

[Home](#) > [Knowledge Base](#) > [Here](#)

TROUBLESHOOTING WINDOWS STOP MESSAGES

Last updated October 18, 2007

Hold mouse [here](#) for list of most recent changes.

[Receive notice whenever this page is updated.](#)

STOP Messages literally mean Windows has stopped! These appear only in the NT-based operating systems: Win NT, Win 2000, Win XP, and Vista. **Most are hardware issues.** STOP messages are identified by an 8-digit hexadecimal number, but also commonly written in a shorthand notation; e.g., a STOP 0x0000000A may also be written Stop 0xA. Four additional 8-digit hex numbers may appear in parentheses, usually unique to your computer and the particular situation.

NOTE: Many users search this site for the word **minidump** which often accompanies these Stop Message errors. The fact that a memory minidump occurred tells you nothing except what you already know — that there was an error. It is the name of the error condition and its 8-digit number that help you determine the actual error condition.

If a message is listed below, but has no articles or explanation (nothing but its number and name), post a request on the [AumHa Forums](#) asking about it. STOP messages of this type are rare, obscure, and usually only of interest to programmers debugging their code. Real-life scenarios of a computer *user* encountering them are unlikely, so I've made it a lower priority to document them here; but we'll be happy to address this in the Forum (which also will tip me off that I should add more to this present page).

General Troubleshooting of STOP Messages

If you can't find a specific reference to your problem, running through the following checklist stands a good chance of resolving the problem for you. This checklist is also usually the best approach to troubleshooting some specific Stop messages, such as [0x0A](#) and [0x50](#).

1. Examine the "System" and "Application" logs in Event Viewer for other recent errors that might give further clues. To do this, launch **EventVwr.msc** from a Run box; or open "Administrative Tools" in the Control Panel then launch **Event Viewer**.
2. If you've recently added new hardware, remove it and retest.
3. Run hardware diagnostics supplied by the manufacturer.
4. Make sure device drivers and system BIOS are up-to-date.
5. However, if you've installed new drivers just before the problem appeared, try rolling them back to the older ones.
6. Open the box and make sure all hardware is correctly installed, well seated, and solidly connected.
7. Confirm that all of your hardware is on the [Hardware Compatibility List](#). If some of it isn't, then pay particular attention to the non-HCL hardware in your troubleshooting.
8. Check for viruses.
9. Investigate recently added software.
10. Examine (and try disabling) BIOS memory options such as caching or shadowing.

NOTE: When a STOP message occurs, Windows can create a debug file for very detailed analysis. To do this, it needs a workspace equal to the amount of physical RAM you have installed. If you resize your Win XP pagefile minimum to less than the size of your physical RAM, you will get an advisory message that your system may not be able to create a debugging information file if a STOP error occurs. My advice is to go ahead with this change if you want, but simply remember the limitation so that you can change it back if you need to troubleshoot STOP messages. Some general troubleshooting principles are suggested in the *Resource Kit* for approaching STOP messages overall.

- [Troubleshooting Stop messages: General Strategies](#)
- [Troubleshooting Specific Stop Messages](#)
- [MSDN List of Win XP STOP Messages](#) (If not a complete list, this one certainly is extensive!)
- [Blue Screen Preparation Before Contacting Microsoft](#) {KB 129845} **Win NT, Win 2000, Win XP** (General remarks on STOP messages)

0x00000001: APC_INDEX_MISMATCH [MSDN article](#)

0x00000002: DEVICE_QUEUE_NOT_BUSY [MSDN article](#)

0x00000003: INVALID_AFFINITY_SET [MSDN article](#)

0x00000004: INVALID_DATA_ACCESS_TRAP [MSDN article](#)

0x00000005: INVALID_PROCESS_ATTACH_ATTEMPT
(Click to consult the online [MSDN article](#).)

Generally, use the [General Troubleshooting of STOP Messages](#) checklist above to troubleshoot this problem. A specific problem is known to exist with Win XP SP2 and Server 2003 in combination with certain antivirus programs, firewalls, and similar software; see the article linked below for details and current status of a fix from Microsoft.

- [You receive the Stop error "Stop 0x05 \(INVALID_PROCESS_ATTACH_ATTEMPT\)" in Win XP SP2 or Server 2003](#) {KB 887742} [Win XP SP2 \(all subversions\)](#); [Server 2003](#); [Tablet PC Edition 2005](#)

0x00000006: INVALID_PROCESS_DETACH_ATTEMPT [MSDN article](#)

0x00000007: INVALID_SOFTWARE_INTERRUPT [MSDN article](#)

0x00000008: IRQL_NOT_DISPATCH_LEVEL [MSDN article](#)

0x00000009: IRQL_NOT_GREATER_OR_EQUAL [MSDN article](#)

0x0000000A: IRQL_NOT_LESS_OR_EQUAL

(Click to consult the online [MSDN article](#).)

Typically due to a bad driver, or faulty or incompatible hardware or software. Use the [General Troubleshooting of STOP Messages](#) checklist above. Technically, this error condition means that a kernel-mode process or driver tried to access a memory location to which it did not have permission, or at a kernel *Interrupt ReQuest Level* (IRQL) that was too high. (A kernel-mode process can access only other processes that have an IRQL lower than, or equal to, its own.)

- [Troubleshooting "Stop 0x0A" Messages in Windows](#) {KB 165863} [Win NT](#), [Win 2000](#), [Win XP](#)
- [Troubleshooting a Stop 0x0000000A Error in Windows XP](#) {KB 314063} [Win XP](#)
- [Possible Resolutions to STOP 0x0A, 0x01E, and 0x50 Errors](#) {KB 183169} [Win NT](#), [Win 2000](#), [Win XP](#)
- [During upgrade to Win XP](#) {KB 311564} [Win XP](#)
- [STOP 0x0000000A Error Message When You Change from AC Power to DC Power](#) {KB 316676} [Win XP](#)
- ["Stop 0x0000000A" Error Message When You Fast Switch Between Users](#) {KB 310918} [Win XP](#)
- [While booting NT on same partition as Win 2000 or XP](#) {KB 227301} [Win NT](#), [Win 2000](#), [Win XP](#)
- [Windows XP Restarts When You Try to Shut Down Your Computer](#) {KB 311806}
- ["Fatal System Error" When You Try to Use a Hewlett-Packard 5100C ScanJet](#) {KB 307129} [Win XP](#) (with Brother printer)
- [Computer May Hang During a Heavy Load with an Ericsson HIS Modem](#) {KB 319810} [Win 2000](#), [Win XP](#)
- [STOP 0x4E, STOP 0x1A, STOP 0x50, and STOP 0xA Errors Occur When You Try to Start the Computer](#) {KB 271955} [Win NT 4.0](#) (corrupt physical RAM)
- ["Stop: 0x0000000A \(00000063, 0000001c, 00000000, parameter4\)" error message on a Windows 2000-based computer](#) {KB 837384} [Win 2000](#) (program error, hotfix available)
- [How to Use Driver Verifier to Troubleshoot Windows Drivers](#) {KB 244617} [Win 2000](#), [Win XP](#), [Server 2003](#)
- [Error Message When Installing Windows Vista on a Computer With More Than 3 GB of RAM: STOP 0x0000000A](#) {KB 929777} [Vista](#) (update patch available)
- [Randomly Stop 0xA Errors in Storport.sys When You Start Windows Vista](#) {KB 930261} [Vista](#) (hotfix available)

0x0000000B: NO_EXCEPTION_HANDLING_SUPPORT [MSDN article](#)

0x0000000C: MAXIMUM_WAIT_OBJECTS_EXCEEDED [MSDN article](#)

0x0000000D: MUTEX_LEVEL_NUMBER_VIOLATION [MSDN article](#)

0x0000000E: NO_USER_MODE_CONTEXT [MSDN article](#)

0x0000000F: SPIN_LOCK_ALREADY_OWNED [MSDN article](#)

0x00000010: SPIN_LOCK_NOT_OWNED [MSDN article](#)

0x00000011: THREAD_NOT_MUTEX_OWNER [MSDN article](#)

0x00000012: TRAP_CAUSE_UNKNOWN

(Click to consult the online [MSDN article](#).)

By its very nature, this error means that the cause of the identified problem is unknown. Start with the [General Troubleshooting of STOP Messages](#) checklist above. Read the MSDN article linked here. Especially try to track it down by noting the history of the problem, when it appeared, and what changes were made to the system since the problem first appeared, as well as noting what activity you are attempting at the time the error message appears.

