

## Screaming time limit

Screaming.net has imposed a two-hour time limit on off-peak freephone net access which was originally offered as unlimited, users claim.

Spokespeople for parent company Tempo and line provider LocalTel told *Personal Computer World* that they believed a two-hour timeout was operating, which users could get around simply by accessing a website.

But users complain of being cut off and one forwarded an email from LocalTel customer services saying a timeout was not practical as it could easily be got round.

• For a full explanation see Letters, page 68

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# Home nets set to boom as users share access costs

The industry is girding its loins for a boom in home networking, when users realise the ramifications of broadband access.

One reason for the surge in interest is the possibility of sharing the cost of expensive ADSL or cable modem links.

Shared ADSL means shared bandwidth, which could be tolerable for a small number of users – speeds would be much the same as those of many office links.

Cable modems are in an odd position because their bandwidth is already shared between users in a loop. At present, it seems that a single user will be able to grab any bandwidth that is going.

In theory, with no-one else on the line, this could be as much as 30Mbit/sec – although the Ethernet card linking the modem to the PC

is limited to about 3Mbit/sec. This from a line with a nominal speed of 400Kbit/sec.

A block of five flats might pay between £150 and £200 per month for five 400Kbit/sec lines – or set up a 11Mbit/sec wireless network and pay £30 to £40 per month for a single line. In theory, there would be little difference in service – at least until use of the lines hits saturation point.

The latest DOCSIS cable modem standard in the US allows service providers to detect the number of PCs on a line. But for now, cable companies do not appear to be bothered.

A spokesman for Telewest, which launches broadband services early next year, said: 'If users find a way to maximise use of our products, we would be very happy. We see it as an

opportunity as much as a problem. As time goes on, it might be something we have to look at.'

Zoom UK's Geoff Jackman said: 'I've heard people say they could set themselves up as a quasi-ISP, selling line time to neighbours.'

Line sharing is not the only reason to set up a local network. Broadband services are always on, so they can be used with the freedom of radio or TV. Users can receive information streams like stock prices, racing results and news bulletins, listen to concerts or watch video off the net – all barely feasible with time-based charges.

This will create a need for access throughout a home, not just in the bedroom or office where the PC is located.

CLIVE AKASS

## BT among first to jump on bandwagon

British Telecom made a surprise leap onto the home networking bandwagon with the announcement of a wireless kit for homes and small offices to be launched next year.

The kits, developed with a US start-up called Home Wireless Networks, will ship initially in two and four-line modular systems with handsets, phone sockets and data sockets. They feature slots for 802.11 wireless Ethernet and various links such

as ISDN. An entry-level system will cost less than £400.

Intel is developing, with US-based Proxim, a wireless system based on the HomeRF standard, which supports both DECT voice links (as used on

wireless phones) and part of 802.11. It is also working on a system that piggybacks networking onto phone extension cables. This is likely to be the cheapest option until economies of scale kick in on other technologies.

Zoom already offers 802.11 wireless links, but at about £200 a node, they are not cheap. It is about to launch a system based on home phone lines – the first to be approved for Europe. The system should start shipping around the time you read this.

Philips has developed systems based on 1394 (Firewire), plus a wireless card which supports both 802.11 and HomeRF.

A big barrier for all these products will be to make setup easy. Configuring a local network can be tricky even for experts, and these have the added complication of shared access.



Disney invited techie journalists to a preview of *Tarzan*, mainly to boast about its squeaky clean website at [www.disney.co.uk/tarzan](http://www.disney.co.uk/tarzan). Disney is using the site to launch a safe surf campaign. All very

laudable, except that women in the audience were offended by the depiction of a gorilla mother apparently refusing young Tarzan milk because she lacked breasts. Is this the kind of traumatic image we should be showing our children?

## Fatbrain turns authors into publishers

A company called Fatbrain claims it will do for publishing what MP3 has done for the music industry. It has developed a system called eMatter for selling digitised documents online – and collecting the royalties.

Authors could use the system to sell their work directly to the reader, and magazine publishers may use it to resell archived articles.

Fatbrain chief executive Chris MacAskill says that it provides, for the first time, a way to sell short documents: 'What if you want to write something that's 20 pages and sell it? There has never been a model for this.'

Authors can post material, with a summary, on the Fatbrain site. They will receive 50 per cent royalties – or 100 per cent between 18 October and 1 January. MacAskill said: 'It will change the world of publishing. It will empower a whole range of authors to go straight to the people.'

TIM BAJARIN

www.fatbrain.com

## Tiny boots out 'free PC'

Tiny Computers has dropped its 'free PC' offer – allegedly because people were not interested.

The deal offered an entry-level PC without a monitor, on condition that users signed up to Tiny Telecom for one year and spent at least £25 (ex VAT) per month on calls.

It was in effect, as PCW pointed out last month, a

hire purchase, as you would pay full prices for calls that would be discounted if you signed up direct with Cable & Wireless, Tiny's service provider. Jim Buchanan, Tiny spokesman, said: 'The UK public was too sceptical. And it was not an ideal solution because there was no monitor.'

Buchanan said the offer attracted 25,000 calls in

two weeks; nine in 10 went for an alternative offer of £200 off a PIII PC. This offer still stands.

Tiny is unlikely to be the last company to offer a free machine to web sign-ups. As ecommerce develops and the price of net-access devices drops, giveaways could become a cheap way to capture customers.

VNU NEWSWIRE

IBM's Microdrive is spurring Flash RAM vendors into giving us higher capacities. Distributor JenOptik reckons it will have 192MB Compact Flash cards later this year for around £250 inc VAT. CFI cards should reach 245MB early next year. Microdrive prices have been quoted as around \$1 per MB, although this could be higher in Britain.

Jenoptik 0181 953 1688



## Faulty LineOne

Thousands of users of service provider LineOne were without email for three days when servers were taken out of action to expand their capacity following a surge in subscriber numbers.

LineOne had boasted that its membership increased from 80,000 to more than 400,000 after it joined the legions of free providers. It now appears to be a victim of its own success after it seemingly underestimated the work involved.

CLARE WOFFENDEN

### POINT OF VIEW

## Parrot power

It is a fact well known to journalists that everyone is interested in parrots. Any story involving one will get blanket coverage. Deny it if you will, but I bet you would read a story headed 'Parrot drives bus' or 'Parrot rescues cat'. Parrots transform the ordinary into the newsworthy.

The word 'hacker' lacks quite this alchemy but it is a good parrot word, the mere mention of which can help a tired story along. Similarly, any story knocking Microsoft goes down well.

So if Freeserve's, AOL's or (see above) LineOne's email service go down, as they have in the past, you get a few paragraphs at most in the heavy newspapers. When Microsoft's Hotmail gets hacked, it makes the main TV news.

