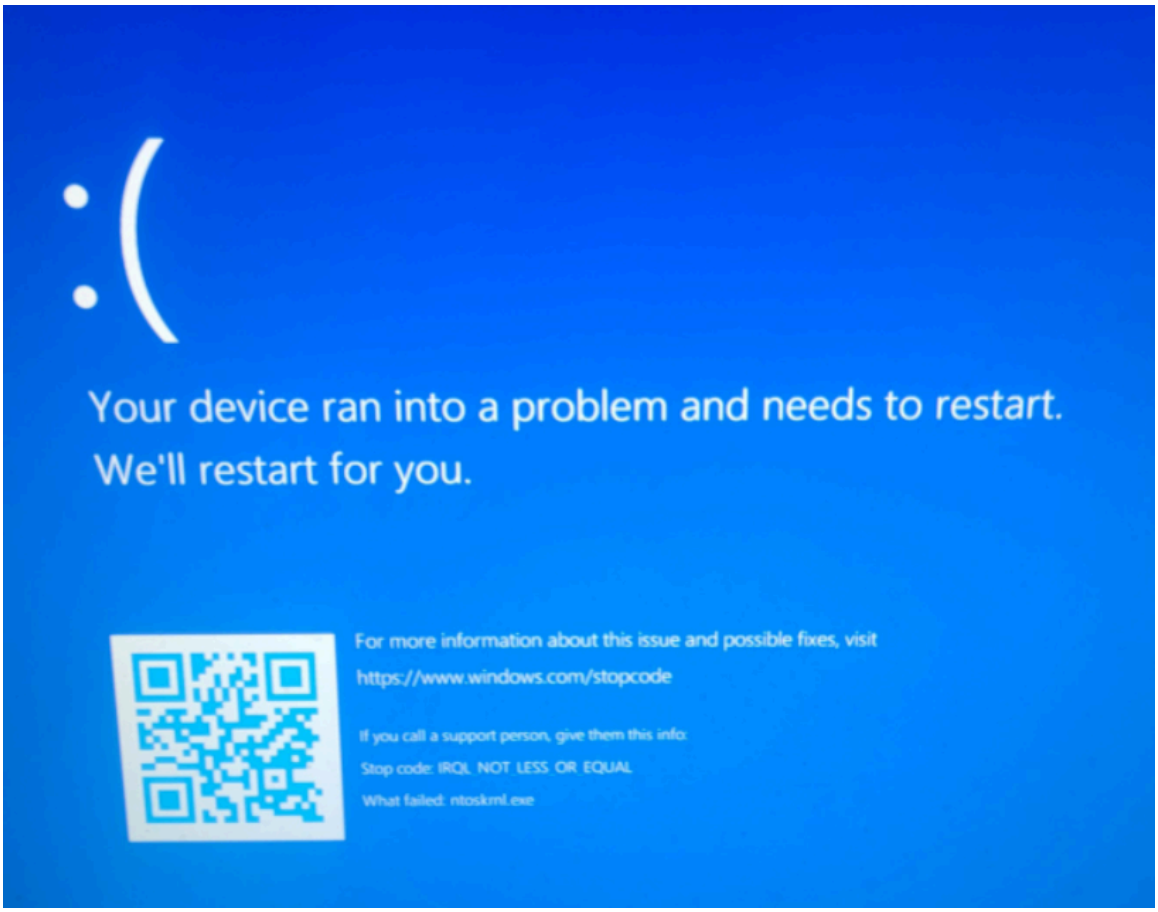
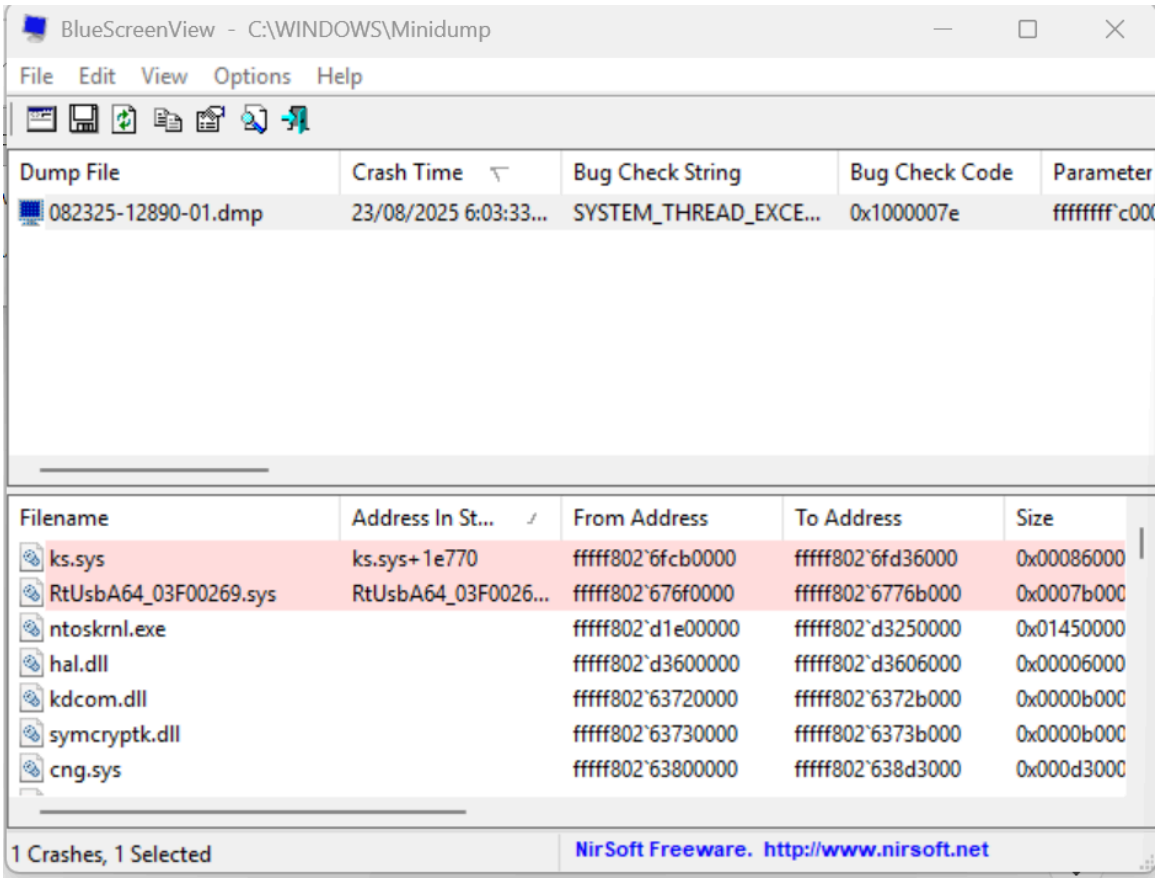
Fixing SYSTEM_THREAD_EXCEPTION_NOT_HANDLED (0x1000007e) Caused by RtUsbA64 Realtek USB WiFi Driver

