

## AMD and Intel ramp up chip speeds

Faster Athlon and Pentium 4 processors, but AMD accuses industry benchmark software of favouring Intel

AMD and Intel have both increased the speeds of their flagship processors – the Athlon XP and Pentium 4, respectively.

The Athlon XP now comes in a 2600+ version, which runs at 2.13GHz. AMD has also launched a 2400+, but due to its aim to move measurement of processor performance away from megahertz and gigahertz it hasn't released the clock speed for this. It is rumoured to be 2GHz.

Intel has taken the Pentium 4 one step closer to the 3GHz mark, launching a 2.8GHz version, keeping it well in the lead in the clockspeed stakes.

PC Advisor has tested systems using both the new processors, and our results show that, in the right system, they are neck and neck on performance.

We tested four PCs with 2.8GHz Pentium 4s, and the fastest turned in a WorldBench 4 score of 131, the highest ever (see page 100).

We also tested a white box system (basically a test model comprised of a motherboard and processor) using an AMD 2600+, and it turned in an identical score. For more



information about this review see [www.pcadvisor.co.uk/index.cfm/go/hardware.view/product/1202](http://www.pcadvisor.co.uk/index.cfm/go/hardware.view/product/1202).

The 2.8GHz P4 could be a turnaround for Intel, which has spent the past few months playing catch-up to its rival.

In a further twist to the tale, AMD has taken issue with Sysmark, the popular benchmarking software developed by Bapco (Business Application Performance Corporation). AMD says the 2002 version is biased in favour of the Pentium 4.

AMD's processors used to outperform Intel's in the Sysmark 2001 benchmark. But AMD says that certain tests were removed from that version and tests that favour Intel's Pentium 4s were repeated several times in the latest edition.

The company contends that Intel being the only major processor manufacturer in Bapco has caused the benchmarking software to drift toward Intel's philosophy of performance. AMD has now started working with Bapco.

Intel would not comment on the allegations and PC Advisor's calls to Bapco went unanswered.

## Windows users start to think differently

Corporate users of Microsoft products are considering alternative operating systems due to their frustration with the company and its practices, according to a recent survey of 1,500 US firms.

"Resentment and dissatisfaction with Microsoft and some of its practices is at an all-time high," says Laura DiDio, senior analyst with the Yankee Group and the report's author. Many companies are looking at Linux-based operating systems and Apple's OS X, she says.

At the heart of people's dissatisfaction is Microsoft's new Licensing 6.0 program.

Nearly 40 percent of respondents said they are "outraged" by Microsoft's licensing scheme, and are actively seeking alternate products.

Many corporate customers feel the company has overstepped the bounds with the new charges. One respondent to the survey put this point a forcefully: "For heaven's sake, they have \$36bn in the bank and they are trying to squeeze us."

In the UK the Treasury has announced that it will be looking at open source alternatives to Microsoft, due to the spiralling costs of sticking with Windows.



Security is also a worry for many Microsoft users. "It seems not a day goes by that you don't hear about some new security flaw," DiDio says.

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## A month in broadband

Nearly half (41 percent) of all internet activity in the UK is conducted via a broadband connection, according to figures published by research group RedSheriff. But this percentage is far greater than numbers usually stated for broadband penetration.

Figures released by telco watchdog Ofcom back in June showed 46 percent of home users and 59 percent of businesses were connected to the internet. Of these, only around 709,000 consumers and SMEs were getting online via broadband.

Even by adding all corporate networks to these figures, it is unlikely the broadband take-up would reach even 30 percent.

That is not to say that we don't want to surf using broadband, as BT's Wholesale broadband registration scheme proves. So far nearly 50,000 people have registered their interest in signing up for ADSL (asymmetric digital subscriber line).

"The launch of our broadband registration scheme in July gave people a direct influence on our rollout programme by registering demand against their local exchange," said Bruce Stanford, BT Wholesale's broadband director.



ADSL is currently potentially available to about two-thirds of the UK population, but the remaining third are still missing out on broadband technologies due to their location.

But BT is pursuing "alternative technical solutions for areas where demand for broadband does not balance with the cost of upgrading the exchange". This includes a scheme introduced this autumn which offers users broadband connections in several remote locations across the UK.

The trial is partly financed by a local sponsoring body, which pays £7,000 towards the cost of upgrading the exchange. The cost of the upgrade is lower than usual as the service uses BT's existing internet backbone, and therefore can be deployed to a lower number of users.