True, Hotmail did not simply break down: Microsoft was forced to close it

after someone posted instructions enabling anyone with a browser to look at the email of any user. But, as with many hacking horror stories, it is quite likely that no one did any hacking. Instead, details were leaked of a 'back door' into Hotmail's system – equivalent to handing out the keys to a mailbox.

Hotmail allows you or anyone else to read your mail from any browser, anywhere, simply by typing your user name and password. It sacrifices security for simplicity. This makes it a useful global message board, but you'd be crazy to use it for anything you would not put on a postcard.

None of which makes Microsoft any the less remiss. What is worrying is that

this is just the latest and least of several scares involving its systems. And blaming hackers, if hackers are not involved, disguises the main dangers.

This is the parrot effect: sensation obscuring fact. It leads, for instance, to the common perception that young women and children are at most risk from strangers; in fact, young men are far more likely to be attacked and injured, young women are most at risk from people they know, and most child abuse is within the family.

From an IT perspective, the enemy within the office is more of a threat than the hacker outside; and the danger of someone seeing a few trivial letters is nothing compared with that of outsiders crawling round your hard disk or website.

Clive Akass



with a bird's eye skew on the Hotmail horror

# Apple pips Intel to post

**M**ac fans were gloating last month following the release of Apple's new G4, with a chip claiming a performance nearly three times faster than Intel's 600MHz PIII.

Apple's apparently permanent 'interim CEO', Steve Jobs, claimed the G4 is the fastest personal computer yet and described its PowerPC G4 processor as the first supercomputer-on-a-chip, delivering a billion floating point operations (1Gigaflop) per second.

The 500MHz G4 is 2.94 times as fast as the 600MHz PIII on a set of Intel's own benchmark tests, Apple claims – though which tests, and how they were performed on an alien processor, remained unclear as we went to press.

Such results do not necessarily translate into an equivalent performance boost when running applications, which may be optimised for particular



processors. But the G4 will give both Intel and Microsoft pause for thought.

It is aimed at restoring Apple in the graphics market, where Macs have been losing ground to PCs running Microsoft's NT. Shortly after the launch Intel announced that its 700MHz PIII would ship in October, a month earlier than expected.

The G4 will ship in 400MHz, 450MHz, and 500MHz versions. All models feature 1MB of Level 2 cache, two USB ports and a 400Mbit/sec Firewire (aka

1394) port.

Prices, discounting the monitor, start at £1,099 plus VAT for a 400MHz G4 with 64Mb of RAM, a 10GB disk and a CD drive. A 500MHz G4 with 256MB of RAM, a 27GB drive and DVD-RAM, will cost in the region of £2,400 ex VAT.

Pictured with the G4 is the Apple Cinema Display, a full-colour 22in 1,600 x 1,024 LCD screen, which would set you back \$3,999 in the US – the UK price and availability have yet to be announced.

There was some doubt about whether G3 owners could upgrade their machines to G4. Apple announced that no upgrade kit was currently available, but two other US companies were reported to be preparing G4 cards.

Meanwhile, Apple claimed to have received 140,000 orders in just 40 days for its new iBook portable computer.

## JavaOS gets dumped but NC lives on

**S**un and IBM have dropped support for the JavaOS operating system in a move at first interpreted as the death knell of the network computer (NC).

JavaOS was designed to run Java apps at an acceptable speed, but Sun says the performance is now adequate on standard operating systems.

Some analysts saw the move as the death of the NC, which was designed to run (usually) Java applications downloaded as needed from a server.

But one form of NC is flourishing – the Internet appliance. These are essentially thin-clients capable of running Java apps – an NC for the masses – and is expected to sell in billions.

Sun evidently thinks so, because shortly after the JavaOS deal it launched a revolutionary scheme to offer apps over the net – see *Tim Bajarín*, page 36

# Gates can't give his charity cash away

**G**iving money away can be almost as hard as making it, cyber-moguls have found. The Packard Foundation and the Gates Foundation suddenly have billions of dollars and are hard put to spend it fast enough.

The Bill and Melinda Gates Foundation, founded by the Microsoft chairman and his wife, has by law to spend at least five per cent of its funds each year. By the end of 1999, it will have paid out about \$500m, less than three per cent of its total worth of \$17.1bn.

It isn't in trouble yet, however, because it has not held the money all year. But few charities are big enough to spend that kind of money wisely and quickly. And few donor organisations are equipped to spend directly. Trevor

Neilson, spokesman for the Gates Foundation, says: "There are real challenges involved. It's easy to give money away. It's tough to do it right."

Things have changed since InfoSeek co-founder Steve Kirsch chastised Silicon Valley multi-millionaires for stinginess after he had to bail out the local branch of the charity United Way.

The Gates Foundation has ballooned and The Packard Foundation, fed by money from Hewlett-Packard, has reached \$11bn in four years.

Online auctioneer eBay suddenly has tens of millions of dollars to donate. And Kirsch, whose InfoSeek web company was bought by Disney, has set up a personal foundation endowed with some \$50m. **TIM BAJARIN**





## short stories

### USB 2.0 SPEEDS ON

New USB 2.0 ports expected to ship late next year will run as fast as 480Mbit/sec – two to three times faster than originally announced, and 40 times faster than today's USB 1.1 ports.

The increase, announced at the recent Intel developers' forum, stems from the discovery that these faster speeds can be achieved with no additional cost or complexity.

It may slow deployment of the faster but more expensive 1394 port, used to carry fast data streams from video cameras and the like. The full spec will be unveiled in October.

[www.intel.com/design/idf/static](http://www.intel.com/design/idf/static)



### TAKING DVD IN HAND

Hi-Grade describes its thin UltraLite range as 'super-portable', weighing in at under 2Kg. The machines boast a 13.3in screen and swappable DVD module. Prices start at £1,200.

Hi-Grade 0181 532 6100;  
[www.higrade.com](http://www.higrade.com)

### SWITCH TO MANUAL

Online bookshops may be all the rage, but Pearson Education is trying to lure PC users back into high-street stores, where they can browse computer manuals to find the one which most suits their needs. Selected shops are also offering PCs as prizes.

### IMAGINATION IS BORN

Graphics specialist Videologic has changed its name to Imagination Technologies. However, the company will retain its Videologic and PowerVR brands.

## Prof cracks storage secret

**L**ow-cost, credit-card-sized disks holding 2.3 terabytes (2,300GB) could be available soon thanks to a breakthrough by a British professor.

The technology will transform computing if it lives up to even half of what the makers claim it can do. And its inventor, Professor Ted Williams, hardly lacks credibility: he is already well known as leader of the team that developed the magnetic resonance scanner, which has revolutionised brain research.

Williams is keeping quiet about details of his latest invention while patents are processed, but the product relies on the properties of a new family of alloys.

