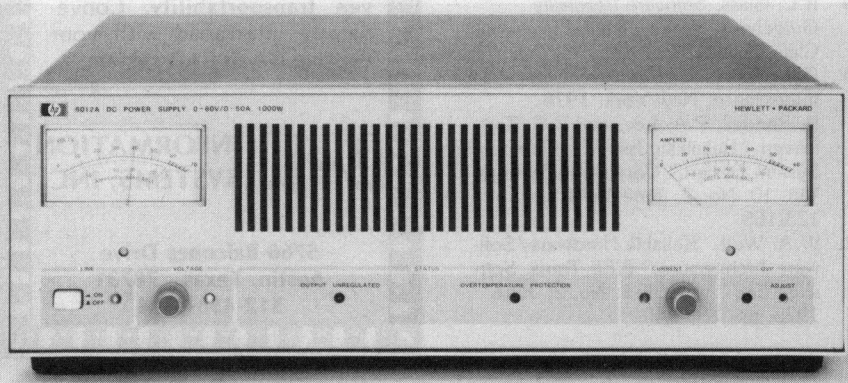


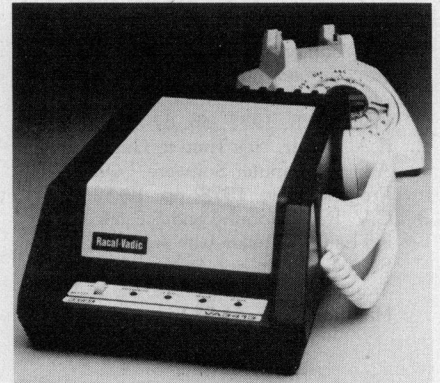
NEW PRODUCTS

New Products Editor:
Prof. Demetrios A. Michalopoulos
California State University, Fullerton



Designed for automatic test system applications, Hewlett-Packard's Model 6012A autoranging power supply provides up to 1000 watts to system designers. Typical applications include semiconductor burn-in systems, PCB test systems, and automatic production processes. The unit provides maximum output power over a wide and continuous range of voltage and current combinations without having to manually select the proper output range. Other features include mode and status indicators, adjustable overvoltage protection, two 10-turn potentiometers for high-resolution control, amplified current monitor terminals, and voltage and current meters. A barrier strip at the back of the supply provides terminals necessary for current monitoring, remote programming, and remote sensing. The power supply is priced within the US at \$1550. Delivery is in two to four weeks.

Reader Service Number 41



Compatible with VA3400 and Bell 103/113 modems, Racal-Vadic's VA3413 dual acoustic coupler provides 1200-bps and 0 to 300-bps full duplex asynchronous operation. Under microprocessor control, the unit automatically detects the called modem, making manual selection of mode unnecessary. An automatic character length recognition feature in the VA3400 mode permits communication with either 9- or 10-bit systems without physical change to the modem. Other features include microprocessor-based design, low-power CMOS components, and crystal-controlled oscillators. With OEM discounts available, the VA3413 is priced at \$895.

Reader Service Number 43

Postprocessor features 256 x 13 video lookup table

According to Genisco Computers, the GCT-3032-8 graphics/imaging postprocessor significantly extends the capability of high-resolution (1280 x 1024 x 8) color or monochrome display systems.

The primary feature of the processor is its 256 x 13 video lookup table which allows the unit to accommodate color and monochrome images requiring 256 selections per pixel and/or multilevel high-resolution graphics such as detailed CAD/CAM applications.

The GCT-3032-8 provides 13 VLT bits in parallel which in color can be configured as four red, four green, four blue, and one blink. In monochrome, the VLT can be used to drive two monitors and provide one 8-bit output (256 grayshades) and one 4-bit output (16 grayshades) with one bit for blink. Up to eight

full-bit map memory planes may be software-selectably gated into the VLT.

The unit's cursor has two program-selectable shapes which appear as the color complement of the memory data, assuring recognition of the cursor regardless of the displayed data. Cursor blink is selectable.

For animation and simulation applications, the system is equipped with a display scan status register feature. Employing the register enables the user to detect vertical and odd/even field blanking for judicious refresh memory and VLT access.

Equipped with two RS-232 ports for interfacing interactive devices, the GCT-3032-8 is priced at \$4700. Delivery is 60-90 days after receipt of order.

Reader Service Number 42

Mini flexible disks released

Memorex Corporation has announced the immediate availability of a double-density 5¼" mini flexible disk and a single-density 5¼" mini flexible disk with hub rings.

The double-density disk is offered in both single- and double-sided format. The company is offering the single-sided, single-density disks with hub rings as a solution for hubbing problems on some 5¼" drives.

