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Listings of the Latest Releases **FREE**



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Listings Of The Latest Releases

Comput. Phys. (March 1994)

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NEW PRODUCTS

Computers in Physics selects new products for this section based on standards of relevance and significance to our readership. The manufacturers have supplied this information about their products, and Computers in Physics assumes no responsibility for its accuracy. For more details from the manufacturers, use the Reader Service Card, which is opposite the inside back cover.

A/D Converters

Analogic Corporation announces two additions, ADC4320 and ADC4325, to its high-speed family of hybrid analog-to-digital converters. The 4320 is a 16-bit 1-MHz sampling ADC, and the 4325 is a 16-bit 500-kHz sampling ADC. They employ a two-pass, sub-ranging architecture that integrates a low-distortion sample-and-hold amplifier, precise voltage reference, and an ultralinear 16-bit reference digital-to-analog converter. The 4320 and 4325 provide low-noise and a full-scale step response of 500 ns and 800 ns, respectively. Designed in 46-pin hybrid packages, both ADCs offer pin-programmable input voltage ranges of plus or minus 2.5 V, 5 V, and 10 V. The standard models meet their specifications from 0°C to 70°C.

The ADC4320 and the ADC4325 converters are priced at \$885 and \$585, respectively, in quantities of 100.

Analogic Corporation
Peabody, MA

Circle number 250 on Reader Service Card.

Embedded Computer

Mosaic Industries has announced the QED Board, an easy-to-use embedded computer. The Board integrates interactive programming, flexible interrupt-driven event handling, floating-point math and precoded I/O driver routines to simplify the design of test and measurement. Its on-board language facilitates programming via any PC or terminal. On-board memory includes battery-backed write-protectable RAM, eliminating the need for PROM burning. It provides up to 60 I/O lines including built-in keypad and display interfaces, digital I/O, 16 A/D inputs, 8 D/A outputs, 8 timer-controlled signals, and dual serial ports. It is priced at \$495.

Mosaic Industries Inc.
Newark, CA

Circle number 257 on Reader Service Card.

Notebook Workstation

IBM Corporation has announced the RISC System/6000 N40, a PowerPC-based notebook workstation. It combines the power of the PowerPC 601 microprocessor and AIX, IBM's standards-compli-

ant version of the Unix operating system, in a 6.9-lb color notebook computer. Running at 50 MHz, the N40 achieves a SPECint 92# benchmark rating of 41.7, a SPECfp 92# rating of 51, and an Xmark rating of 2.58, making it more powerful than some desktop workstations. It operates from an internal battery and will be available with an external battery pack that can extend battery life to 4 h.

Other standard features include a removable disk drive with a 340-Mbytes capacity, main-memory support from 16 Mbytes to 64 Mbytes, an external display port supporting 1280 x 1024-pixel resolution and up to 256 colors, ports for an external mouse, keyboard, and Appletalk printers, and a built-in speaker and microphone. The N40 work-

station is priced at \$11,995.

