

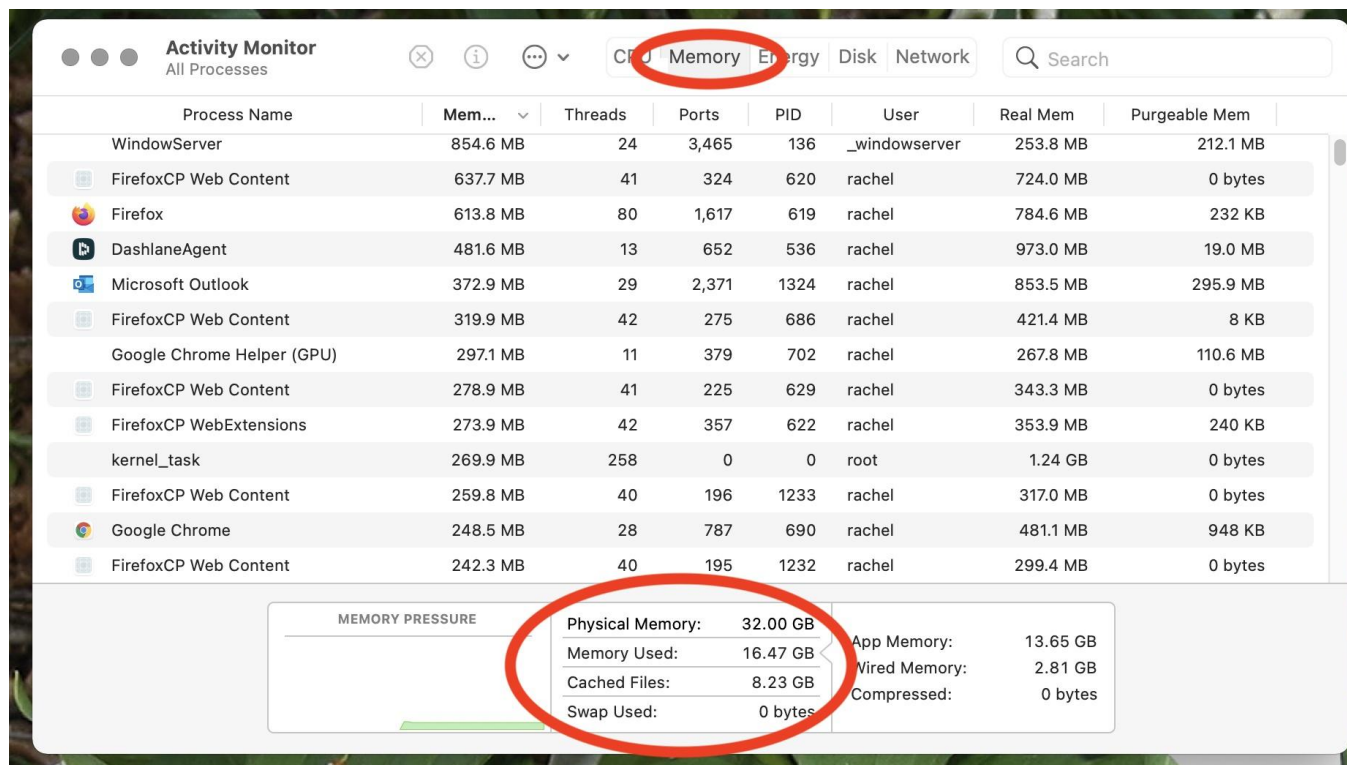
Is It Time for a New  
Laptop or Desktop?

# Desktop or Laptop Computer

- If Operating System (Window or MacOS), or a program you need is no longer supported on your hardware, it is time for a new computer
- Running slow?
  - Check Memory and Storage usage then compare cost of upgrading RAM, HDD or SSD
  - Run anti-virus / anti-malware scans
  - Run Speedtest.net to check network speed
- Overheating? Making noises? Unexpected shutdown?
  - “Clicking noise” may mean hard drive failure -- back up data immediately!
  - Overheating hardware needs attention soon.
  - Unexpected shutdown could be software or a failing power supply
  - Compare cost of replacing parts vs. replacing device.
  - If replacing parts costs more than half the cost of a new machine, then REPLACE
- Laptop Battery no longer charging
  - Replacement battery \$30 - \$100

# Checking Memory Use on MacOS

Launch **Activity Monitor** app and select **Memory** from the boxes at the top



The screenshot shows the Activity Monitor application window. At the top, the 'Memory' tab is selected and circled in red. Below the tab bar is a table of processes. At the bottom, a 'MEMORY PRESSURE' summary box is also circled in red, showing system-wide memory statistics.

