

Re: XP Home rebooting randomly

Source:

http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.help_and_support/2004-07/3016.html

From: WinGuy (*no_spam_at_nomail.bot*)

Date: 07/10/04

Date: Sat, 10 Jul 2004 13:20:26 GMT

Hi, Janice.

To me, it does sound like some sort of hardware related problem instead of a operating system software problem. The key to part of the diagnosis is your observation that the rebooting doesn't occur unless the computer is doing something more than "just sitting there". This sounds like a sudden power off that is being initiated by the power supply electronics or the CPU circuitry itself that is instructing the power supply to shut down.

Did you give that shop your wireless keyboard/mouse to use during their testing? If not, try experimenting with using cheap "standard" substitutes; individual wired keyboard and mouse (nice to have around anyway, just in case of a coffee accident!)

How about internal dust? Does the fan on the power supply appear to have a thick coating of dust? If so then so do its internal parts, and perhaps the entire interior of the computer. Dust is a heat insulator, heat will then accumulate on individual circuit board components and that is not good at all. If dust has accumulated, carefully brush things in the interior of the computer case and vacuum it, and just replace the power supply as a precaution. While in there, make sure all plug-in cards are firmly seated as well as any socketed components on the motherboard or on individual plug-in cards (important: remove the wall socket cord before pressing on things that might flex the motherboard and cause it to short to the bare metal case that is behind it!) Dust or smoke residue will also harm floppy disk and CD drives, over time, because it accumulates.

More than likely, though, I'd suspect the power supply itself has become marginal and perhaps heat sensitive, or its overall power capacity is insufficient for the hardware it is asked to support. Most are not that difficult to physically replace, and are readily available at big places that sell computers. If you replace the PS then go for one with more power capacity than the one you now have. Around 350 watts maximum capacity is usually sufficient for today's computers.

Some BIOS chips support temperature and some also support fan speed reporting; if yours does then boot into BIOS and look for power voltage reports that fluctuate out of tolerance (most are only +/- 10% tolerance).

Try opening and closing CD drive doors while observing the voltage report. Fans should only make a sound of moving air, never be squeaky or make other sounds, such sounds are sure indicators of impending failure or failure that occurs as they heat up (bad bearings). Bad fans can draw very excessive power supply requirements.

Another but more rare possibility is the white (or sometimes black) thick conductive goo that conducts heat away from the CPU to the heat sink that the CPU fan is mounted on. After a few years it may dry and become a heat insulator instead of a heat conductor! This is a common problem with desktops, and even more so with laptops. Then, when the CPU is unusually busy the CPU heats up rapidly and excessively and it causes the power supply to shut down as a safety precaution. Removing the old goo and replacing it might help (it is not necessary to remove the CPU chip itself, just the fan and heat sink that sits on top of it, to clean off the old goo and replace it — get the "heat sink compound" goo from any good electronics supply store, probably even available from a nearby Radio Shack).

Be sure to practice anti-static-electricity precautions when ever you have your computer case open. Most everything you could touch in there, except for the bare metal of the case itself, can be super easily damaged by static electricity. One zot will, at best, at least weaken a circuit board component and shorten its life. Always have the power cord unplugged and always touch the bare metal of the case (or wear a wrist strap that is connected to the bare metal of the case) before touching anything to reseal it in a socket, you don't want to flex an electrically live motherboard into shorting against the bare metal case it is mounted on. Never touch the gold or silver contacts of something that go into a socket, the oils on your fingers can leave an invisible film that could cause electrical insulation problems later due to a chemical reaction over time. Do not remove any socketed chips, the pins might bend and trying to straighten them often causes a pin to break off — just press on socketed things firmly to assure they are seated well. Heating/expanding and cooling/contraction cycles, over time, cause socket things to "ride up" in their sockets. Ozone, unavoidably produced by the power supply, causes an invisible chemical reaction at the contacts level, especially between dissimilar metals, that acts as an insulator. Carefully reseating socketed things is a good practice, every year or so.

An even more rare possibility is a bad earth ground at the wall AC-power socket. You can buy (or order) wall socket AC power wiring testers (usually available from the bigger Radio Shack stores, too). Such testers have the potential to save lives. Computers use "switching power supplies" that do NOT function well if a bad earth ground exists, and something could eventually self destruct because electrical surges do not get properly dampened by a switching power supply that has a bad earth ground reference. Also, use a "spike protector" but only at the wall socket, they are designed to permanently short and cause a wall socket panel circuit breaker to trip if a large power surge comes along, so putting them on an extension cord is not a good idea as the extension cord could, in a very worst case scenario, provide enough resistive voltage drop to keep the circuit breaker from

tripping and the extension cord might then greatly overheat and catch on fire.

Most all of the above a good computer or general electronics repair shop can do for you, and should do as part of diagnostics when someone complains of sudden and unexplained shutdowns with or without a reboot (the reboot part of the shutdown is generally a BIOS selectable function after a sudden power off occurs).

Best wishes.

