letters

LETTER OF THE MONTH

Two disks are better than one

I think it's about time *PCW* used some of its influence to bring about a change to the specification of new PCs. New computers currently ship with anything up to 25Gb hard drives, but backup solutions remain very expensive, almost always costing more than a second hard drive.

The solution for all of us, except perhaps those with 'mission-critical' data, where the only real solution is off-site backup, is a system with two hard drives. In my own system I have two SCSI drives, although they're admittedly small, at just 4Gb and 2Gb.

Dealers could sell systems at all price points with two hard drives: entry-level with two 3.2Gb drives instead of one 6.4Gb drive; mid-range with two 6.4Gb drives instead of a 10 or 12Gb drive; and high-end with two 12-plusGb drives The systems could be set up for three types of user. For the first-time buyer, both discs would be set up as mirror images so that in the event of hard-drive failure or the user messing up the system, a complete backup is at hand. For the average user, the second disk would store duplicate copies of critical window files and personal data, and would be backed up continuously or at specified times.

For the expert user, the two discs could possibly be used to dual-boot Windows and, say, Linux.

Time for the cry to go out, 'Two discs for old!'.

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WHAT'S IN A DOMAIN NAME?

Reading ChipChat [*PCW, June 1999*] has reminded me of the old problem of being bounced to a domain name registration company when trying to find a URL.

If you go to one of the sites using the name that you wanted, for example, www.AndyNorth.co.uk, you'll find that you are led to www.domains.co.uk which, for a regular fee, will sell it to you.

Affluent, forward-thinking individuals or companies have bought up thousands of names and are then selling them on for £50 per year or more. Nominet and other companies of that kind serve only as a database of names. No regulation is enforced, and the chances are that these purchasers have lashed out £100 to

Nominet and are sitting on the name, waiting to sell it on.

Thousands of names are being registered every week. I wonder if real websites are actually being set up for these names? Can this be stopped?

ANDREW NORTH
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Nigel Whitfield replies >

Unfortunately it's hard to see how a lot of cybersquatting can be stopped. Of course, when it's a trademark or a company name involved, there are clear legal remedies. But how would you stop people registering similar names? You can't require people to produce a birth certificate to register a domain like AndyNorth.co.uk. And similarly, while you could insist that a web page be set up within a certain amount of time, what of those people who are simply planning ahead for a new publicity drive?

Yes, it's annoying. But outside the areas of trademarks and company names, where there's a clear concept of ownership, it seems there's little that can be done — unless you want organisations such as Nominet to be mired in thousands of lawsuits.

...letters

CELERONS IN SHORT SUPPLY

Your article on PC upgrades [*PCW May 99*] was timely. My eldest son was struggling with his old x486, and having read your piece on Celeron PCs, which now give better price/performance than a PII and in SEPP (Slot 1) form provide an upgrade path to Pentium III, I decided to build a Celeron system.

I thought it would be easy: get a Slot 1 motherboard, stick in a Celeron 366 and we're off. Very few of your advertisers had any SEPP Celerons in stock, only Socket 370s. When I checked their websites, no SEPP Celerons were available. So I called them: still none. I was told that Intel no longer produces the Celeron in SEPP form, only as Socket 370. Is this true? No more SEPP Celerons? What happened to all that upgradeability? Is my choice the Pentium II or Pentium III only?

JIM BIRRELL
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Intel replies > *As the Socket 370 offers the potential for further cost saving (over SEPP) when building a PC, the majority of Intel's customers — PC manufacturers — are now moving to the lower-cost Socket 370 packaging. We expect to be 100 percent transitioned during 1999. We continue to manufacture most Celeron processors in both Socket 370 and SEPP formats; however, our manufacturing capacity is moving towards Socket 370 in line with the demand from our customers.*

An additional point to remember is that Pentium III processor PCs today employ 100MHz-based motherboards and memory. Intel Celeron processor based PCs (Socket 370 or SEPP) typically use 66MHz-based motherboards and memory.

GRAHAM PALMER, INTEL PRESS PUBLIC RELATIONS MANAGER

CHEAP PRINTER, SHAME ABOUT THE INK

I recently bought an Epson Stylus Colour 640 printer and a packet of 500 sheets of paper. I wasn't even halfway through the pack of paper when the black ink cartridge ran out. I'd been printing just text. I had to part with £18 for a new Epson cartridge. This means it costs me 7p per sheet for the ink — about 10 times as much as the paper. The 640's colour output is of a good quality, but looks as if it will work out expensive. The ink level 'fuel gauge', which has proved very accurate, shows I've used up about one third of my £20 colour cartridge on approximately 12 colour images of less than A4.

My local computer dealer admitted the truth: we're being ripped off on supplies to subsidise cheaper printers. It would be useful if, in your printer reviews, you'd present some real cost-of-ownership figures.

SIMON CROFT sibez@hafod.u-net.com

Nik Rawlinson replies > *Your supplier was indeed correct when he said that the relatively high cost of ink supplies subsidises printer prices, similar to the way that your phone calls subsidise the cost of a cheap mobile phone. We'll be looking at the cost of printing in our forthcoming inkjets group*

test to be published in our October issue (on sale Thursday 26th August).

