What is System Slow Performance?

"**System slow performance**" refers to a situation where a computer or device operates more slowly than expected. This can affect things like:

- **Program launch times**
- **File opening/saving**
- **Response to mouse/keyboard input**
- **Multitasking capability**
- **Web browsing speed**

Common Causes of Slow System Performance:

1. **Too many background processes**
    - Apps running in the background consume CPU and memory.
2. **Insufficient RAM**
    - Not enough memory to handle open applications or large files.
3. **Old or failing hard drive**
    - Especially true for traditional HDDs (vs SSDs), which degrade over time.
4. **Malware or viruses**
    - Can consume system resources and compromise performance.
5. **Outdated software or drivers**
    - May cause compatibility or stability issues.
6. **Startup programs overload**
    - Too many programs set to run at startup can slow boot time.

7. **Overheating or hardware issues**
    - Thermal throttling can reduce processor performance.
8. **Operating system clutter**
    - Temporary files, cache, and fragmented files can slow things down.

Basic Fixes:

- Restart your device
- Close unnecessary programs
- Check Task Manager (Windows) or Activity Monitor (Mac) to identify high resource use
- Uninstall unused apps
- Run antivirus/malware scans
- Update software and drivers
- Consider upgrading RAM or switching to an SSD

How we can resolve the issue of Low Space in Operating System Device

There are 4 steps to resolve these problems.

1. Temp File Delete
2. Clean mgr
3. Prefetch
4. Software Distribution

🔹 Step 1: Delete Temporary Files

Temporary files are stored by the system and applications but are often no longer needed.

✅ **How to do it:**

1. Press `Windows + R` to open **Run**.

2. Type: `temp` → Press **Enter**.
3. A folder will open. Select all files (`Ctrl + A`) → Press **Delete**.
4. Repeat the same for:
    - `Windows + R` → type `%temp%` → Delete all files.
    - `Windows + R` → type `recent` → Delete all files.

🔒 Note: Some files may be in use and can't be deleted—just skip those.

🔹 Step 2: Use Disk Cleanup (cleanmgr)

The built-in Disk Cleanup tool helps clear unnecessary system files.

✅ **How to do it:**

1. Press `Windows + S`, search for **Disk Cleanup**, and open it.
2. Choose the OS drive (usually **C:**).
3. Check all boxes, especially:
    - Temporary Internet Files
    - System error memory dump files
    - Delivery Optimization Files
4. Click **OK** → Then **Delete Files**.
5. (Optional) Click **Clean up system files** for deeper cleanup.

🔹 Step 3: Delete Prefetch Files

These files are used to speed up application loading, but they can accumulate and take up space.

✅ **How to do it:**

1. Press `Windows + R` → Type: `prefetch` → Press **Enter**.
2. Click **Continue** if asked for admin permission.
3. Select all files (`Ctrl + A`) → Press **Delete**.

> ⚠️ Deleting these won't harm your system; it may slightly slow down first-time app launches, but the system will rebuild them.

🔹 Step 4: Clear SoftwareDistribution Folder

This folder stores Windows Update files. Over time, it grows large.

✅ **How to do it:**

1. Press `Windows + R` → Type: `services.msc` → Press **Enter**.
2. Find **Windows Update** in the list.
3. Right-click it → Choose **Stop**.
4. Go to: `C:\Windows\SoftwareDistribution`
5. Delete all contents of this folder (not the folder itself).
6. Go back to `services.msc` and **Start** Windows Update again.

> 📌 This does **not remove installed updates**, only the leftover files.

How Task Manager and system.cpl can increase the system speed

🧰 Task Manager – Monitor & Control System Performance

🔹 What It Is:

Task Manager is a built-in Windows utility that shows what's running on your computer—apps, background processes, CPU/memory usage, and more.