Process Name	Mem...	Threads	Ports	PID	User	Real Mem	Purgeable Mem
WindowServer	854.6 MB	24	3,465	136	_windowserver	253.8 MB	212.1 MB
FirefoxCP Web Content	637.7 MB	41	324	620	rachel	724.0 MB	0 bytes
Firefox	613.8 MB	80	1,617	619	rachel	784.6 MB	232 KB
DashlaneAgent	481.6 MB	13	652	536	rachel	973.0 MB	19.0 MB
Microsoft Outlook	372.9 MB	29	2,371	1324	rachel	853.5 MB	295.9 MB
FirefoxCP Web Content	319.9 MB	42	275	686	rachel	421.4 MB	8 KB
Google Chrome Helper (GPU)	297.1 MB	11	379	702	rachel	267.8 MB	110.6 MB
FirefoxCP Web Content	278.9 MB	41	225	629	rachel	343.3 MB	0 bytes
FirefoxCP WebExtensions	273.9 MB	42	357	622	rachel	353.9 MB	240 KB
kernel_task	269.9 MB	258	0	0	root	1.24 GB	0 bytes
FirefoxCP Web Content	259.8 MB	40	196	1233	rachel	317.0 MB	0 bytes
Google Chrome	248.5 MB	28	787	690	rachel	481.1 MB	948 KB
FirefoxCP Web Content	242.3 MB	40	195	1232	rachel	299.4 MB	0 bytes

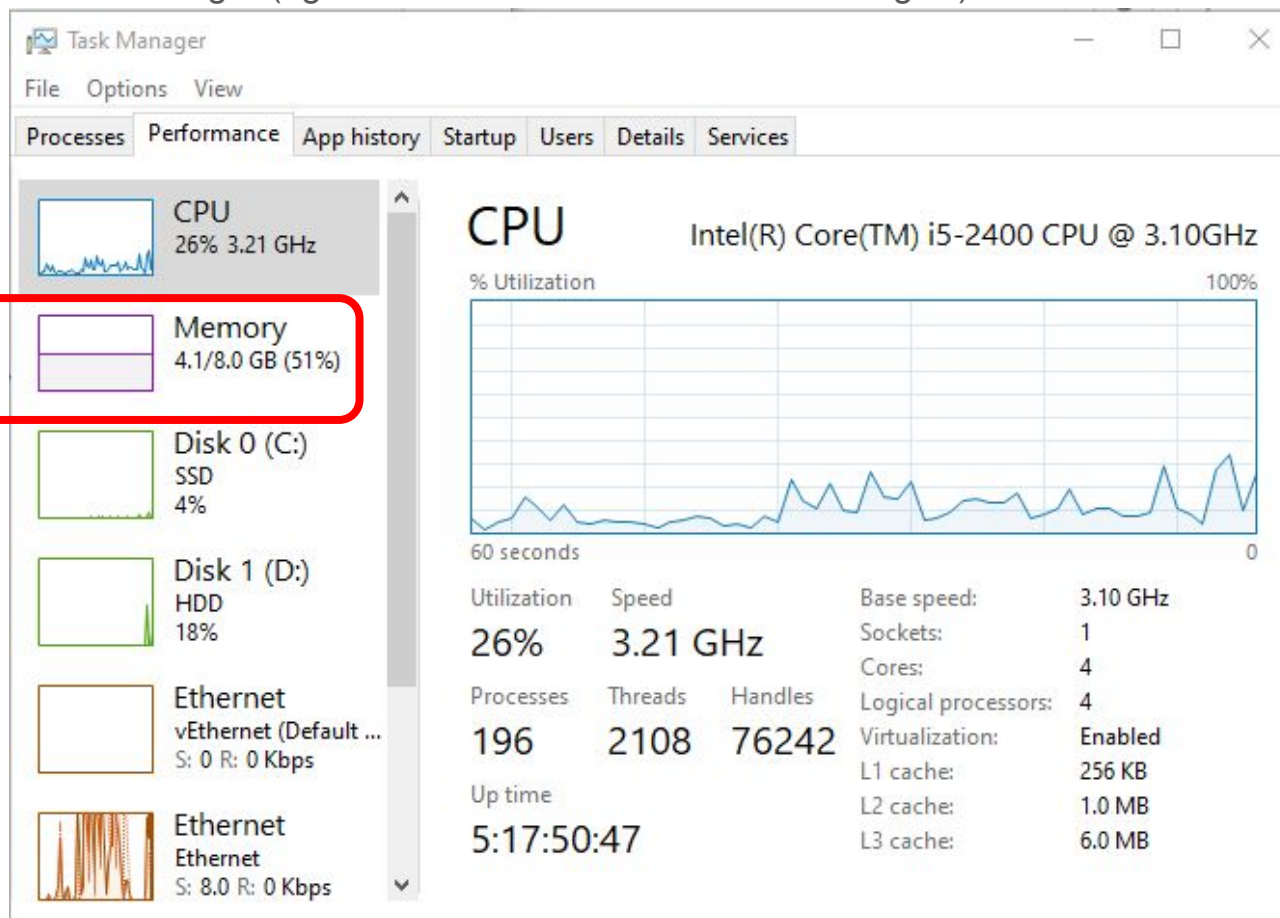
  

MEMORY PRESSURE			
Physical Memory:	32.00 GB	App Memory:	13.65 GB
Memory Used:	16.47 GB	Wired Memory:	2.81 GB
Cached Files:	8.23 GB	Compressed:	0 bytes
Swap Used:	0 bytes		

The box at the bottom will show if all you need to add more RAM. The list of processes indicates how memory is being used by apps.