Storage is three-dimensional, with data distributed within the storage medium as well as across it. 'The only other people I know of who have succeeded with 3D storage is IBM. It did it by stacking five CDs on top of each other,' said Williams.

Read-writes are done optically as in a CD drive, which means there are moving parts. 'You have to get to the right sector and you have to get the focus

right,' said Williams, implying that variable focus is involved in the technology.

He said that access is 'slightly slower' than a hard disk, but predicted: 'This will take over from the hard disk.'

He has been working on the idea for 13 years, latterly under the auspices of the University of Keele, Staffs. Development was part-funded by a £1m grant from the Department of Trade and Industry, and venture capital came from CMR (Cavendish Management Resources).

CMR and Keele University have formed a joint venture called Keele High Density to exploit the technology. The

first prototypes are expected to appear in 2001, and production devices will cost as little as £35. 'The first ones are likely to cost rather more,' said Williams.

The technology could pack 100GB of data into a wrist watch, and could be used in video recorders, ebooks, home data-centre caches and digital cameras, as well as PCs. It involves innovations in the way data is held, scanned and erased. Williams agreed that it could make him a rich man. 'We are talking to some very big companies. We need a lot of money for development. At least £500,000,' he said.

## Forum seeks Rambus solutions

**M**emory companies have formed a forum to find ways to boost production and lower the cost of Rambus memory. Intel has backed the use of Direct RDRAM for next-generation computers, but many PC vendors are looking to rival P133 RAM because of supply problems.

Members of the new Intel-backed RDRAM Implementers' Forum include Hyundai, Micron, Infineon Technologies, NEC, Samsung, Toshiba and Rambus.

The group will also be responsible for approving changes to the RDRAM specification. The move has been endorsed by both Compaq and Dell. Ken Willett, vice-president at Compaq, said it would help the deployment of 'innovative, high-quality, industry-standard memory'.

## Now docking at PortStation

**T**he latest idea to come from PC card specialist Xircom is called a PortStation. At heart, it is a USB hub, providing a theoretical 12Mbit/sec link to a laptop.

But the PortStation is modular, so that other ports and devices can be plugged into it. Early add-ons include



RS232 serial and parallel ports, Ethernet links, PS/2 keyboard and mouse, and even a 56K modem.

Starter kits will cost from £85 ex VAT, with modules costing from £10 to £95. In the long term Xircom hopes third parties may also offer modules for use with the PortStation.

Xircom 01256 332 552;  
[www.xircom.com](http://www.xircom.com)

# Psion sizes up the competition

Clive Akass looks at Psion's new Series 7 and Netbook mobiles, which **expand Epoc's horizons** and challenge Windows CE.

**P**sion has finally launched the mini-notebook we featured earlier this year in our report on the Cebit show, where it was a nameless prototype hidden in one of the drearier recesses of a hall dedicated to business computing. We wondered then why Psion was targeting only the corporate market and we weren't the only ones.

There was such a rush of requests, Psion decided to launch a high-street version in the form of the Series 7. The NetBook, launched at the same time, is outwardly identical but has features tailored for corporate needs.

The machines are essentially the Series 5mx in a larger format. They use the same Epoc32 5.0 operating system and all Psion's applications will run on them, although some third-party ones may need tweaking because of the larger colour screen. They will also run Java apps, if you choose to load the rather hefty Java Virtual Machine (JVM).

The Series 7, at £699 inc VAT, was designed with an eye to keeping the price down: its StrongARM processor runs at 100MHz, its applications suite (including a browser, but not the JVM) comes on ROM, and it comes with 16MB of RAM upgradeable to 32MB.

The NetBook costs £799 ex VAT. Its StrongARM runs at 199MHz, and its

application suite is loaded into a standard 32MB of RAM, upgradeable to 64MB. This gives companies the flexibility to choose which applications to load – with the JVM, they occupy 14MB. You can boot off a supplied Compact Flash card if you lose the contents of your RAM.

Both machines are aimed at mobile users for whom notebooks are too large, and palmtops too small. Both weigh just over 1kg apiece and boast a 7.7in VGA STN colour screen which can be driven by pen or keyboard. Their leather-clad 23.5 x 18.2 x 3.7cm clamshell case retains the stylish look that has become Psion's hallmark.

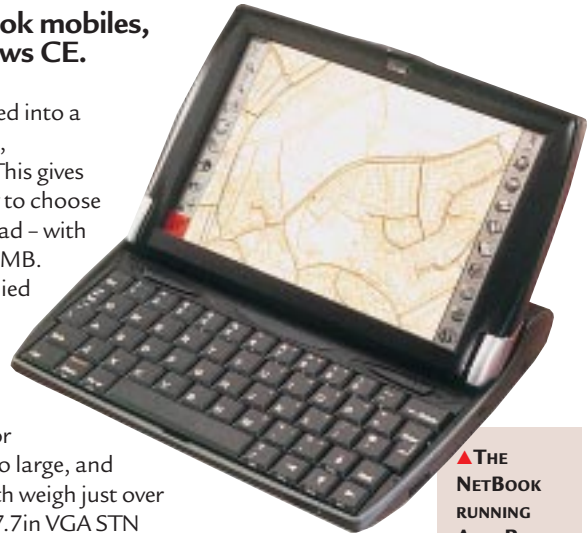
The rechargeable Lithium-Ion batteries last a claimed 8.5 hours, a figure Psion hopes to boost to 11 hours.

The base of the machines can connect with an optional docking station. Around the rim of the case are a 4Mbit/sec infra-red port (which can exchange electronic business cards with the likes of the Palm Pilot), an RS232 serial port, a PC Card Type II slot, and a Compact Flash II slot which can take a 170MB or 340MB IBM Microdrive (and 224MB CFII Flash RAM modules could be available by the end of this year).

What the slot can't use, because it will work only with its lid shut, are devices which stick out at the end, like Xircom's CFII-based Ethernet link. Psion says this may change in later models.

There is no internal modem – to keep down the price, and maximise flexibility, according to Psion. Drivers are available for Psion Dacom PC Card modems, and other major brands will be supported.

There is a flaw in the case design: a raised ridge at the edge of the keyboard, which ensures a tight fit with the lid, is not recessed at the space bar. This sounds a small point, but if you use your thumb to strike a space it can make typing excruciating because the joint is



▲ THE NETBOOK RUNNING AUTOROUTE

forever hitting the ridge.

It's an old and common fault in handheld designs, easily avoided, and Psion should have known better (particularly as your humble reporter warned the company about it after Cebit). This is a pity because the keyboard, surely the major reason for choosing this model rather than a cheaper palmtop, is otherwise very good.

These machines are up against similar Windows CE-based models such as HP's Jornada 820e. Many believe Epoc32 to be the better operating system, and it will certainly go down well with the anything-but-Microsoft market. Neither OS runs full Windows apps, although both offer file compatibility and easy synchronisation.

