# Operating Systems

This module will go over the basics of interacting with a computer. This will include navigating computer settings and menus, managing applications, and keeping things up-to-date.





# Operating Systems





# **Operating Systems**

An operating system (OS) is system software that manages computer hardware, software resources, and provides common services for computer programs.







# Windows

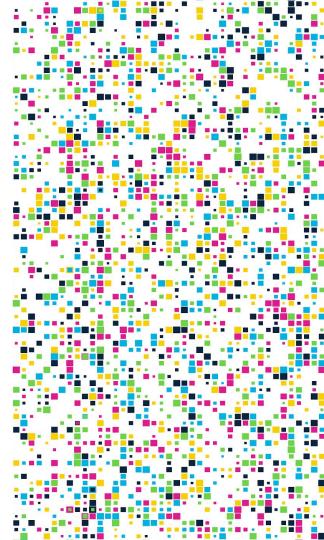
**Windows** is the most common operating system and is made by Microsoft. Windows can be used on any device, such as computers, phones, and tablets. Some companies that make computers that run Windows are Dell, HP, Acer, and Lenovo.







Mac OS is made by Apple and can only be used on Apple computers and devices.







### **Chrome OS**



**Chrome OS** is made by Google and is found on Chromebooks. Chromebooks can be made by different manufacturers, but they can only be used with Chrome OS.

Chrome OS is focused around the Chrome browser and does not allow much beyond using a browser and Google products. Which operating system is best depends on your needs, the applications you use, and your preference for a certain type of device.





# Settings



# Settings Menu

The Settings menu will look slightly different on each device and in each operating system. This is an example of the settings menu in Windows 10.

Generally, a Settings menu will be broken into categories for different types of settings. Some of the main categories are **System**, **Devices**, **Update and Security**, and **Accounts**.

Windows Settings									
				Find a setting		٩			
旦	System Display, sound, notifications, power	<b></b>	<b>Devices</b> Bluetooth, printers, mouse		Phone Link your Android, iPhone		Network & Internet Wi-Fi, airplane mode, VPN	¥	Personalization Background, lock screen, colors
	Apps Uninstall, defaults, optional features	2	Accounts Your accounts, email, sync, work, other people	Q A	Time & Language Speech, region, date	8	Gaming Xbox Game Bar, captures, Game Mode	(tr	Ease of Access Narrator, magnifier, high contrast
٥	Search Find my files, permissions		Privacy Location, camera, microphone	S	Update & Security Windows Update, recovery, backup				





# Settings Menu (continued)

Getting familiarized with your Settings will be helpful for troubleshooting since you will have a general sense of where everything is and what the options are if you need to change a setting. You will get a better idea of the things that you can change in your settings.





# Settings Menu (Continued)

In Windows OS there are two places that you can update settings:

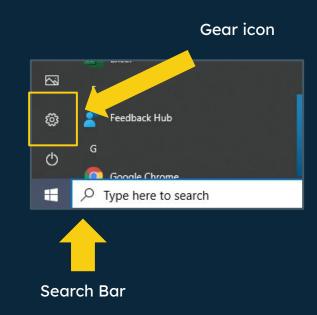
- ★ The Settings page has sections that contain general sections with options for your device.
- ★ The Control Panel has more advanced settings. Here you can review more in-depth options like adding external devices, checking your network status, and uninstalling programs.





# Settings Menu (continued)

To access Windows OS settings you need to click on the Windows icon in the bottom left corner of the screen and then on the cog wheel icon (gear icon).





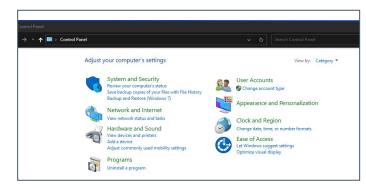


#### **Control Panel**

To access the Windows OS **Control Panel** click on the Windows search bar in the bottom left corner of your screen. Type in "Control Panel" and click on the result that says "Control Panel." Once you have accessed the Control Panel you can begin updating your settings.



Image of the Control Panel menu in Windows OS



Accessing the Control Panel





## **Keyboard Shortcuts**

There are **keyboard shortcuts** to do many tasks on your computer more efficiently. To use a keyboard shortcut, you will press down on a combination of keys at the same time to take an action. Keyboard shortcuts differ based on your operating system and sometimes the application you are using.

Keyboard shortcuts are key presses that you can use to perform actions on your computer.









## **Keyboard Shortcuts (continued)**

Here are some resources where you can find the shortcuts for your specific type of device. You can also use a search engine like **Google.com** to find more.

#### **Examples of Common Keyboard Shortcuts:**

- ★ Copy: Ctrl + C
- ★ Cut: Ctrl + X
- **★ Paste:** Ctrl + V
- ★ Maximize Window: F11 or Windows logo key + Up arrow
- ★ Open Task View: Windows logo key + Tab
- ★ Show and hide the desktop: Windows logo key + D
- ★ Switch between open apps: Alt + Tab
- ★ Open the Quick Link menu: Windows logo key + X
- ★ Lock your PC: Windows logo key + L





## **Shortcuts Help**

#### **Windows Shortcuts Help**

https://support.microsoft.com/en-us/windows/keyboard-shortcuts-in-windows-dcc61a57-8ff0-cffe-9796-cb9706 c75eec

#### **Mac Shortcut Help**

https://support.apple.com/en-us/HT201236

#### **Chromebook Shortcut Help**

https://support.google.com/chromebook/answer/183101?hl=en





# **Sound Settings**

In general, you will have two major options for sound: input and output:

- ★ Input controls how your computer captures sound (Microphone)
- ★ Output plays sounds from your computer's speakers and headphones

You can control the volume of both your speakers and your microphone. You can also control the volume in individual applications if you need the volume to be different for a particular use.





