OMNISIM: an ATT Omnicad/HHB Systems joint venture

Early in 1985, ATT and Omnicad entered the CAD/CAM/CAE market with workstations for mechanical and electronic design including OMNIDRAFT, for computer-aided design and drafting; OMNIBOARDS, a PCB design system; and ATT OMNIROUTE, a hardware accelerator autorouter box. Late in the year, Omnicad and HHB Systems agreed to integrate HHB's CADAT 5 into Omnicad's CAE/CAD family of development tools for IC/PCB design and layout.

OMNISIM, based on the CADAT 5 logic simulator, is the result. OMNISIM adds logic, timing, and fault simulation to Omnicad's OMNILogic schematic capture system, which is integrated with the ATT OMNIBOARDS PCB design system and with OMNIGATES, the automated layout system for customizing gate array designs. OMNISIM includes a 21-state logic simulation algorithm to analyze logic element behavior including MOS devices.

With CADAT's model library of over 2000 SSI/MSI components, PCB designers can use OMNISIM/ATT OMNIBOARDS to design PCBs without having to develop new simulation models. In addition, an OMNISIM option scheduled for release early this year will permit PCB designers to use LSI and VLSI chips as functional models in simulations, under the control of a user-defined software shell describing chip performance and characteristics.

OMNISIM is offered initially on an ATT CAD workstation, but will also be available as a server for use by a network of workstations as well as PCs. For more information, contact HHB Systems, 1000 Wyckoff Avenue, Mahwah, NJ 07430; (201) 848-8000.

Reader Service Number 32

SCIDESIGN, SCICARDS, and SCITHERM from SC

Scientific Calculations, Inc. has entered the CAE market with SCIDESIGN, a schematic data capture program for PCB design featuring schematic generation with two-segment routers and the ability to add, move, and delete interconnect symbols. SCIDESIGN also provides a library containing functional TTL, ECL, and CMOS symbols in standard ANSI and IEC formats, and may be expanded to permit hierarchical and integrated engineering techniques and tools such as simulators. Priced at $7000, this desktop, PC-based software runs on IBM PC-XT and -AT with optional high-resolution graphics upgrades.

Simultaneously, SC released its new version of the SCICARDS program for PCB design including multilayer editing and routing, enlarged data limits, and automatic component placement. In addition, SC is offering a thermal analysis CAD system, called SCITHERM, enabling PCB designers to analyze problems of space versus heat buildup at every stage of design and production. Graphic output is realized in the form of color isotherms—a color map indicating 12 distinct temperature ranges, each with its own color.

SCITHERM is operational on an IBM PC-XT or -AT and on VAX-based systems with pricing at $10,000 and a yearly maintenance fee of $1000 that includes receipt of future updates. For more information, contact Marketing Communications, Scientific Calculations, Inc., 7635 Main Street, Fishers, NY 14453; (716) 385-6790.

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Reader Service Number 2

About the cover...

All designs must eventually take the human factor into consideration, and this mandate becomes evident as designers tailor chips and entire systems to human needs. This month's cover draws a parallel between the thread that binds pieces of a garment, and the data—transmitted via an optical fiber—necessary for program function.

The chip shown in the lower right corner is an experimental model developed by engineers at IBM Corporation. The optical fiber embedded in the chip is used for data transmission. According to IBM, the chip's circuitry can process 400 million bits of data per second—an amount equivalent to more than 17,000 pages of typewritten information.

Technical advances incorporated in the experimental chip reportedly allow a computer to exchange data with its printers, terminals, and other peripherals 16 times faster than currently available devices.