- [Problems When You Use Sound Blaster Live Driver](#) {KB 297088} [Win 2000](#)

0x00000013: EMPTY_THREAD_REAPER_LIST [MSDN article](#)
 0x00000014: CREATE_DELETE_LOCK_NOT_LOCKED [MSDN article](#)
 0x00000015: LAST_CHANCE_CALLED_FROM_KMODE [MSDN article](#)
 0x00000016: CID_HANDLE_CREATION [MSDN article](#)
 0x00000017: CID_HANDLE_DELETION [MSDN article](#)
 0x00000018: REFERENCE_BY_POINTER [MSDN article](#)

0x00000019: BAD_POOL_HEADER
 (Click to consult the online [MSDN article](#).)

A [pool header](#) issue is a problem with Windows memory allocation. Device driver issues are probably the most common, but this can have diverse causes including bad sectors or other disk write issues, and problems with some routers. (By theory, RAM problems would be suspect for memory pool issues, but I haven't been able to confirm this as a cause.)

- ["STOP: 0x00000019" error message on Windows Server 2003](#) {KB 892260} [Server 2003](#) (NTFS problem corrected in current Service Pack)
- [Error message when a Delayed Write Failure event is reported in Windows Server 2003: "Stop 0x00000019 - BAD_POOL_HEADER" or "Stop 0xCD PAGE_FAULT_BEYOND_END_OF_ALLOCATION"](#) {KB 925259} [Server 2003](#) (driver issue; hotfix available)
- [When backing up to Clarion storage in a SAN environment, Windows Server 2003 may stop responding after restart](#) {KB 884585} [Server 2003](#) (caused by adding more than 20 mount points during the backup; hotfix available)
- [When trying to control a Systems Management Server 2003 client from a remote location, Stop error on SMS 2003 client](#) {KB 905795} [SMS 2003](#) (driver issue)

0x0000001A: MEMORY_MANAGEMENT
 (Click to consult the online [MSDN article](#).)

This memory management error is usually hardware related. See the [General Troubleshooting of STOP Messages](#) checklist above. If this occurs while installing Windows, also check the Windows system requirements including the amount of RAM and disk space required to load the operating system. If none of the above resolves the problem, see the MSDN article linked above for further steps.

- [How to Troubleshoot a STOP 0x0000001A MEMORY_MANAGEMENT Error Message](#) {KB 282504} [Win 2000](#)
- [STOP 0x4E, STOP 0x1A, STOP 0x50, and STOP 0xA Errors Occur When You Try to Start the Computer](#) {KB 271955} [Win NT 4.0](#) (corrupt physical RAM)
- [STOP 0x0000001E Caused by Pool Corruption or STOP 0x00000050 or STOP 0x0000001A with Special Pool Enabled](#) {KB 260831} [Win NT 4.0](#)

0x0000001B: PFN_SHARE_COUNT [MSDN article](#)
 0x0000001C: PFN_REFERENCE_COUNT [MSDN article](#)
 0x0000001D: NO_SPIN_LOCK_AVAILABLE [MSDN article](#)

0x0000001E: KMODE_EXCEPTION_NOT_HANDLED
 (Click to consult the online [MSDN article](#).)

The Windows kernel detected an illegal or unknown processor instruction. A Stop 0x1E condition can be caused by invalid memory and access violations similar to those that generate [Stop 0xA](#) errors. This default Windows error handler typically intercepts these problems if error-handling routines are not present in the code itself.

- [Possible Resolutions to STOP 0x0A, 0x01E, and 0x50 Errors](#) {KB 183169} [Win NT](#), [Win 2000](#), [Win XP](#)
- [During Setup](#) {KB 161703} [Win NT](#), [Win 2000](#), [Win XP](#)
- [During Setup](#) {KB 314451} [Win XP](#)
- [An ASPI32.SYS issue \(with SCSI hardware\)](#) {KB 307128} [Win XP](#)
- [Caused by Open Handles while closing an application](#) {KB 195857} [Win NT](#), [Win 2000](#), [Win XP](#)
- [Stop 0x1E in PROTCLS.SYS When You Undock a Toshiba Tecra 8100](#) {KB 284154} [Win XP](#)
- ["STOP 0x00000051" or "STOP 0x0000001E" error message when you start Configuration Manager](#) {KB 815265} [Win 2000 Server](#), [Win XP](#) (patches available)

0x0000001F: SHARED_RESOURCE_CONV_ERROR [MSDN article](#)
 0x00000020: KERNEL_APC_PENDING_DURING_EXIT [MSDN article](#)

0x00000021: QUOTA_UNDERFLOW [MSDN article](#)

0x00000022: FILE_SYSTEM [MSDN article](#)

0x00000023: FAT_FILE_SYSTEM

(Click to consult the online [MSDN article](#).)

A problem occurred within a read or write to a FAT16 or FAT32 file system drive. There may be a physical problem with the disk, or an *Interrupt Request Packet* (IRP) may be corrupted. Other common causes include heavy hard drive fragmentation, heavy file I/O, problems with some types of drive-mirroring software, or some antivirus software. I suggest running Chkdsk or ScanDisk as a first step; then disable all file system filters such as virus scanners, firewall software, or backup utilities. Check the file properties of FASTFAT.SYS to ensure it matches the current OS or SP version. Update all disk, tape backup, CD-ROM, or removable device drivers to the most current versions.

- [General Discussion](#) {KB 290182} **Win 2000**
- [A "Stop 0x23" Error Message Appears When You Use Removable Media with the Same Attributes](#) {KB 305358} **Win 2000**
- [STOP Errors 0x00000023 & 0x0000000A in FASTFAT.SYS When a Program Queries the File System](#) {KB 289205} **Win 2000**

0x00000024: NTFS_FILE_SYSTEM

(Click to consult the online [MSDN article](#).)

A problem occurred within NTFS.SYS, the driver file that allows the system to read and write to NTFS file system drives. There may be a physical problem with the disk, or an *Interrupt Request Packet* (IRP) may be corrupted. Other common causes include heavy hard drive fragmentation, heavy file I/O, problems with some types of drive-mirroring software, or some antivirus software. I suggest running Chkdsk or ScanDisk as a first step; then disable all file system filters such as virus scanners, firewall software, or backup utilities. Check the file properties of NTFS.SYS to ensure it matches the current OS or SP version. Update all disk, tape backup, CD-ROM, or removable device drivers to the most current versions.

- [General Discussion](#) {KB 228888} **Win 2000, Win XP**
- [Caused by Open Handles while closing an application](#) {KB 195857} **Win NT, Win 2000, Win XP**

0x00000025: NPFS_FILE_SYSTEM [MSDN article](#)

0x00000026: CDFS_FILE_SYSTEM [MSDN article](#)

0x00000027: RDR_FILE_SYSTEM

(Click to consult the online [MSDN article](#).)

This is a rare and fairly obscure error condition. Memory management issues can be one cause, and adding additional RAM commonly will resolve this version of the problem. The articles below give the best information on troubleshooting and resolving the problem.

- [How to Troubleshoot a "STOP 0x00000027 RDR_FILE_SYSTEM" Error Message](#) {KB 290185} **Win 2000**
- ["Stop 0x00000027 RDR_FILE_SYSTEM" Error Message During Shutdown](#) {KB 261939} **Win 2000 Server**

0x00000028: CORRUPT_ACCESS_TOKEN [MSDN article](#)

0x00000029: SECURITY_SYSTEM [MSDN article](#)

0x0000002A: INCONSISTENT_IRP [MSDN article](#)

0x0000002B: PANIC_STACK_SWITCH [MSDN article](#)

0x0000002C: PORT_DRIVER_INTERNAL [MSDN article](#)

0x0000002D: SCSI_DISK_DRIVER_INTERNAL [MSDN article](#)

0x0000002E: DATA_BUS_ERROR

(Click to consult the online [MSDN article](#).)

This indicates a system memory parity error, typically caused by failed or defective RAM (including motherboard, Level 2 cache, or video memory), incompatible or mismatched memory hardware, or when a device driver attempts to access an address in the 0x8xxxxxxx range that does not exist

(does not map to a physical address). It also can indicate hard disk damage caused by viruses or other problems.

- [Windows NT 4.0 Setup Troubleshooting Guide](#) {KB 126690} **NT 4** (Recommendations for the current error message are buried down inside this article, which isn't necessarily limited to NT 4.)

