Common BSODs in Windows XP

Now that you have a good idea of how to dissect a BSOD and pull out the relevant pieces of information from all the gibberish on the screen, let's look at some of the more common BSODs in Windows XP. I'll cover just a few of the BSOD conditions, but there are lots of possible Stop errors. For each BSOD I discuss, I'll provide a link to an article on the Microsoft Knowledge Base that covers that particular Stop error. (Since more than one article might address a Stop error, you may want to search the Knowledge Base if you discover that you need more information.)

STOP: 0×0000000A

IRQL_NOT_LESS_OR_EQUAL

This Stop error, which can be caused by either software or hardware, indicates that a kernel-mode process or driver attempted to access a memory location it did not have permission to access or a memory location that exists at a kernel interrupt request level (IRQL) that was too high. A kernel-mode process can only access other processes that have an IRQL that's equal to or lower than its own.

Troubleshooting a Stop 0×0000000A error in Windows XP

STOP: 0×0000001E

KMODE_EXCEPTION_NOT_HANDLED

This Stop error indicates that the Windows XP kernel detected an illegal or unknown processor instruction. The problems that cause this Stop error can be either software or hardware related and result from invalid memory and access violations, which are intercepted by Windows' default error handler if error-handling routines are not present in the code itself.

Possible Resolutions to STOP $0\times0A$, $0\times01E$, and 0×50 Errors

STOP: 0×00000050

PAGE_FAULT_IN_NONPAGED_AREA

This Stop error indicates that requested data was not in memory. The system generates an exception error when using a reference to an invalid system memory address. Defective memory (including main memory, L2 RAM cache, video RAM) or incompatible software (including remote control and antivirus software) might cause this Stop error. Possible Resolutions to STOP 0×0A, 0×01E, and 0×50 Errors

STOP: 0×0000007B

INACCESSIBLE BOOT DEVICE

This Stop error indicates that Windows XP has lost access to the system partition or boot volume during the startup process. Installing incorrect device drivers when installing or upgrading storage adapter hardware typically causes this Stop error. This error could also indicate a possible virus infection.

Troubleshooting Stop 0×0000007B or "0×4,0,0,0" Error

STOP: 0×0000007F

UNEXPECTED_KERNEL_MODE_TRAP

This Stop error indicates a hardware problem resulting from mismatched memory, defective memory, a malfunctioning CPU, or a fan failure that's causing overheating. General causes of "STOP 0×0000007F" errors

STOP: 0×0000009F

DRIVER_POWER_STATE_FAILURE

This Stop error indicates that a driver is in an inconsistent or invalid power state. This Stop error typically occurs during events that involve power state transitions, such as shutting down or moving in or out of standby or hibernate mode.

Troubleshooting a Stop 0×9F Error in Windows XP

STOP: 0×000000D1

DRIVER_IRQL_NOT_LESS_OR_EQUAL

This Stop error indicates that 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

STOP: 0×000000EA

THREAD_STUCK_IN_DEVICE_DRIVER

This Stop error indicates that a device driver problem is causing the system to pause indefinitely. Typically, this problem 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.

Error message: STOP 0x000000EA THREAD STUCK IN DEVICE DRIVER

STOP: 0×00000024 NTFS_FILE_SYSTEM

This Stop error indicates that a problem occurred within Ntfs.sys, the driver file that allows the system to read and write to drives formatted with the NTFS file system. (A similar Stop message, 0×00000023, exists for the file allocation table [FAT16 or FAT32)] file systems.)

Troubleshooting Stop 0×24 or NTFS FILE SYSTEM Error Messages

STOP: 0xC0000218

UNKNOWN_HARD_ERROR

This Stop error indicates that a necessary registry hive file could not be loaded. The file may be corrupt or missing. The registry file may have been corrupted due to 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.

How to Troubleshoot a Stop 0xC0000218 Error Message

STOP: 0xC0000221

STATUS_IMAGE_CHECKSUM_MISMATCH

This Stop message indicates driver, system file, or disk corruption problems (such as a damaged paging file). Faulty memory hardware can also cause this Stop message to appear.

"STOP: C0000221 unknown hard error" or "STOP: C0000221
STATUS_IMAGE_CHECKSUM_MISMATCH" error message occurs