IBM Corporation
White Plains, NY

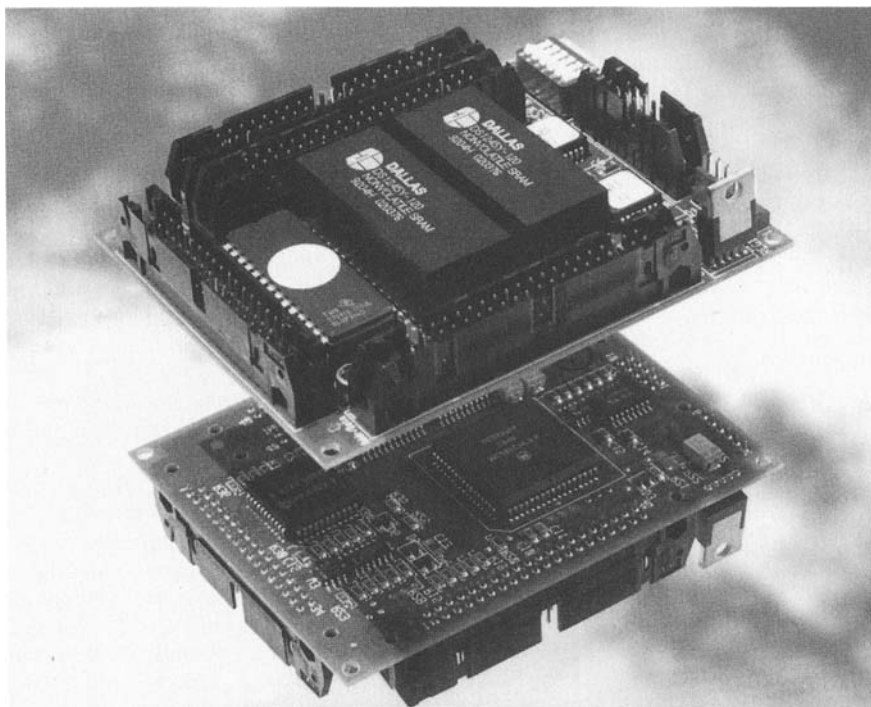
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Data-Acquisition Chip

Analog Devices has released the AD871, a 12-bit data-acquisition system on a single chip. It is a 5-Msamples/s analog-to-digital converter that offers low-noise performance at high conversion rates. It has an input noise of only 0.166 bits at code transitions. This ensures constant digital output for a constant-intensity

For more listings of new products, posted monthly, and to take advantage of our electronic reader-service facility, contact CIP Online over the Internet. To do this, telnet to pinet.aip.org and give the user name `cip` and the password `online`. (Note: this username and password are valid only until publication of a new username and password in the next issue of Computers in Physics.) See p. 254 for more information about CIP Online.

input, avoiding flicker or snow. It includes a track-and-hold amplifier (THA) and a laser-trimmed voltage reference. The THA is a wideband device that can cope with the fast swings in intensity common in CCD or multiplexed applications. The AD871 has also been designed to recover



Embedded computer from Mosaic Industries has on-board language and memory.

cleanly from overdrive, and the converter has an error flag to indicate an out-of-range input.

The AD871 is available in 28-pin DIP or 44-pin LCC, in commercial or military temperature ranges, and screened to 883B. It is priced at \$95 in quantities of 1000.

Analog Devices
Norwood, MA

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Parallel Processor

Parsytec has released the PowerXplorer, an incorporation of PowerPC microprocessors into Parsytec's line of parallel-processing systems. According to the company, the PowerXplorer merges the communication strength of the Transputer with the computational power of the PowerPC 601. The PowerPC 601 is compatible with processors in the PowerPC family and RS/6000 codes, enabling the migration of workstation codes as well as workstation cluster codes.

The PowerXplorer couples between 4 and 64 nodes delivering up to 10 Gflops and 64x93 SPECfp92. Each node is equipped with a processor running at 80 MHz with 32 kbytes of internal cache and 8 or 32 Mbytes of memory. The system comes with PARIX, a programming environment for massively parallel systems. Systems start at under \$40,000 and include the workstation interface, Parix, compilers, and other tools.

