Key Takeaways

- **IRQL_NOT_LESS_OR_EQUAL Error**: A Blue Screen of Death (BSOD) error caused commonly by incompatible drivers, hardware issues, or system file corruption.
- **Most Effective Solution**: Updating or rolling back drivers; running system diagnostics like memory checks or CHKDSK. Tools like <u>EaseUS DriverHandy</u> can simplify the process of updating and fixing drivers.
- **Preventative Measures**: Regular driver updates, avoiding overheating, and monitoring BIOS settings for potential conflicts.
- Critical Tools: Windows Memory Diagnostic, CHKDSK, System Restore, Malware Scan, and Windows Reset. If you're concerned about recovering lost data after system errors, <u>MiniTool Power</u> <u>Data Recovery</u> might be helpful.

Step-by-Step Guide to Fixing the IRQL_NOT_LESS_OR_EQUAL Error

If you're encountering the dreaded **IRQL_NOT_LESS_OR_EQUAL** error, don't panic. This guide walks you through how to resolve it efficiently, just like a system expert would. The solutions are in order of complexity, so start from the top.

1. Restart Your Computer

The most basic but often effective solution. Certain temporary glitches can cause this error, and a simple restart could resolve it. However, if the error continues, proceed to the following steps.

2. Update or Roll Back Drivers

Outdated or corrupted drivers are a **primary cause** of this error. Identifying and updating specifically problematic drivers often fixes the problem.

How to Update Drivers:

- 1. Press **Windows + X** and choose **Device Manager** from the menu.
- 2. Expand categories like Network adapters, Display adapters, or Audio devices.
- 3. Look for devices with a yellow exclamation mark next to them.
- 4. Right-click on the faulty device and click Update driver.
- 5. Choose Search automatically for updated driver software.

Roll Back to Previous Drivers (If Problems Started After an Update):

- 1. Open Device Manager (Press Windows + X).
- 2. Right-click the problematic device and select Properties.
- 3. In the Driver tab, click Roll Back Driver.
- 4. Follow the step-by-step prompts.

When you update or roll back these drivers, you're directly addressing potential issues responsible for the error.

Note: If you're unsure whether your drivers are out-of-date, tools like <u>EaseUS DriverHandy</u> can automate the process, ensuring your drivers are up-to-date and functional.

3. Run a Memory Diagnostic Test

Faulty RAM can cause system errors like the **IRQL_NOT_LESS_OR_EQUAL** error. Windows has a builtin tool called **Windows Memory Diagnostic** for checking for memory errors.

Steps:

- 1. Press Windows + R, type mdsched.exe, and press Enter.
- 2. Choose Restart now and check for problems.
- 3. The PC will restart, and the diagnostic tool will scan your memory for issues.

Allow the test to complete, and note any error messages related to RAM.

4. Check for Disk Errors with CHKDSK

Corrupted hard drive segments could also cause the IRQL_NOT_LESS_OR_EQUAL error. A quick way of checking and fixing file system errors is using the CHKDSK tool.

How to Run CHKDSK:

- 1. Open Windows Terminal (Admin) by pressing Windows + X.
- 2. Type the command:

chkdsk C: /f /r

Here, C: refers to the drive letter of your system drive. Replace it if necessary.

3. Press **Enter** and follow the instructions.

The /f flag fixes errors on the drive, while the /r flag locates bad sectors and recovers readable data.

5. Perform a System Restore

If the error started occurring after a recent update or installation, use **System Restore** to revert your system to a previous, stable state.

How to Perform a System Restore:

- 1. Press Windows + R, type rstrui, and press Enter.
- 2. In the System Restore window, choose a restore point created before you encountered the BSOD.
- 3. Follow the on-screen instructions to restore your system.

This will bring your computer back to its previous configuration, removing any updates or software that caused the error—without affecting your personal files.

6. Check for Malware

Malicious programs can potentially corrupt essential system files, resulting in the **IRQL_NOT_LESS_OR_EQUAL** BSOD. Run a full scan using Windows Defender or other trusted antivirus programs.

Scanning Your System:

- 1. Press Windows key + I to open Settings.
- 2. Go to Update & Security > Windows Security > Virus & threat protection.

- 3. Under Scan options, select Full scan.
- 4. Click **Scan now** to start scanning your system for threats.

If any malware is detected, follow the prompts to remove it.

7. Reset Windows (As a Last Resort)

If none of the above steps resolve the error, resetting Windows might be necessary. This step reinstalls the operating system without affecting your personal files.

Resetting Windows:

- 1. Press Windows + I to open Settings.
- 2. Go to **Update & Security > Recovery**.
- 3. Under Reset this PC, click Get started.
- 4. Choose Keep my files (to preserve your data) or Remove everything (complete system reset).
- 5. Follow the prompts to finish the reset.

Additional Expert Tips

Inspect BIOS Settings

Incorrect configurations in BIOS can also cause the **IRQL_NOT_LESS_OR_EQUAL** error. Specifically, any BIOS settings related to **auto-boost** features (like RAM speed or CPU boost) can cause instability.

How to Access BIOS:

- 1. Reboot your computer.
- 2. Press Delete, F2, or another key as indicated during startup to enter BIOS.
- 3. Navigate using arrow keys and look for any settings related to **boost features**.
- 4. Set these to **Disabled** if they are enabled, and save your changes before exiting.

Check for Overheating

Heat-related issues can cause a range of memory and processor errors, including **IRQL_NOT_LESS_OR_EQUAL**. If your components overheat, the system may throw BSODs.

Tips for Preventing Overheating:

- Ensure your computer case has proper ventilation.
- Clean your fans and ventilation grilles from dust.
- Consider reapplying thermal paste on your CPU.

Frequently Asked Questions about the IRQL_NOT_LESS_OR_EQUAL Error

1. What does IRQL_NOT_LESS_OR_EQUAL mean?

It indicates a kernel-mode driver attempted to access memory it wasn't allowed to.

2. Can hardware issues cause the IRQL_NOT_LESS_OR_EQUAL error?

Absolutely. Problems with RAM, hard drives, or even overheated processors are known causes.

3. Did a Windows Update cause this error?

Sometimes. Installing an incompatible driver or OS component via updates can throw this error.

4. Is it safe to disable antivirus when fixing this error?

Yes, **temporarily** disabling third-party antivirus can be crucial to check whether the security software is conflicting with drivers or important system files.

5. What if I don't find an earlier driver to roll back?

You may need to search the internet for an older driver version manually or contact the manufacturer's support if it's critical hardware like a **graphics card** or **network adapter**.

For hardcore hardware enthusiasts, the IRQL error can be maddening. But by following these steps carefully, you'll get yourself back up and running in no time, leaving that blue screen behind you.