Windows Troubleshooting Guide

This guide covers common issues with Windows operating systems and provides step-by-step troubleshooting solutions.

⚠ **Warning**

Slow System Performance

Issue: Your Windows system is running slow.

ⓘ **Info**

Troubleshooting Steps:

Step 1: Check Resource Usage

- Open Task Manager: Press Ctrl + Shift + Esc or Ctrl + Alt + Delete and choose Task Manager.
- Review CPU, Memory, Disk, and Network tabs to identify any resource-hungry processes.

Step 2: Disk Cleanup

- Run the built-in Disk Cleanup utility to free up disk space.
- Open Command Prompt as Administrator and type: `cleanmgr`

Step 3: Check for Malware or Viruses

- Run a full system scan using your preferred antivirus software.

Step 4: Update Drivers

- Outdated or incompatible drivers can cause performance issues.
- Check for driver updates, especially for graphics and network drivers.

Step 5: Check for Windows Updates

- Make sure your system is up to date with the latest Windows updates.
- Open Settings > Update & Security > Windows Update.

Step 6: Disable Startup Programs

- Unnecessary startup programs can slow down your system.

- Press Ctrl + Shift + Esc to open Task Manager and navigate to the Startup tab to disable unwanted startup items.

Step 7: Check for Disk Errors

- Run a disk check to identify and repair disk errors.
- Open Command Prompt as Administrator and type: `chkdsk /f`

Step 8: Monitor Temperature

- Overheating can lead to performance problems.
- Use software like HWMonitor to check CPU and GPU temperatures.

Step 9: Check for Background Processes

- Check for unnecessary background processes.
- Press Ctrl + Shift + Esc to open Task Manager and identify any suspicious or resource-heavy background applications.

Step 10: Disable Visual Effects

- Reducing visual effects can improve system performance.
- Right-click on This PC > Properties > Advanced system settings > Advanced tab > Performance Settings > Adjust for best performance.

Step 11: Optimize Startup Type

- Change certain services to "Manual" or "Automatic (Delayed Start)" if they are not needed at startup.
- Open Run (Win + R) and type `services.msc`.

Step 12: Monitor Network Usage

- A network issue can also cause slow performance.
- Use the netstat command to check for active network connections.

☰ **Example**

Imagine you've identified a resource-hungry process in Task Manager (Step 1) that's causing your system to run slow. In this case, you can end that process from Task Manager, which may instantly improve your system's performance.

ⓘ **Info**

Additional Tips for Effective Troubleshooting:

- Regularly clean up temporary files and cache.
- Manage and limit browser extensions and add-ons.
- Consider upgrading hardware components such as RAM or switching to an SSD for improved performance.

⚠ **Warning**

Blue Screen of Death (BSOD)

Issue: Your computer encounters a BSOD error and restarts.

ⓘ **Info**

Troubleshooting Steps:

1. **Check for hardware issues**: Ensure all hardware components are securely connected and not damaged.
2. **Update drivers**: Update graphics, sound, and motherboard drivers to the latest versions.
3. **Check for overheating**: Monitor your system's temperature and clean any dust from fans and heatsinks.
4. **Run Windows Memory Diagnostic**: Search for "Windows Memory Diagnostic" and run a memory test.
5. **Review recent changes**: Identify any recent software or hardware changes and undo them if necessary.

☰ **Example**

Suppose your computer recently encountered a BSOD error (Step 3), and you suspect it might be due to overheating. You can use software like HWMonitor (Step 4) to check your CPU and GPU temperatures and clean any dust from fans if they are running hot. This may help prevent further BSOD errors.

[!INFO]
Additional Tips for Effective Troubleshooting:

- Keep your operating system and drivers updated regularly.
- Install a reliable antivirus program to prevent malware-related BSOD errors.

> ⓘ **Info**
>
> This guide provides solutions to common Windows issues. Follow the troubleshooting steps carefully to resolve problems effectively. If you encounter more specific issues, consult relevant online resources or contact Microsoft Support for assistance.