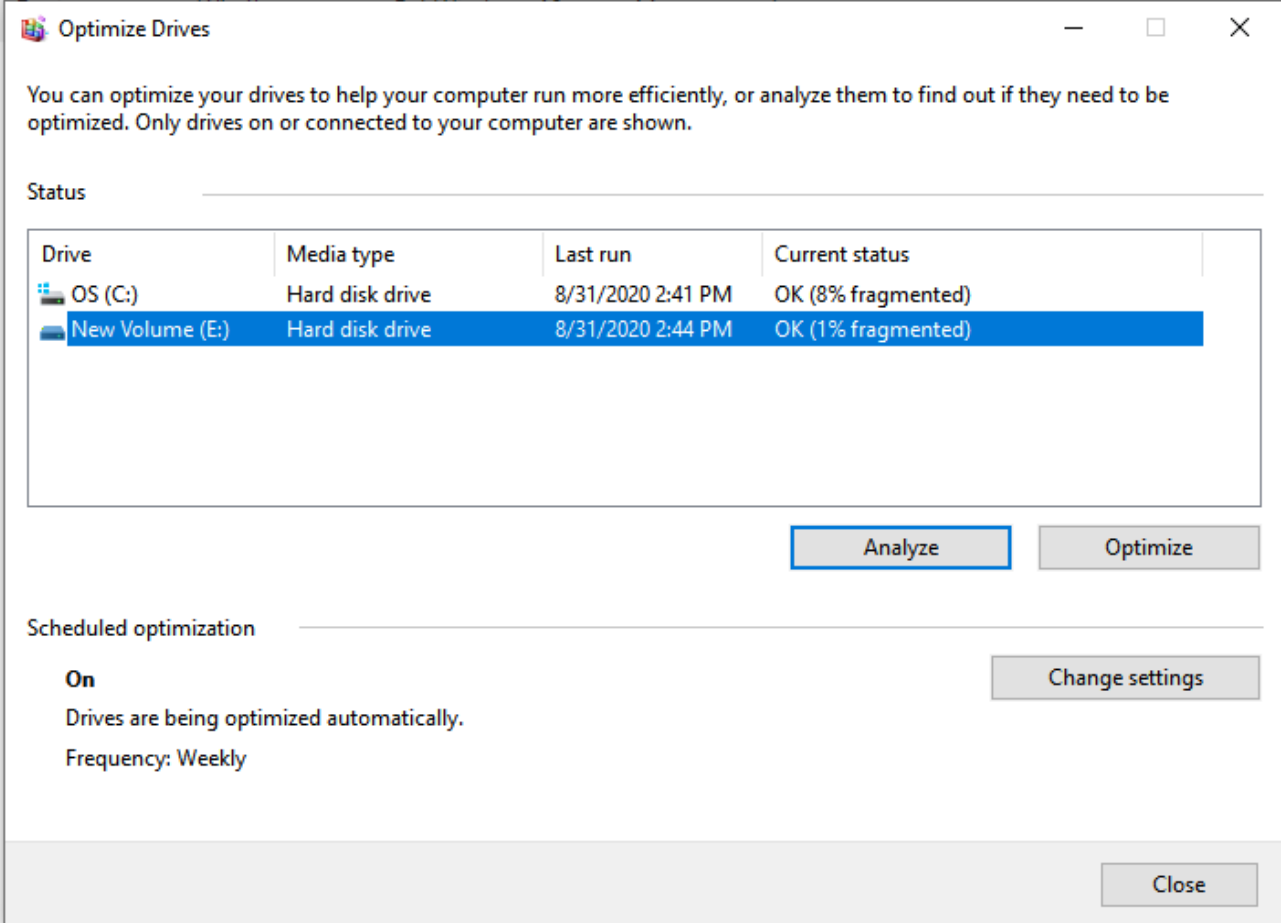


- Fragmentation makes your hard disk do extra work ,that can slow down your computer.
- Disk Defragmenter in Windows rearranges fragmented data so your disks and drives can work more efficiently.
- Disk Defragmenter runs on a schedule, but one can analyze and defragment the disks and drives manually.
- Steps to defragment your hard disk
 - Open Disk Defragmenter by clicking the Start button.
 - Under Current status, select the disk you want to defragment.
 - To determine if the disk needs to be defragmented or not, click Analyze disk. You will be prompted to provide Administrator password.

