



The 450MHz chip is here. But **confusion reigns**, and competition is keen.

Intel inside

Performance measured in megahertz has been more than adequate for as long as I can remember, but this month our mainstream group test features 450MHz chips — that's just a shade under half a gigahertz. If you're waiting for Intel, the full gigahertz is said to arrive around the time of the millennium, hopefully free of any Year 2000 problems.

But why wait for Intel? The other processor manufacturers are valiantly hanging in there; but who would seriously consider buying one, unless money really was too tight to mention? I'll tell you who: me. I don't know about you, but I feel slightly confused about Intel's recent raft of PC processors. The company correctly spotted the large number of people flocking to buy entry-level to mid-range PCs and found its selection of chips could not compete: it's hard to build a £600 PC when two thirds of the price is the chip. So Intel responded with the Celeron, a Pentium II without the Level II cache. This cache, albeit expensive, is

there for a very good reason, and as Intel discovered, removing it results in an unimpressive performer. So in its latest Celerons, Intel put the cache back — a quarter of the size of the normal

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Pentium II's, but twice as fast! Confusing? Yes. Better or worse? Tricky to say really, but in tests so far, not quite as good. We can definitely say, however, that this new chip, codenamed Mendocino, is currently available in 300 and 333MHz flavours, the former clearly distinguished from the old cacheless and inferior 300MHz Celeron by the placing of a little letter a after it. Clear as mud.

Where it all gets really confusing is that the old Celeron is still in circulation, and it's often difficult to find out whether you're getting the new one or not when ordering. Throw the old standard Pentium II into the equation, and you could have the choice of three different processors when buying a 300MHz Intel PC. So it pays to be careful when specifying which you're after, or look elsewhere entirely. AMD has released its mid-range K6-2 3DNow! chip, which could end up boasting performance that would allow you to forgive its name. A new set of built-in instructions could significantly improve games performance, so long as developers refer to them. Microsoft already has in its latest version of DirectX, used to write games under Windows.

Intel has always been good at the high end, such as the 450s reviewed in this issue, but it clearly has to take entry- to mid-level competition from companies like AMD very seriously — good news for the PC buyer. As for myself, I'm seriously considering an alternative to Intel for my next processor. Either way, I'll back it up with one of the new breed of 3D graphics cards [p190] to prove that top performance doesn't always rely on processors with prices as big as their labels.

Finally, thanks to the enormous number of you who have written over the past month with your comments on the new-look PCW. It's not too late to let us know what you think, so please email me at newlook@pcw.co.uk.

Gordon Laing, Editor