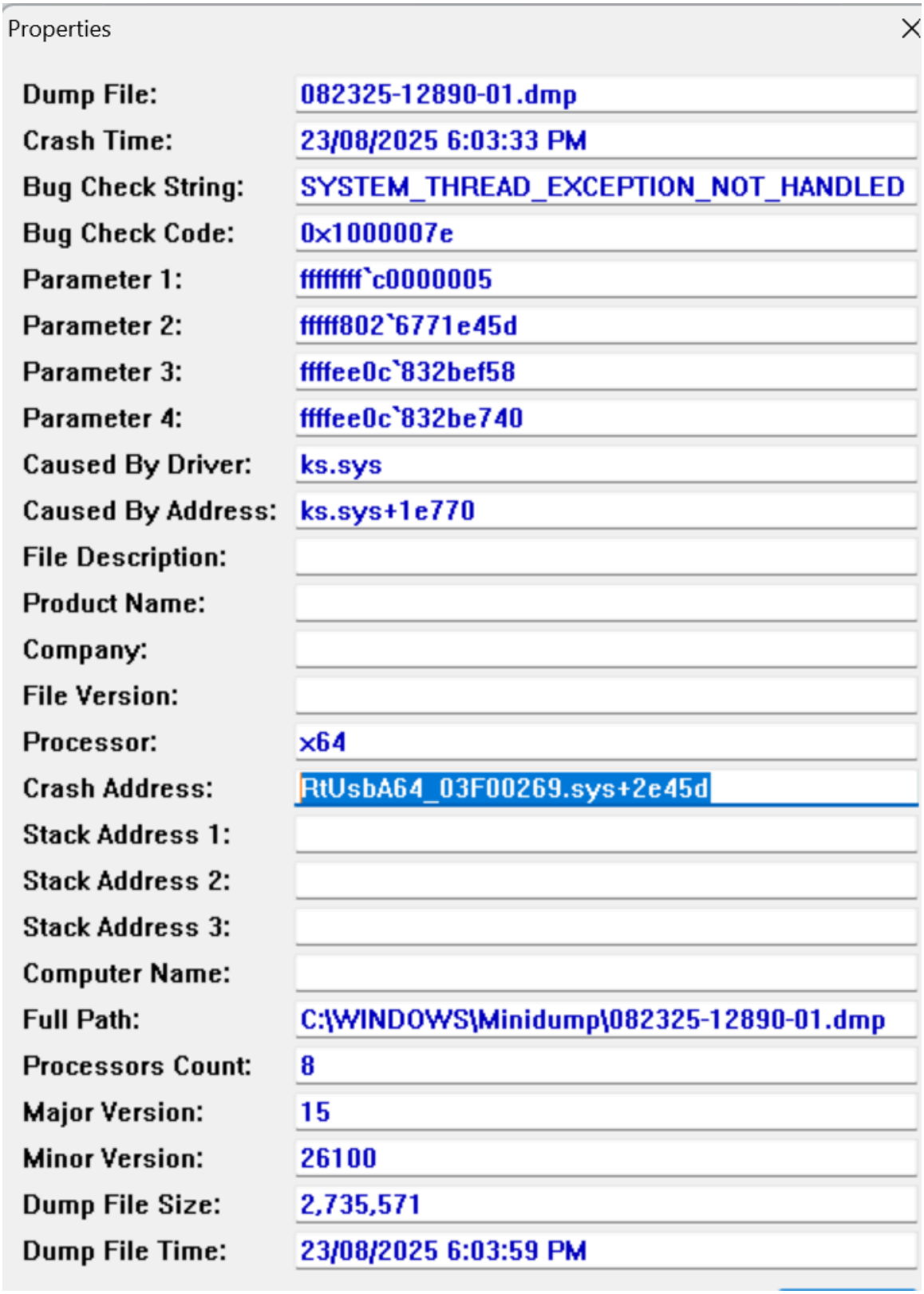
This document provides a step-by-step guide to diagnose and resolve a Windows Blue Screen of Death (BSOD) error related to SYSTEM_THREAD_EXCEPTION_NOT_HANDLED with Bug Check Code 0x1000007e. The crash was traced to the Realtek USB WiFi driver (RtUsbA64_03F00269.sys), which triggered the kernel streaming component ks.sys. This commonly occurs when using Virtual Machines, proxy configurations, or network interception tools such as Burp Suite.



