# readers writes

You've been doing the maths this month – the promises made by certain hardware manufacturers don't seem to add up, and even some of *PC Advisor's* sums are questionable. And our star letter provides a touching portrait of the PC enthusiast



## A fresh start with XP

My system had been running Windows 95 with a Windows 98 SE upgrade and had become a right pain in the backside. It crashed almost hourly and the times I have reinstalled Windows 98 SE, defragged the hard drive, cleaned up the Registry and so on are too many to count. I run office applications and play the latest games, so it became a daily nightmare of crashes and lockups.

Then along comes the answer to all my computer problems… Windows XP. I purchased the Home Upgrade version and eagerly installed it over my existing systems. Great, I thought, this will sort out my buggy operating system and leave me with a nice, new reliable PC. Wrong! I have now found out after even more crashes, lockups and non-working programs, that XP is not a cure-all for 98's ills. It will not make a poorly PC better and no amount of tinkering will make it work efficiently.

I have now formatted my hard drive and reinstalled a nice clean Windows XP. The difference is staggering – XP works as it says and never ceases to amaze me with the things it can do. Whatever people say, I love Windows XP and will never go back to my old systems. Thanks Microsoft.
**Tony Warren, via email**

*Emma Northam replies: upgrading your existing operating system to XP should, in theory, give you all the same results as a clean install, but leftover Registry entries from Windows 95 and 98 SE can cause instability as you've discovered. While the full installation process is more bothersome to perform, it's the best way to ensure a smooth-running system.*

## 300 whats?

I was recently looking at a typical £30 computer speaker system with the words, '300W output' in large letters on the box. It included a mains adapter rated at '14V, 1.2 amps'. A moments thought reminds one that Watts = Volts x amps, hence maximum electrical input to the amplifier could only be 16.8W (14x1.2).

No amplifier is 100 percent efficient, so the maximum audio output could not be more than about 10W (5W per speaker). If you take into account the fact that such small speakers have an expected efficiency of less than 0.5 percent at low frequencies, the total acoustic output is unlikely to exceed 0.05W!

So what industry 'standard' allows 0.05W to be advertised as 300W? To simple souls like me it all adds up to a gross distortion of the truth. No one

in their right mind would expect hi-fi quality for £30, so why the pretence? How about some figures that mean something?
**Harry Leeming, Lancs**

*Ben Camm-Jones replies: manufacturers often give misleading output figures to make their products seem more powerful or faster than they actually are (printer makers are prime offenders as the letter below reminds us).*
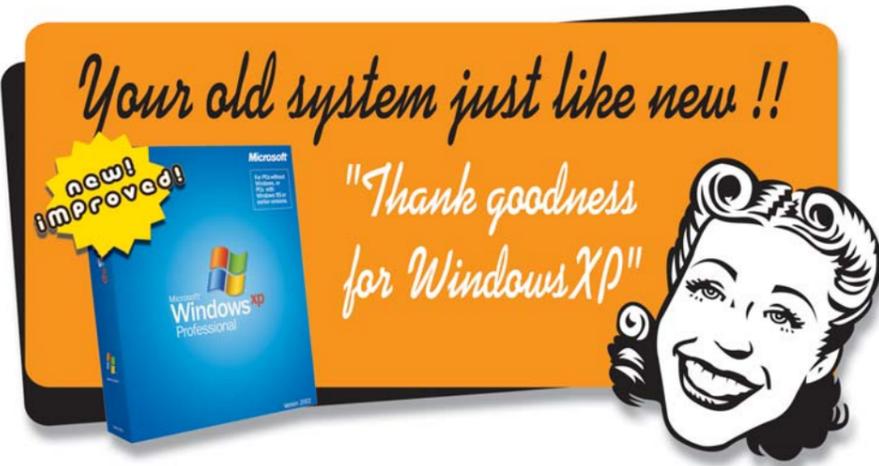
*There are a number of ways speaker firms do this, the most common being to state the PMPO (peak music power output) wattage rather than the RMS (root mean squared) wattage. Some experts feel PMPO ratings are as good as meaningless. They not only use peak output figures – output that an amplifier would only be capable of for very short periods of time – but they add the power ratings of all channels to each other. Look for the RMS figure, as this is a much more realistic indication of the kind of output stereo equipment is capable of.*