0x0000002F: INSTRUCTION_BUS_ERROR [MSDN article](#)
 0x00000030: SET_OF_INVALID_CONTEXT [MSDN article](#)
 0x00000031: PHASE0_INITIALIZATION_FAILED [MSDN article](#)
 0x00000032: PHASE1_INITIALIZATION_FAILED [MSDN article](#)
 0x00000033: UNEXPECTED_INITIALIZATION_CALL [MSDN article](#)
 0x00000034: CACHE_MANAGER [MSDN article](#)

0x00000035: NO_MORE_IRP_STACK_LOCATIONS (Click to consult the online [MSDN article](#).)

In theory, this is a driver or other software issue, which encounters a stack problem. (See the MSDN article linked here.) In practice, it has historically pointed to a driver problem and also occurs when RAM itself is flawed.

- [STOP 0x00000035 When Using TDITrace from the Windows NT Resource Kit](#) {KB 228911} **Win NT 4.0** (using NT4 Resource Kit)
- [Problems Changing Mouse in Windows NT with IntelliPoint 2.0](#) {KB 155935} **Win NT 3.51 & 4.0**

0x00000036: DEVICE_REFERENCE_COUNT_NOT_ZERO [MSDN article](#)
 0x00000037: FLOPPY_INTERNAL_ERROR [MSDN article](#)
 0x00000038: SERIAL_DRIVER_INTERNAL [MSDN article](#)
 0x00000039: SYSTEM_EXIT_OWNED_MUTEX [MSDN article](#)
 0x0000003A: SYSTEM_UNWIND_PREVIOUS_USER [MSDN article](#)
 0x0000003B: SYSTEM_SERVICE_EXCEPTION [MSDN article](#)
 0x0000003C: INTERRUPT_UNWIND_ATTEMPTED [MSDN article](#)
 0x0000003D: INTERRUPT_EXCEPTION_NOT_HANDLED [MSDN article](#)
 0x0000003E: MULTIPROCESSOR_CONFIGURATION_NOT_SUPPORTED [MSDN article](#)

0x0000003F: NO_MORE_SYSTEM_PTES (Click to consult the online [MSDN article](#).)

Indicates one or more of the following problems: (1) The system *Page Table Entries* (PTEs) are depleted or fragmented due to the system performing a large number of input/output (I/O) actions. (2) A faulty device driver is not managing memory properly. (3) An application, such as a backup program, is improperly allocating large amounts of kernel memory. Remove any recently installed software (especially disk-intensive applications) and recently installed drivers.

0x00000040: TARGET_MDL_TOO_SMALL [MSDN article](#)
 0x00000041: MUST_SUCCEED_POOL_EMPTY [MSDN article](#)
 0x00000042: ATDISK_DRIVER_INTERNAL [MSDN article](#)
 0x00000043: NO_SUCH_PARTITION [MSDN article](#)

0x00000044: MULTIPLE_IRP_COMPLETE_REQUESTS (Click to consult the online [MSDN article](#).)

See the articles linked here for a technical discussion of what this error message means. In practice, it is usually a hardware driver issue.

- ["Stop 0x00000044 Multiple IRP Complete Requests" Error Message During a Shutdown or Standby Operation](#) {KB 294876} **Win 2000** (during shutdown, hibernation, or standby)
- [Error Message in Usbhub.sys Process When Waking Windows Vista From Sleep or Hibernation: STOP 0x00000044](#) {KB 930570} **Vista** (hotfix available)

0x00000045: INSUFFICIENT_SYSTEM_MAP_REGS [MSDN article](#)
 0x00000046: Deref_UNKNOWN_LOGON_SESSION [MSDN article](#)
 0x00000047: REF_UNKNOWN_LOGON_SESSION [MSDN article](#)
 0x00000048: CANCEL_STATE_IN_COMPLETED_IRP [MSDN article](#)
 0x00000049: PAGE_FAULT_WITH_INTERRUPTS_OFF [MSDN article](#)
 0x0000004A: IRQL_GT_ZERO_AT_SYSTEM_SERVICE [MSDN article](#)
 0x0000004B: STREAMS_INTERNAL_ERROR [MSDN article](#)
 0x0000004C: FATAL_UNHANDLED_HARD_ERROR [MSDN article](#)
 0x0000004D: NO_PAGES_AVAILABLE [MSDN article](#)

0x0000004E: PFN_LIST_CORRUPT
(Click to consult the online [MSDN article](#).)

This indicates that the memory management Page File Number list is corrupted. Can be caused by corrupt physical RAM, or by drivers passing bad memory descriptor lists.

- [How to Troubleshoot a "STOP 0x0000004E PFN_LIST_CORRUPT" Error Message](#) {KB 291806} **Win 2000**
- [STOP 0x4E, STOP 0x1A, STOP 0x50, and STOP 0xA Errors Occur When You Try to Start the Computer](#) {KB 271955} **Win NT 4.0** (corrupt physical RAM)

0x0000004F: NDIS_INTERNAL_ERROR
(Click to consult the online [MSDN article](#).)

This is a very rare error, indicating indicates an internal error in the [Network Driver Interface Specification](#) (NDIS) wrapper or an NDIS driver. Start by confirming that you have the best current driver for your network card. If that doesn't resolve the issue, use the [General Troubleshooting of STOP Messages](#) checklist above.

0x00000050: PAGE_FAULT_IN_NONPAGED_AREA
(Click to consult the online [MSDN article](#).)

Requested data was not in memory. An invalid system memory address was referenced. Defective memory (including main memory, L2 RAM cache, video RAM) or incompatible software (including remote control and antivirus software) might cause this Stop message, as may other hardware problems (e.g., incorrect SCSI termination or a flawed PCI card). Use the [General Troubleshooting of STOP Messages](#) checklist above.

- [You receive a Stop 0x00000050 error on a Blue Screen](#) {KB 894278} **Win 2000, Win XP, Server 2003** (with concurrent 1003/System entry in Event Viewer: possible Rootkit spyware infestation)
- [Possible Resolutions to STOP 0x0A, 0x01E, and 0x50 Errors](#) {KB 183169} **Win NT, Win 2000, Win XP**
- [During setup](#) {KB 171003} **Win NT, Win 2000, Win XP**
- [Easy CD Creator 5.0 Does Not Function In Windows XP](#) {KB 310628} **Win XP**
- [How to Use Driver Verifier to Troubleshoot Windows Drivers](#) {KB 244617} **Win 2000, Win XP, Server 2003**
- [STOP Error When You Start Windows After You Connect a Scanner](#) {KB 310869} **Win XP**
- [STOP 0x1E in PROTCLS.SYS When You Undock a Toshiba Tecra 8100](#) {KB 284154} **Win XP**
- [STOP 0x4E, STOP 0x1A, STOP 0x50, and STOP 0xA Errors Occur When You Try to Start the Computer](#) {KB 271955} **Win NT 4.0** (corrupt physical RAM)
- ["STOP 0x00000050" Error Message in Stac97.sys After You Upgrade Your Panasonic Toughbook to Win XP Service Pack 1](#) {KB 329832} **Win XP SP1**

0x00000051: REGISTRY_ERROR
(Click to consult the online [MSDN article](#).)

This indicates a Registry or Configuration Manager problem. An I/O error may have occurred while the Registry was trying to read one of its files (caused by hardware or file system problems). This message might also appear due to a memory management error (more common in earlier versions of Windows NT).

- [How to Troubleshoot a "STOP 0x00000051 REGISTRY_ERROR" Error Message](#) {KB 282501} **Win 2000**
- [You Receive a "Stop 0x51 \(REGISTRY_ERROR\)" Error Message](#) {KB 321771} **Win 2000**
- ["Stop 0x00000051 REGISTRY_ERROR" Error Message When You Log On](#) {KB 810558} **Win 2000 SP3** (during logon or Registry backup)
- [Windows NT 4.0 Setup Troubleshooting Guide](#) {KB 126690} **NT 4** (Recommendations for the current error message are buried down inside this article, which isn't necessarily limited to NT 4.)
- ["STOP 0x00000051" or "STOP 0x0000001E" error message when you start Configuration Manager](#) {KB 815265} **Win 2000 Server, Win XP** (patches available)

0x00000052: MAILSLOT_FILE_SYSTEM [MSDN article](#)
0x00000053: NO_BOOT_DEVICE [MSDN article](#)
0x00000054: LM_SERVER_INTERNAL_ERROR [MSDN article](#)
0x00000055: DATA_COHERENCY_EXCEPTION [MSDN article](#)
0x00000056: INSTRUCTION_COHERENCY_EXCEPTION [MSDN article](#)
0x00000057: XNS_INTERNAL_ERROR [MSDN article](#)

0x00000058: FTDISK_INTERNAL_ERROR
(Click to consult the online [MSDN article](#).)