Once Windows finishes analyzing the disk, check the percentage of fragmentation on the disk in the Last Run column. If the number is above 10%, you should defragment the disk.

Click Defragment disk. Administrator permission will be required to perform the task.

Disk Defragmenter might take from several minutes to a few hours to finish, depending on the size and degree of fragmentation of your hard disk. You can still use your computer during the defragmentation process.



The screenshot shows the 'Optimize Drives' window in Windows. It contains a table with columns for Drive, Media type, Last run, and Current status. Two drives are listed: OS (C:) and New Volume (E:). The OS (C:) drive is highlighted in blue. Below the table are buttons for 'Analyze' and 'Optimize'. At the bottom, there is a 'Scheduled optimization' section with a toggle set to 'On' and a 'Change settings' button. A 'Close' button is located at the bottom right of the window.

Drive	Media type	Last run	Current status
OS (C:)	Hard disk drive	8/31/2020 2:41 PM	OK (8% fragmented)
New Volume (E:)	Hard disk drive	8/31/2020 2:44 PM	OK (1% fragmented)

Analyze **Optimize**

Scheduled optimization

On **Change settings**

Drives are being optimized automatically.
Frequency: Weekly

Close

Disk Cleanup

Administrative Tools

Name	Date modified	Type	Size
Component Services	3/19/2019 10:15 AM	Shortcut	2 KB
Computer Management	3/19/2019 10:15 AM	Shortcut	2 KB
Defragment and Optimize Drives	3/19/2019 10:15 AM	Shortcut	2 KB
Disk Cleanup	3/19/2019 10:15 AM	Shortcut	2 KB
Event Viewer	3/19/2019 10:15 AM	Shortcut	2 KB
iSCSI Initiator	3/19/2019 10:15 AM	Shortcut	2 KB
ODBC Data Sources (32-bit)	3/19/2019 10:16 AM	Shortcut	2 KB
ODBC Data Sources (64-bit)	3/19/2019 10:15 AM	Shortcut	2 KB
Performance Monitor	3/19/2019 10:15 AM	Shortcut	2 KB
Recovery Drive	3/19/2019 10:15 AM	Shortcut	2 KB
Registry Editor	3/19/2019 10:15 AM	Shortcut	2 KB
Resource Monitor	3/19/2019 10:15 AM	Shortcut	2 KB
Services	3/19/2019 10:15 AM	Shortcut	2 KB
System Configuration	3/19/2019 10:15 AM	Shortcut	2 KB
System Information	3/19/2019 10:15 AM	Shortcut	2 KB
Task Scheduler	3/19/2019 10:14 AM	Shortcut	2 KB
Windows Defender Firewall with Advanc...	3/19/2019 10:14 AM	Shortcut	2 KB
Windows Memory Diagnostic	3/19/2019 10:15 AM	Shortcut	2 KB

Disk Cleanup : Drive Selection

Select the drive you want to clean up.

Drives:

- OS (C:)
- OS (C:)**
- New Volume (E:)
- (F:)

Disk Cleanup

Disk Cleanup is calculating how much space you will be able to free on OS (C:). This may take a few minutes to complete.

Calculating...

Scanning: Downloads

Cancel

Disk Cleanup for OS (C:)

You can use Disk Cleanup to free up to 414 MB of disk space on OS (C:).

Files to delete:

<input checked="" type="checkbox"/>	Downloaded Program Files	0 bytes
<input checked="" type="checkbox"/>	Temporary Internet Files	6.79 MB
<input type="checkbox"/>	Windows error reports and feedback di...	1.50 MB
<input type="checkbox"/>	DirectX Shader Cache	133 KB
<input type="checkbox"/>	Delivery Optimization Files	15.9 MB