🔹 How to Open:

- Press `Ctrl + Shift + Esc`
- Or `Ctrl + Alt + Delete` → select **Task Manager**

🔹 How It Helps Improve Performance:

1. **End Unnecessary Tasks:**
    - In the **Processes** tab, identify apps using high CPU, memory, or disk.
    - Right-click → **End Task** to close unused or frozen apps.
2. **Disable Startup Programs:**
    - Go to the **Startup** tab.
    - Disable unnecessary programs that slow down boot time.
    - Right-click on a program → **Disable** (e.g., Skype, OneDrive if not used).
3. **Monitor Resource Usage:**
    - Check real-time graphs in the **Performance** tab.
    - Identify bottlenecks (e.g., if your CPU or memory is maxed out).
4. **Detect Malware or Suspicious Activity:**
    - Unusual processes using high resources? Could be malware.

⚙️ System.cpl – Control System Settings for Performance

🔹 What It Is:

`system.cpl` is a command that opens the **System Properties** window, where you can access advanced settings to boost system speed.

🔹 How to Open:

- Press `Windows + R` → type `system.cpl` → press **Enter**

🔹 How It Helps Improve Performance:

1. **Adjust Visual Effects:**
    - Go to **Advanced** tab → click **Settings** under *Performance*.
    - Select **Adjust for best performance** (disables animations and effects).
    - Or choose **Custom** and disable unnecessary effects like:
        - Animate windows when minimizing/maximizing
        - Fade or slide menus into view
2. **Virtual Memory (Paging File):**
    - In the same Performance Options window, go to **Advanced** tab → **Change** under *Virtual memory*.
    - Increase the paging file size if you're low on RAM.
3. **Processor Scheduling:**
    - In the Advanced tab, set processor scheduling to **Programs** (for faster app response).

✅ Combined Usage Tips:

Tool	What You Can Do	Result
Task Manager	End tasks, disable startup apps	Free up RAM/CPU and improve boot time

System.cpl	Disable effects, tweak memory/CPU settings	Reduce resource use and lag

How programs and features in control panel can increase the system speed

⚙️ What is "Programs and Features"?

It's a utility in Windows where you can:

- View all installed programs
- Uninstall or repair them
- See installation dates and sizes

🔹 How to Access:

- Press `Windows + R` → type `appwiz.cpl` → press **Enter**
- Or go to **Control Panel** → **Programs** → **Programs and Features**

🚀 How It Helps Improve System Speed

1. Uninstall Unused or Bloatware Programs

- Many new PCs come with pre-installed software (bloatware) that runs in the background and slows down the system.
- Example: Trial versions, toolbars, game launchers, or manufacturer apps.

✅ **Solution:**

- Go through the list and uninstall anything you don’t use.
- Focus on software you don’t recognize or haven't used in months.

2. Remove Resource-Heavy Software

- Some programs (like Adobe Creative Cloud, AutoCAD, or heavy antivirus tools) can consume significant system resources.

✅ **Solution:**

- If you don't need them running all the time, uninstall or replace them with lighter alternatives.
- Use Microsoft Defender instead of a heavy third-party antivirus, for example.

3. Clean Out Duplicate or Redundant Apps

- Some users have multiple media players, browsers, or PDF readers that do the same job.

✅ **Solution:**

- Keep just one of each type that you actually use. This reduces clutter and frees up resources.

4. Fix or Repair Broken Programs

- Corrupt programs can cause background errors and slow performance.

✅ **Solution:**

- Select the program → Click **Repair** (if available), or uninstall and reinstall it.

🔔 Pro Tips:

Task	Why It Helps
Uninstall games or apps you no longer play/use	Frees up gigabytes of space
Remove trial software (e.g., McAfee, Norton)	Reduces background scanning and popups
Clean out old toolbars/extensions	Speeds up browsers and reduces CPU usage
Regularly review installed apps	Keeps system lean and optimized

❓ Not Sure What a Program Does?

- Right-click and choose **Properties** or **Google the name** to avoid removing system-critical components.
- Avoid uninstalling anything marked by **Microsoft Corporation** unless you're sure.