For more information on broadband turn to the back of the magazine to read this month's 40-page supplement.

## Meltdown for Nikon's low-cost snapper

Nikon has been forced to recall all units of its first low-end digital camera due to a battery fault.



The Coolpix 2000's batteries have been overheating and melting and the product has to be withdrawn from sale.

But only a small batch of cameras, which can be identified by serial number, has been affected by the problem. For a full list of these serial numbers visit [www.nikon.co.uk/product\\_range/digital\\_compact/recall.htm](http://www.nikon.co.uk/product_range/digital_compact/recall.htm).

Our senior reviews writer, Spencer Dalziel, praised the camera, saying, "We have tested the camera and were very impressed by it. It's a really good camera." See page 74 for a full review.

Faulty models have been withdrawn from sale and Nikon assures customers this problem does not affect new models leaving the production line.

For more information call 08000 188 977 (UK) and 1800 409 2825 (Eire).

## The rise of the notebook

With sales of PCs dropping dramatically it seems the sky's the limit for the notebook market.

Research firm Gartner Dataquest shows the mobile PC market grew by 6.1 percent last year.

"Notebooks are getting smaller and more powerful, and the home mobile office has really taken off [over the last year]," said Paul McGovern, product manager at Dell.

"As little as a year ago people had to compromise on graphics and screen resolution," said McGovern. "Now many laptops can easily stand up to PCs."

"Functionality is now easily comparable especially with the availability of dedicated graphics cards [and other peripherals],"

said Kenneth Chan, notebook product manager at Toshiba.

Toshiba and Dell obtained the biggest growth in notebook sales, up 11.4 and 10.6 percent respectively. This was helped by the introduction of a range of desktop processors in their laptops, which enabled them to offer their customers a cheaper alternative to mobile processors.

"Initially we stayed away from desktop processors as we wanted to develop our product as a mobile laptop first," said Dell's McGovern. "For us the benefits of the mobile processor outweigh the

issues but our customers wanted a cheaper alternative."

Toshiba agrees price is key to the laptop's success. "We have been working hard to provide value for money in our range [by introducing desktop systems]" said Chan. "[But] price will always remain a dividing factor [between PC and laptop sales]."

PC Advisor readers aren't convinced that the extra expense is worth it. A recent poll on our website found that 67 percent of readers had no intention of swapping their desktops for laptops.





## OS X 10.2 on the shelves

Apple's latest update of the Mac OS X software, version 10.2 – otherwise known as Jaguar – is available in the shops now, sporting around 150 brand new features.

Priced at £99, the software offers such additions as a special junk mail filter and a generalised address book system that allows users to enter contact information just once and then access it from other applications.

Steve Jobs, Apple's CEO was distinctly bullish about the new product. "Mac OS X version 10.2 is lightyears ahead of Windows XP. There's never been a better time to switch to Mac," he said. "Mac OS X is delivering more software innovation than our industry has seen in an entire decade."

The new operating system now also offers Quartz Extreme, which accelerates graphics performance by using the power of the Mac's built-in graphics engine. Under this development the desktop is more responsive and the Mac can deliver seamlessly blended 2D, 3D and QuickTime content directly on to the desktop.

Website: [www.apple.com/uk](http://www.apple.com/uk)

## Sony showcases new digital cameras



Sony continues to push the digital lifestyle with the launch

of a raft of digital cameras and a camcorder designed for maximum portability.

The IP220 is the first 2Mp (megapixel) digital camcorder, optimised for high-quality still and video images. "This is the world's first all-in-one product that offers a camcorder and a digital still camera," explains Cyrus Richardson, group product manager of Sony Digital Imaging UK. The IP220 will be available from October, when pricing will be announced.

Among the still cameras is the gorgeous DSC-U10 (pictured). This tiny silver camera is smaller than the average (modern) digital camera, weighs just less than 90g, and yet

offers 1.3Mp resolution. The camera, which Sony dubs a "techno fashion accessory" is aimed at the design-conscious youth market. It is available from October, priced approximately £200.

The next must-have cameras to join the range are the DSC-F77 and FX77 (the X indicates built-in Bluetooth). These are small, slim cameras "designed to appeal to the technology enthusiast" according to Sony. They offer 4Mp CCDs (charge coupled devices), and an innovative design that incorporates a rotating lens. The DSC-F77 and FX77 will be available from November, when pricing will be announced. Website: [www.sony.co.uk](http://www.sony.co.uk)

## Next-generation optical discs move closer

The long-running legal battle between two little-known Japanese companies that has held up production of next-generation optical disc players and recorders is finally over.