Total amount of disk space you gain: 40.0 MB

Description

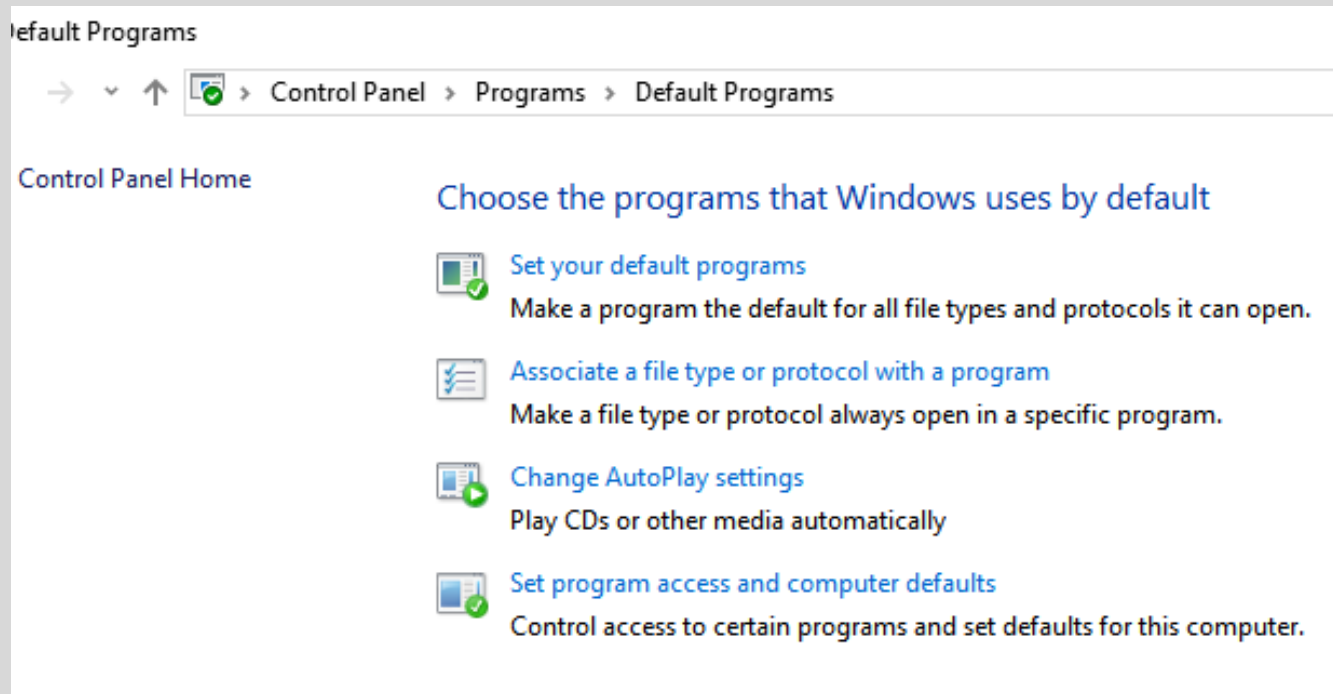
Downloaded Program Files are ActiveX controls and Java applets downloaded automatically from the Internet when you view certain pages. They are temporarily stored in the Downloaded Program Files folder on your hard disk.

Clean up system files View Files

OK Cancel

- To delete temporary files
 - Select the drive you want to clean up, and then select **OK**.
 - Under **Files to delete**, select the file types to delete.
 - To get a description of the file type, select it.
 - Select **OK**.
-
- To free up more space, you can also delete system files.
 - In Disk Cleanup, select **Clean up system files**.
 - Select the file types to get rid of. To get a description of the file type, select it.
 - Select **OK**.

Configuring Default Programs



This applet brings are used to set aspects of program management:

- Set Your Default Programs
- Associate A File Type Or Protocol With A Program
- Change AutoPlay Settings
- Set Program Access And Computer Defaults

Home

Find a setting

Apps

Apps & features

Default apps

Offline maps

Apps for websites

Video playback

Startup

Default apps

Email



Google Chrome

Maps



Maps

Music player



Groove Music

Photo viewer



Photos

Video player



Movies & TV

Web browser



Google Chrome

Choose default apps by file type

.3ga

VLC media file (.3ga)



VLC media player

.3gp

3GP File



Movies & TV

.3gp2

3GP2 File



Movies & TV

.3gpp

3GPP File



Movies & TV

.3mf

3D Object



Print 3D

.669

VLC media file (.669)



