

Re: 3 Different BSOD

Source:

<http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.general/2004-12/1765.html>

From: David Candy (.)

Date: 12/02/04

Date: Fri, 3 Dec 2004 06:55:27 +1100

Well the rest of the message tells one exactly why.

>From KB, Programmers docs (DDK), and Resource Kit. More info is available under NT3.5, NT4, and Windows 2000.

Troubleshooting "Stop 0x00000077" or "KERNEL_STACK_INPAGE_ERROR"

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The information in this article applies to:

Microsoft Windows XP Home Edition

Microsoft Windows XP Professional

Microsoft Windows XP 64-Bit Edition

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WARNING: This article contains steps that may involve changing your basic input/output system (BIOS) or complementary metal oxide semiconductor (CMOS) settings or that may require you to make physical changes to your computer hardware. Incorrect changes to the BIOS of your computer can result in serious problems. Microsoft cannot guarantee that problems that result from changes to your BIOS can be resolved. Change your BIOS settings at your own risk. If you need assistance with any of these steps, contact your hardware manufacturer and note that making either hardware or BIOS changes to your computer may invalidate your warranty. If you do not want to make hardware changes to your computer, you can take your computer to a repair center.

SYMPTOMS

When you are running Windows XP, you may receive one of the following error messages:

Stop 0x00000077

KERNEL_STACK_INPAGE_ERROR

This article describes how to troubleshoot these error messages.

CAUSE

This issue can occur if a requested page of kernel data could not be read from the paging file into memory, or the master boot record is infected with a virus. To further determine the possible cause, you must properly interpret the error message. If both the first and third parameters are zero, then the four parameters are defined as:

0 (zero)

Page Table Entry (PTE) value at time of error

0 (zero)

Address of signature on kernel stack

If either the first or the third parameter is not a zero, then the following definitions apply:

Status code

I/O status code

Page file number

Offset into page file

If this is the case, the cause of this issue may be determined from the second parameter (the I/O status code) by using the following information that is listed in a "value of second parameter" followed by "general cause" format:

0xC000009A, or STATUS_INSUFFICIENT_RESOURCES: lack of nonpaged pool resources.

0xC000009C, or STATUS_DEVICE_DATA_ERROR: bad blocks on the hard disk.

0xC000009D, or STATUS_DEVICE_NOT_CONNECTED: bad cabling, non-termination, or the controller is not able to obtain access to the hard disk.

0xC000016A, or STATUS_DISK_OPERATION_FAILED: bad blocks on the hard disk.

0xC0000185, or STATUS_IO_DEVICE_ERROR: improper termination or defective cabling of SCSI-based devices, or two devices attempting to use the same IRQ.

RESOLUTION

To resolve this issue, use the appropriate method:

Boot Sector Virus

To determine if you have a boot sector virus, run a current virus-checking program, and if needed, disinfect your computer.

Not a Boot Sector Virus

- a.. View the System Log in Event Viewer for additional error messages that help you determine the device that is causing the error.
- b.. Bad block. Stop 0x77 is caused by a bad block in a paging file, or a disk controller error, or in extremely rare cases it is caused when non-paged pool resources are unavailable.
- c.. If the first and second parameters are 0, then the stack signature was not found in the kernel stack. The cause of this issue is defective hardware. If the I/O status is C0000185 and the paging file is on a SCSI-based hard disk, you should verify the disk cabling and SCSI termination.
- d.. If the I/O status code is 0xC000009C or 0xC000016A, this normally indicates that the data could not be read from the disk due to a bad block.
- e.. If you can restart your computer after the error message, Autochk runs automatically and tries to map out the bad sector. If for some reason Autochk does not scan the hard disk for errors, manually start the disk scanner. If your computer is formatted with the NTFS file system, run Chkdsk /f /r on the system partition. You must restart your computer before the disk scan begins. If you cannot start your computer due to this issue, use the Command Console and run Chkdsk /r.
- f.. Defective or unreliable random access memory (RAM) is another common cause of this issue.
- g.. Verify that all the adapter cards in your computer are properly seated.
- h.. Ensure that all adapter card contacts are clean.
- i.. Disable system caching in the BIOS to see if this resolves the error.
- j.. If this does not resolve the issue, your computer mainboard (motherboard) may be damaged.

STATUS

Microsoft has confirmed that this is a problem in the Microsoft products that are listed at the beginning of this article.

Additional query words: 0x77 0x7a

Keywords: kbenv kberrmsg kbprb kbui KB315266

Technology: kbWinXPHome kbWinXPHomeSearch kbWinXPPro kbWinXPPro64bit kbWinXPProSearch kbWinXPSearch kbZNotKeyword

Bug Check 0x77: KERNEL_STACK_INPAGE_ERROR

The KERNEL_STACK_INPAGE_ERROR bug check has a value of 0x00000077. This indicates that the requested page of kernel data from the paging file could not be read into memory.

Parameters

The four parameters listed in the message can have two possible meanings.

If the first parameter is 0, 1, or 2, the parameters have the following meaning.

