

Hal Makes Sparcs Fly 1
 With Sparc64 V, Hal Computer Systems is bringing two new microarchitectural features to the microprocessor world—the trace cache and superspeculation. The 2001-space odyssey will run its 65 million transistors at 1 GHz and issue eight instructions per cycle out of order, bringing 4 GFLOPS of floating-point performance to Fujitsu’s high-end, high-reliability technical servers.

Editorial: A Billion Connected PCs? Guess Again 3
 Spending roughly \$1 billion each on new fabs to build silicon for PlayStation 2 and Dolphin, Sony and Nintendo must have their sights set on a bigger game than before. It is likely these companies are gearing up to capture the emerging PC-appliance market—a market that will not be well served by Windows PCs or anything like them.

Most Significant Bits 4
 Intel ends 820 delay; Via partners with S3 for PC chip sets; SiS rises to Via challenge; AMD opens Fab 30; IBM to ship PowerPC G4s; Apple buys Raycer Graphics; Alpha 21464 targets 1.7 GHz in 2003; Intel trims Celeron prices for Christmas; GigaPixel describes first 3D core; Real3D absorbed by Intel; Equator intros MAP1000A, updates roadmap.

Embedded News 14
 Intel bids \$1.6 billion for DSP Communications; Motorola’s Dragon-Ball rolls faster; Arm extends reach of ARM10 pipeline; Zoran’s soft DSP core is optimized for audio; Mips Technologies sues Lexra over patents.

Massana Unveils DSP Coprocessor Core 17
 In an attempt to revive the failed coprocessor concept, Massana is developing FILU-200. This licensable fixed-point DSP core is designed to boost the DSP performance of 32-bit general-purpose embedded cores, such as those from Arm and Mips. Massana disguises the coprocessor nature of FILU-200 by offering a DSP-function library and a set of APIs that allow it to be viewed as a hardware-assisted DSP software library.

Cirrus Logic Makes Music With ARM 22
 Jumping on the MP3 bandwagon, Cirrus has announced the EP7212 Maverick. Based on a 74-MHz ARM720T core, Maverick is aimed at next-generation mobile information appliances that can download and play audio files from the Internet.

The Slater Perspective: The Future of Serial Buses 24
 Just as IEEE-1394 was beginning to gain ground in consumer video gear and, supporters hoped, in PCs as well, the fledgling standard’s prospects have been cut short by Intel’s preferred alternative: USB 2.0.

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Literature Watch will return in the next issue.

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