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# 'Upgrade Secrets'

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## Upgrading your tired computer!

By Nic Danger



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### How and what do I upgrade?

Computers can be an expensive piece of equipment to procure and to get the most value out of a computer system you will want to keep it as long as possible.

Having said this, when it starts slowing you down its costing you time and that's where the upgrade comes in. Always give the software a service first.

Today we will be looking at cost effective upgrades for your system.

The main upgrade areas we will focus on are

- System Memory (RAM)
- Hard Disk Space
- Processor Speed
- Adding CD/DVD Drives
- Operating Systems



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Upgrading your RAM is a great start and probably the most effective upgrade you will ever make. If your system is 2-years old or more you will probably have 128MB or if you are lucky 256MB of RAM. Usually, there is a spare slot in the computer to add a second memory stick and the sticks can be bought in sizes ranging from 128MB to 512MB and even more. Make sure you find out what type of RAM you need first, as speeds and voltages can vary.

For your average user, 512MB of RAM is a good amount and will allow your computer to process all the tasks you give it - faster.

You may also like to have more hard drive space, or even a faster hard drive and this can also be an effective upgrade. Drive Technology in the last year has boomed and you can now get 120GB hard drives for a great price. That's enough space to fit over 50 full-length movies on your computer!

If you have more than 50% of your hard drive space used, you should also consider upgrading your hard drive.

Processors can also be upgraded, however, the manufacturers change the type of socket fairly regularly and if your machine is 2-years old or more, it may be more trouble than it's worth trying to track down the old CPU type anyway.

Don't worry! They are expensive and if your system is 1Ghz or faster, that should be enough for day-to-day use.

Adding another Optical drive is a great addition to your system. You can add a CD Burner to backup, which is very quick at x52 speed write and holds up to 700MB, which it will burn in about 5mins with the right software, also allowing us to copy and burn music CD's. You can also add a DVD burner, which is slower at x8 or x12 speed currently allowing you to make DVD disks to play in your DVD player and watch them on your TV as well as back up 4.7GB of data in one sitting, although allow 20mins to do so!

**Copying disks is not so simple nowadays; as DVD piracy can be detected by your software and is usually rejected, don't count on buying a parrot and trade marking a skull and crossbones logo just yet.**  
- Mike

95% of all computers have the option of adding another drive. And all computers give you the option of replacing the drive already there. Adding a CD burner will not make your computer faster but it will give you more flexibility.

**I like replacing drives with faster units rather than adding a really fast new drive as a slave or secondary device, which throws in excellent performance as well as much more space. See our article on 'Complete Hardware Check' for discerning potential performance 'bottlenecks' in your own system if this sounds attractive.**

- Mike

Upgrading your operating system is not always a good idea. You will need to see if your machine is fast enough to run a newer operating system. As a rule, new software is designed with new hardware in mind and a pull forward one-sidedly, can on occasion leave a memorable, but painful learning experience.





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As a minimum if you are running windows XP you should have...

512MB Ram  
1.4Ghz Processor  
20 Gig 7200RPM Hard drive or better.

Any less than that and your computer will be unnecessarily slow in our opinion.

Other things that are worthwhile getting right, are a high quality keyboard and mouse. Microsoft and Logitech design such hardware and these are probably the cheapest upgrades yet! You can also interchange your monitor with a new monitor if your old one is too small or a bit tired.

**If it looks like a dense fog, or the radiation brings a sick feeling in your gut after several minutes, or it's so dark that you need to wait until sunset to start using the computer, may I suggest you tackle this area before the keyboard and mouse even? - Mike**

Depending what you want to upgrade, you should expect to pay from \$200 for some decent parts. It's a small price to pay considering the price of a new computer.

**I love the way Nic goes shopping; we should hire him out to take you all and get your 'fix and chips', 'cause he can drive a mean bargain and he really knows how to make a system fly - Mike**

Remember to use a firewall, keep your anti-virus up-to-date and your windows updates current!

By

Nic Danger

*Nic Danger is a part of the team at A PC Genius in Sydney. Nic is famous for winning all the PC magazine speed awards across Australia and also the value awards and has wallpapered some PC companies with such awards for months at a time when they have sought his guidance and design know how. He is an expert on performance computing and water-cooling CPU's and chipsets to achieve unbelievable speeds, which he does for large manufacturing companies across Australia. Nic is also a legendary software and driver technician for motherboard and graphics chipsets. You may contact Nic at [nic@apcgenius.com](mailto:nic@apcgenius.com)*

Kind Regards,

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