

## Key Takeaways

- **"PAGE\_FAULT\_IN\_NONPAGED\_AREA"** **Explanation:** Error occurs when a system tries to access an invalid memory location.
- **Main Causes:** It could be faulty RAM, outdated drivers, or corrupt system files.
- **Diagnostic Tools:** Tools such as [Memtest86+](#), [EaseUS DriverHandy](#), (to scan and update drivers), Chkdsk, and Windows Memory Diagnostic help identify hardware issues.
- **Fixes:** Drivers and hardware updates (especially for RAM, storage, and motherboard) are often the go-to fixes.
- **Safe Mode:** Use Safe Mode for troubleshooting without interference from problematic drivers or software.
- **Replacement:** Faulty components, especially RAM, may need to be replaced if identified as the root cause.

## Step-by-Step Guide to Fixing the "PAGE\_FAULT\_IN\_NONPAGED\_AREA" Error

Dealing with the "PAGE\_FAULT\_IN\_NONPAGED\_AREA" error can be complex if you don't understand what causes it. In this guide, I'll walk you through the step-by-step process to identify, troubleshoot, and solve this pesky Blue Screen of Death (BSOD) error.

### 1. Understand the "PAGE\_FAULT\_IN\_NONPAGED\_AREA" Error

**Explanation:** The **"PAGE\_FAULT\_IN\_NONPAGED\_AREA"** error occurs when the Windows operating system tries to access a part of your computer's **physical memory** (RAM) that it believes should always be accessible but suddenly isn't. This often points to either a **memory management issue** or a problem with the software/drivers interacting with memory. Common causes include:

- Faulty RAM or hardware.
- Corrupted or outdated drivers.
- Storage (hard disk or SSD) issues.

### 2. Software and Driver Check

Most of the time, this error is fixed by simply updating drivers or removing outdated software that could be interfering. It is worth noting that **driver conflicts** are a frequent trigger.

- **Update All Installed Drivers:**
  - **Automatically** with tools such as [DriverFix](#) or manually via Device Manager.
  - Focus on **audio, display, and network drivers** as they're common culprits.

1. **Press** `Windows + X`.
2. Select **Device Manager**.
3. Right-click on each driver and select **Update Driver** → Choose **Search automatically....**

### 3. Diagnostic Tests on RAM & Storage

**Memory diagnostics** and **Storage checks** are essential steps for every professional tackling this BSOD.

**Memory Test:**

- **Memory Test:** Use [Memtest86+](#) to analyze your RAM. Alternatively, if you want an easier, automated solution, try [EaseUS OS2Go](#) to create bootable diagnostic tools
  - Download the tool and follow the instructions for creating a bootable USB.
  - Run multiple passes (ideally 4-6) for thorough analysis.
  - **If errors are detected**, consider testing one stick of RAM at a time or swapping slots to isolate the issue.

**Hard Disk Diagnostic:**

- Use **Chkdsk** (Windows built-in tool) to check for any failures in your hard disk. Corrupt or bad sectors on your primary drive can result in Page Fault errors.
  1. Press `Windows + R` → Type `cmd` → Press `Enter`.
  2. In the Command Prompt, enter:

```
chkdsk /f /r
```

- This process can take a while if errors are extensive.

### 4. Update Your Motherboard/Chipset Drivers

Many forget that **motherboard drivers** are essential, especially chipset or memory controller drivers when you're dealing with memory-related BSODs.

- Navigate to your motherboard manufacturer's website (e.g., ASUS, Gigabyte, MSI).
- Download and install any available updates. A widely updated chipset driver can resolve memory address conflicts leading to a **page fault**.

*Pro Tip: Updating BIOS/UEFI (carefully) can also resolve hardware communication issues, although it's a more advanced step.*

### 5. Run System File & Windows Memory Diagnostics

When memory isn't the problem, corrupt system files or operating systems can be at fault. **System File Checker (SFC Scan):**

- Run **SFC** to scan for any damaged Windows files.
  1. `Windows + X` → Open **Command Prompt** or `PowerShell` with administrative privileges.
  2. Type:

```
sfc /scannow
```

**Windows Memory Diagnostic:**

1. Press `Windows + R` → Write `mdsched.exe` → Press `Enter`.
2. Choose **Restart now and check for problems**.
3. Let Windows automatically scan the RAM for errors.

### 6. Troubleshooting Drivers by .sys Files

If the error message includes a specific **.sys file**, this often points to which driver caused the issue. For instance:

- For `ati.sys`, you need to reinstall/update your **graphics driver**.
- Use the **driver's official website** or tools such as [NVIDIA GeForce Experience](#) or [Radeon Software](#) for AMD.

### 7. Boot into Safe Mode to Fix Persistent Errors

Safe Mode allows you to troubleshoot without interference from problematic drivers or third-party software. If the faulty drivers or software can't be disabled due to recurring crashes:

1. **Boot into Safe Mode:**
  - Hold **Shift** → Select **Restart** → Select **Troubleshoot** → Advanced Options → **Startup Settings** → Click **Enable Safe Mode with Networking**.
2. **Once in Safe Mode...:**
  - Update Windows and drivers without risk of crashes interfering.

## Key Replacement Step: Faulty RAM

By this stage, if Memtest86+ is identifying errors the **best solution** is to replace faulty RAM sticks. Consider:

1. **Switching the RAM locations** in their slots to rule out issues with the motherboard.
2. **Replace faulty RAM modules.** Aim to use **compatible RAM sizes and specs** with your motherboard for best results.

*Pro Advice: Stick to **high-quality RAM brands** like Corsair, Kingston, or G.Skill known for their reliability.*

## Frequently Asked Questions

**1. What is the most common cause of "PAGE\_FAULT\_IN\_NONPAGED\_AREA" errors?** The error is commonly caused by issues with **memory (RAM)** or **problematic drivers**—especially those dealing with graphics or storage. Corrupt system files can also be responsible.

**2. Is Memtest86+ sufficient to diagnose the error?** Yes, **Memtest86+** is an excellent tool for detecting memory issues. You should run at least four full passes to get an accurate assessment of your RAM.

**3. What should I do if Windows stop booting altogether due to this error?** You should try to **boot into Safe Mode**. Once there, update drivers, uninstall faulty updates, or revert to a **System Restore Point** before the issue arose.

**4. How do I quickly check if a specific driver is responsible for the error?** The BSOD often lists a `.sys` file. If you find one related to this error, it's often helpful to update or reinstall the driver related to it. You can manually delete the problematic driver using **Safe Mode** if updates fail to resolve the issue.

For a different similar issue, check out [How to Fix the DRIVER\\_IRQL\\_NOT\\_LESS\\_OR\\_EQUAL Error](#).