Indicates an inconsistency between pages in the primary and secondary data caches, e.g., if the system is booted from the wrong copy of a mirrored partition or if the primary drive fails a fault-tolerance set. If a reboot doesn't resolve the problem, use the [General Troubleshooting of STOP Messages](#) checklist above. If this doesn't identify the problem, restart your computer from the mirrored (secondary) system drive using a startup floppy disk, press F8 at the startup screen, and select the **Last Known Good Configuration** option.

0x00000059: PINBALL_FILE_SYSTEM [MSDN article](#)

0x0000005A: CRITICAL_SERVICE_FAILED
(Click to consult the online [MSDN article](#).)

A critical service failed to initialize while starting the LastKnownGood control set. If this is the first time you have booted after installing new hardware, remove the hardware and boot again. Check the Hardware Compatibility List to verify that the hardware and its drivers are compatible with your version of Windows. If Windows is loaded and no new hardware has been installed, reboot with recovery options set to create a dump file. If the message recurs, press F8 and select the **Last Known Good** option when you reboot. If there is no Last Known Good configuration, try using the Emergency Repair Disk.

0x0000005B: SET_ENV_VAR_FAILED [MSDN article](#)
0x0000005C: HAL_INITIALIZATION_FAILED [MSDN article](#)
0x0000005D: UNSUPPORTED_PROCESSOR [MSDN article](#)
0x0000005E: OBJECT_INITIALIZATION_FAILED [MSDN article](#)
0x0000005F: SECURITY_INITIALIZATION_FAILED [MSDN article](#)
0x00000060: PROCESS_INITIALIZATION_FAILED [MSDN article](#)
0x00000061: HAL1_INITIALIZATION_FAILED [MSDN article](#)
0x00000062: OBJECT1_INITIALIZATION_FAILED [MSDN article](#)
0x00000063: SECURITY1_INITIALIZATION_FAILED [MSDN article](#)
0x00000064: SYMBOLIC_INITIALIZATION_FAILED [MSDN article](#)
0x00000065: MEMORY1_INITIALIZATION_FAILED [MSDN article](#)
0x00000066: CACHE_INITIALIZATION_FAILED [MSDN article](#)
0x00000067: CONFIG_INITIALIZATION_FAILED [MSDN article](#)
0x00000068: FILE_INITIALIZATION_FAILED [MSDN article](#)
0x00000069: IO1_INITIALIZATION_FAILED [MSDN article](#)
0x0000006A: LPC_INITIALIZATION_FAILED [MSDN article](#)
0x0000006B: PROCESS1_INITIALIZATION_FAILED [MSDN article](#)
0x0000006C: REFMON_INITIALIZATION_FAILED [MSDN article](#)
0x0000006D: SESSION1_INITIALIZATION_FAILED [MSDN article](#)
0x0000006E: SESSION2_INITIALIZATION_FAILED [MSDN article](#)

0x0000006F: SESSION3_INITIALIZATION_FAILED
(Click to consult the online [MSDN article](#).)

The process creation failure indicated by this error message can only happen during the fairly brief time that the Windows Executive is being initialized, which is during phase 4 of Windows startup.

Typically there is a problem with a device driver or with a missing or corrupt system file used during Windows startup.

- [STOP 0x0000006F During System Initialization](#) {KB 153742} [Win 2000](#)
- [System or Boot Disk Listed as Dynamic Unreadable in Disk Management](#) {KB 236086} [Win 2000](#)

0x00000070: SESSION4_INITIALIZATION_FAILED

0x00000071: SESSION5_INITIALIZATION_FAILED

0x00000072: ASSIGN_DRIVE_LETTERS_FAILED

0x00000073: CONFIG_LIST_FAILED

0x00000074: BAD_SYSTEM_CONFIG_INFO

(Click to consult the online [MSDN article](#).)

In theory, this means that system configuration information is corrupted, especially files essential to Windows startup. In practice it is often caused by RAM problems or other issues mentioned in the articles below.

- ["STOP 0x00000074 BAD_SYSTEM_CONFIG_INFO" Error Message When You Start Your Computer](#) {KB 326679} [Win XP](#) (Damaged RAM or incompatible memory configuration.)
- [BAD_SYSTEM_CONFIG_INFO Error Message When Starting Your Computer](#) {KB 247998} [NT4](#), [Win 2000](#) (A Registry file is set to read-only.)
- [Cannot Start Win XP After You Install Win 2000](#) {KB 283433} [Win 2000](#) (After installing Win XP as an upgrade to Win 2000.)
- [Win NT 4.0 Does Not Start & a STOP Error Message Appears](#) {KB 255236} [NT4](#) (Wrong permissions to Config folder.)

0x00000075: CANNOT_WRITE_CONFIGURATION [MSDN article](#)

0x00000076: PROCESS_HAS_LOCKED_PAGES

(Click to consult the online [MSDN article](#).)

This error message is caused by a driver failing to release locked pages after an I/O operation. The article linked here contain a method to track the problem if it recurs, and identify the problem driver. (The third parameter of the error message shows the number of locked pages.)

- [General Discussion](#) {KB 256010} [Win 2000](#) (After reading the article, click [here](#) to download a Registry patch to make the recommended change.)
- [Stop Error 0x00000076 or 0x000000CB When You Quit Your Backup Software](#) {KB 825760} [Win 2000](#), [Win XP](#) (There is a hotfix for this.)

0x00000077: KERNEL_STACK_INPAGE_ERROR

(Click to consult the online [MSDN article](#).)

A page of kernel data requested from the pagefile could not be found or read into memory. This message also can indicate disk hardware failure, disk data corruption, or possible virus infection.

- [General discussion](#). {KB 228753} [Win NT](#), [Win 2000](#), [Win XP](#)
- [General discussion](#). {KB 315266} [Win XP](#)
- [Windows NT 4.0 Setup Troubleshooting Guide](#) {KB 126690} [NT 4](#) (Recommendations for the current error message are buried down inside this article, which isn't necessarily limited to NT 4.)

0x00000078: PHASE0_EXCEPTION [MSDN article](#)

0x00000079: MISMATCHED_HAL

(Click to consult the online [MSDN article](#).)

The *Hardware Abstraction Layer* (HAL) and the kernel type for the computer do not match. This most often occurs when ACPI firmware settings are changed. For example, you might install Win XP on an x86-based computer with the firmware ACPI enable option enabled and later decide to disable it. This error can also result when mismatched single and multi-processor configuration files are copied to the system.

0x0000007A: KERNEL_DATA_INPAGE_ERROR

(Click to consult the online [MSDN article](#).)

A page of kernel data was not found in the pagefile and could not be read into memory. This might be due to incompatible disk or controller drivers, firmware, or hardware.

- [Windows NT 4.0 Setup Troubleshooting Guide](#) {KB 126690} **NT 4** (Recommendations for the current error message are buried down inside this article, which isn't necessarily limited to NT 4.)
- [Connecting a Hard Disk Drive in Slave Only Mode Leads to System Halt During Resume From Standby](#) {KB 330100} **Win XP SP1** (Windows installed on a slave drive.)
- [BIOS Manufacturers Should Not Clear the IDE Decode Enable Bit in STM ACPI Method](#) {KB 913379} **Win 2000, Win XP, Server 2003, Vista**

0x0000007B: INACCESSIBLE_BOOT_DEVICE

(Click to consult the online [MSDN article](#).)

Windows lost access to the system partition or boot volume during the startup process. Typical causes: Installing incorrect device drivers when installing or upgrading storage adapter hardware, or a virus.

- [After You Remove or Reinstall Roxio Easy CD Creator 5 Platinum Edition](#) {KB 811408} **Win XP**
- [Stop 0x7B or "0x4,0,0,0" Error](#) {KB 122926} **Win NT, Win XP** (on restart)
- [During setup \(Sysprep issue\)](#) {KB 303786} **Win XP**
- [When You Press F6 to Load Drivers During Unattended Win XP Setup](#) {KB 307099} **Win XP**
- [When you restart your Win XP-based computer](#) {KB 316401} **Win XP** (after replacing motherboard)
- [When you start your computer from a WinPE CD-ROM or from a Server 2003 CD-ROM using a USB CD-ROM device](#) {KB 839210} **Win XP, Win Server 2003** (patch available)
- [Limited OEM driver support is available with F6 during Win XP & Server 2003 setup](#) {KB 314859} **Win XP, Win Server 2003**
- [Error message When Starting Windows Vista After Changing SATA Mode of Boot Drive: STOP 0x0000007B INACCESSABLE_BOOT_DEVICE](#) {KB 922976} **Vista**
- [Error message When Installing Vista on Computer With a DELL CERC SATA 1.5/6ch RAID controller: STOP 0x0000007B](#) {KB 928632} **Vista** (needs driver update)

0x0000007C: BUGCODE_NDIS_DRIVER

0x0000007D: INSTALL_MORE_MEMORY [MSDN article](#)

0x0000007E: SYSTEM_THREAD_EXCEPTION_NOT_HANDLED

(Click to consult the online [MSDN article](#).)