Parameter Description

1 0: Indicates that the page was retrieved from page cache

1: Indicates that the page was retrieved from a disk

2: Indicates that the page was retrieved from a disk, the storage stack returned SUCCESS, but Status.Information is not equal to PAGE_SIZE

2 Value actually found in the stack where the signature should be

3 0

4 Address of the signature on the kernel stack

If the first parameter is any other value, the parameters have the following meaning.

Parameter Description

1 Status code

2 I/O status code

3 Page file number

4 Offset into page file

Cause

If the first parameters is 0, 1, or 2, the stack signature in the kernel stack was not found. This error is probably caused by defective hardware, such as a RAM error.

If the first parameter is another value, the cause of this error can be determined from the I/O status code (the second parameter). Some common status codes are:

a.. 0xC000009A, or STATUS_INSUFFICIENT_RESOURCES, is caused by lack of nonpaged pool resources. This indicates a driver bug in the storage stack, since the storage stack should always be able to retrieve this data, regardless of software resource availability.

b.. 0xC000009C, or STATUS_DEVICE_DATA_ERROR, is typically due to bad blocks (sectors) on the hard disk.

c.. 0xC000009D, or STATUS_DEVICE_NOT_CONNECTED, indicates defective or loose cabling, termination, or the controller not seeing the hard disk.

d.. 0xC000016A, or STATUS_DISK_OPERATION_FAILED, is typically due to bad blocks (sectors) on the hard disk.

e.. 0xC0000185, or STATUS_IO_DEVICE_ERROR, is caused by improper termination or defective cabling on SCSI devices, or two devices attempting to use the same IRQ.

These codes are the most common ones for which specific causes have been determined. For information

about other possible status codes that can be returned, see the file ntstatus.h in the Windows DDK.

This bug check can also be caused by a virus infection.

Resolving the Problem

Resolving a bad block problem: If you can restart the system after the error, Autochk runs automatically and attempts to map the bad sector to prevent its further use.

If Autochk does not scan the hard disk for errors, you can manually launch the disk scanner. Run Chkdsk /f /r on the system partition. You must restart the system before the disk scan begins. If you cannot start the system due to the error, use the Recovery Console and run Chkdsk /r.

Warning If your system partition is formatted with the FAT file system, the long filenames used by Windows can be damaged if Scandisk or another MS-DOS-based hard disk tool is used to verify the integrity of your hard disk from MS-DOS. Always use the version of Chkdsk that matches your Windows version.

Resolving a defective hardware problem: If the I/O status is 0xC0000185 and the paging file is on an SCSI disk, the disk cabling and SCSI termination should be checked for problems. **Resolving a failing RAM problem:** Run the hardware diagnostics supplied by the system manufacturer, especially the memory scanner. For details on these procedures, see the owner's manual for your computer.

Check that all the adapter cards in the computer are properly seated. Use an ink eraser or an electrical contact treatment, available at electronics supply stores, to ensure adapter card contacts are clean.

Check the System Log in Event Viewer for additional error messages that might help pinpoint the device that is causing the error. Disabling memory caching of the BIOS might also resolve this error.

Make sure that the latest Windows Service Pack is installed.

If the preceding steps fail to resolve the error, take the system motherboard to a repair facility for diagnostic testing. A crack, a scratched trace, or a defective component on the motherboard can cause this error.

Resolving a virus infection: You should check your computer for viruses using any up-to-date, commercial virus scanning software that examines the Master Boot Record of the hard disk. All Windows file systems can be infected by viruses.

See Also

Bug Check 0x7A (KERNEL_DATA_INPAGE_ERROR)

Send feedback on this topic. / Built on Thursday, February 13, 2003

Stop 0x00000077 or KERNEL_STACK_INPAGE_ERROR

This Stop message, also known as Stop 0x77, indicates that the requested page of kernel data from the paging file could not be read into memory.

Interpreting the Message

The four parameters listed in the message are defined in order of appearance as follows:

- 1.. (zero)
- 2.. Value found in stack where signature should be
- 3.. (zero)

4.. Address of signature on kernel stack

The first set of definitions applies only if the first and third parameters are both zero. Otherwise, the following definitions are applicable:

- 1.. Status code
- 2.. I/O status code
- 3.. Page file number
- 4.. Offset into page file

Frequently, the cause of this error can be determined from the second parameter, the I/O status code.

Examples include:

- a.. 0xC000009A, or STATUS_INSUFFICIENT_RESOURCES, is caused by lack of nonpaged pool resources.
- b.. 0xC000009C, or STATUS_DEVICE_DATA_ERROR, is generally due to bad blocks (sectors) on the hard disk.
- c.. 0xC000009D, or STATUS_DEVICE_NOT_CONNECTED, indicates defective or loose cabling, termination, or the controller not seeing the hard disk.
- d.. 0xC000016A, or STATUS_DISK_OPERATION_FAILED, is also caused by bad blocks (sectors) on the hard disk.
- e.. 0xC0000185, or STATUS_IO_DEVICE_ERROR, is caused by improper termination or defective cabling on SCSI devices, or two devices attempting to use the same IRQ.