Error screenshot showing the Error code: IRQL_NOT_LESS_OR_EQUAL

1. Error Details Identified from Crash Dump





Screenshot above showing the Minidump file Opened in BluescreenView for further troubleshooting

The Properties that we are interested in are below.

- **Bug Check String: SYSTEM_THREAD_EXCEPTION_NOT_HANDLED**
- **Bug Check Code: 0x1000007e**
- **Caused by Driver: ks.sys (triggered)**
- **Crash Address: RtUsbA64_03F00269.sys (Realtek USB WiFi driver)**

2. Root Cause Summary

The crash was caused by instability in the Realtek USB WiFi network driver. This issue commonly appears when:

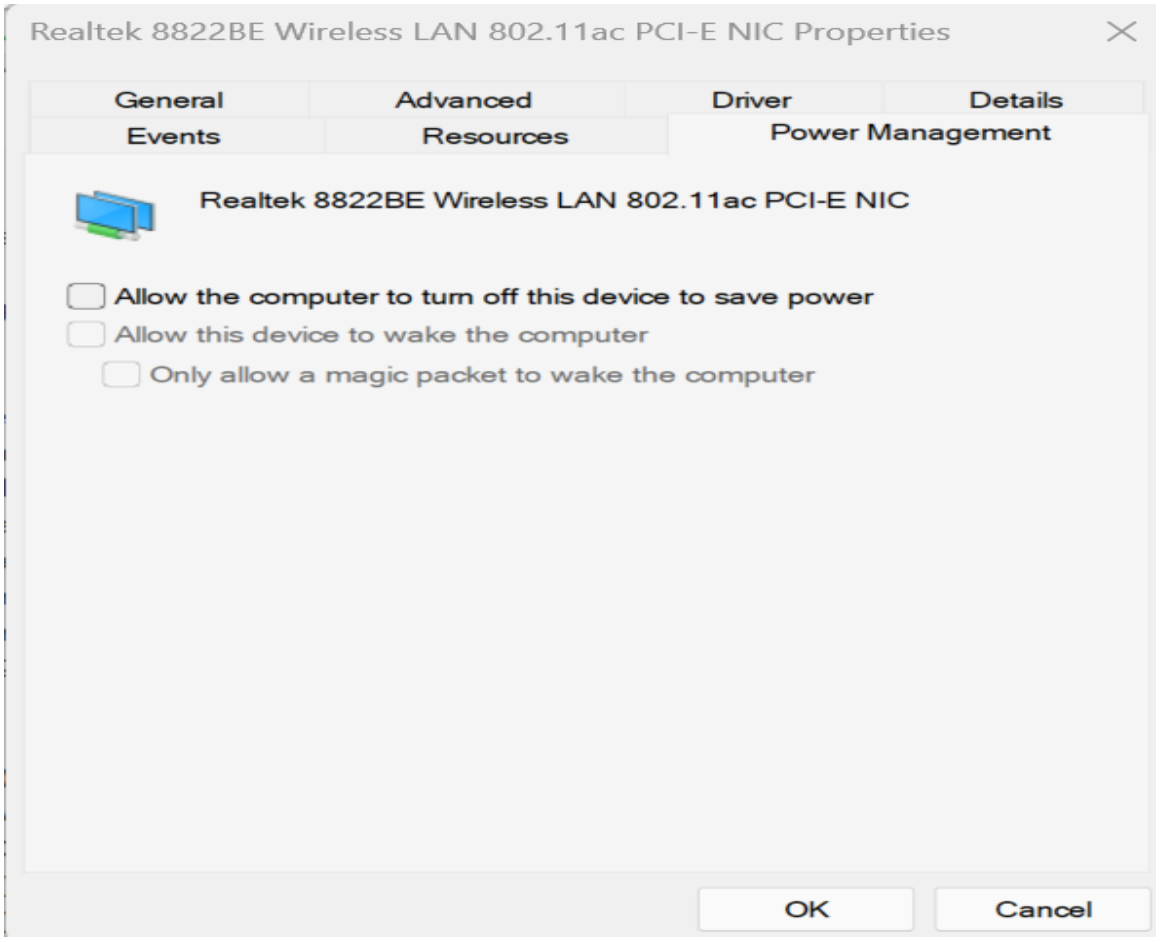
- Using VirtualBox or VMware in Bridged Network mode(**in my case**)
- Using USB passthrough for WiFi in a Kali Linux VM
- Network adapter power saving is enabled
- Outdated Realtek driver is installed
- Network monitoring or interception tools increase driver load