Nichia and Toyoda have "agreed to respect any and all patent rights which the other party owns and to enter into negotiations in good faith in order to come to an end of

any and all disputes and suits in and outside of Japan".

The spat between the companies, both little known beyond optoelectronics circles, has dragged on for six years and in the process hobbled the development of new optical disc systems. It centres around a small but crucial component that makes the entire systems possible: blue laser diodes.

Current optical disc systems, such as CD and DVD, are based on lasers that emit red light, but next-generation systems require a change to shorter-wavelength blue lasers.

As the wavelength of the laser light gets smaller, the size of the light spot that the laser burns on the disc surface becomes smaller, meaning a larger amount of data can be recorded in a smaller space and each 12cm disc can therefore store more data.

"The blue laser technology is a must for the development of DVDs that can replay or record more data," said Akihiko Ohiwa, a spokesman for Sanyo, which has also recently announced the development of its own rival blue-laser technology.



## Grubby owners cause PCs to fail

If your PC is having problems it may be because it's dirty and buggy. Literally.

Insects such as cockroaches and spiders pose a real threat to PCs according to a new survey of over 1,300 computer repair professionals in the USA.

Keep in mind that the study was conducted by the manufacturers of Dust-Off compressed-gas cleaner, which has a strong interest in you keeping your computer clean with its products.

Even so, the survey threw up some scary findings, linking 72 percent of processor failures to poor PC cleaning and maintenance.

Besides creepy crawlies, other strange objects found lurking within the innocuous beige boxes include: reserves of marijuana and cash; loose screws and nuts; and "many generations" of mice, from babies to rodent skeletons.

What's more, bad personal computer hygiene was linked to 70 percent of keyboard failures and 85 percent of breakdowns in printers and mouse devices.



## Pay-as-you go around the globe

Net2Roam has launched a pay-as-you-go global web service, which will allow users to access their internet accounts from anywhere in the world at local rates.

The service has been set up by two friends who were frustrated at being ripped off by exorbitant international phone charges for accessing their email accounts when abroad.

"At the moment there is a lot of confusion about dialling the internet from overseas, which means that people are paying unreasonably high costs just to access email," said Jamie True, co-founder and director of Net2Roam.

But most large ISPs, such as AOL, already have agreements in place with local service providers and telcos, meaning that customers are only charged at local rate anyway.



According to Net2Roam, its service is aimed at people that already have an established email account with a smaller company and don't want the hassle of changing their ISP and account name.

"Another difference is that AOL doesn't give you a free dialler – you have to go through a setup process before you can leave each country and it takes 60 days. It's therefore no good for impulse or last-minute travel. Net2Roam takes just three minutes to set up," said Jane Forwood, company spokesman.

Each package is valid for a specific period of time. The Bronze package, for example, costs £15 for two months and provides 50 credits (roughly 50 minutes of call time from the USA). Credit cannot be carried over and must be used within the specified period. Website: [www.net2roam.com](http://www.net2roam.com)

## The PCs of Chris Mole, aged 18½

Eighteen-year-old whizz-kid Chris Mole has set up his own computer business, selling PCs to students, just in time for the start of a new academic year.

Having had difficulty finding a suitable computer for his own studies, Mole set up Studentdesktops.com to service the three million students currently in full-time education – although anyone can buy from the website.

Mole thinks that students can be intimidated by the sales tactics used in high street stores: "When I visited a high street store I was pounced on by the sales advisors."

He also believes that students won't get value for money on the high street. Studentdesktops.com vows to meet or better the price of any specification students can find in a retail store. Mole says Studentdesktops.com doesn't

aim to compete with direct manufacturers, instead his company is aimed at PC novices who would normally buy on the high street. To meet the needs of such users, all the specifications for the PCs are written in "layman's terms", and the company is setting up a call centre in Newcastle to advise students.

"We are all ex-students, so we understand their needs," explains Mole.