Parallel Systems Technology
West Chicago, IL

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Network Interface

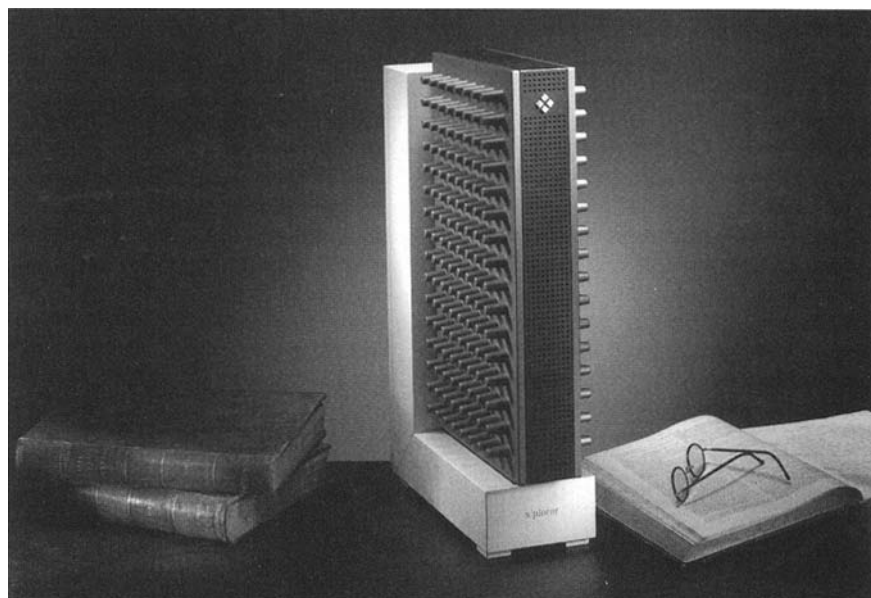
Network Systems Corporation has introduced PB250, an ESCON channel interface that allows users to overcome the distance limitations associated with native ESCON fiber. ESCON hosts can now communicate over greater distances by using the LAN/WAN media interfaces offered with the company's Data Exchange Extended platform. The product supports the same Network Systems applications that are supported over Block MUX/FIPS interfaces. Additionally, PB250 supports IBM's ESCON Multiple Image Facility, which allows multiple logical partitions to communicate over a single PB250 channel. The starting price is \$25,000.

Network Systems Corporation
Minneapolis, MN

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Conversion Factors

ISE Corporation has released Conversions, a software program for Windows that provides instant access to over 16,000 unit-conversion factors. The pro-



Parsytec's parallel-processing system incorporates the PowerPC 601.

gram maintains six-significant-figure accuracy on a variety of calculations. Typical conversion factors include length, area, volume, mass, density, pressure, force, stress, power, energy, velocity, thermal conductivity, temperature, flow rate, dynamic viscosity, and time.

The software is a self-loading, technical program installed as an icon in the Windows application menu. ISE is interested in providing Conversions to software suppliers for bundling with other engineering packages. The manufacturer's suggested retail price for this software is \$39.95 per copy.

ISE Corporation
Pembroke, MA

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Data-Analysis Language

BBN Software Products Corporation released BBN/Cornerstone Extension Language (CEL), an optional component of the latest release of the company's data-analysis software for Unix workstations. CEL consists of an object-oriented programming language and an integrated set of advanced development tools. Its GUI toolkit enables application developers to visually design their own dialog boxes, windows, and menus. It features a multi-window, multifile editor for source programs that supports menu-driven selection and insertion of templates for common source-code templates.

CEL delivers additional features to manage and access data servers. It enables users to create custom graphs and add curves to standard graph types. Applications developed in CEL will run on any client with BBN/Cornerstone release 1.1 software. Both run under HP/UX or

SUN/OS Unix systems. CEL is separately priced at \$995.

BBN Software Products
Cambridge, MA

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Numerical Analysis and Visualization

National Instruments has announced HiQ, a numerical-analysis software package. HiQ is an interactive numerical-methods and visualization package with which users can pose, solve, visualize, and document problems in one environment. The software solves real-world problems, such as heat conduction, fluid-flow modeling, and predicting stress and strain behavior, with a methodology that integrates five components: the Virtual Notebook, interactive analysis, graphics, a numerical-analysis library, and HiQ script, which is an analysis programming language. The software is priced at \$695.

National Instruments
Austin, TX

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Educational Software

Physics Academic Software has released EM Field, a program developed by David Trowbridge of Microsoft Corporation and Bruce Sherwood of Carnegie Mellon University. The program encourages rapid, qualitative exploration of electric and magnetic fields. Various aspects of electric potential can be studied, including equipotential surfaces and potential difference. Features include the ability to explore Gauss's law and Ampere's law as they pertain to the user's own charge and current configurations.