CE has a greater market momentum, and more applications are being developed for it; but this may change as the Symbian venture, launched with leading mobile phone vendors to develop Epoc, gathers pace. Psion was writing pocket software long before Microsoft, and bequeathed Symbian a mature development environment for the vital task of tailoring software to corporate needs.

Sales of both CE and Epoc minis are likely to be hit by the emergence of only slightly more expensive (albeit heavier and with a shorter battery life) Win98 mini-notebooks. If the Psions had come out a year ago they would have been sure of success. They have a much harder market to crack now.



◀ THE SCREEN CAN BE PEN-DRIVEN

# Net for free with British Library

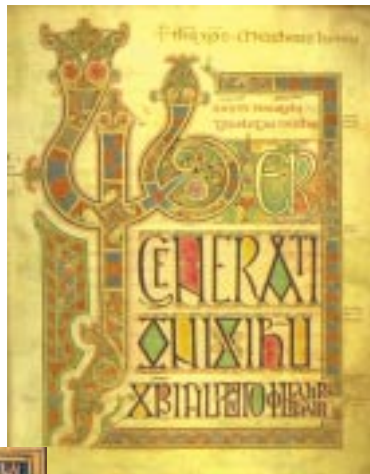
**T**he British Library has become the first public-owned organisation to offer a fee-free net access service – providing, incidentally, a prestige domain for email addresses and websites.

The library has been criticised for lagging behind the likes of the US Library of Congress in providing online access to its collection. But finance has been a running sore, with its just-completed £511m building at St Pancras, London, going over-budget to the tune of no less than £479m.

In fact, much of the income that the grant-aided library generates comes from new media in the form of CD-ROMs – it has resisted introducing entrance fees. A suggestion that the entire collection be

digitised as Britain's prestige millennium project sadly lost out to the Dome.

But the library says it is committed to putting more of its collection online and you can see classic works like the Lindisfarne Gospel at its existing website [www.bl.uk](http://www.bl.uk). You also get free access to OPAC, which has nine



▲ IN BITS... THE LINDISFARNE GOSPEL, DIGITISED AT THE BRITISH LIBRARY SITE

million references to archived literature.

Brian Kefford, online manager of the National Bibliographic Service, is responsible for the new access service at [www.britishlibrary.net](http://www.britishlibrary.net). 'We see it as providing a framework within which our web services can grow,' he said.

Users will get the usual free email address and web

space 'for non-commercial use'. He dismisses the possibility that people might use the library domain name for nefarious purposes – lending credibility to dodgy colleges offering useless courses to foreigners, for example. 'It's something we will have to watch out for. But it is really no different from someone using, say, the Tesco's name.'

Kefford himself does not think it worthwhile to digitise the entire library contents,

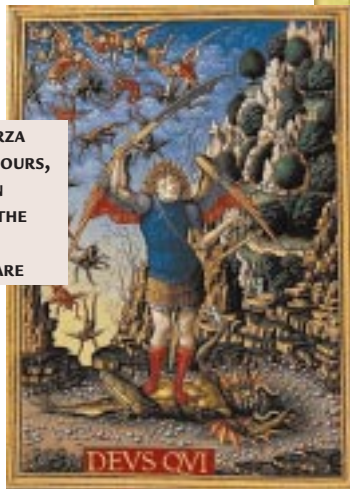
which would cost hundreds of millions (the Millennium Dome has a

projected cost of £758m). 'It would not be worth it,' he said. 'There are books here that no-one would look at.'

He predicts a huge increase in the online availability of learned journals. 'But people will have to come to the books, rather than the books going to the people.'

CLIVE AKASS

► THE SFORZA BOOK OF HOURS, CREATED IN MILAN AT THE TIME OF SHAKESPEARE



## Wireless costs less

**W**ireless keyboards that free users from the tyranny of the desktop could become mainstream with the launch of a low-cost range from Logitech.

They use radio at about

28MHz and so do not need to be in line of sight like current infra-red cordless models – although a diffuse IR standard is now in place. You can even use them with your back to the machine.

Prices for a keyboard and a scrollable cordless mouse start at £89.99 including VAT – street prices could be less. Logitech is also offering USB mice and a USB hub. It is extending its range of web cameras and force-feedback games controllers.



## Alpha Win2K dropped

**C**ompaq has dropped plans to port the next-generation 32bit Windows 2000 operating system (once known as NT 5.0) to its 64bit Alpha chip – although it will port the 64bit version.

Microsoft later issued a statement saying it would not support new NT development on any non-Intel architecture. However, it will continue to support Alpha-based NT 4.0.

Some analysts concluded that Compaq had decided the system overhead of running 32bit

software on a 64bit chip offset the advantages of using a fast processor.

But Compaq analyst Terry Shannon, citing a leaked memo, claimed the company had bowed to the 'realities of the marketplace'.

The memo went on: 'The decision in no way diminishes our strong partnership with Microsoft or our commitment to Alpha.'

Shannon said: 'The company is aware of the fine mess it has gotten itself into.'

VNU NEWSWIRE



## short stories

### FONT PIRATES

#### WALK THE PLANK

A CD containing more than 4,000 fonts has been removed from sale following a clampdown on pirated typefaces. The distributor, CD Wholesale of Milton Keynes, also agreed to pay undisclosed damages to Linotype Library.

The Library's general manager Bruno Steinert said the case was the tip of an iceberg. 'This product is typical of many hundreds on the market which blatantly include illegal copies of our typeface designs and names.'

### MERGED FUJITSU AND SIEMENS TARGETS UK

The newly-merged Fujitsu/Siemens computer company will target the UK market when it starts operations in October.

It will be run by two presidents: Winfried Hoffmann and Robert Hoog, who currently head up the Fujitsu and Siemens computer divisions. Hoffmann said UK sales will partly be over the net under a deal with BT. Executives were evasive in giving details about which products from each company would continue.

### EARLY XMAS CHEER

It's a bit early for Christmas cards, you may think. But when you get round to buying your cards, bear in mind a new site at [www.charitycards.com](http://www.charitycards.com). Major charities have made five of their best cards available at the site, and will receive 66 per cent of the proceeds, the company says.

### E-BANK OPENS

First-e, which claims to be Britain's first Internet-only bank, has invited people to open savings accounts in advance of its formal launch later this autumn. Details are at [www.first-e.com](http://www.first-e.com).

## Royal Mail postpones e-stamps

The Royal Mail is holding back from implementing 'Internet stamps', which customers can print themselves after ordering online, because it fears for the future of Britain's post offices.

Executives from California-based Stamps.com are preparing to launch an e-stamp system in London. It allows you to buy postage online by credit card or electronic-cash transfer and print it on envelopes at the same time as names and addresses. The 'stamps' are encoded to avoid fraud.

