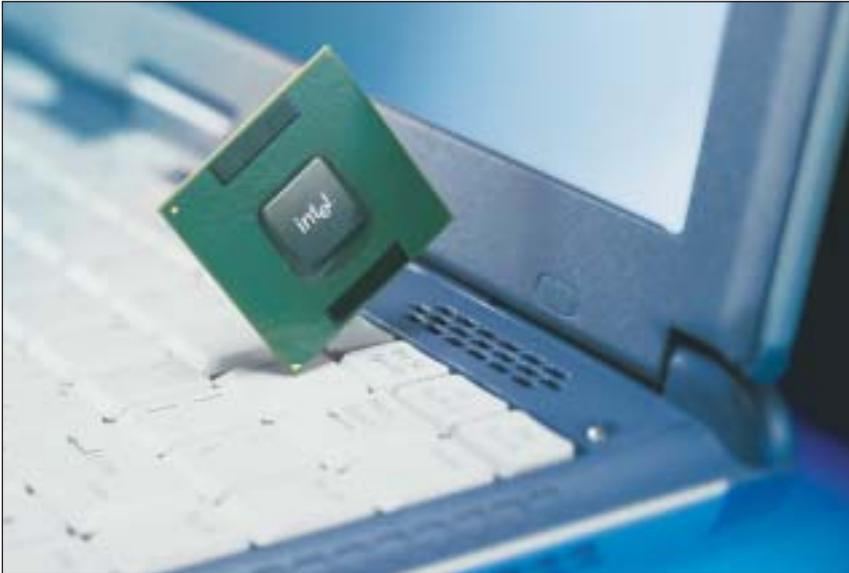


intel goes banias

With its current brood of bulky, juice-sapping mobile processors, chip maker Intel's new arrival is set to be a cuckoo in the nest as far as Pentium 4M is concerned, says Will Head



If you've not heard about Intel's latest mobile processor then don't worry – soon you won't be able to move for talk of Centrino. Previously codenamed Banias, Intel's new mobile processor and core of Centrino, is set to be big. A bit too big if the chip maker isn't careful.

With Pentium III topping out at 1.2GHz the next step if you want performance is Intel's power-hungry Pentium 4 Mobile (or P4M). Sure, it provides the necessary oomph in terms of megahertz, but you'll pay for it in bulk and battery life.

P4M was modelled on the image of its elder brother, the Pentium 4 – designed for an environment where heat and power consumption are secondary to performance and speed. P4M did its best, but it wasn't suited to the thin or ultra-portable end of the notebook market.

If that was where you wanted to shop then you were stuck with the ageing Pentium III architecture which, despite the odd tweak here or there, was rapidly running out of breath.

Bananas for Banias

Obviously P4M was a necessity – without it Intel wouldn't have had a processor for the power-hungry users – but it's now looking a little left out in the cold with the arrival of Banias. Just to get things clear: the processor formally known as Banias will be

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called Pentium M. The bit you'll hear all the shouting about – Centrino – is the Pentium M chip with extras.

Intel, in its infinite wisdom, has decided that the Centrino brand (Centrino Mobile Technology to give it its full name) can only be applied to products that feature a Pentium M processor, the 855 mobile chipset, plus – and here's the killer – its Pro Wireless 2100 card.

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By losing the number, Pentium M on its own sounds a little weak. Bolt on the chipset and wireless card and you have Centrino – a far better sounding proposition. Only the deeply sceptical would suggest Pentium M lost its number to prevent it cannibalising P4M's market.

And by the look of things, it could easily just do that. We don't have performance scores yet, but if the indications we've seen are anything to go by then it's very, very good. Pentium M will launch at a lower clock speed than P4M but, thanks to some clever gubbins inside, should equal if not outperform it.

Double your cache

Pentium M doubles the cache of its predecessor to 1MB (cache is fast, expensive memory close to the processor that speeds up operations). It also uses bits from Pentiums III and 4 for branch prediction (a method of speeding up processing by predicting what will happen). Call it Pentium 3.5 or 7 depending on how you want to do the maths.

Depending on how you look at it, Centrino is either a complementary set of technologies designed to work in unison to enhance the life the mobile worker, or a marketing campaign cleverly designed to protect investment in existing chip manufacturing while extending Intel's lead over the competition.

Either way Pentium M is going to be big, whether you buy it with or without the Centrino baggage. ■

show and tell

CeBit is one of the largest IT trade expos in the world. To give you a taste of what will be on show in its Hanover halls this year, Wendy Brewer previews the 2003 exhibition

Since 1947 Hanover in Germany has played host to CeBit, a technology event which gives manufacturers the chance to tout their wares and show the world what they think the hot trends for the coming months will be.

This year's event should be no different, with thousands of exhibitors lined up. But the organisers will still have to contend with the general downturn in the market. They hope at the very least to fare better than Comdex, the Las Vegas IT tradeshow which recorded its lowest ever turnout last November and closed amid rumours of bankruptcy.

CeBit's aim is to pull in around 7,500 exhibitors and over 800,000 trade visitors. A two-day conference for IT executives, the ICT World Trade Forum, will precede the event in a bid to push up attendance figures.

Digital home

In recognition of popular and emerging areas of technology, two new sections have been added for digital photography and home automation. The likes of Canon, Fujifilm and Kodak have all signed up for the former to offer visitors a hands-on experience of their new products.

Software giant Microsoft will use the show to push its latest innovation, the Windows Powered Smart Display, along with partners ViewSonic, which has just unveiled its Airpanel Smart Displays, and Philips, which will be showing off its DesXcape 150DM. The Philips model features all the usual smart display capabilities including touch-screen and wireless technology.

"Smart displays are the latest step in the evolution of the monitor, offering the

flexibility and power that will transform home computing," said Todd Warren, general manager of the embedded and appliance platforms at Microsoft. Hitachi will also be showing off its high-performance LCDs and plasma displays.

Keeping their cool

Meanwhile, on the more techie side, microchip developer Active Cool will be showcasing its advances in smart thermo

electrics – which means it will be explaining its developments in processor heat dispersion and noise reduction.

Active Cool's presence at the show illustrates one of the benefits of such events, which give the industry's major players such as Intel and AMD the chance to meet smaller companies and to test their designs.

Recognising the huge part mobile communications play in today's technology there will also be a telecommunications centre at the expo. Vodafone, O2 and

Nokia are all taking part and will be talking about next-generation technologies and showing the advances they have made in handset designs and functionality.



Game, set and match

Rumour has it that Nokia will be previewing its N-Gage games console at CeBit. About the size of Nintendo's GameBoy, but incorporating mobile phone functions, the N-Gage uses the Bluetooth standard to enable users to play one another wirelessly.

Marconi will be covering the business end of the market, exhibiting its next-generation (3G) telecom systems and infrastructures. "Marconi will use CeBit to showcase its best-in-class technology and strategies to the worldwide telecommunications industry at the right time and in the right place," said Martin Harriman, Marconi's chief marketing officer.

The event runs from 12-19 March and more information can be found at www.cebitt.de. Next month *PC Advisor* will bring you all the news from the show as both our editor, Andrew Charlesworth, and senior reviews writer, Spencer Dalziel, will be reporting direct from Hanover. ■

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