# Checking Memory Use on Windows 10

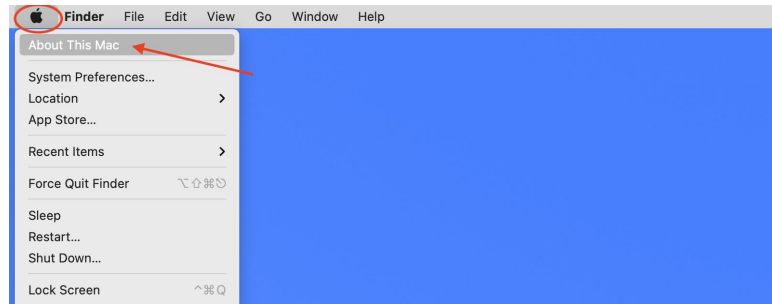
Open Task Manager (right click taskbar & select “Task Manager”)



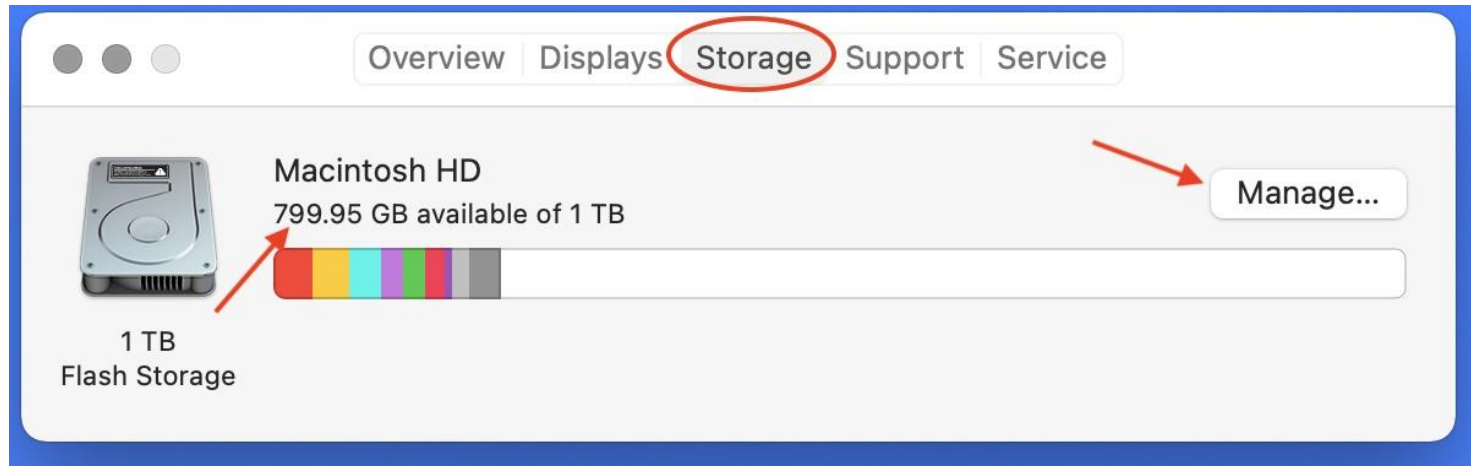
The “Memory” item at left shows % memory used. The list of processes can be displayed using either the “Processes” tab else the “Details” tab.

# Managing Storage Use on MacOS

Click  > **About this Mac**



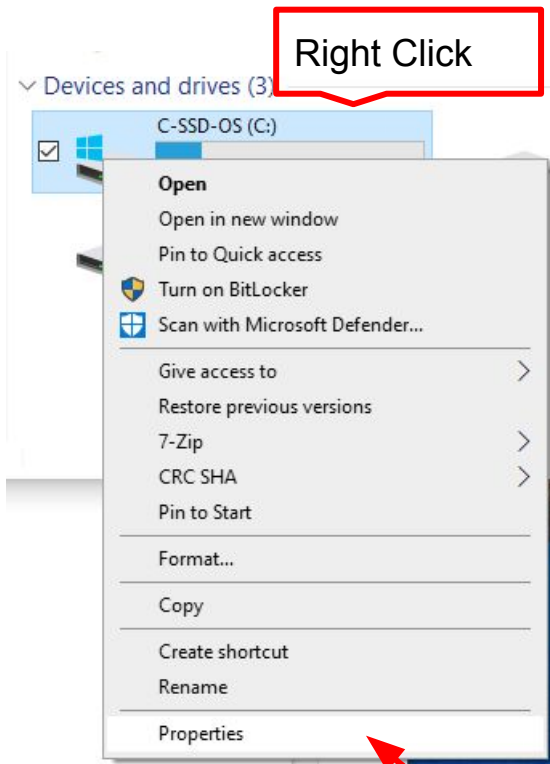
Then select **Storage** to see if you need more disk space