A Royal Mail spokesman said there are 'no concrete plans' to implement Internet stamps. But he added: 'It is no secret that we have spoken to people, and we are watching the market closely, listening to what our customers are saying. If we think our customers like the idea we may go ahead.'

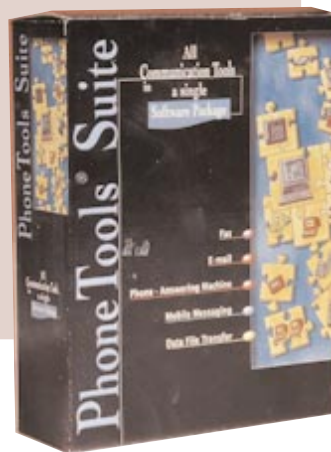
He continued: 'We have 19,000 post office branches and a sizeable proportion of their business is in stamp sales. We would have to think very carefully before doing

## Comms combo arrives

Unified messaging – routing voice, fax and email through the same system – is usually associated with big corporate systems, though packages like SuperVoice have offered something like it to home and small office users. The latest product in this area comes from UK messaging specialist Kommunicate.

Its Phone Tools Suite includes voice, fax and mail functions. It also offers scripting and the kind of facilities found in a traditional comms package: file transfer using protocols like Xmodem and Zmodem, and terminal emulation. It costs £77 plus VAT from [www.kommunicate.co.uk](http://www.kommunicate.co.uk)

Kommunicate 01962 835000



anything that might threaten their survival.'

Stamps.com chief executive John Payne said the company had created an international licensing programme 'to help postal services around the world seize the opportunities of the new millennium without having to break the bank on research and development spending'.

The Stamps.com system will integrate with major

address books and word processors such as Microsoft Word and Outlook.

Recent Royal Mail experience belies the idea that the new conquers all. The use of email and fax may be booming, but so is snail mail. 'We are moving more letters than ever,' said the Royal Mail spokesman.

## Call in the System Mechanic

PCW readers will know the downside of trying a lot of programs. Your machine gets sclerotic as memory, disks and even your processor become clogged by the detritus of dead applications.

One of my machines had slowed to a complete crawl until I tried System Mechanic, a £49.95 (inc VAT) set of 10 utilities sold by POW! It took a



snapshot of my existing system, then listed and (with my permission) removed hundreds of files I didn't need. Better still, it did the same

with routines loaded at start-up that had been wasting my memory and processing power for months. The effect

RELEASE THE  
HANDBRAKE ON  
YOUR PC WITH  
SYSTEM  
MECHANIC

on the PC was as if I had released the handbrake. Touch

wood, I have yet to notice the absence of any vital file.

CLIVE AKASS

POW! 01202 716726;  
[www.pow-dist.co.uk](http://www.pow-dist.co.uk)

# AOL joins fee-free skirmish

**A**OL Europe has finally caved in to pressure from Freeserve and its clones by launching its own fee-free web service, called Netscape Online.

Freeserve quickly ousted AOL as the UK's biggest service provider, but AOL still claims to be the biggest ISP in Europe, with a total of 2.67 million subscribers to its two existing services, AOL and Compuserve.

AOL estimates it has more than 6.7 million users, including multiple line use. Taking into account its Instant Messaging Utility – which is also open to Lotus Notes users – it reckons it has contact with no less than one in three of Europe's estimated 34 million users.

Paid-for services have been quiet about the level of defections to free services,



► SCHMIDT: A NEW SLICE OF THE PIE

but VirginNet reacted sharply to Freeserve by offering a fee-free option. AOL cut its monthly charge from £16.95 to £9.99 in May.

Executives at the Netscape Online launch insisted valiantly – if implausibly – that users would not drift from its subscription services. Andreas Schmidt, head of AOL Europe,

said AOL appealed to families and Compuserve to business people and other professionals.

Netscape Online, he said, was designed to appeal to the young do-it-yourself user, by which he apparently meant those willing to get themselves online. 'We don't expect much switching over; this is a new slice of the pie,' he said.

Karen Thomson, managing director of AOL UK, said

fee-free subscribers would not have access to content on AOL or Compuserve: 'Some content providers will have a presence on all three. But they will not necessarily offer the same content to each service.'

AOL bought browser pioneer Netscape last year and the merged company has been tipped as a counterweight to the might of Microsoft. Bill Gates has cited AOL-Netscape as proof that Microsoft does not have a monopoly.

Subscribers will receive Netscape's latest browser and email client, Netscape Composer, for designing web pages, and 20MB of free web space. Sign-on packs will be available, among other places, at Woolworth.

## New service has ad enough

A new fee-free service called Wowstars claims to be the first portal to offer a customisable, ad-free home page. Wowstars chief executive, Noel Adams-Tate, said: 'People are becoming very resistant to the idea of ads on the web. I think we are moving on to other business models.' The service is financed partly by a cut of the connect charge and partly by e-commerce deals. You can sign on at [www.wowstars.com](http://www.wowstars.com)

## And now it's time for URLs for the girls

**T**he image of net users as hairy geeks did not long survive the arrival of the graphical browser, and web demographics have been broadening by the day. Now UK sites are opening that are targeted specifically at women. Cable & Wireless has launched



[www.connectwomen.com](http://www.connectwomen.com), aimed at first-time users. On 1st October it is holding an online

coffee morning in aid of Macmillan Cancer Relief. Associated Newspapers, publisher of the *Daily Mail*, which has a high proportion of female readers, opens a women-oriented site called [charlottestreet.com](http://charlottestreet.com) at the end of September.

## short stories

### TERRAPIN ALLOWS WEB SHARING

Low-cost software that will allow small networks to share an Internet connection has been launched by UK net specialist Terrapin. MultiNet acts as both an email server and proxy server, allowing full control of who has what access to the net. Any number of email addresses can be supported. Terrapin, best known for its FTP client, says MultiNet can be used by just a few users or many hundreds. A base licence for 20 users costs £199 plus VAT.

[www.tpin.com](http://www.tpin.com)  
01423 530 8650

### ALL TOOLED UP

A site at [www.webtoolpro.com](http://www.webtoolpro.com) offers not only to host your web pages but also provides tools for you to design them. It's not the first of its kind: graphics company Xara has launched a similar idea at [www.zy.co.uk](http://www.zy.co.uk)

### FAULT ALERT

Packard Bell says it will replace a mains adaptor used to power speakers with the Packard Bell Club 40B PC and PB 1015 monitor. Trading Standards officers in North Yorkshire found that some of the adaptors, labelled DV-91AUPDDVE, have a faulty earth connection. Fault hotline 0800 9759998

### MACROS ON TAP

A new version of Macro Express 2000, which creates Win9x and NT macros to automate repetitive tasks, supports text, integer and decimal variables, if-then-else logic and text processing. Other features include message logging and floating menus. It costs \$34.95 from Insight Software Solutions at [www.macros.com](http://www.macros.com)

### SLIPPERY CUSTOMERS

A new site at [www.skipages.com](http://www.skipages.com) is aimed at helping people book their skiing holidays this winter.



