

The old order changeth?

The Merced, Intel's brand new 64-bit processor is now ready to roll. Are we, the users, ready to move to 64-bit computing?

Over the last few years, Intel chips have accelerated PC obsolescence at an alarming rate. A PC goes from being 'the latest, greatest, techno-whiz must-have' to 'historical curiosity' in 6 to 12 months on an average. And now we are going to have the Merced. Oft delayed, much anticipated, and massively hyped, the new 64-bit processor from Intel is finally arriving.

Come the second quarter of the year 2000, and the Merced, touted by Intel as "the most important development since the 386 processor", could be on your desktop. The processor will, according to Intel, contain "more than 256 internal general-purpose registers, 128 floating-point registers using 84-bit floating point numbers, parallel numeric processing, 64-bit memory addressing (over 1.84 thousand trillion addresses), MMX and SIMD extension support, and symmetrical multiple processor abilities".

Should we care? Is the shift from 32-bit to 64-bit computing going to be really worth the trouble for the vast majority of PC users?

When the 32-bit Pentium Pro was released in late 1995, it did run 16-bit applications, but there was no improvement in speed. The processor was optimised for 32-bit apps, and unless you ran 32-bit applications on the machine, processing speed remained where it was. The Pentium III, Intel's current standard for the desktop, shows marked improvements in speed only when running applications developed specifically for it. This may have a parallel in the Merced situation. Does Intel really see developers rushing to develop 64-bit applications for the chip?

The second key issue is functionality. Sure, faster, more powerful processors mean huge improvements in the quality of computer gaming, but what about gains in functionality with regard to the 'normal' applications which most PC users run? E-mail and Web browsers are now



Illustration: SEAN

Everyone wants more computing power, but do you really need an 800MHz Pentium III to run MS Word?

beginning to dominate the collective consciousness of PC users, but these applications do not demand the processing might of a P-II. Intel says you need its latest processor to get inside the Internet, but for the majority of users, 700MHz Pentium IIIs are going to be of import only in the abstract.

The Merced is meant to boost Intel's presence in the high-end workstation and server markets. Microsoft is building its 64-bit version of Windows NT, and some developers of advanced CAD/CAM, design automation, and RDBMS applications will, no doubt, clamber on to the 64-bit bandwagon, but that will take time. In the meanwhile, Intel is going to have competition. SGI is likely to ship its MIPS R14000 RISC processors running at 450 MHz by the first quarter of 2000. Even Hewlett-Packard, who remains committed

to IA-64, will be releasing PA 8600 chip by the first quarter of 2000 and reportedly, have it running at speeds of 1.2 GHz by 2003.

What is frustrating about these developments is that they are so very linear. Intel has the power to drive processor development whichever way it wants, and has chosen to ignore the move to smaller, purpose-specific devices, with instances of Artificial Intelligence implementation.

With the relatively slow adoption of the P-III, it seems that users just might be cottoning on to the fact that they should not have to continue upgrading their computers endlessly. If Intel does not start thinking about what users really need, the future may see the emergence of a new computing model that would not necessarily be 'Intel Inside'.

SAMEER KUMAR