

## Taking care of your PC – Protect it from Heat

**Heat** is the single most important cause of a PC's components failing :

- Excessive internal heat will make your PC's motherboard fail faster than it normally would.
- Excessive internal computer heat will also make your graphics card fail faster than it normally would.
- Ditto with the network card
- While heat is not the only factor contributing to the failure of a DVD or DVD-Writer drive, excessive internal heat will inevitably lead to the early failure of your DVD/DVD-Writer drive, even if you rarely use it.
- Ditto for your floppy drive, or backup tape drive if your PC has one.
- The same applies to the hard disk. The three most common causes of hard disk failure are age (your hard disk has moving parts which do not last forever), faulty power supply units (the PSU), and uneven mains electricity (dips and surges), in that order. Still, what is often overlooked is that, again, as with DVD drives, excessively high computer temperature will inevitably also lead to the early failure of a hard disk.
- Last but not least, if a PC gets too hot internally, it will often start producing errors which may corrupt data, or it may crash, again corrupting or permanently damaging data in the process. Computer heat problems can be deadly in so many ways ...

So : Motherboard, graphics card, network card, DVD drive, Floppy Drive, and Hard Disk. That's normally called a PC !!

In this day and age, a lot of PCs will beep a warning if the CPU (the processor) gets too hot, or if any of the internal fans fail. You can even download free software which monitors the temperature of your CPU and, in some cases, the general computer temperature of your PC. All of these help, of course. However, there are simple steps you can also follow to ensure that your PC does not build internal heat any more than it is supposed to – Here goes :

- If your PC is in a room which is permanently air conditioned when the PC is in use, then you need read no further** – PCs and Servers, just like us humans, love air conditioning, and will often runs forever in a suitably air conditioned environment.

If you do not have air conditioning, however, then read on.

- If you built your PC yourself, make sure that the CPU fan has a significantly higher maximum CPU cooling rating than the rating of your CPU. For example : if your CPU is a 5GHz CPU, then when choosing between a processor fan that is rated at 5GHz and one that is rated at 5.6GHz, go for the higher rated processor fan – the extra \$5 to \$15 are well worth it. If you did not install case fans in your PC, do so. Global warming is with us, it's a fact, and global warming means searing summers and PC crashes and failures for anyone who does not have air conditioning – remember the California summer of 2006 ?
- Do not use Standby in summer. Give your PC a chance to cool down when you know you won't be using your PC for a long time (over 3 hours, say) – the CPU, the main generator of internal heat, still continues to operate in Standby Mode so your PC does not get a chance to cool down.
- Make sure nothing is covering the vents at the back or on the top or sides of your PC case. Those vents are there for a very good reason – helping the internal heat out of the PC.
- Similarly : give your PC enough room so that the internal heat which escapes out of the vent does not simply *stay around* thereby preventing other heat from escaping ! Typically give it 15cms on all sides (6 inches).
- Never ever ever ever ever ever store your PC inside a cupboard. You have a 60% chance of causing a fire by doing so, and even if you are well insured no insurance company will ever pay out once they work out that a fire was caused by a PC which was locked up in a cupboard.**
- Do not put anything on top of your PC case (other than a USB card reader or other similarly small item). Heat does not just escape through the vents of your PC case or through your PC's power supply unit holes at the back, it also escapes through the case of the PC which is in contact with the cooler air of your room/office.
- During hot summers, if necessary, point a desk top fan at the back of your PC. During searing summers PCs love desktop fans just as much as we humans ! If it is really hot, and you absolutely need to use your PC, and you know how to maintain a PC (i.e. you built it), then take the sides off and point the fan directly at the inside of the PC.
- Do not put your PC in a place where it can come in contact with direct sunlight. Direct sunlight is equivalent to putting your PC into the oven .....

Good Luck.

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