VLC media player

.7Z

WinZip File



WinZip

.8ba

8BA File



Adobe Photoshop CS5

.8bc

8BC File



Adobe Photoshop CS5

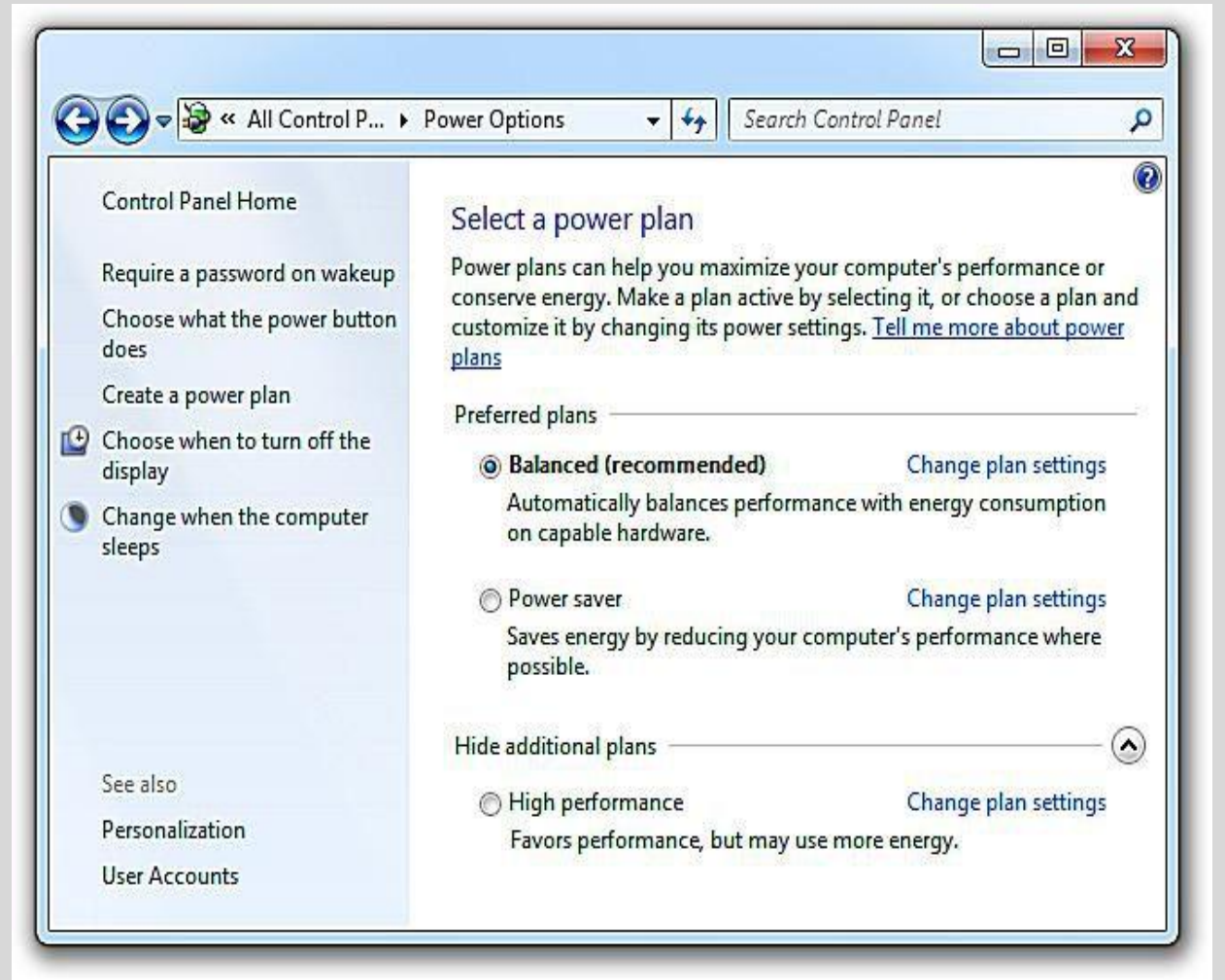
.8bc



Adobe Photoshop CS5

Using the Power Management Tools

- Windows provide support for and configuration of power management settings through the Power Options applet.
- Tool named POWERCFG.EXE is available at the Command Prompt for power management.
- Steps to access the Power Options applet: Click Start -> Control Panel. Select System and Security and then Power Options.



Windows 7 computers have the Balanced, High Performance, and Power Saver plans:

Balanced -is configured to turn off the display after 10 minutes and put the computer to sleep after 30 minutes. It turns off the hard disks after 20 minutes.