These codes are the most common ones for which specific causes have been determined. For information about other possible status codes that can be returned, see the file Ntstatus.h of the Windows 2000 Device Driver Development Kit (DDK). For information about the DDK, see "Additional Resources" at the end of this chapter.

Resolving the Problem

Bad block. Stop 0x77 is caused by a bad block (sector) in a paging file or a disk controller error. In extremely rare cases, it is caused when nonpaged pool resources run out.

If the first and third parameters are zero, the stack signature in the kernel stack was not found. This error is caused by defective hardware. If the I/O status is C0000185 and the paging file is on a SCSI disk, the disk cabling and SCSI termination needs to be checked for problems.

Viruses. In addition, check your computer for viruses using any up-to-date, commercial virus scanning software that examines the Master Boot Record of the hard disk. All Windows 2000 file systems can be infected by viruses.

An I/O status code of 0xC000009C or 0xC000016A normally indicates that the data could not be read from the disk due to a bad block (sector). If you can restart the system after the error, Autochk runs automatically and attempts to map the bad sector to prevent its further use. If Autochk does not scan the hard disk for errors, you can manually start the disk scanner. Run Chkdsk /f /r on the system partition. You must restart the system before the disk scan begins. If you cannot start the system due to the error, use the Recovery Console and run Chkdsk /r. For more information about the Recovery Console, see "Troubleshooting Tools and Strategies" in this book.

Warning If your system partition is formatted with the FAT16 file system, the long file names used by Windows 2000 can be damaged if Scandisk or another MS-DOS-based hard disk tool is used to verify the integrity of your hard disk from an MS-DOS prompt. (An MS-DOS prompt is typically derived from an MS-DOS startup disk or from starting MS-DOS on a multiboot system.) Always use the Windows 2000 version of Chkdsk on Windows 2000 disks.

Failing RAM. Another common cause of this error message is failing RAM. You need to run hardware diagnostics supplied by the system manufacturer, especially the memory scanner. For details on these procedures, see the owner's manual for your computer.

Also, check that all the adapter cards in the computer, including memory modules, are properly seated. Use an ink eraser or an electrical contact treatment, available at electronics supply stores, to ensure adapter card contacts are clean. Be sure to wipe the cleaned contacts off, removing all cleaning debris, before reinstalling the adapter card into the computer. If compressed air is available, use it to clear out the adapter card slot.

In addition, check the System Log in Event Viewer for additional error messages that might help pinpoint the device that is causing the error. Disabling memory caching of the BIOS might also resolve this error.

Finally, if all the above steps fail to resolve the error, take the system motherboard to a repair facility for diagnostic testing. A crack, a scratched trace, or a defective component on the motherboard can also cause this error.

For more troubleshooting information about the 0x77 Stop message, refer to the Microsoft Knowledge Base link, using the keywords winnt and 0x00000077. For information about this resource, see "Additional Resources" at the end of this chapter.

Bug Check 0xED: UNMOUNTABLE_BOOT_VOLUME

The UNMOUNTABLE_BOOT_VOLUME bug check has a value of 0x000000ED. This indicates that the I/O subsystem attempted to mount the boot volume and it failed.

Parameters

The following parameters are displayed on the blue screen.

Parameter Description

- 1 The device object of the boot volume
- 2 The status code from the file system that describes why it failed to mount the volume
- 3 Reserved
- 4 Reserved

Status codes can be looked up here

<http://cvs.sourceforge.net/viewcvs.py/mingw/w32api/include/ddk/ntstatus.h?rev=1.2>

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<http://www.uscricket.com>

"Clayton" <claytonbNOSPAM@extra.co.nz> wrote in message news:uWu6LWK2EHA.3820@TK2MSFTNGP11.phx.gbl

> Because that's all I wrote down, I ran the seagate HDD diagnostic which
> reported bad blocks/sectors and replaced it, reinstall windows XP and then
> ran the SP-2 update over the network and half way through the installation
> it says it cannot file or copy files, I have installed many SP-2 over the
> network and has installed ok.

>

>

> "David Candy" <.> wrote in message
> news:ur\$bKSK2EHA.1396@tk2msftngp13.phx.gbl...
> Why would you not post the whole message.

>

> --

> -----
> <http://www.uscricket.com>

microsoft.public.windowsxp.general: Re: 3 Different BSOD

> "Clayton" <claytonbNOSPAM@extra.co.nz> wrote in message
> news:e0gBcvB2EHA.4004@tk2msftngpl3.phx.gbl...
>> Within the last 4 hours I have recieved 3 different BSOD the 3rd one I can
>> not remember but it mentioned something about the Hard Drive, so what I
>> have
>> done so far after reading information from
>> http://www.theelderqeeek.com/stop_error_messages.htm is replaced the IDE
>> cable, fdisk and repartitioned the HDD, formatted HDD which return no bad
>> sectors etc and now reinstalling Windows XP, would this be the HDD or the
>> IDE channel on the MB?
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>> Stop 0x00000077 or KERNEL_STACK_INPAGE_ERROR
>> Stop 0x000000ED or UNMOUNTABLE_BOOT_VOLUME
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