Select the **Manage** button locate and clean up unneeded files

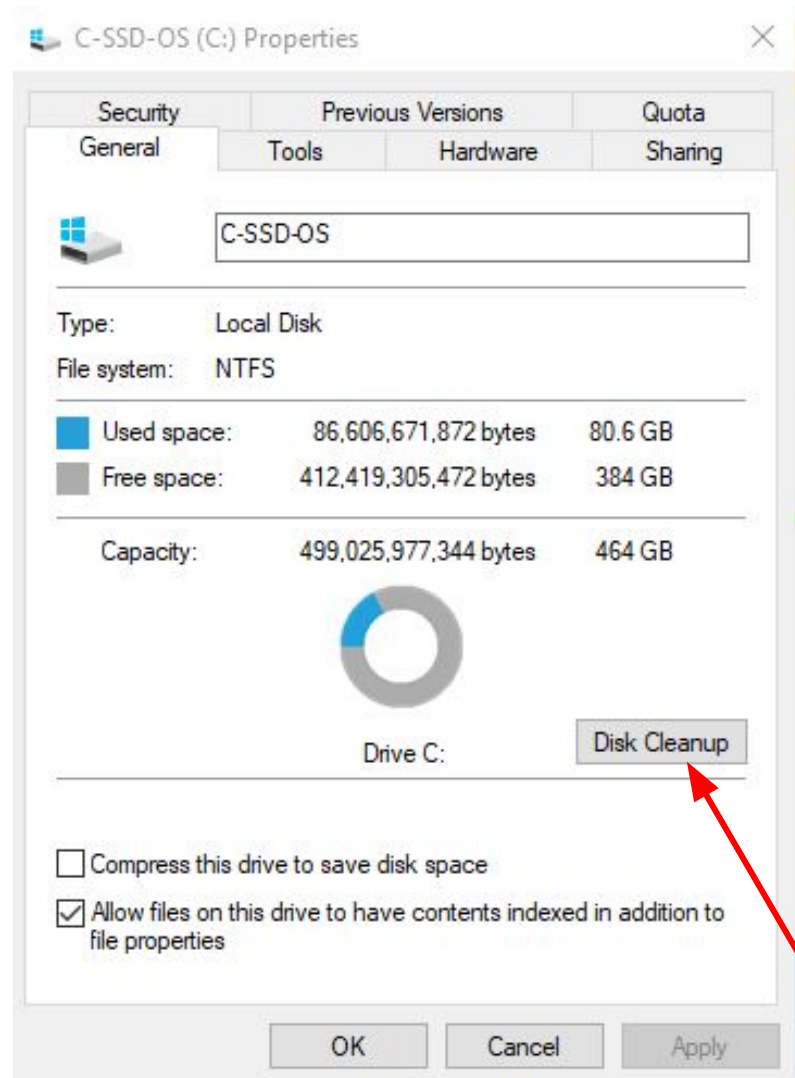
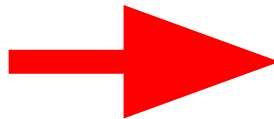
# Managing Storage Use on Windows

In Windows Explorer, right click disk drive,



Then select  
**Properties**

Click to  
Select



Select "Disk Cleanup" button to locate and delete unneeded files.

# Other Considerations

- Avoid surprises by keeping system and application software current, apply system and application updates regularly
  - Current releases MacOS 11.3, Windows 10.0.19042.962
- Backup important data, e.g., documents, photos, contacts to an external device or cloud storage (e.g. iCloud or Google Sync)
- Plan how you will obtain tech support
- Plan how to migrate data to the new device
- If buying new get as much storage as you can afford or make sure you can upgrade the device later
- What to do with the old device

# Consider a Chromebook or Chromebox

- Looks like a laptop or small form desktop, but instead of Windows or MacOS runs on Google's ChromeOS.
- Most apps you need are likely available as web apps, e.g. Google Docs instead of MS Office.
- Chromebooks can have local storage and processing capability but rely on Internet services
- Wide variety of form factors and price points available
- Less tech skill required to use and maintain



Time for Q&A