High Performance -turns off the display after 15 minutes and never put the computer to sleep. It also turns off the hard disks after 20 minutes.

Power Saver The Power Saver power plan is configured to turn off the display after 5 minutes and put the computer to sleep after 15 minutes. Additionally, it turns off the hard disks after 20 minutes.

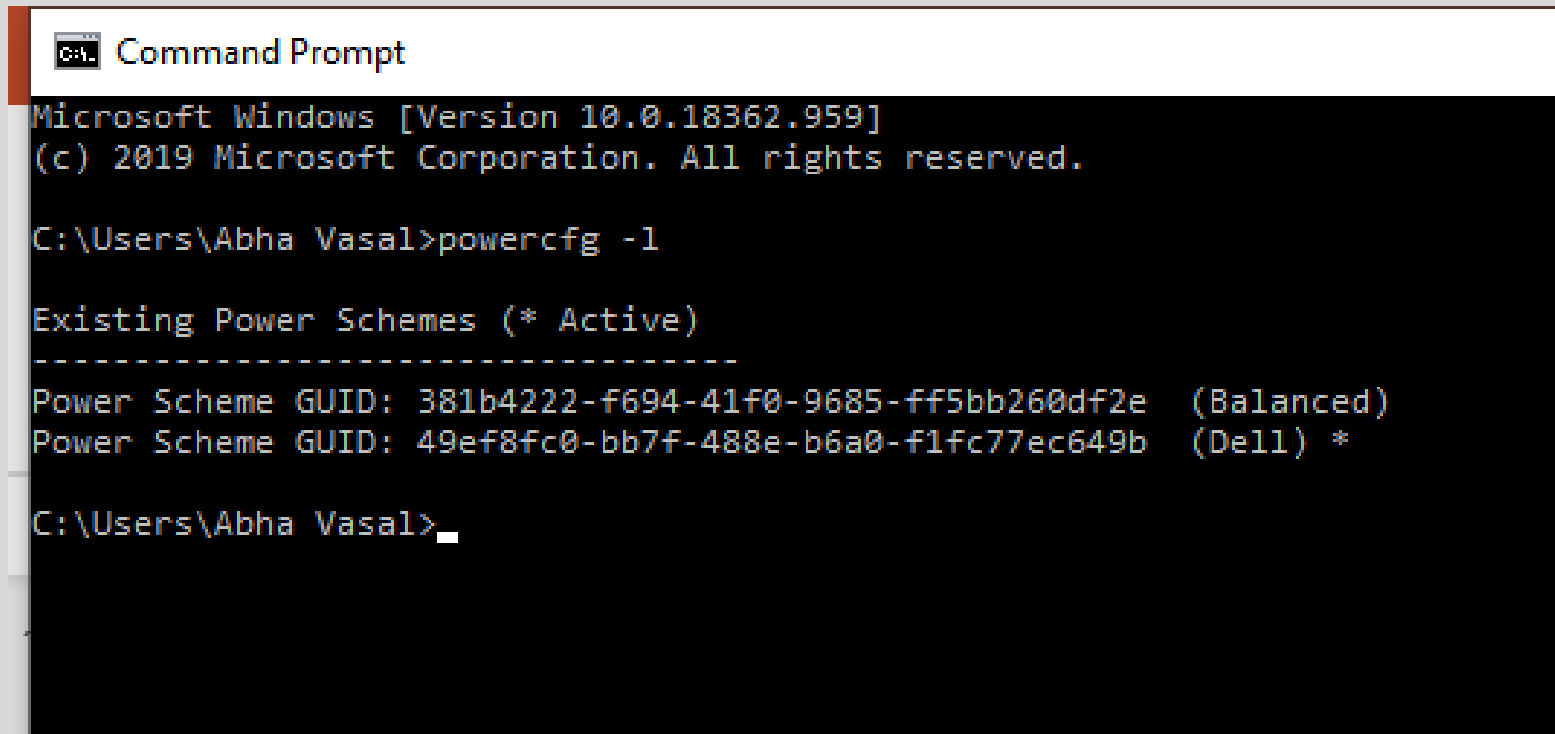
A power plan can contain settings for the following options:

- Hard disk
- Desktop background settings
- Wireless adapter settings
- Sleep
- USB settings
- Power buttons and lid
- PCI Express
- Processor power management
- Display
- Multimedia settings

Computer vendors create their own power plans that are preinstalled with the OS. Laptops, have dual options for each option—one setting for when the computer is running on battery and another for when it is plugged in. A power plan can be backed up to a file using the Command Prompt's `powercfg` command.

