

NEW PRODUCTS

The descriptions of the new products listed in this section are based on information supplied to us by the manufacturers, and in some cases by independent sources. PHYSICS TODAY can assume no responsibility for their accuracy. To facilitate inquiries about a particular product, a Reader Service Card is attached inside the back cover of the magazine.

FOCUS ON DATA ACQUISITION

Data Acquisition for Windows 95 and Windows NT

TAL Technologies has released Winwedge 32, a version of its Softwarewedge data acquisition program that is intended for the Windows 95 and Windows NT operating systems. The program collects data from serial devices such as gauges, sensors and modems and imports the data into Windows applications such as Excel, Lotus and Visual Basic, either as keystrokes or by means of Dynamical Data Exchange (DDE). As with the Wedge versions for Windows 3.X and DOS, Winwedge 32 includes 30 mathematical and logical functions, a virtual instrument mode that simulates data collection from any instrument, data parsing and filtering and expanded DDE commands. In addition, the new program has faster DDE links between 32-bit applications; it allows longer file names and fully preemptive multitasking; and it can be used with up to 100 serial ports (RS-232, RS-422 and RS-485) simultaneously. *TAL Technologies, 2027 Wallace Street, Philadelphia, PA 19130-3221*

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Personal Computer Based Data Acquisition Board

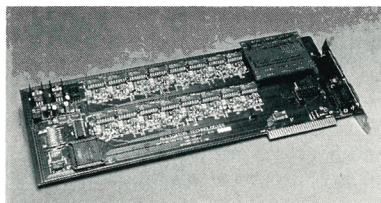
Sunset Laboratory's AIB-PCx is a general-purpose interface board for instrument control and data acquisition. The device combines eight software-selectable analog inputs and a 12-bit analog-to-digital converter (ADC) with a track-and-hold amplifier, and it functions at input data rates up to 200 kHz. Its two 8-bit digital ports can be pro-

grammed as either inputs or outputs, and its three timers can be used to ensure a reliable ADC sampling rate or to give accurate event and frequency timing. The user can select the input ranges from among three bipolar ranges (-10 - 10 V, -3 - 3 V, -0.5 - 0.5 V) or three unipolar ranges (0 - 10 V, 0 - 3 V and 0 - 0.5 V). The board is compatible with IBM PCs from the XT up to Pentium Pro. *Sunset Laboratory, 2017 19th Avenue, Forest Grove, OR 97116-2338*

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Low-Pass Filter Card for PC-Based Data Acquisition

Alligator Technologies' AAF-16 is a plug-in low-pass filter card intended for noise elimination and anti-aliasing—that is, removing unwanted high-frequency signals that might otherwise mimic lower frequencies. The card has 16 channels and 16-bit analog-to-digital resolution, and it is controlled by LabView software. Each channel can be configured by the user to have a variety of filter characteristics, cutoff



frequencies from 2 to 200 000 Hz and an attenuation floor as low as 120 decibels per octave. The device has an input/output signal range from -10 to 10 V, automatic dc offset compensation and 90 decibel stopband rejection. The AAF-16 plugs into an 8-bit computer expansion slot and has two

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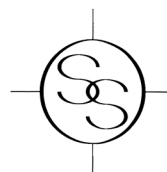
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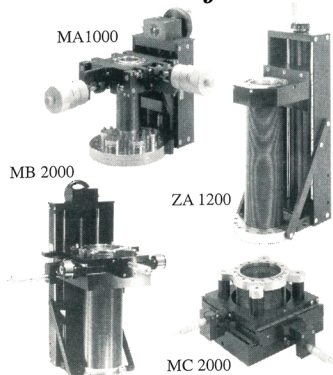


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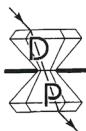
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standard high-density D-subminiature connectors (one for input, the other for output). Power requirements are 500 mA at +12 V and 450 mA at -12 V, and the device is said to be compatible with any analog-to-digital board. An optional pre- and post-filtering module eliminates signal-dependent noise at high frequencies. *Alligator Technologies, 2900 Bristol Street, Suite E-101, Costa Mesa, CA 92626*

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Data Acquisition Program for Windows Applications

Windaq/200 from Dataq Instruments is a software program that acquires, stores, retrieves and analyzes waveforms within a Windows programming environment. The program's multi-tasking capability enables it to collect data while another Windows application is operating. This makes it possible, for example, to view and analyze information as it is being recorded on disk. The program can record up to 240 channels and simultaneously display up to 32 channels. An xy plotting feature allows two channels of data to be plotted simultaneously. The triggered mode makes it easier to investigate transient events by storing user-specified pre- and post-trigger data points each time a trigger condition has been met. High-speed waveforms can be sampled at lower speeds by displaying the average, maximum, minimum or last of a group of data points. *Dataq Instruments, 150 Springside Drive, Suite B220, Akron, OH 44333*

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Interface Rescues Stranded Data from Discontinued Devices

Hessler Technical Services' TN 2 Win is designed to serve as a software interface between Windows 95 applications and the discontinued Series II and Tracor Northern TN5XXX series energy dispersive spectrometers. Because support for these spectrometers, and for the associated Digital Equipment PDP 11 series computers has been discontinued, users have been unable to back up spectra or make them available to modern data analysis, word processing or image processing.