A system thread generated an exception which the error handler did not catch. There are numerous individual causes for this problem, including hardware incompatibility, a faulty device driver or system service, or some software issues. Check Event Viewer (EventVwr.msc) for additional information.

- ["0x0000007E, 0xC0000005, 0xFC5CCAF3, 0xFC90F8C0, 0xFC90F5C0" Error Message at Startup](#) {KB 321637} **Win XP**
- [0x0000007E Error When Registering OLEMSG32.DLL or CDO.DLL Files](#) {KB 238265} **Win NT, Win 2000**
- [0x7E Error Occurs in Kbdclass.sys When You Try to Shut Down Win XP](#) {KB 313050} **Win XP Professional**
- [Error message in Win XP Service Pack 2: "Stop 0x7E"](#) {KB 900485} **Win XP SP2** (Timing issue — patch available)
- [Stop error 0x7E in PCI.SYS](#) {KB 839641} **Win 2000, Win XP, Server 2003**
- [Stop Error 0x7E in USBHUB.SYS](#) {KB 327863} **Win 2000, Win XP, Server 2003** (If USB bandwidth consumption exceeds 100%)
- ["STOP 0x0000007E" Error Message After You Upgrade to Windows XP](#) {KB 330182} **Win XP**
- ["Stop 0x0000007E" error message when installing Win XP Disk Image from a Remote Installation Services Server](#) {KB 818966} **Win XP**
- ["Stop 0x0000007E" error message after you upgrade to Win XP Service Pack 2 on a non-Intel-processor computer](#) {KB 888372} **Win XP SP2**
- [After installing Win XP SP2 or Win XP Tablet PC Edition 2005, your computer restarts continuously](#) {KB 873161} **Win XP SP2, Win XP Tablet 2005** (UMAX scanner issue)
- [Problems after you resume Windows Vista from sleep or hibernation](#) {KB 929734} **Vista** (various device hangs etc. — hotfix available — see also [KB 925528](#))
- [Occasional Error Message on Portable Vista-based Computer That Wakes From Sleep to Perform Network-related Tasks: STOP 0x0000007E](#) {KB 930311} **Vista** (hotfix available)

0x1000007E: SYSTEM_THREAD_EXCEPTION_NOT_HANDLED_M

Essentially the same error as [0x7E](#) above.

- [Problems after you resume Windows Vista from sleep or hibernation](#) {KB 929734} **Vista** (various device hangs etc. — hotfix available — see also [KB 925528](#))

0x0000007F: UNEXPECTED_KERNEL_MODE_TRAP**(Click to consult the online [MSDN article](#).)**

One of three types of problems occurred in kernel-mode: (1) Hardware failures. (2) Software problems. (3) A bound trap (*i.e.*, a condition that the kernel is not allowed to have or intercept). Hardware failures are the most common cause (many dozen KB articles exist for this error referencing specific hardware failures) and, of these, memory hardware failures are the most common.

- [General Causes](#) {KB 137539} **Win NT, Win 2000, Win XP**
- [Windows Stops Responding with Stop Error 0x7F Error Message](#) {KB 814789} **Win 2000, Win XP** (when running Terminal Services)
- [Windows NT 4.0 Setup Troubleshooting Guide](#) {KB 126690} **NT 4** (Recommendations for the current error message are buried down inside this article, which isn't necessarily limited to NT 4.)

0x00000080: NMI_HARDWARE_FAILURE**(Click to consult the online [MSDN article](#).)**

This general indication of a hardware failure is often quite difficult to pin down. Follow usual hardware troubleshooting protocols, in particular: Roll-back any recent hardware or driver changes; ensure that RAM sticks are matched and undamaged; check for viruses or hard drive damage; run ChkDsk to identify file system problems; ensure that all connections are sound inside the computer and all cards well-seated. In tough cases you may need to consult a professional shop for hardware diagnosis and repair.

- [How to Troubleshoot a STOP 0x00000080 NMI_HARDWARE_FAILURE Error Message](#) {KB 292945} **Win 2000**
- [Windows NT 4.0 Setup Troubleshooting Guide](#) {KB 126690} **NT 4** (Recommendations for the current error message are buried down inside this article, which isn't necessarily limited to NT 4.)

0x00000081: SPIN_LOCK_INIT_FAILURE [MSDN article](#)0x00000082: DFS_FILE_SYSTEM [MSDN article](#)

0x00000083: OFS_FILE_SYSTEM

0x00000084: RECOM_DRIVER [MSDN article](#)0x00000085: SETUP_FAILURE [MSDN article](#)

0x00000086:

0x00000087:

0x00000088:

0x00000089:

0x0000008A:

0x0000008B: MBR_CHECKSUM_MISMATCH

0x0000008D:

0x0000008E: KERNEL_MODE_EXCEPTION_NOT_HANDLED**(Click to consult the online [MSDN article](#).)**

A kernel mode program generated an exception which the error handler didn't catch. These are nearly always hardware compatibility issues (which *sometimes* means a driver issue or a need for a BIOS upgrade).

- ["STOP 0x0000008E" Error Message During Windows XP Setup](#) {KB 315335} **Win XP**
- [Games: "Stop" Error Message That References Nv4_disp.dll](#) {KB 325730} **Flight Simulator, other games** (with Nvidia-based video adapter)
- [Your Computer Stops Responding When You Use the Highlighter Feature & the Font Color Feature](#) {KB 829578} **Win XP**

0x1000008E: KERNEL_MODE_EXCEPTION_NOT_HANDLED_M**(Click to consult the online [MSDN article](#).)**Essentially the same error as [0x8E](#) above.0x0000008F: PPo_INITIALIZATION_FAILED [MSDN article](#)0x00000090: PP1_INITIALIZATION_FAILED [MSDN article](#)

0x00000091: WIN32K_INIT_OR_RIT_FAILURE [MSDN article](#)

0x00000092: UP_DRIVER_ON_MP_SYSTEM [MSDN article](#)

0x00000093: INVALID_KERNEL_HANDLE

(Click to consult the online [MSDN article](#).)

This is a relatively rare error condition. Most documentation points to a driver problem — so check all hardware drivers starting with the most obvious, the video driver. Microsoft's main page recommends general hardware troubleshooting, so use the [General Troubleshooting of STOP Messages](#) checklist above.

- [STATUS_INVALID_HANDLE error or Stop error when trying to close an HKEY_PERFORMANCE_TEXT handle or an HKEY_PERFORMANCE_NLSTEXT handle from a kernel mode device driver](#) {KB 890648} [Win XP](#), [Server 2003](#)
- ["Fatal System Error: 0x00000093" Error Message When You Install Apache SNMP on IBM WebSphere Application Server](#) {KB 816600} [Server 2003](#), [SBS 2003](#)

0x00000094: KERNEL_STACK_LOCKED_AT_EXIT [MSDN article](#)

0x00000095: PNP_INTERNAL_ERROR

0x00000096: INVALID_WORK_QUEUE_ITEM [MSDN article #1](#) [MSDN article #2](#)

0x00000097: BOUND_IMAGE_UNSUPPORTED [MSDN article](#)

0x00000098: END_OF_NT_EVALUATION_PERIOD [MSDN article](#)

0x00000099: INVALID_REGION_OR_SEGMENT [MSDN article](#)

0x0000009A: SYSTEM_LICENSE_VIOLATION [MSDN article](#)

0x0000009B: UDFS_FILE_SYSTEM [MSDN article](#)

0x0000009C: MACHINE_CHECK_EXCEPTION

(Click to consult the online [MSDN article](#).)

This is a hardware issue: an unrecoverable hardware error has occurred. The parameters have different meanings depending on what type of CPU you have but, while diagnostic, rarely lead to a clear solution. Most commonly it results from overheating, from failed hardware (RAM, CPU, hardware bus, power supply, etc.), or from pushing hardware beyond its capabilities (e.g., overclocking a CPU).