## Print speed scam?

I often read reports in your magazine about printers, and how they are not as fast in your tests as the manufacturer claims. My printer produces high-quality output and it does so at lower-than-promised speeds. While I am very happy with my printer, and speed is not the be-all and end-all to me, I am still left wondering how firms get away with quoting these page-per-minute rates under the Trade Descriptions Act. Or doesn't this law apply to the world of computer hardware?
**John Dunkley, via email**

*Paul Rincon replies: quoting an exact speed for any printer is always going to be a subjective exercise. Different models of the same version of printer might even differ in speed. Therefore, it can be difficult to prove that a manufacturer did not achieve the speeds it claims for a printer under specific circumstances. When testing products at* PC Advisor, *we try to replicate the conditions in which the customer is likely to be using the printer.*

## Grandma, what big files you have

If your February 02 review (page 84) of the Epson Perfection 2450 Photo scanner is correct in saying that it can result in 91.4GB files, how could a home or even office user's computer possibly handle such huge files, when even a 60GB hard drive is larger than most people have? What computer specification is needed to make use of this scanner? Please enlighten me – I must be missing something.
**Alan Axworthy, via email**

*Spencer Dalziel replies: missing something? Yes and no. An obscenely large and totally unusable 91.4GB file size was generated, but not when scanning at 2,400x4,800 – this was a subbing mistake. The file size was created by using the highest interpolated resolution of 12,800dpi (dots per inch), demonstrating how negligible an interpolated resolution is. Quality doesn't really improve beyond the optical resolution – it just pointlessly generates vast files.*

*Here's a good pointer for you to work out file sizes. On average, every time the colour bit depth increases, the file size doubles and every time the resolution doubles the file size quadruples. For example, an A4 colour sheet scanned at 600x600dpi with a 48bit colour depth generates a file size of 102MB. So, scanning at 1,200x1,200dpi = 408MB, at 2,400x2,400dpi = 1.63GB, 4,800x4,800dpi = 6.52GB, 9,600x9,600dpi = 26.1GB and so on.*

## Keeping up with the Joneses

Having read last month's *Readers writes* comments about Intel's new arrival, the Pentium 4, being an unnecessary market ploy, I can only say well done Intel. Why? Because as all the Joneses – and the I-must-keep-up-with-the-Joneses – scramble to be the first to have the latest go-faster-striped chip, I can look forward to the price of Pentium III computers dropping faster than a lead balloon.

Soon I will be able to buy an affordable, express-speed computer (with easy upgrade path to boot) for half the price of one at the present time. I say more powerful and faster CPUs please Intel, AMD and the other chip manufacturers, and long live the Joneses.
**Brian Abbo, Swansea**

## Onsite advice

After reading your article, *Warranties: reading between the lines*, in the December 01 edition of *PC Advisor*, I would recommend an onsite warranty for any new PC. Without onsite cover, a defective computer or monitor has to be boxed up and returned to the vendor, maybe at the customer's expense.

And this could work out more than just costly and inconvenient. PC manufacturers come and go with alarming regularity and, if your pride and joy is on the supplier's workbench when the supplier goes bankrupt, getting it back could well be a lengthy and traumatic experience.
**Alan Thomas, Middlesex**

*Rupert Collins-White replies: in general, for those new to computers, an onsite warranty can provide much-needed peace of mind. But onsite warranties are expensive if you never use them. Our point in the warranties article was that not only should you buy carefully and take into account that you're buying a service as well as a product, but you might be a lot*
better off in the long run if you either go on a course or learn at home about how computers work.

*Warranties can be useful and even necessary, but the most common cause of complaints to* PC Advisor *is the expectation gap between what people think they'll get and what companies will actually provide.*

## Thumbs up

Oh, thank you, thank you, thank you for solving a reader's thumbnail problem in last month's *Helpline* by writing a set of repair files and adding it to your cover CD. I had exactly the same problem and don't know what caused it because I had added no programs between them being displayed and doing a Houdini. My PC supplier's technical support could offer no solution other than using their recovery disc. I'm back in business again, thanks to your brilliant technical people. Last month I used your files to add a slideshow to a CD photo collection. This month, my thumbnails have come home.
**Marshall C Morris, Rhyl** ■