The software is available for both PC and Macintosh computers. The PC ver-

sion requires VGA graphics, 640 kbytes of RAM, DOS 3.3 or later, a Microsoft-compatible mouse, a 3.5-inch disk drive, and a hard disk. The Macintosh version requires a Macintosh Plus computer or later with system software version 6.0 or later. EM Field is priced at \$49.95.

Physics Academic Software
Raleigh, NC

Circle number 280 on Reader Service Card.

Handbook

Data Translation announces its 1994 Product Handbook, a 320-page catalog that describes the company's complete line of data acquisition and imaging products. The handbook highlights software solutions, from programming tools to applications, offered by the company. Featured products include DT VEE visual-programming language for data acquisition, the GLOBAL LAB Image family of imaging software solutions, VB-EZ data-acquisition and high-speed-plotting custom controls for Visual Basic, DataAcq-EZ, and Fidelity series high-accuracy frame grabbers. The handbook can be obtained free of charge by contacting the company's Sales Department at (800) 525-8528.

Data Translation
Marlboro, MA

Circle number 276 on Reader Service Card.

Parallel Operating System

Sinectonalysis Inc. has released a version of DSP/Veclib for the Helios op-

erating system. This parallel operating system is designed to look like Unix at the programming and command level, but it runs on multiple C40 processors and provides extensive parallel-programming support. DSP/Veclib is a library of optimized digital signal processing functions supporting Texas Instruments TMS320C40 architecture. The library consists of over 300 signal-processing functions including Fourier transforms, convolutions, spectral analysis, filtering, coordinate transformations, bit manipulations, data compression, algebraic and Boolean operations, and other general-purpose routines.

The single-user price is \$3000. All Sinectonalysis customers are provided with six months of unlimited telephone technical support.

Sinectonalysis Inc.
West Newton, MA

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Contouring and Surface Mapping

Golden Software announced SURFER for Windows, a contouring and surface-mapping package. It transforms x , y , z data into publication-quality contour and 3D surface maps. It adds color fill for contour maps, a macro language based on OLE 2.0 Automation, and several new gridding methods. The package allows users to stack and overlay any combination of contour, surface, post, and base maps. Its gridding methods include Kriging, Triangulation, Radial Basis, Inverse Dis-

tance, Minimum Curvature, Shepard's Method, and Polynomial Regression, with options for anisotropy weighting and custom search criteria.

The Windows version maintains compatibility with all grid, boundary, and data files used with SURFER for DOS. SURFER for Windows is priced at \$499. Upgrades from DOS costs \$139.

Golden Software Inc.
Golden, CO

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Data Acquisition for Windows

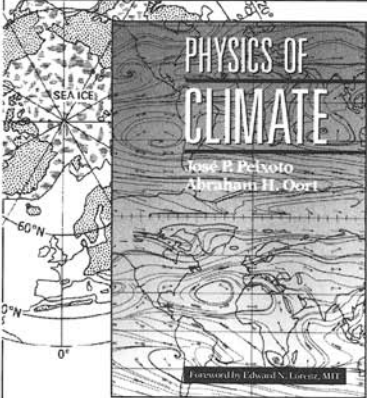
Labtech announces the release of Labtech Notebook version 8.0 and Labtech Control version 5.0, data-acquisition and -control software products that are Windows-compatible. The products have look-and-feel characteristics conforming to familiar Windows user-interface conventions. Newly supported features include global parameter change capability across an unlimited number of I/O channels; high-speed data streaming up to 1 MHz under Windows DMA; hierarchical icon grouping; drill-down layer navigation; Windows-style on-line help; multimedia support; bit-map image support; enhanced real-time graphical display; and four levels of security. Labtech Notebook and Labtech Control are priced at \$495 and \$1995 respectively.

Laboratory Technologies Corporation
Wilmington, MA

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