

Literature Watch

Development Tools

As language aids or standalone apps, GUI tools make interfaces easy to create. With proper selection of GUI tools, graphical interfaces for common instrumentation are easy to create. Michael L. Porter, *Personal Engineering*, 9/94, p. 29, 10 pp.

DSPs

Accumulator length and quantization noise. Benchmark programs help select the size and type of DSP processor for your application. Wei Chen, Valentin Boriakoff, Motorola; *Embedded Systems Programming*, 9/94, p. 26, 9 pp.

Build a powerful host-DSP interface. For low-volume and other DSP applications that can't justify custom hardware, dual-port memory provides the benefits of low cost, ease of design and multiple data paths. Michael Demjanenko, Vocal Technologies; *Electronic Design*, 8/22/94, p. 77, 6 pp.

Memory

Memory chip stacks send density skyward. By stacking silicon vertically, memory density of one gigabyte per cubic inch is achieved. David Maliniak, *Electronic Design*, 8/22/94, p. 69, 5 pp.

Miscellaneous

Interfacing DSP filtering to Win32s allows PCs to recognize speech. With the addition of a hardware and software module, PCs can recognize paused-speech and hopefully, in a few years, unpaused speech. *Personal Engineering*, 9/94, p. 58, 3 pp.

Industrial R&D: the new priorities. Practices and objectives are changing rapidly in industrial R&D, with emphasis on time to market. Linda Geppert, *IEEE Spectrum*, 9/94, p. 30, 8 pp.

Manufacturing ICs the neural way. Neural networks infer relationships in the nonlinear fabrication processes of ICs and emerge as a powerful tool in computer-integrated manufacturing of integrated circuits. Gary S. May, Georgia Institute of Technology; *IEEE Spectrum*, 9/94, p. 47, 5 pp.

Silicon Graphics' power surge. Silicon Graphics' Indy Presenter serves as a flat-panel display or a group-presentation display. Shalini Chatterjee, *Advanced Systems*, 9/94, p. 11, 3 pp.

Network-management innovation. Network-management system suppliers must resolve conflicting needs for the next generation. Gordon Spencer, *Advanced Systems*, 9/94, p. 70, 5 pp.

Powerful "soft" computing technologies emerge from the fusion of neural networks and fuzzy logic. The synthesis of neural networks and fuzzy logic produces soft-computing technologies which, in the long run, may be the cornerstone of artificial intelligence. Lee Goldberg, *Electronic Design*, 8/22/94, p. 35, 2 pp.

Design for testability in object-oriented systems. Testability of object-oriented software is the product of considering several main factors. Robert V. Binder, *Communications of the ACM*, 9/94, p. 87, 15 pp.

SMT connectors finally ready to take off. Use of SMT connectors has been slow due to several barriers, including the lack of automatic placement equipment, but the trend is about to change. Carol Rosen, *Electronic Business Buyer*, 8/94, p. S19, 3 pp.

Precision IC-lithography measurement scheme trims errors to less than 10 nm. As IC geometries shrink, Nikon IC-lithography technology keeps errors to less than 10 nm. Dave Bursky, *Electronic Design*, 9/5/94, p. 32, 2 pp.

Peripherals

High-speed modems: they're not just for data anymore. High-speed modems transfer a variety of information types in large quantities over slow lines using compression, DSP, and now V.34. Lee Goldberg, *Electronic Design*, 8/22/94, p. 47, 12 pp.

DSP-based PCMCIA disk drive packs 171 Mbytes. A multifunction DSP core puts 171 Mbytes into a PCMCIA Type-III 1.8-inch disk drive. Dave Bursky, *Electronic Design*, 9/5/94, p. 135, 2 pp.

Easy-to-use flash-memory modules emulate disk drives. Flash-memory modules find success replacing disk drives when they are made to resemble disk drives in usage. Gary Legg, *EDN*, 9/1/94, p. 51, 5 pp.

System Design

Mixed analog-digital simulation. A variety of options exist for analog-digital simulation. Doug Conner, *EDN*, 9/1/94, p. 39, 7 pp.

A trio of desktop winners. A review of three Unix workstations—Hewlett Packard's 712/80, Sun's SPARCStation 20, and Silicon Graphics' Indy R4600—revealed similarities. Mark Cappel, *Advanced Systems*, 9/94, p. 34, 8 pp.

High-speed connectors' electrical properties eclipse mechanical traits. As processor clock speeds eclipse 50 MHz, the electrical characteristics of interconnects get more attention as well as advance planning. Charles H. Small, *EDN*, 9/1/94, p. 65, 5 pp.