Epson replies > *The cost per black-and-white printed sheet on the Epson Stylus Colour 640 is 2.1p per page, compared to 4.8p for a colour page. Epson's research confirms that the yield for the black double cartridge is 1080 pages, and 300 pages for colour (based on a 5% coverage). The cost of consumables does not subsidise the cost of the printers. Rather, by using premium-quality consumables such as Epson ink cartridges and paper, Epson users can attain the highest standards of print quality. With regard to the pricing of cartridges, it is necessary to cover the cost of Research & Development, sophisticated robotic manufacturing equipment, and a state-of-the-art clean room factory with highly trained operators. The materials used are top quality, and the process involves stringent quality testing with very tight tolerances. Epson agrees with Mr Croft. Consumers need accurate cost-of-ownership figures alongside product reviews, and welcomes greater analysis.*

CLARE STIMSON, CONSUMABLES PRODUCT MANAGER

K6-2 REVIEW FINDS ITS OWN LEVEL

Could you please clarify Ian Robson's review of the K6-III 450MHz [*PCW May*], in particular the section relating to cache. The review states: 'The K6-2's Achilles heel was that its restricted Level 2 cache was forced to run at the speed of the front-side bus.' Of course the L-2 cache runs at this speed: it's on the motherboard.

The review goes on to state: 'AMD is able to squeeze a full 256Kb of on-board cache directly onto the processor die. It may be only half its original size.' The original size of what? Finally, the reviewer says: 'Because the ceramic pin grid array package…contained a Level 2 cache off-die, any other Level 2 cache would be ignored.' Is Ian suggesting that the K6-2's 'off-die' Level 2 cache overrides the motherboard cache?

To my understanding, the K6-2 has 64Kb of Level 1 cache on the CPU die, running at CPU speed. That's it. Any Level 2 cache that exists within the system resides on the motherboard and runs at the front-side bus speed. It has nothing, directly, to do with the CPU at all.

CHRISTOPHER HEARSON

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Ian Robson replies > *When reviewing the K6-III it was necessary to point out the main improvement over the K6-2: the Level 2 cache speed. The review focused on the fact that it is fixed at the front-side bus speed*

(generally 100MHz), regardless of where the cache is positioned. When the original K6-2 was released, the Level 2 cache on the motherboard was limited to 512Kb because that is all the current Super7 boards would support. So the comment 'half its original size' refers to the 256Kb on-die L2 cache on the K6-III, compared to the 512Kb of L2 cache supported on the original K6-2 Super7 motherboards.

The final criticism is a fair point. To clarify, the K6-2 indeed has indeed only a Level 1 cache, and any Level 2 cache utilised is on the motherboard. However, the K6-III runs a core speed Level 2 cache and will use any cache on the motherboard as a third-level cache, although it will run at the front-side bus speed. This still gives dramatic performance improvements over AMD K6-2.
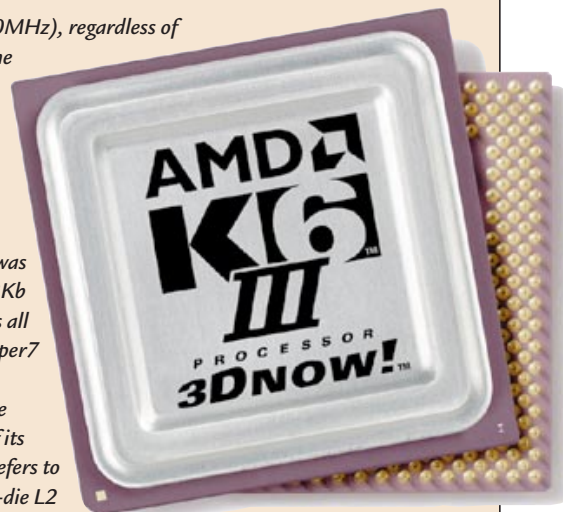
THE TROUBLE WITH ZIP DISKS

I have a problem with Iomega Zip disks. They say you can store 100Mb on them, but when you format the disk, you only get 95.7Mb, whether under Windows 3.1, 95, 98 or NT. I've made sure that the disks are formatted without the copy system info option.

So, why does Iomega claim on its website that you can carry 100Mb chunks of data on each drive?

RISHI SHAH

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Iomega replies >

Every disk, including Iomega's high-capacity removable disks, works using a File Allocation Table (FAT). The FAT sits, invisibly, on a disk and tells the computer where on the disk each particular piece of data is stored. This disk administration facility (think of it as a piece of software) takes up some of the space on the disk— and the disk wouldn't work without it.

The bigger the disk, the worse it gets. For instance, an 8Gb hard-disk drive would give you only 7.6 Gb for data.

The confusion lies in the difference between the capacity of the disk for 'raw' data (i.e. a 100Mb Zip disk) and the space left after the disk has been formatted for use (95.7Mb). To confuse matters still further, a computer counts in bytes which, unfortunately, don't equal one. Therefore, 1Kb is in actual fact 1024 bytes, so even though your disk says 95.7Mb, it actually contains 100,431,872 bytes.

ADVANCED SUPPORT GROUP, IOMEGA EUROPE