Studentdesktops.com's PCs are made by SSC Carrera, which also handles tech support. Repairs will be managed by a third party – Repairline. Mole predicts a first-year turnover £4.5m and hopes his success will encourage more youngsters to set up their own firms. Website: [www.studentdesktops.com](http://www.studentdesktops.com)

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Special offers

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<b>STUDENTmobile 1800</b>  £999.00 £869.00	<b>STUDENTmobile ULTIMATE</b>  £1,299.00 £1,199.00

## News in brief

### Consoles go online

Microsoft and Sony are to go head-to-head for the online gaming market. Xbox Live is Microsoft's service, set to launch on 15 November and already in beta testing. PS2 maker Sony has launched an online adapter for the device in North America, retailing at \$39.99 (around £26), which enables the console to connect to the internet via a dialup or broadband connection – unlike Xbox, which requires broadband. Xbox Live is also a little more expensive at \$49.95 (£33). Both services are due for launch in the UK soon.

### Lost the remote? Use your handheld

Interactive TV provider TV Compass and TV listings magazine Radio Times have announced a joint venture that will enable PDAs to double-up as TV remote controls. The service, which costs £14.95 per year, is designed to work with devices running Pocket PC. As well as turning your handheld into a TV control, you also get the latest programme listings direct to your PDA whenever you sync with your PC. The software can be downloaded from <http://radiotimes.tvcompass.com>.



### Office XP update available now

Microsoft has released the second package of bug and security fixes for its Office XP application. Office XP SP-2 (Service Pack 2) also contains a fix to protect Office web components from hackers. Excel 2002 has been updated to prevent the loss of digital signatures when users auto-save a spreadsheet. Users can download the package from Microsoft's website or order a free CD and pay for the shipping charges.

**WANTED: \$20,000**

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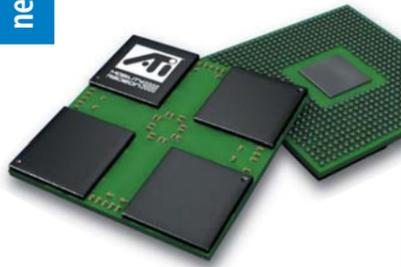
Hello! Karyn, I'm really nice, and I'm asking for his huge credit card debt and I need \$20,000 to help her pay it off. If you have an extra buck or two, please send All I need is \$1 from 20,000 people, or \$2 from 10,000 people, or \$5 from 4,000 people...

-You get the picture!

### Shopaholic builds site to pay off debts

If your debts are getting out of hand, you could take a leaf out of cheeky Karyn's book. The cash-strapped American has set up a website begging for donations to help her out of the red. The site – [www.savekaryn.com](http://www.savekaryn.com) – tells how the author managed to get herself into \$20,000 (about £13,000) of debt by buying clothes.

While you might not imagine there'd be much sympathy for the self-confessed shopaholic, Karyn has been given thousands in donations.



## Desktop graphics to go

Notebook graphics as good as a high-performance desktop PC are what ATI promises from its latest graphics chip, the Mobility Radeon 9000.

Dell, HP, NEC and Fujitsu Siemens are all signed up to use the chip in their notebooks, as are Taiwanese companies Asus and Compal, which make notebooks for a number of other well-known brands.

When it comes to fast realistic visuals, notebooks with onboard graphics usually lag way behind desktop PCs whose graphics cards sport a high-power chip and fast memory.

The Mobility Radeon 9000 has an on-chip frame buffer of 64MB and uses several proprietary software technologies designed to provide top-notch graphics performance. The software takes advantage of the latest features in Microsoft's DirectX 8.1, so gets the best out of the most recent 3D games.

"You shouldn't have to look at 640x480. That's not gaming, that's looking at big fat pixels," said ATI product manager Darren McPhee at the chip's launch.

So ATI is back in competition with arch rival nVidia, which was the first to try to bring desktop-quality graphics to the portable, in the shape of the GeForce 2 Go mobile graphics chips. Look out for future reviews to find out if how much of a threat the Radeon 9000 is. Website: [www.ati.com](http://www.ati.com)

## DVD war is over

Sony plans to unveil a DVD drive for PCs that supports both of the battling recordable DVD formats: DVD-RW and DVD+RW.

The new drive is significant as it is the first product to feature support for two competing recordable DVD formats in a single device. This means users won't have to worry about buying a drive that could become obsolete, should one format fail in favour of the other.