- [Error Message: STOP: 0x0000009C...](#) {KB 329284} [Win XP](#)
- [Understanding and Troubleshooting the Stop 0x0000009C Screen](#) {KB 162363} [Win NT4](#), [Win 2000](#)

0x0000009D:

0x0000009E: [MSDN article](#)

0x0000009F: DRIVER_POWER_STATE_FAILURE

(Click to consult the online [Win XP Resource Kit article](#).)

A driver is in an inconsistent or invalid power state. Typically occurs during events that involve power state transitions, such as shutting down, or moving into or out of standby or hibernate mode.

- [0x0000009F: DRIVER_POWER_STATE_FAILURE](#) {KB 246243} [Win 2000](#), [Win XP](#)
- [0x0000009F: DRIVER_POWER_STATE_FAILURE](#) {KB 315249} [Win XP](#)
- [Computer Hangs During Shutdown Because of Resource Conflict](#) {KB 262575} [Win 2000](#) (during Safe Mode shutdown with PACE InterLok software)
- [Computer Hangs During Shutdown Because of Resource Conflict](#) {KB 314101} [Win XP](#) (during Safe Mode shutdown with PACE InterLok software)
- [Stop 0x9F error when waking a Windows Vista-based computer connected to an IEEE 1394-based device](#) {KB 929762} [Vista](#) (external drives, iPod, etc. — hotfix available)

0x000000A0: INTERNAL_POWER_ERROR

0x000000A1: PCI_BUS_DRIVER_INTERNAL

0x000000A2: MEMORY_IMAGE_CURRUPT

0x000000A3: ACPI_DRIVER_INTERNAL

0x000000A4: CNSS_FILE_SYSTEM_FILTER

0x000000A5: ACPI_BIOS_ERROR**(Click to consult the online [MSDN article](#).)**

The cause of this message is **always** errors in the ACPI BIOS. Usually, **nothing can be done at an operating system level to fix the problem**. See the articles linked here for more details.

- [0x000000A5](#) {KB 256841} **Win 2000, Win XP** (when installing Win 2000 or later)
- ["Stop error 0xA5" error message when you dock a Win 2000-based portable computer to a docking station while the computer is running](#) {KB 840172} **Win 2000** (hotfix available)

0x000000A6:

0x000000A7: BAD_EXHANDLE

0x000000A8:

0x000000A9:

0x000000AA:

0x000000AB: SESSION_HAS_VALID_POOL_ON_EXIT**(Click to consult the online [MSDN article](#).)**

This indicates that a session unload occurred while a session driver still held memory. Specifically, a session driver is not freeing its pool allocations prior to a session unload. This indicates a bug in *win32k.sys*, *atmfd.dll*, *rdpdd.dll*, or a video driver.

- [A Terminal Services Server Generates a "Stop 0xAB" Message on a Blue Screen](#) {KB 317855} **Win 2000 SP1 & SP2** (SOLUTION: Upgrade to SP3 or later)
- [You may receive a "Stop 0x000000ab" error message logging off a Terminal Services session on a Windows Server 2003 SP1-based Terminal Server](#) {KB 901150} **Server 2003 SP1** (Caused by mismanagement of a font object. Hotfix available. WORKAROUND: Remove SP1. SOLUTION: Hot fix available from Microsoft.)
- [You receive a "Stop 0x000000ab" error message logging off from a Terminal Services session on a Windows Server 2003 SP1-based Terminal Server](#) {KB 907242} **Server 2003** (Bug in Win32k.sys, Stmfd.dll, Rdpdd.dll, or a video driver; hot fix available from Microsoft)

0x000000AC: HAL_MEMORY_ALLOCATION

0x000000AD:

0x000000AE:

0x000000AF:

0x000000B0:

0x000000B1:

0x000000B2:

0x000000B3:

0x000000B4: VIDEO_DRIVER_INIT_FAILURE**(Click to consult the online [MSDN article](#).)**

Windows was unable to enter graphics mode, because no video drivers were able to start. Commonly this is a video driver issue, or a hardware conflict with the video card. Reboot in Safe Mode (which uses a default VGA driver) and see if this resolves the problem. If so, try to correct the problem by disabling, removing, or rolling back the video driver.

- ["Stop 0x000000B4" The Video Driver Failed to Initialize](#) {KB 240369} **Win 2000** (occurs in VGA mode, but not in Safe Mode)
- ["STOP 0x000000B4" or Black Screen During GUI-Mode Setup on Micron Powerdigm XSU](#) {KB 250271} **Win 2000**

0x000000B5:

0x000000B6:

0x000000B7:

0x000000B8: ATTEMPTED_SWITCH_FROM_DPC

These are generally hardware issues (which often means driver issues). The articles given below are provided more as examples of the types of situations that trigger this error, rather than concrete solutions. As a rule, be sure you have the latest Service Pack edition of your Windows

operating system and are using the best device drivers and software versions. After that, do normal hardware troubleshooting for the device implicated.

- ["Stop 0xB8 ATTEMPTED_SWITCH_FROM_DPC" Error Message When You Use a Parallel Port Zip Drive](#) {KB 281428} [Win 2000](#) (corrected in latest Service Pack)
- [Server Stops Responding or You Receive a Stop Error Message When You Set Up a Windows Server 2003-Based Server Cluster](#) {KB 824354} [Server 2003](#) (hotfix available)
- ["Stop 0x000000B8" Error Message on Computer with Dell OpenManage Server Administrator installed](#) {KB 888190} [Server 2003](#), [SBS 2003](#) (incompatible filter driver needs updating; work-around provided)
- ["Stop 0x000000B8" Error Message Occurs After You Install Tivoli Storage Manager](#) {KB 287582} [Windows 2000](#) (software update required; latest SP presumably fixes also)
- [Problems With Older Version of NWFS.SYSs file in Novell NetWare Client Version 4.81](#) {KB 319453} [Windows 2000](#) (update Novell software)

0x000000B9: CHIPSET_DETECTED_ERROR

0x000000BA: SESSION_HAS_VALID_VIEWS_ON_EXIT

0x000000BB: NETWORK_BOOT_INITIALIZATION_FAILED

0x000000BC: NETWORK_BOOT_DUPLICATE_ADDRESS

0x000000BD:

0x000000BE: ATTEMPTED_WRITE_TO_READONLY_MEMORY

(Click to consult the online [Win XP Resource Kit](#) article.)

A driver attempted to write to read-only memory. Commonly occurs after installing a faulty device driver, system service, or firmware. If a driver file is named in the error message, try to correct the problem by disabling, removing, or rolling back the driver.

- [Error Message May Be Displayed When Using a Xircom Rex 6000 with a USB Cradle](#) {KB 299371} [Win XP](#) (Work around: Attach it to the PC Card instead of the USB port.)
- [How to Use Driver Verifier to Troubleshoot Windows Drivers](#) {KB 244617} [Win 2000](#), [Win XP](#), [Server 2003](#)

0x000000BF: MUTEX_ALREADY_OWNED

0x000000C0:

0x000000C1: SPECIAL_POOL_DETECTED_MEMORY_CORRUPTION

(Click to consult the online [MSDN article](#).)

A driver wrote to an invalid section of the special memory pool. You need a new driver!

- [How to Use Driver Verifier to Troubleshoot Windows Drivers](#) {KB 244617} [Win 2000](#), [Win XP](#), [Server 2003](#)

0x000000C2: BAD_POOL_CALLER

(Click to consult the online [Win XP Resource Kit](#) article.)

A kernel-mode process or driver incorrectly attempted to perform memory operations. Typically, a faulty driver or buggy software causes this.

- [0x000000C2](#) {KB 265879} [Win 2000](#), [Win XP](#)
- [0x000000C2: BAD_POOL_CALLER](#) {KB 310527} [Win XP](#) (upgrading Compaq Professional Workstation AP550 from Win 2000 to XP)
- [Computer with ATI RAGE FURY MAXX Video Adapter Stops Responding After Upgrade to Win XP](#) {KB 307151} [Win XP](#)

0x000000C3:

0x000000C4: DRIVER_VERIFIER_DETECTED_VIOLATION

(Click to consult the online [MSDN article](#).)

This is the general bug check code for fatal errors that the Driver Verifier finds. The accompanying parameters are the parameters that are passed to KeBugCheckEx and displayed on a blue screen.