`powercfg -export balanced.pwr 381b4222-f694-41f0-9685-ff5bb260df2e`

You can use the **`powercfg -l`** command to view the GUIDs for the different installed power plans.



```
Command Prompt
Microsoft Windows [Version 10.0.18362.959]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Abha Vasal>powercfg -l

Existing Power Schemes (* Active)
-----
Power Scheme GUID: 381b4222-f694-41f0-9685-ff5bb260df2e (Balanced)
Power Scheme GUID: 49ef8fc0-bb7f-488e-b6a0-f1fc77ec649b (Dell) *

C:\Users\Abha Vasal>
```


From the Power Options applet, we can perform any of the following actions:

- Require A Password On Wakeup
- Choose What The Power Button Does
- Choose What Closing The Lid Does (for laptops)
- Create A Power Plan
- Choose When To Turn Off The Display
- Change When The Computer Sleeps
- Select A Power Plan






Control Panel > Hardware and Sound > Power Options > System Settings

Define power buttons and turn on password protection

Choose the power settings that you want for your computer. The changes you make to the settings on this page apply to all of your power plans.

 [Change settings that are currently unavailable](#)

Power and sleep buttons and lid settings

	 On battery	 Plugged in
 When I press the power button:	Sleep <input type="text"/>	Sleep <input type="text"/>
 When I press the sleep button:	Sleep <input type="text"/>	Sleep <input type="text"/>
 When I close the lid:	Sleep <input type="text"/>	Sleep <input type="text"/>

Shutdown settings

- Turn on fast startup (recommended)
This helps start your PC faster after shutdown. Restart isn't affected. [Learn More](#)
- Sleep
Show in Power menu.
- Hibernate
Show in Power menu.
- Lock
Show in account picture menu.

Change settings for the plan: Dell

Choose the sleep and display settings that you want your computer to use.



On battery



Plugged in



Turn off the display:

5 minutes



10 minutes



Put the computer to sleep:

15 minutes



30 minutes



[Change advanced power settings](#)

[Restore default settings for this plan](#)

Save changes

Cancel

Power Options

Control Panel > Hardware and Sound > Power Options

Control Panel Home

Choose what the power buttons do

Choose what closing the lid does

Create a power plan

Choose when to turn off the display

Change when the computer sleeps

EcoAware Energy Savings

Dell Power Manager

Choose or customize a power plan

A power plan is a collection of hardware and system settings (like display brightness, sleep, etc.) that manages how your computer uses power. [Tell me more about power plans](#)

Plans shown on the battery meter

Dell [Change plan settings](#)
Automatically balances performance with energy consumption on capable hardware.

Hide additional plans [Change plan settings](#)

Balanced (recommended) [Change plan settings](#)
Automatically balances performance with energy consumption on capable hardware.

Windows 10 Power Options

Understanding the System Applet

The System applet, is used to view and manage information that is global to the system. Accessible in the Control Panel from the System and Security category.

The System applet is used for the following tasks:

- View basic information about your computer
- Access the Device Manager
- Configure remote settings
- Configure system protection
- Access advanced system settings

The System applet displays the Windows Experience Index (WEI), which is a rating based on the lowest-performing factor in your system.

The factors considered for the WEI are

- Processor
- Memory (RAM)
- Graphics
- Gaming Graphics
- Primary Hard Disk

The following process generates a Windows Experience Index (in windows 10) then exports it to an XML file.

1.Type **command** in your Start Menu search bar, right-click the Best Match and select **Run as Administrator**.

2.When the Command Prompt opens, input the following command: **winsat formal**

3.Wait for the process to complete. When it finishes, you can find the XML file in C:\Windows\Performance\WinSAT\DataStore.

4.Look for a set of files containing the date you are running the test on. Open the XML file that looks like "[date of test] Formal.Assessment (Recent).WinSAT.xml".

5.When prompted, select your internet browser to view the XML file. Your browser will make the XML data readable.