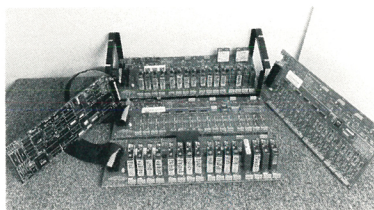
TN 2 Win makes data stored on such spectrometers available to any application running under Windows

95. The computer communicates serially with the TN system over a bidirectional parallel port. In the opposite direction, the TN system communicates in parallel, making transfer of data more rapid. *Hessler Technical Services, 44 Strawberry Hill Avenue, Suite 8G, Stamford, CT 06902*

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High-Speed Signal-Conditioning Multiplexer Panels

The UEISCM-01/5B and UEISCM-01/7B from United Electronic Industries are signal conditioning multiplexer panels intended for 5B and 7B modules, respectively. The units are



designed to handle rapid data rates and high channel counts. Both panels support up to 512 modules running with rates up to 1 MHz and have 16 analog input channels and 4 analog outputs. In turn, up to 32 panels can be connected to the company's Win-30 data acquisition board. Each panel comes with an 18-inch shielded cable and software for DOS, Windows 3.1, 95 and NT and LabView for Windows. *United Electronic Industries, Ten Dexter Avenue, Watertown, MA 02172-4107*

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Modular, High-Speed Front-End Signal Processing System

Daytronic's SPS8000 is a modular, high-speed front-end signal processing system that interfaces with a 486- or Pentium-based computer. The system includes dual-ported memory and is capable of concurrent multiprocessing and multiple independent scan rates (1-200 ms per channel). The unit's analog signal conditioning cards and digital signal processors handle all routine data collection and processing, including floating-point conversion, per-channel scaling, linearization, smoothing and mathematical calculations. This leaves the host PC free to perform other functions.

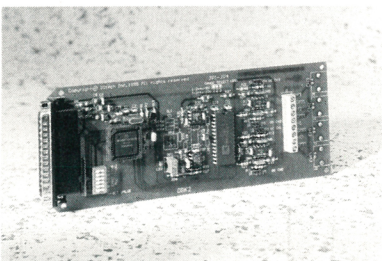
The system is expandable, with

every 20 input/output cards coupled to a dedicated analog-to-digital converter and a digital signal processor (forming a level). A four-level system can monitor up to 640 analog I/O ports, or 1000 logic I/O ports, and deliver up to 80 000 answers per second. Typical measurement accuracy (after calibration) is 0.02% of full scale. The system is intended for applications that require rapid collection, processing and graphical display of data, such as vibration analysis and dynamic structural testing. *Daytronic, 2589 Corporate Place, Miamisburg, OH 45342-3694*

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Four-Channel D/A Voltage Output Card for Data Acquisition

Iotech has added the DBK2, a four-channel digital-to-analog voltage output card, to its DBK series of signal



conditioning and expansion products for its Daqbook computer-based data acquisition systems. The card generates up to four bipolar analog voltage outputs (± 5 - or ± 10 V ranges); this makes the card useful for controlling devices such as programmable power supplies, proportional actuators, analog indicators and process controllers. The card also has a bipolar reference, which ensures a stable output voltage with an accuracy of 0.05% of full scale. *Iotech, 25971 Cannon Road, Cleveland, OH 44146*

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Programmable, 16-Bit Portable Datalogger

The model 2290-8 portable data logger from E. Clark and Associates accepts input from a broad variety of sensors and measures voltage, current, frequency and electrical resistance. The unit has four analog input ports and one digital input, and its connection plugs allow the user to program zero-adjusts, scaling factors and engineering units. Data can be gathered (with



16-bit accuracy) at rates from once per second to once every 60 hours and, if desired, stamped with time and date. Maximum, minimum and average readings can also be logged.

Logging can be activated and deactivated manually, at programmed times or when the measured quantity exceeds a programmed limit. The analog and RS-232 output ports allow data to be exported to a printer or computer.

Sensors are available for measuring temperature, humidity, pressure and air velocity, and the standard 25 000-measurement memory can be upgraded to 100 000 measurements. *E. Clark and Associates, 10 Bearfoot Road, Northboro, MA 01532*

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Multidimensional Data Visualization Software

Hi-Tech Scientific's Grams/3D multidimensional data visualization software allows the rapid animation of millions of data points from the company's stopped-flow spectroscopic analysis systems. Data can be presented in contour maps and enhanced with shading gradations and color fills. One can zoom in or out on plots or rotate the plot in real time. *Hi-Tech Scientific, Brunel Road, Salisbury SP2 7PU, UK*

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New Literature

Computer catalog—The 68-page new-products preview (number 13-2) from CyberResearch contains information on products offered by the company, including industrial personal computers, data acquisition hardware, software and instrumentation. *CyberResearch, 25 Business Park Drive, Branford, CT 06405*

Cryo

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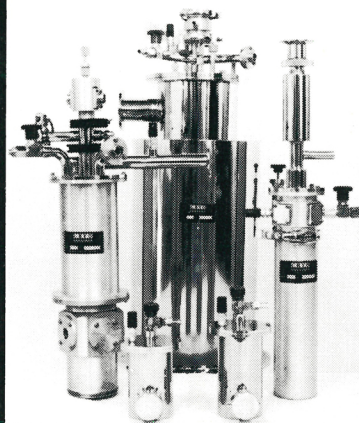
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