- [Error Message When You Use the Driver Verifier Utility to Monitor a Driver](#) {KB 298690} [Win 2000](#)
- [How to Use Driver Verifier to Troubleshoot Windows Drivers](#) {KB 244617} [Win 2000](#), [Win XP](#), [Server 2003](#)
- (Another article on this error message, previously available, has been withdrawn by Microsoft.)

0x000000C5: DRIVER_CORRUPTED_EXPOOL*(Click to consult the online [MSDN article](#).)*

An attempt occurred to touch invalid memory at a process IRQL that is too high. This is almost always caused by drivers that have corrupted the system pool. If you've recently installed any new software, check to see if it's properly installed; and check for updated drivers on the manufacturer's web site.

- [Error Message: STOP 0x000000C5 DRIVER_CORRUPTED_EXPOOL](#) {KB 291810} **Win 2000**
- [Computer May Hang During a Heavy Load with an Ericsson HIS Modem](#) {KB 319810} **Win 2000, Win XP**

0x000000C6: DRIVER_CAUGHT_MODIFYING_FREED_POOL*(Click to consult the online [MSDN article](#).)*

A driver tried to access a freed memory pool. Replace the driver.

- [How to Use Driver Verifier to Troubleshoot Windows Drivers](#) {KB 244617} **Win 2000, Win XP, Server 2003**

0x000000C7: TIMER_OR_DPC_INVALID*(Click to consult the online [MSDN article](#).)*

A kernel timer or *Delayed Procedure Call* (DPC) was found somewhere in memory where it is not permitted. This is usually caused by a driver's failure to cancel the timer or the DPC before freeing the memory in which the timer or DPC resides.

- [How to Use Driver Verifier to Troubleshoot Windows Drivers](#) {KB 244617} **Win 2000, Win XP, Server 2003**

0x000000C8: IRQL_UNEXPECTED_VALUE**0x000000C9: DRIVER_VERIFIER_IOMANAGER_VIOLATION***(Click to consult the online [MSDN article](#).)*

As the title says, this signals a warning from one of the driver verifier I/O managers. See especially the article linked above for additional information.

- [How to Use Driver Verifier to Troubleshoot Windows Drivers](#) {KB 244617} **Win 2000, Win XP, Server 2003**

0x000000CA: PNP_DETECTED_FATAL_ERROR**0x000000CB: DRIVER_LEFT_LOCKED_PAGES_IN_PROCESS***(Click to consult the online [MSDN article](#).)*

This is related to [Stop Code 0x76](#). It appears instead of 0x76 if diagnostic tracking is enabled as described in the General Discussion article below. It indicates that a driver or the I/O manager failed to release locked pages after an I/O operation. Note the name of the problem driver on the blue error screen.

- [General Discussion](#) {KB 256010} **Win 2000** (After reading the article, click [here](#) to download a Registry patch to make the recommended change.)
- [Stop Error 0x00000076 or 0x000000CB When You Quit Your Backup Software](#) {KB 825760} **Win 2000, Win XP** (There is a hotfix for this.)

0x000000CC: PAGE_FAULT_IN_FREED_SPECIAL_POOL**0x000000CD: PAGE_FAULT_BEYOND_END_OF_ALLOCATION****0x000000CE: DRIVER_UNLOADED_WITHOUT_CANCELLING_PENDING_OPERATIONS***(Click to consult the online [Win XP Resource Kit article](#).)*

A driver failed to cancel pending operations before exiting. Commonly occurs after installing faulty drivers or system services.

- [0x000000CE DRIVER_UNLOADED_WITHOUT_CANCELLING_PENDING_OPERATIONS Where Video Adapter Has TV Tuner or Video Capture Feature](#) {KB 310899} **Win XP** (in DXAPI.SYS)
- [0x000000CE Error Message in RASPPPOE.SYS During Upgrade from Win NT 4.0 to Win 2000](#) {KB 296946} **Win 2000**
- [STOP 0x000000CE Error Message Occurs in VGA.SYS](#) {KB 293410} **Win 2000**
- [STOP 0x000000CE in VGA.DLL When You Try to Change Display Settings](#) {KB 290114} **Win 2000**

0x000000CF:

TERMINAL_SERVER_DRIVER_MADE_INCORRECT_MEMORY_REFERENCE

0x000000D0: DRIVER_CORRUPTED_MMPOOL

0x000000D1: DRIVER_IRQL_NOT_LESS_OR_EQUAL

(Click to consult the online [Win XP Resource Kit](#) article.)

The system attempted to access pageable memory using a kernel process IRQL that was too high. The most typical cause is a bad device driver (one that uses improper addresses). It can also be caused by faulty or mismatched RAM, or a damaged pagefile.

- [Error Message with RAM Problems or Damaged Virtual Memory Manager](#) {KB 810093} **Win XP Home** (during restart)
- ["STOP:0xD1" Error Message When You Start Your Win XP-Based Computer](#) {KB 316208} **Win XP**
- [Stop 0x000000D1 Error Message When You Turn Your Computer Off](#) {KB 317326} **Win XP** (with USB device(s) connected)
- ["STOP 0x000000D1 IRQL_NOT_LESS_OR_EQUAL Kbdclass.sys" Error Message When You Try to Shut Down the Computer](#) {KB 810980} **Win 2000, Win XP** (Logitech mouse with outdated MouseWare software)
- [STOP 0xD1 error message when you start your Win XP-based computer](#) {KB 839876} **Win XP** (ACPI issue, a Hotfix is available)
- [WRQ AtGuard Program Causes Error Message in Win XP](#) {KB 319870} **Win XP** (AtGuard version 3.22)
- [Stop Error Message on Windows XP: STOP 0x000000D1](#) {KB 916595} **Win XP** (caused by certain network adapters and certain host firewall software; hotfix available)

0x000000D2: BUGCODE_ID_DRIVER

0x000000D3: DRIVER_PORTION_MUST_BE_NONPAGED

0x000000D4:

SYSTEM_SCAN_AT_RAISED_IRQL_CAUGHT_IMPROPER_DRIVER_UNLOAD

0x000000D5: DRIVER_PAGE_FAULT_IN_FREED_SPECIAL_POOL

0x000000D6: DRIVER_PAGE_FAULT_BEYOND_END_OF_ALLOCATION

0x000000D7: DRIVER_UNMAPPING_INVALID_VIEW

0x000000D8: DRIVER_USED_EXCESSIVE_PTES

(Click to consult the online [Win XP Resource Kit](#) article.)

Typically occurs if your computer runs out of *Page Table Entries* (PTEs) due to a driver that requests large amounts of kernel memory.

0x000000D9: MUTEX_ALREADY_OWNED

0x000000DA: SYSTEM_PTE_MISUSE

0x000000DB: DRIVER_CORRUPTED_SYSPTES

0x000000DC: DRIVER_INVALID_STACK_ACCESS

0x000000DD:

0x000000DE: POOL_CORRUPTION_IN_FILE_AREA [MSDN article KB 304208](#)

0x000000DF: IMPERSONATING_WORKER_THREAD

0x000000E0: ACPI_BIOS_FATAL_ERROR

0x000000E1: WORKER_THREAD_RETURNED_AT_BAD_IRQL

0x000000E2: MANUALLY_INITIATED_CRASH

0x000000E3: RESOURCE_NOT_OWNED

(Click to consult the online [MSDN article](#).)

Various failures involving the NTFS file system cause this condition, as explained in the individual articles below. (All documented causes involve actual bugs in Windows.)

- ["Stop 0x000000E3 RESOURCE_NOT_OWNED" Error Message](#) {KB 281317} **Win 2000 SP1, Server** (requires later SP to repair)
- [You Receive a "Stop 0x000000E3" Error Message in Windows 2000](#) {KB 307232} **Win 2000 (all versions)**

0x000000E4:E5:

0x000000E6: DRIVER_VERIFIER_DMA_VIOLATION

0x000000E7: INVALID_FLOATING_POINT_STATE
 0x000000E8: INVALID_CANCEL_OF_FILE_OPEN
 0x000000E9: ACTIVE_EX_WORKER_THREAD_TERMINATION

0x000000EA: THREAD_STUCK_IN_DEVICE_DRIVER
(Click to consult the online [Win XP Resource Kit](#) article.)

A device driver problem has caused the system to pause indefinitely (hang). Typically, this is caused by a display driver waiting for the video hardware to enter an idle state. This might indicate a hardware problem with the video adapter, or a faulty video driver.

