

## Literature Watch

## Development Tools

**DSP environment eliminates low-level programming in realtime applications.** The Spox development environment combines a real-time kernel and object-oriented data handling. Robert Eaton, Data Translation; *Personal Engineering*, 5/94, p. 51, 6 pp.

**IC complexity pushes EDA into the test arena.** Data in the EDA database can help test engineers ferret out a single transistor buried in a sea of millions. Mike Donlin, *Computer Design*, 5/94, p. 38, 2 pp.

**Tools harness logic analyzers for software debugging.** Logic analyzers in a networked development environment attack complex realtime software debugging problems. Tom Williams, *Computer Design*, 5/94, p. 42, 2 pp.

**Internal debuggers simplify  $\mu$ P PC board verification.** The new generation of microprocessors provides the built-in ability for inspection and control, obviating the need for expensive ICE hardware. Jim Hebert, Tektronix; *EDN*, 5/12/94, p. 103, 2 pp.

## DSPs

**Higher levels of integration come to DSPs.** As DSPs are integrated into more products, vendors target high-volume uses with application-specific chips. Jeff Child, *Computer Design*, 5/94, p. 91, 8 pp.

## Miscellaneous

**Silicon emerges for 100-Mbits/s Ethernet.** In the battle for the high-performance desktop, fast Ethernet arrives none too soon. Jeff Child, *Computer Design*, 5/94, p. 30, 2 pp.

**From here to ATM.** Anticipating how wide- and local-area networks will shift into asynchronous transfer mode requires a grasp of today's technologies. Arthur Miller, Motorola; *IEEE Spectrum*, 6/94, p. 20, 5 pp.

**Testing ATM systems.** The high bandwidth and flexibility that make asynchronous transfer mode attractive are also barriers to testing. Dragos Ruiu, Hewlett-Packard; *IEEE Spectrum*, 6/94, p. 25, 3 pp.

**Hybridizing the local loop.** The optical and electronic technologies that bring phone service and cable TV to the home are merging, even if their providers are not. Craig J. Brunet, First Pacific Networks; *IEEE Spectrum*, 6/94, p. 28, 5 pp.

**Measure the steps to success.** Checking progress against interim goals, event-based concurrent engineering saves time and money and improves quality. Wayne A. Mackey, Hughes Aircraft, John C. Carter, Product Development Consulting; *IEEE Spectrum*, 6/94, p. 33, 6 pp.

**Smart networks for control.** Home, factory, and auto equipment that formerly heeded commands of embedded processors will soon obey distributed networks. Reza S. Raji, Echelon; *IEEE Spectrum*, 6/94, p. 28, 5 pp.

## Processors

**What's behind the boom in 8-bit embedded controllers.** A strong surge in demand for low-cost but powerful chips is drawing new attention to some old chip architectures. J. Robert Lineback, *Electronic Business Buyer*, 5/94, p. 85, 5 pp.

## System Design

**Plug and play is almost here.** Automatic configuration of user-modified PCs will dramatically expand the market for add-in sound cards, disk drives, and other components. Robert Ristelhueber, *Electronic Business Buyer*, 5/94, p. 43, 2 pp.

**Multichip modules march on.** As die availability improves and standard parts emerge, use of MCM begins to ramp up. Spencer Chin, *Electronic Products*, 5/94, p. 25, 3 pp.

**How to specify multichip modules.**

Consider cost, die, substrate, and thermal needs when making the transition to MCMs. Howard Green, MicroModule Systems; *Electronic Products*, 5/94, p. 29, 3 pp.

**PC-compatible SBCs shrink, start migrating towards standard form factors.**

In a few square inches, the PC/104 format can hold a complete DOS-compatible system. Paul G. Schreier, *Personal Engineering*, 5/94, p. 31, 10 pp.

**A surfeit of power-supply voltages plagues designs of compact products.**

New semiconductor processes require new power-supply voltages that are difficult to design for. Dan Strassberg, *EDN*, 5/12/94, p. 55, 7 pp.

**Transition maps guide successful asynchronous state-machine design.**

Avoid the performance penalty of synchronous design with state machines that run at 700 MHz or faster. Ricardo O. Robinovich, Ascom Timeplex; *EDN*, 5/12/94, p. 111, 6 pp.

**SGI adds juice to entry Indy.**

Indy's new 100-MHz processor boosts its speed to 62 SPECint92. Shalini Chatterjee, *Advanced Systems*, 5/94, p. 30, 1 pg.

**Distributed power: buzzword for larger systems.**

Modularity simplifies the challenge of powering multiprocessor systems. Stephan Ohr, *Computer Design*, 5/94, p. 49, 5 pp.