## Software out of thin air

Tim Bajarin asks if the first downloadable office suite heralds a software future of virtual products.

Sun's purchase of StarOffice from German company Star Division is an important strategic investment. StarOffice includes a word processor, spreadsheet, graphics editor and other software similar to Microsoft Office. It is available for Windows, Linux, IBM's OS/2 and Sun's Solaris. The suite will be available for free download and will also be available for use from within a web browser.

Microsoft, interestingly, responded to the acquisition by saying it was not threatened. And Sun executives stressed that they were not about to go the way of Corel or IBM, which, with WordPerfect and Lotus SmartSuite respectively, have lost the battle of the desktops to Microsoft Office.

Sun's plan is to ship 100,000 copies of StarOffice to schools around North America. The 65MB suite is big to download, so the basic software on CD will be available for \$9.95 (£6.22) or \$39.95 (£24.96) for a deluxe version with a manual. America Online may put StarOffice on its CD. And computer vendors such as IBM, Compaq, Dell and Gateway will be allowed to bundle it with PCs at no cost.

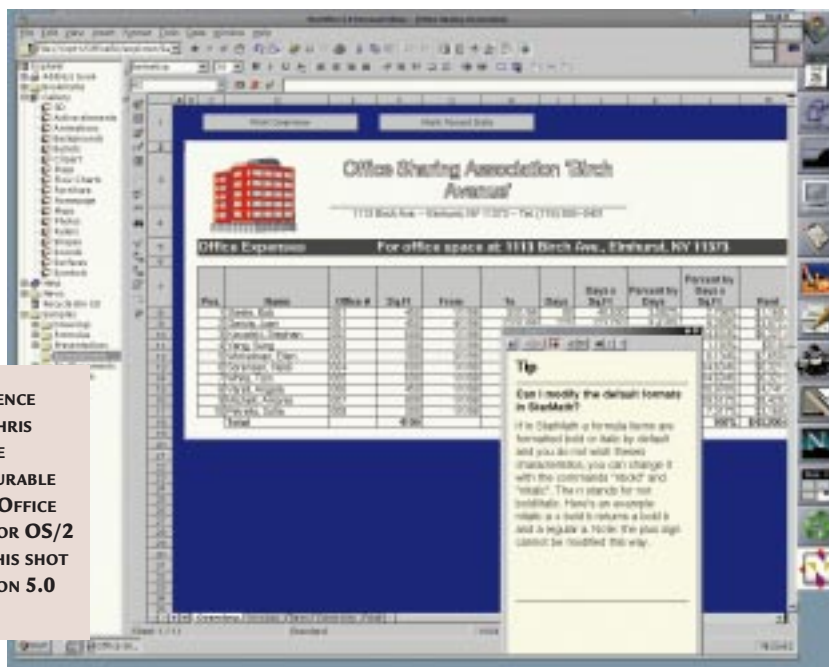
Sun will create a StarPortal from which users will be able to use the suite and even access their files. It will also work with access providers, software vendors and others to integrate the StarPortal service into their offerings, however they wish to market it.

Developers could integrate pieces of StarPortal's web-based word processor and spreadsheet into their products. Sun would provide source code for further development by the open source industry.

According to Sun, 27 companies have agreed to support the StarPortal initiative. They include AT&T, AOL, EarthLink, and Linux houses Red Hat, Caldera and Linuxcare.

The move is a bid to shake Microsoft's lock on the suite market, but it has implications for the future of the web. All software will develop from

► PCW'S TERENCE GREEN AND CHRIS BIDMEAD HAVE TAKEN A FAVOURABLE LOOK AT STAROFFICE RESPECTIVELY FOR OS/2 AND LINUX. THIS SHOT IS FROM VERSION 5.0 FOR LINUX



## Law of the jungle takes root online

As online trading **pushes down prices**, Jungle.com hopes to beat off US firms and make a killing.

**S**teve Bennett, founder of the Software Warehouse chain, has made a £7.5m assault on the web to stave off an expected wave of US online vendors – and to join the rush of people hoping to profit from wild market valuations of net businesses. The move is part of a trend that could have profound effects on magazines and newspapers.

Bennett's company was one of the first in the UK to sell software and other kit online at [www.software-warehouse.com](http://www.software-warehouse.com). But as the online market forces down prices, he cannot afford to sell online at the same prices he charges on the high street.

So he has set up a new site at [www.jungle.com](http://www.jungle.com) – in competition with his own shops. Online prices will be cheaper, but buyers will not have the advantages of personal service or (in the case of hardware) immediate availability.

Bennett compares the move with British Airways' launch last year of the low-cost Go airline. 'BA prices were getting undercut by the small airlines and bucket shops but it could not afford to cut prices on its own services. So it formed Go to beat the smaller operators at their own game,' he said.

Jungle.com will sell CDs, videos, DVDs and games titles, as well as Software Warehouse's fare of PC products. The old site will stay in operation to give information on services and high-street sites but would-be purchasers will be directed to Jungle.com.

Visitors to Jungle.com will be encouraged to stay and return to the site with a selection of games, free



software and other attractions.

Bennett freely admits that he has half an eye on the fortunes made on some web start-ups that went public shortly after establishing a net presence. But unlike the many other prospectors who have joined the IPO (initial public offering) gold rush, he is likely to make money from the start – and to make sure, he is spending £7.5m on promotion, with backing from venture capitalists 3i. Some of the money will go on £3m worth of giveaways, with the aim of getting people used to ordering online.

Sites like Jungle.com will eventually have effects far beyond IT retail. If marketing and advertising spending shifts to the web, printed PC publications could be affected.

Some types of advertising, such as for jobs and holiday

homes, have already set up home on the

web; there are claims that response is better off the printed page but the web market has yet to mature.

Vendors are resisting the US fashion for 'bots', or software agents, which trawl IT vendor sites comparing prices – something, again, which could undermine the advertising revenue that sustains many publications. Bennett says all vendors deliberately use different product codes to make it difficult for bots to operate. 'The problem is that they take no account of support and warranties. Comparing on price alone does not give a fair picture,' he said.

Sceptics who doubt the impact of ecommerce should take a look at Dell's figures: sales up 42 per cent to \$6.1bn (£3.8bn); profit up 47 per

cent to \$507m, a rise not unconnected with the fact that 40 per cent of its sales, worth a staggering \$30m a day, were online.