- [0x000000EA: THREAD_STUCK_IN_DEVICE_DRIVER](#) {KB 293078} **Win XP**

0x000000EB: DIRTY_MAPPED_PAGES_CONGESTION
 0x000000EC: SESSION_HAS_VALID_SPECIAL_POOL_ON_EXIT

0x000000ED: UNMOUNTABLE_BOOT_VOLUME
(Click to consult the online [Win XP Resource Kit](#) article.)

The kernel mode I/O subsystem attempted to mount the boot volume and it failed. This error also might occur during an upgrade to Win XP on systems that use higher throughput ATA disks or controllers with incorrect cabling. In some cases, your system might appear to work normally after you restart.

- [0x000000ED: UNMOUNTABLE_BOOT_VOLUME](#) {KB 297185} **Win XP** (During reboot while upgrading to Win XP)
- [0x000000ED Error Message When Volume on IDE Drive with Caching Enabled Is Mounted](#) {KB 315403} **Win XP** (NTFS volumes on some IDE drives)

0x000000EE:
 0x000000EF: CRITICAL_PROCESS_DIED
 0x000000F0:
 0x000000F1: SCSI_VERIFIER_DETECTED_VIOLATION

0x000000F2: HARDWARE_INTERRUPT_STORM
(Click to consult the online [Win XP Resource Kit](#) article.)

This error message appears if the kernel detects an **interrupt storm** i.e., when a level-interrupt-triggered device fails to release an IRQ. Usually, this is caused by a bad device driver. (See the link above for more details.)

0x000000F3: DISORDERLY_SHUTDOWN
(Click to consult the online [MSDN article](#).)

A Windows shutdown failed due to lack of memory. Two avenues of troubleshooting: Treat it as any other "out of memory" problem and try to discover why virtual memory wasn't able to support the system needs, and/or investigate whether a program (or, sometimes, a driver) is refusing to terminate and thus continuing to demand more memory pages that it is possible to provide.

0x000000F4: CRITICAL_OBJECT_TERMINATION
(Click to consult the online [MSDN article](#).)

One of the many processes or threads crucial to system operation has unexpectedly exited or been terminated. As a result, the system can no longer function. Specific causes are many, and often best resolved by a careful history of the problem and the circumstances of the error message. One user, who experienced this on return from Standby mode on Win XP SP2, found the cause was that Windows was installed on a slave drive; compare [KB 330100](#).

0x000000F5:
 0x000000F6: PCI_VERIFIER_DETECTED_VIOLATION
 0x000000F7: DRIVER_OVERRAN_STACK_BUFFER
 0x000000F8: RAMDISK_BOOT_INITIALIZATION_FAILED
 0x000000F9: DRIVER_RETURNED_STATUS_REPARSE_FOR_VOLUME_OPEN

0x000000FA:

0x000000FB:

0x000000FC: ATTEMPTED_EXECUTE_OF_NOEXECUTE_MEMORY

- [Your computer repeatedly restarts after you install Windows XP Service Pack 2](#) {KB 878474} **Win XP SP2** (new driver needed; work-around available)

0x000000FD:

0x000000FE: BUGCODE_USB_DRIVER (Click to consult the online [MSDN article](#).)

Usually indicates a USB driver problem. Makes ure, though, that you have the latest Windows service pack installed.

- [Bugcheck 0x000000FE Under Stress with USB 2.0 Hard Disks](#) {KB 331988} **Win XP** (repaired in latest Win XP Service Pack)
- [Error message when trying to put Windows Vista to sleep or into hibernation: STOP 0x000000FE BUGCODE_USB_DRIVER](#) {KB 930568} **Vista** (hotfix available)

0x000000FF:

0x1000007F: UNEXPECTED_KERNEL_MODE_TRAP_M

0x100000EA: THREAD_STUCK_IN_DEVICE_DRIVER_M

0xC000009A: STATUS_INSUFFICIENT_RESOURCES

The Windows kernel has allocated all of its allotted paged-pool memory.

- [0xC000009A: STATUS_INSUFFICIENT_RESOURCES](#) {KB 142719} **Win NT, Win 2000, Win XP**

0xC0000135: UNABLE_TO_LOCATE_DLL

Windows attempted to load a DLL file and encountered some error condition. Among the many possible causes are that the file is missing or damaged, or that there is Registry corruption.

- [Blue Screen STOP Message C0000135 Appears at Startup](#) {KB 173309} **Win NT 3.51, 4.0**
- [Damaged Registry Repair & Recovery in Windows XP](#) {KB 318159} **Win XP**

0xC0000142: DLL Initialization Failure

Its instances all appear to indicate that an application failed to initialize properly. Usually this is traceable to a DLL initialization failure.

- [Error Messages Occur When You Run Easy CD Creator in Windows XP](#) {KB 285910} **Win XP** (with Easy CD or Direct CD)
- [STOP 0xC0000142 in User32.dll Occurs on Restart or Upgrade of Windows NT 4.0](#) {KB 246485} **Win NT 4.0**
- [STOP: 0xC0000142 User32.dll Message on Restart After Upgrade to Windows NT 4.0](#) {KB 245137} **Win NT Server 4.0**
- [Users Are Automatically Logged Off When Attempting to Log on to Terminal Services](#) {KB 272142} **Win 2000 Server versions**

0xC0000218: UNKNOWN_HARD_ERROR (Click to consult the online [MSDN article](#).)

A necessary Registry hive file couldn't be loaded. The file may be corrupt or missing (requiring either an Emergency Repair Disk or a Windows reinstallation). The Registry files may have been corrupted because of hard disk corruption or some other hardware problem. A driver may have corrupted the Registry data while loading into memory, or the memory where the Registry is loading may have a parity error (turn off the external cache and check the physical RAM).

- [0xC0000218: UNKNOWN_HARD_ERROR](#) {KB 156640} **Win NT, Win 2000**
- [How to Recover from a Corrupted Registry that Prevents Windows XP from Starting](#) {KB 307545} **Win XP** (includes error messages that \WINDOWS \ SYSTEM32 \ CONFIG \ SYSTEM or \WINDOWS \ SYSTEM32 \ CONFIG \ SOFTWARE is missing)
- [How to Troubleshoot Registry Corruption Issues](#) {KB 822705} **WinNT 4.0, Win 2000, Win XP Pro, Server 2003** (computer will not restart due to corrupt Registry hive)

0xC000021A: STATUS_SYSTEM_PROCESS_TERMINATED

(Click to consult the online [Win XP Resource Kit](#) article, or see *Windows 2000 Professional Resource Kit*, p. 1561.)

This occurs when Windows switches into kernel mode and a user-mode subsystem, such as Winlogon or the Client Server Runtime Subsystem (CSRSS), is compromised. Security can no longer be guaranteed. Because Win XP can't run without Winlogon or CSRSS, this is one of the few situations where the failure of a user-mode service can cause the system to stop responding. This Stop message also can occur as a result of malware infestation or when the computer is restarted after a system administrator has modified permissions so that the SYSTEM account no longer has adequate permissions to access system files and folders.

- [GoBack Causes a Stop Error C000021a](#) {KB 316503} [Win XP](#)
- [Internet Explorer Maintenance Policies May Cause an Access Violation in Winlogon](#) {KB 318666} [Win XP Pro](#)

0xC0000221: STATUS_IMAGE_CHECKSUM_MISMATCH

(Click to consult the online [Win XP Resource Kit](#) article, or see *Windows 2000 Professional Resource Kit*, p. 1563.)

Indicates driver problems, system file problems, disk corruption problems (such as a damaged pagefile), or faulty memory hardware.

- [General Discussion](#) {KB 101096} [Win NT](#), [Win 2000](#), [Win XP](#)
- [Unable to Load Device Driver](#) {KB 160495} [Win NT](#), [Win 2000](#), [Win XP](#)
- ["STOP: C0000221 Unknown Hard Error" or "STOP: C0000221 STATUS_IMAGE_CHECKSUM_MISMATCH" Error Message Occurs](#) {KB 314474} [Win XP](#)

0xC0000244

- [A "Stop 0xc0000244" Error Occurs When You Audit Policy Changes If CrashOnAuditFail Is Turned On](#) {KB 323475} [Win XP](#)

0xC000026C

Usually indicates device driver problems.

- [Unable to Load Device Driver](#) {KB 160495} [Win NT](#), [Win 2000](#), [Win XP](#)

0xDEADDEAD: MANUALLY_INITIATED_CRASH1

(Click to consult the online [MSDN article](#).)

"It's dead, Jim!" This Stop message indicates that the user deliberately initiated a crash dump from either the kernel debugger or the keyboard. Perhaps it goes without saying that you don't ever want to see this error message unless you did it on purpose!