# Navigation



# Navigation

There are a number of ways to improve how you **navigate**, or get around, your computer.

#### **Managing Application Windows**

You can minimize, maximize, restore down (opposite of maximize), and close windows by using the icons in the upper righthand corner of the window.

Minimizing will hide the window from view. The application will still be open and running just hidden so you no longer can see it on your screen. In your task bar on the bottom of your screen, you will see an icon for your application which tells you that it is still open. You can minimize the application by pressing the line icon in the upper right corner.

To undo a minimization, go to the task bar and click on the icon for the application you want to display and then select the preview that appears.

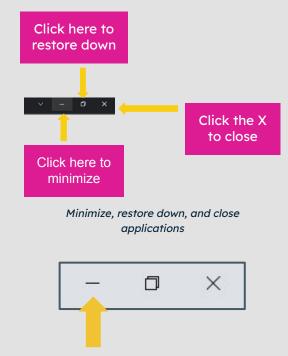


Image of line icon in the upper right corner





Maximizing will expand the window to take up the full width and height of your screen. This is different from full screen mode—you will still see the borders of the application and the task bar at the bottom of your screen. To maximize, click on the square icon in the upper right corner of the window. To undo maximize press the double square icon in the upper righthand corner of the window.

Close will close the window completely and it no longer will be open for future use. You can close a window by clicking the "X" icon in the upper right corner of the window.

You can resize a window, as long as it is not maximized or full screen, by clicking on an edge or corner and dragging the box to the top of the screen.



Image of double square icon in the upper right corner





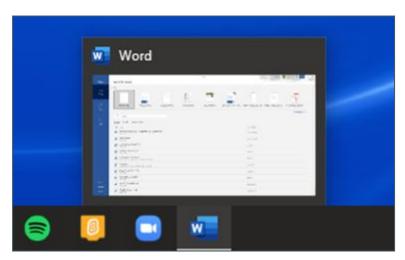


Image of the taskbar showing MS Word as a preview.



Image of the taskbar showing blue lines to indicate that MS Word and MS Excel are running.

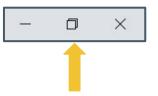
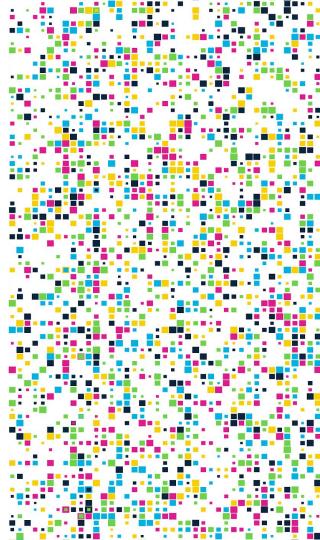


Image of double square icon in the upper right corner

# **Keyboard Shortcuts for Navigation**

Some keyboard shortcuts will help you navigate between applications. One example is "Win + Tab" which will allow you to bring any window to the top of your screen by clicking on it. Keyboard shortcut options will vary depending on your Operating System. You can research keyboard shortcuts for your specific device and operating system using a search engine like Google.com.







# Application Management Settings



# **Application Management Settings**

iOS, Windows, and Chrome OS all have **Task Managers**. Task Managers are tools that can be used to manage the applications that you have running. One of the most common uses of a Task Manager is forcing an application to close when it is not responding or performing the way it should. Using the Task Manager is also helpful for troubleshooting and or restarting an application.

Here are the ways to access the task managers on the three main operating systems:

In Windows OS, press the Ctrl + Shift + Escape keys at the same time.







In **Apple iOS**, press the Cmd + Alt (option) + Escape keys at the same time.

On a Chromebook using the **Chrome OS**, press the Shift + Escape keys at the same time.

Again, once you have forced the application to close, you can then restart it and continue.



Accessing the task manager on a Mac OS keyboard



Accessing the task manager on a Chromebook keyboard





# Updates



# **Update Settings**

It is important to keep your computer up-to-date. There are a number of settings for how you receive updates. It is highly recommended that you set your computer's Operating System to receive automatic updates. If you choose this setting, your computer will automatically update its OS software and restart when there are new updates available to the OS. You can also choose manual updates where you select which updates you want and when you want them to happen. We do not recommend this option since an average computer user will often forget to keep up with the frequency of OS updates.

Documents

Pictures

Settings

Documents

Type here to search

To access your Windows Setting, click on the Windows button in the bottom left corner of your

Windows OS screen.







# **Update & Security Settings**

Your Update & Security
Settings can be found in the
bottom left corner of your
Windows Settings page. Click
on "Update and Security."

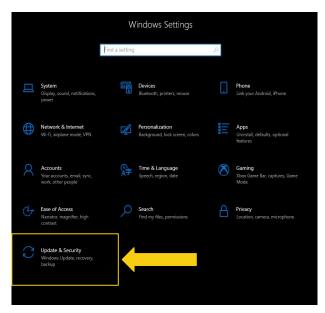


Image showing "Update and Security" in Windows Settings





You can check for updates manually by clicking on the "Check for updates" box.

In order to keep your device secure, it is very important to make sure that your computer is up-to-date. Updates will have the latest instructions to keep your computer running smoothly and protect it from threats. The same is true for software updates.



An example of the Windows Update menu in dark mode

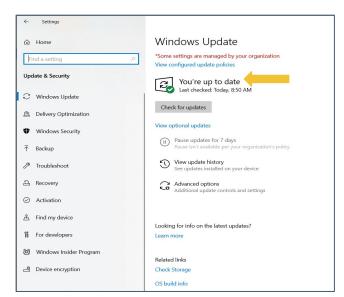


Image showing sample Windows Update Screen



