



## Biting the hand that feeds IT

### Intel updates Ent PC with audio 'reality amp'

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**IDF Spring 05** Intel demonstrated its latest Entertainment PC system this week, a major update that will take advantage of the chip maker's dual-core desktop processors and 945/955 chipset - not to mention some nifty audio enhancement software.

The EPC, developed by Intel's motherboard division, was launched in 2004 based on Intel's Pentium 4 processor, 915 or 915X chipset, and Windows XP Media Center Edition 2005. It's available in the US and the UK from a number of system builders.

The new version will bring the dual-core, HyperThreading-equipped Pentium Extreme Edition into the box, along with either the 945P or 955X chipset. Both system logic products support Intel's HD Audio spec, and the new EPC will utilise SigmaTel's 9221 codec chip, which can process eight-channel uncompressed audio for distribution via an ADAT optical port. The part also boasts a 95dB signal-to-noise ratio.

Intel has updated its Audio Studio utility - a word that barely does it justice; "we like to call it an audio engineer in your PC", Intel Desktop Boards marketing manager Jeff Klaus told *The Register* - to version 2.0.

AS also ties into Sound Focus' Multi-channel Active Refinement System (Mars), dubbed by CTO Tom Paddock a "reality amplifier". Using a pair of 64-bit DSPs, Mars provides real-time sound wave analysis and reshaping - the practical upshot of which is the ability to restore to 'lossy' compressed audio formats like MP3, WMA and AAC much of the detail lost in the compression process, making for more vibrant, realistic sound.

It doesn't restore the lost data so much as do a better, smarter job of reconstructing the sound wave than a standard codec can. It's also able to expand any stereo source to 4-, 5.1- or 7.1-channel surround sound. Sonic elements such as vocals can be pulled up and clarified while the background music lightened, the better to suit the environment in which the sound is being listened to.

Mars is controlled through AS 2.0's Studio EQ system, frequency profiler, which can also be used to adjust speaker delay to yield the optimal audio for any given multi-channel speaker installation. Intel has also developed a more basic version to be used on a large TV display rather than a desktop monitor.

The updated EPC design is due to ship with AS 2.0 in the Q3/Q4 timeframe. ®