All of which does not mean that magazines which are subsidised heavily by ads will disappear: most advertisers sell online as well as off the page. Bennett reckons he will need half as many PCW pages in three years' time. And, of course, magazines themselves will have a bigger web presence: hence the 1 October relaunch of PCW and its parent VNU site.

Paper is a hard act to beat, and people will still want to read print; but some publications will not be able to survive even a minor

revenue drift. If you fear for your favourite computer magazine, consider that radio was expected to kill

print, and TV was expected to kill radio; in fact radio is booming because people can listen to it while they work or drive; and both TV and radio boosted print sales because people want to read about what they saw or heard the day before.

Something even more complicated is happening with the web. It involves all the media, and will include new commercial relationships based on the peculiar power of web hyperlinks: at simplest, a site may take a cut of any transaction that originates from its pages. This extension of traditional advertising is only just beginning to evolve, and in truth no-one knows for sure how it will all pan out.

CLIVE AKASS

◀ **BENNETT HAS SET UP JUNGLE.COM IN DIRECT COMPETITION WITH HIS SOFTWARE WAREHOUSE STORES**

[www.jungle.com](http://www.jungle.com)  
[www.pcw.co.uk](http://www.pcw.co.uk)

Cath Everett reports on the SCO Forum in Santa Cruz and Linux World in San Jose

## linux shorts

### Linux 2.2 ready to roll

Linus Torvalds, the original developer of Linux, announced that version 2.2 of the kernel has been sent to the publishers. New features include bug fixes and security updates, drivers for devices such as Compaq disk arrays, better USB support, and a symmetrical multi-processing (SMP) infrastructure.

Version 2.4 was also only two weeks away from a tentative feature freeze, Torvalds said, but it would probably not be released for at least four months. It will include full SMP support, better resource allocation, a journaled file system, as well as support for power management, DVD, ISA sound and PCMCIA cards. It will also incorporate a kernel web server.

### Delphi heads for port

The Delphi programming environment may be ported to Linux following a survey of its users, developer Inprise says. It may also port its C++ Builder rapid development tool.

The survey showed that more than four out of five users were interested in using Delphi to build Linux apps. More than two in five would prefer to use C++ Builder for the same purpose. However, only 11.9 per cent were considering Java.

A surprising 32.6 per cent said they planned to switch most of their development work exclusively to Linux.

### VA plans IPO

VA Linux Systems plans to go public following the success of Linux vendor Red Hat's initial public offering (IPO). It also plans to move into Europe before the end of the year. Red Hat saw its offering price more than triple (from \$14 to \$52) on its first day of trading.

### Dell does requests

Dell is to ship Linux-based machines if customers request them, the company says.

## Corel gives Linux desk job

Corel has demonstrated its version of Linux – the first to be targeted at the Windows-dominated desktop market.

The Canadian vendor of CorelDraw and the WordPerfect suite, switched to Linux after ditching an expensive bid to port its applications to Java.

Many analysts see Linux as more suited to server use and unlikely to unseat Microsoft's Windows on the desktop.

But Corel's product

development manager Erich Forler, demonstrating the new distribution at Linux World, said the company aimed to build a version that was easy to use, install and integrate into Windows environments.

He said Corel Linux, which is based on the Debian/GNU distribution, might appeal to businesses as a cheap alternative to Unix, as well as to enthusiasts. It includes an enhanced version of the Windows-like KDE GUI.

Forler said enhancements will be handed back to the open source community under the terms of the firm's licensing agreement.

A beta version is due to ship as PCW hits the stores, with general availability promised for later this year. It will be sold both as a standalone product for less than \$100 (£63), or bundled with the WordPerfect Office applications suite for Linux, which is expected to ship in early 2000.

## Choose your OS on a virtual platform

Windows under Linux – surely this is sacrilege? VMware doesn't seem to think so and by using its software you can run any operating system you like within a virtual machine.

VMware provides a Virtual Platform complete with its own BIOS. Display, input and network devices are provided via links to the host system. Once the 'machine' has booted, any operating system can then be installed on it.

VMware was originally developed for Linux but a Windows NT version is in the pipeline, currently undergoing beta testing.



Those who want to be really silly, can even run Linux under Linux.

[www.vmware.com](http://www.vmware.com)

WILL HEAD

## 64bit battle heats up

Intel chairman Andy Grove made a surprise appearance at Linux World to announce that source code for a 64bit Linux kernel would be available early next year – before his Merced 64bit debut chip ships.

Grove said that some eight operating systems, including Linux, would be available on 64-bit architecture (IA-64) and that Intel intends to set up centres worldwide where developers test its application code.

Meanwhile, IBM denied that its decision to join the Intel-inspired Trillium Project, which is porting Linux to IA-64, will clash with its Project Monterey, which is merging Unix variants from SCO, IBM and Sequent into a single IA-64 standard.

Jonathan Prial, director of IBM's Linux marketing, stressed: 'We're not entering an OS holy war... we'll let our customers decide.'

## SCO backs open source

The Santa Cruz Operation, father and mother of all Unix houses, is to help customers implement Linux systems if they decide the open-source operating system is a good choice.

But company president Doug Michel said SCO has no plans to bring out its own version of Linux. SCO's Unixware will now run Linux applications.

Michel, speaking to a SCO Forum user-group meeting in Santa Cruz, warned that untrue claims were made of Linux, which offered no detailed roadmap, accountability, copyright or patent protection.



# Amiga set to rise from the ashes

The Amiga is about to be reborn as a range of Linux boxes. PC vendor Gateway surprised many two years ago by buying the 14-year-old Amiga technology, developed by the now defunct Commodore Business Machines.

There has since been little

information about its future. But Amiga, which will operate as a Gateway subsidiary, has been busy finding staff – including a number of senior Apple executives – for a relaunch later this year.

Amiga president Jim Collas says Linux will be used as the kernel of a new Amiga

Operating Environment (AOE). The news created such a stir that Collas had to issue a statement urging the Amiga's fans to be patient.

AOE will run on information appliances such as Internet terminals, LCD tablets, set-top boxes and PCs. It will also run Java apps.

The Amiga Multimedia Convergence Computer (MCC), scheduled to ship in November, will have DVD, high-performance 3D graphics, Ethernet-based home networking, digital and analog video and audio ports, and USB.

JOHN GERALDS IN SILICON VALLEY

## Bar-code reader scans desktop space

Optical Character Recognition (OCR), unlike computer recognition of speech and handwriting, has been accurate enough for routine use with printed text for a long time. It is usually quicker to OCR a page and correct the result than to key in the contents again.

By comparison, bar-code readers may seem like primitive devices, redolent of warehouses and supermarket checkouts. Yet they provide a 100 per cent accurate interface between the printed page and the computer. And, as anyone who has tried to machine-read business cards will know, OCR is nowhere near as accurate on some tasks.