3. Resolution Steps

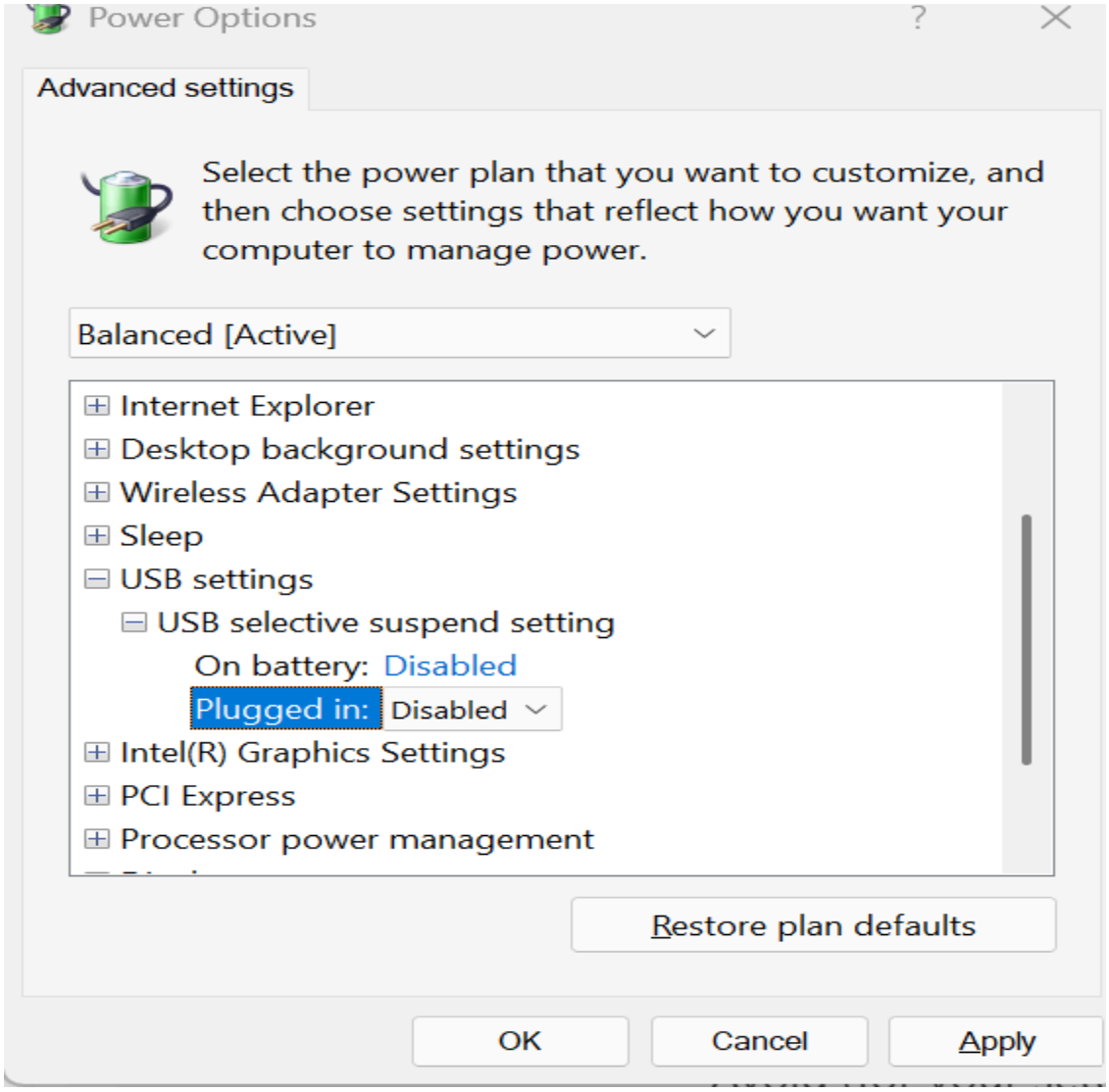
1. **Step 1**: **Identify the Realtek WiFi Adapter**
    - Open Device Manager > Network Adapters
    - Locate entries such as:
      Realtek USB Wireless LAN
      802.11n USB WiFi Adapter
      RTL8723 / RTL8188 / RTL8192 series
2. **Step 2**: **Uninstall and Reinstall Updated Driver**
    - Uninstall current driver from Device Manager
    - Reboot the system
    - Install latest driver from Realtek or device vendor
    - Official driver source: https://www.realtek.com
3. **Step 3**: **Disable USB Power Saving**

- Device Manager > Adapter Properties > Power Management

- Uncheck: “Allow the computer to turn off this device to save power”



- Control Panel > Power Options > USB Selective Suspend > Disable



4. **Step 4**: **Adjust Virtual Machine Networking**

- Change VM network mode to NAT (recommended)
- Avoid USB passthrough for WiFi adapters
- Disable Bridged Mode during proxy testing

5. **Step 5: Optional Preventive Actions**

- Ensure Windows updates are applied
- Avoid Realtek WiFi monitor mode in Kali
- Consider alternative chipsets for security testing

4. Expected Outcome After Applying Fixes

✅ No more BSODs during network operations

✅ Stable VM networking while using Burp Suite

✅ Reliable proxy interception from Chrome to Kali

✅ Improved system stability and reduced driver conflicts