"Janice" <jem16@nospammail.com> wrote in message
news:ODGY0kmZEHA.2944@TK2MSFTNGP11.phx.gbl...

> *My son's PC has started to reboot randomly. I took it into my local PC store*

> *to have it checked out. They tell me that they have checked out the memory,*

> *video card, hard drive, virus checking etc but could find nothing. In the*

> *three days they tested it, it did not reboot once! However I would have to*

> *say that it happens when my son is doing something, not just the PC sitting*

> *there doing nothing.*

>

> *So I take it home, connect it up and it crashes just as MSN is automatically*

> *signing in. I'm told it must be a piece of hardware that I'm using at home.*

> *However all it's connected to is a monitor, cordless keyboard & mouse, and a*

> *LAN cable.*

>

> *Event viewer shows up these problems – both mentioned to the PC store but nothing done about them.*

>

> *Event Type: Information*

>

> *Event Source: Save Dump*

>

> *Event Category: None*

>

> *Event ID: 1001*

>

> *Date: 17/06/2004*

>

> *Time: 19:47:29*

>

> *User: N/A*

>

> *Computer: GRAHAM*

>

> *Description:*

>
> *The computer has rebooted from a bugcheck. The bugcheck was:*
> *0x0000007f(0x0000000d, 0x00000000, 0x00000000, 0x00000000). A dump was*
> *saved*
> *in: D:\WINDOWS\Minidump\Mini061704-03.dmp.*
>
>
>
> *For more information, see Help and Support Center at*
> *<http://go.microsoft.com/fwlink/events.asp>.*
>
>
>
> *Event Type: Error*
>
> *Event Source: atapi*
>
> *Event Category: None*
>
> *Event ID: 5*
>
> *Date: 17/06/2004*
>
> *Time: 19:45:34*
>
> *User: N/A*
>
> *Computer: GRAHAM*
>
> *Description:*
>
> *A parity error was detected on \Device\Ide\IdePort1.*
>
>
>
> *For more information, see Help and Support Center at*
> *<http://go.microsoft.com/fwlink/events.asp>.*
>
> *Data:*
>
> *0000: 0f 06 10 00 01 00 64 00d.*
>
> *0008: 00 00 00 00 05 00 04 c0À*
>
> *0010: 03 00 00 80 00 00 00 00 ...?...*
>
> *0018: 00 00 00 00 00 00 00 00*
>
> *0020: 00 00 00 00 00 00 00 00*
>
> *0028: 00 00 00 00 00 00 00 00*

>
> 0030: 00 00 00 00 01 00 00 00
>
>
>
> *Event Type: Error*
>
> *Event Source: Disk*
>
> *Event Category: None*
>
> *Event ID: 11*
>
> *Date: 17/06/2004*
>
> *Time: 21:35:35*
>
> *User: N/A*
>
> *Computer: GRAHAM*
>
> *Description:*
>
> *The driver detected a controller error on \Device\Harddisk1\D.*
>
>
>
> *For more information, see Help and Support Center at*
> *<http://go.microsoft.com/fwlink/events.asp>.*
>
> *Data:*
>
> 0000: 03 00 68 00 01 00 b6 00 ..h...¶.
>
> 0008: 00 00 00 00 0b 00 04 c0À
>
> 0010: 01 01 00 00 00 00 00 00
>
> 0018: 00 00 00 00 00 00 00 00
>
> 0020: 00 00 00 00 00 00 00 00
>
> 0028: a8 00 00 00 00 00 00 00 ..:.....
>
> 0030: ff ff ff 02 00 00 00 00 yÿÿÿ....
>
> 0038: 40 00 00 8f 02 00 00 00 @.
>
> 0040: 00 20 0a 12 40 03 20 00 . ..@. .
>
> 0048: 00 00 00 00 0a 00 00 00

> *Description:*

>

> *Error code 1000008e, parameter1 c0000005, parameter2 bf877e1b,*
> *parameter3f223f818, parameter4 00000000.*

>

>

>

> *For more information, see Help and Support Center at*
> *<http://go.microsoft.com/fwlink/events.asp>.*

>

> *Data:*

>

> *0000: 53 79 73 74 65 6d 20 45 System E*

>

> *0008: 72 72 6f 72 20 20 45 72 rror Er*

>

> *0010: 72 6f 72 20 63 6f 64 65 ror code*

>

> *0018: 20 31 30 30 30 30 30 38 1000008*

>

> *0020: 65 20 20 50 61 72 61 6d e Param*

>

> *0028: 65 74 65 72 73 20 63 30 eters c0*

>

> *0030: 30 30 30 30 30 35 2c 20 000005,*

>

> *0038: 62 66 38 37 37 65 31 62 bf877e1b*

>

> *0040: 2c 20 66 32 32 33 66 38 , f223f8*

>

> *0048: 31 38 2c 20 30 30 30 30 18, 0000*

>

> *0050: 30 30 30 30 0000*

>

>

>

> *Is it hardware related or software?*

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>

>

> *Janice*

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