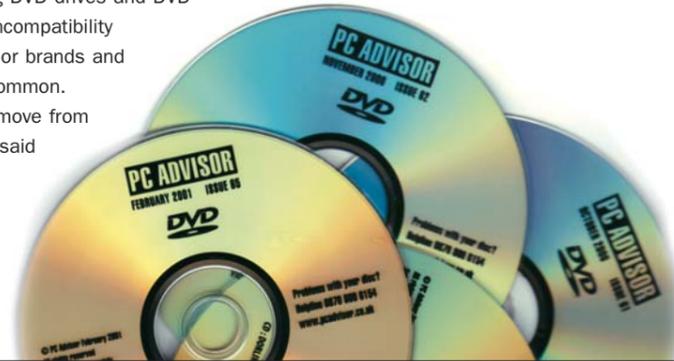
At present, shopping for a recordable DVD drive means making a choice between one of two main formats. Both claim playback compatibility with existing DVD drives and DVD video players, although incompatibility between certain formats or brands and certain players is fairly common.

"For end users, this [move from Sony] simplifies things," said Simon Shepherd, a research analyst at IDC. "One of the concerns we had about the standards battle was that end users might

buy one of these drives without knowing what type of media goes with it.

"Sony is being clever with all this because it is part of the +RW camp and has been shipping Vaio [notebook PCs] with -RW drives and talking about having multi-drives for quite some time. I suppose it does avoid the issue of compatibility by having these drives. I think we will see quite a few people doing a similar sort of thing," said Shepherd. He said at least two other companies are planning similar drives.

Website: [www.sonydvd.tv](http://www.sonydvd.tv)



## Big Brother is watching you

Security specialist AEI has launched what has to be the most intrusive PC surveillance tool yet. The company's PCSender.net system can be connected to any computer and used to wirelessly transmit the images being viewed on the PC to any television screen in same the house.

The company is marketing the device as the perfect way for parents to keep an eye on what their children are getting up to on the PC, calling it the "ultimate parental control system for children using computers".

Parents – or for that matter anyone who installs the device – can flip between

whatever they are watching on TV to a channel that will show exactly what is on the PC's screen. AEI believes its system will overcome the problem of clever kids who can work around parental controls installed on a PC.

PCSender.net transmits images and audio direct from the graphics and sound cards within the PC to any television in the house.

Other uses AEI suggests for the device are playing movies or digital audio files from the PC on a TV screen.

We are more concerned, however, about the possible invasions of privacy that the device allows. Final pricing has yet to be announced, but it should be around £110.

Website: [www.pcsender.net](http://www.pcsender.net)



## News in brief

### Spring clean your PC

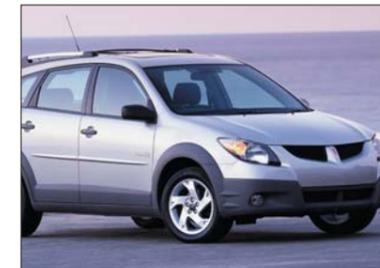
If your computer's getting a bit long in the tooth, and its performance leaves a little to be desired, then PC World would encourage you to take it down to your local store for its 50-point Healthcheck service. A check costs £39.99, or £69.99 if the check is done at home or work, and is carried out by a technician, who PC World is at pains to stress is "not a salesman, and doesn't earn any commission". The Healthcheck is available at PC World stores nationwide, although appointments are advised. To find your nearest PC World store call 08705 464 464.



### Surf at Starbucks

Coffee chain Starbucks is trialling a wireless internet service at two of its London stores. The outlets, in Broad Street and Fleet Street, will offer customers the chance to surf the net and check their emails via a wireless connection as they sip on their lattes.

The pilot scheme uses Wi-Fi (802.11b) technology to provide customers with wireless-equipped laptops and handhelds offering high-speed internet access. The trial service is free, but in the USA the same service costs from \$2.55 (£1.66) for the pay-as-you-go version, and up to \$49.99 (£32.65) for unlimited national use.



### Wireless behind the wheel

Consumer adoption of Bluetooth wireless technology will be driven by hands-free

use of mobile phones in cars, according to a UBS Warburg LLC research report. US car manufacturer DaimlerChrysler is already planning to launch a Bluetooth hands-free kit later this year. But it remains to be seen what will prove to be the killer app that leads to mass Bluetooth adoption, and many believe that this is still years away.

### Two new broadband services

Two new broadband services went live this month from Tiscali and PlusNet. Tiscali's service comes with a self-install, plug-and-play modem and is at the top end of the price scale, costing £350 a year, though the set-up cost of £99.99 is cheaper than most. PlusNet's offering is cheaper still at a basic price of £99 for a starter kit, which includes a PCI modem you install yourself, plus £20.99 a month.