Symbol's CyberPen (*right*), designed by luxury pen specialist AT Cross, is an attempt to extend the use of bar-code readers to the desktop. It can read codes from catalogues, and costs £70 (plus VAT) in bulk – single purchases are rare.

Humble code readers like this could become even more important if technology from Xerox becomes widespread. For some time it has been sitting on what it calls DataGlyphs – data which is coded in an unobtrusive grey



► THE CYBERPEN FROM SYMBOL USES BAR-CODE TECHNOLOGY TO SCAN CATALOGUES

pattern and is readable by any greyscale scanner.

They are used in what are called Xerox Working

Documents, to communicate with computers, printers or scanners during processing. Invoices, for instance, may include glyphed customer information with processing instructions.

But DataGlyphs could also be used to print web addresses (which often confuse OCR programs) on business cards, simultaneously appearing in a standard and a machine-readable form.

Xerox, uniquely for a US company, has a reputation for hiding its light under a bushel. It famously gave away the GUI developed at its PARC research centre in Silicon Valley. This raises the question of whether DataGlyphs will go the same way – a good idea whose full potential is developed elsewhere.

But the company has yet another ace up its sleeve: a material which has the potential to combine the advantages of paper and screen.

CLIVE AKASS

Symbol Technologies 0118 945 700

## NatSemi on speaking terms with Lernout and Hauspie

Chipmaker National Semiconductor has joined forces with speech-recognition specialist Lernout and Hauspie to develop voice-activated appliances. The two signed a co-operation deal just weeks after NatSemi's launch of its Geode

system-on-a-chip, the first of a range which tailors PC-processor architecture to specialist devices.

NatSemi chief Brian Halla said: 'Soon it won't be necessary for us to modify our behaviour in order to communicate with machines.'

He predicted: 'Children born today might never use a keyboard.'

L&H has prototyped various speech applications including voice-driven apps and even translators, allowing people speaking different languages to talk to each other.

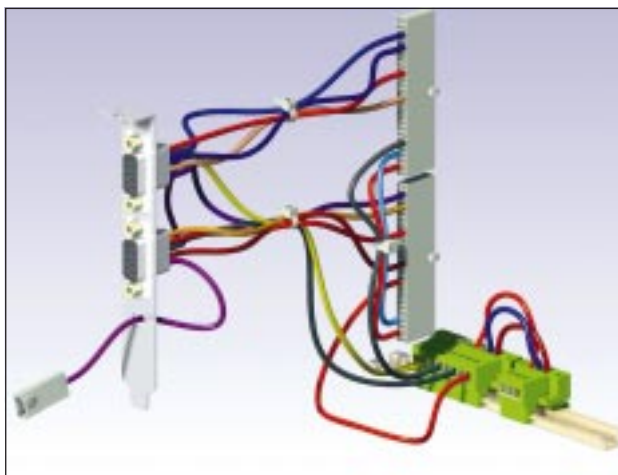
# Vendors fight for top draw

**D**rawing packages have never quite matched the paper and pencil way of sketching out ideas. Visio came close with SmartShapes and quickly captured the lion's share of the large and growing market for easy-to-use drawing software.

The company quickly outflanked Autodesk, which dominates professional drawing with its expensive and hard-to-use AutoCAD range. Autodesk has since produced various packages in a bid to head off its rival, most recently with the UK launch of Actrix, which has yet to register big sales.

Autodesk's AutoCAD LT 2000 is aimed at the more demanding user with a need for 2D drafting – though the company says non-experts can use it too. Naturally, it claims better compatibility with its big brother – as it is based on the fully revamped AutoCAD 2000. Autodesk claims it is 10 per cent faster than the previous version. It costs £595 ex VAT or £99 as an LT 98 upgrade.

Autodesk has also launched a low-cost version of Actrix, designed for business diagramming – another big market for Visio. The launch coincides with the shipping of the latest Visio 2000 standard edition, which



A wiring drawing in the SolidWorks99 package by Cadtek, which now offers the complementary design-analysis tool COSMOS/Works 5.0. [www.cadtek.com](http://www.cadtek.com)

focuses on diagramming. At around £60 it is less than half the price of Visio 2000, though we have yet to compare it on features.

Visio 2000 (£125 ex VAT) boasts a totally revamped engine. The design concentrates on usability rather than new features (although one welcome addition is context-sensitive dimension boxes) and the result is a look and feel close to Microsoft Office apps.

The standard edition focuses on diagramming and office layouts; the Technical and Enterprise editions, including more technical drawing features, will follow.

Oddly for such a mature product, Visio 2000 retains one glaring omission. The diagramming facilities do not auto-adjust if you want to insert a new node. If you are charting the logic of a program, for instance, and wish to insert a new decision branch, you would have to select everything beyond the node and drag it apart to create space.

It's a small point, but one that makes all the difference between a straight charting tool and a brainstorming aid.

CLIVE AKASS

Autodesk 01483 462600  
Visio 01372 847 800



## NetSiren's call to parents

When you consider that sirens in Greek legend lured sailors to rocky disaster, the mind boggles at what a company called NetSiren might get up to. It turns out that NetSiren produces software to keep little boys away from the dangerous sight of, well... net sirens. A product called UC2 will bring up a list of all sites visited recently, show any downloaded pictures and monitor emails. All of which is nothing that can't be done using your browser and email client, you might think. But UC2's log is independent of the browser and is password-protected, so it can't be erased. It costs £29 ex VAT.

NetSiren 0207 2423 0523 [www.netsiren.com](http://www.netsiren.com)

## short stories



► This portable CD drive from Portable Add-ons costs £199 ex VAT and connects to a notebook via a Type II PC Card. Portable Add-ons 01256 361333

### ► DRIVE AND TAKE THE BUS

Fujitsu has launched a Magneto-Optical drive, which takes removable 1.3Gbit cartridges and uses the 1394 bus – for use on both Apple G3 and 1394-enabled PCs.

Fujitsu 0181 573 4444

### ► APPLE BITES EMACHINES

Apple has slapped a lawsuit on low-cost PC vendor eMachines, for selling what it claims is an iMac look-alike. The move comes just weeks after it launched a similar suit against a vendor called Future Power and its owners Daewoo.

### ► GATEWAY TO THE UK

PC vendor Gateway, which has traditionally run its UK sales and support from Ireland, has opened its first office in Britain. The office in Uxbridge, Middlesex, will house 25 staff.

There are fears in Ireland that US IT companies will drift away, as EC money which fuelled a mini boom there moves to poorer countries in Eastern Europe. But a spokesperson for Gateway said the new office reflected only an expansion of UK operations.

### ► HAVING A BALL

Callers to Dell's support line were startled to hear a female Irish voice announce that option four on the business sales option was for testicle support. It was, no doubt, a fault of the voice compression software – it could hardly be a slip of the tongue.