Each of the disks is available in soft sector (unformatted) or in 10 or 16 hard sector versions.

Reader Service Number 44



The P1-5-3271 cluster controller from Phone 1, Inc., connects DEC VT-52 or VT-78 terminals directly into an IBM mainframe. As a result, DEC terminals emulate IBM 3277 terminals and have access to IBM host services and software programs. The unit simultaneously controls eight local or remote terminals via cable or auto-answer modems. Communications from the P1-5-3271 to the IBM mainframe is bisynchronous.

Reader Service Number 45

Winchester disk drives yield 1.229M-bps data transfer rate

Fujitsu America, Inc., has introduced two 8" Winchester disk drives, the 48M-byte Model 2311 and the 84M-byte Model M2312, which achieve high-speed average access time and high capacity by means of a permanent magnet rotary actuator using the closed-loop servo system.

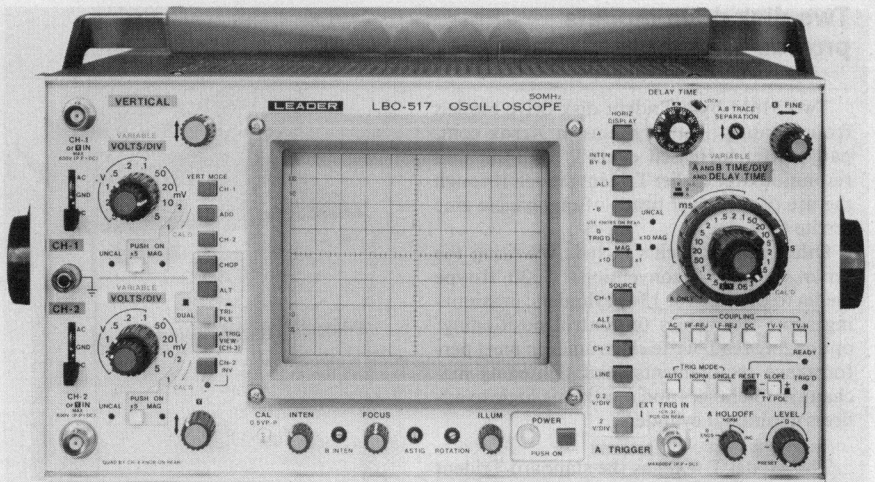
Complete head positioning specifications are 5 ms track-to-track, 20 ms average, and 40 ms maximum. Enhanced Winchester-3350-type technology contact-start/stop heads and media are used at densities of 9550 bits per inch and 720 tracks per inch. The direct-drive DC spindle motor rotates at 3600 rpm, yielding a data transfer rate of 1.229M bytes per second. The Model 2311 stores 48M bytes on two platters, and the Model 2312 stores 84M bytes on four platters, utilizing 589 cylinders at 20,480 bytes per track.

An industry-standard SMD interface and data separation circuitry are standard. Dual port and other interfaces are optional. Fixed and variable sector length formats are internally selectable. On each of the drives, the control electronics and SMD interface are contained in three PCBs mounted on the top side and backside of the drive.

Drive mounting dimensions are floppy disk compatible, enabling packaging of two drives horizontally or three vertically in a standard 19" rack system cabinet. Each disk drive weighs 20 pounds. Required power voltages are +24VDC, +5VDC, -12VDC, with a total nominal power consumption of less than 130 W.

Evaluation units are currently available, and large production quantities will be available next April. In OEM quantities of 100, Model 2311 is priced at \$3195, and Model 2312 is priced at \$3795.

Reader Service Number 46



Leader's LBO-517 oscilloscope incorporates a calibrated delayed time base. The main and delayed time bases can be displayed simultaneously for both input channels. An alternate triggering mode permits comparison and measurement of two signals unrelated in frequency. The triggering waveforms for the main and delayed time bases can be observed using the unit's third and fourth trigger view channels. These two inputs also can be used as third and fourth auxiliary channels to display clock pulses, timing markers, or other waveforms not requiring vertical calibration. The unit provides 1 mV sensitivity up to 10 MHz and 5 mV up to 50 MHz. Sweep rates range up to 5 ns/cm using the x10 multiplier. Both vertical amplifiers are equipped with delay lines to permit viewing the triggering edges of fast rise time pulses. A variable trigger hold-off control facilitates stable triggering on complex waveforms. A "B-ends-A" position increases the display brightness of low frequency signals by increasing the sweep repetition rate. The unit employs a dome-mesh, internal graticule CRT with 20 kV accelerating potential to produce bright, clear traces at all sweep speeds. The LBO-517 is available for immediate delivery. The suggested user net price is \$1950, including two probes.

Reader Service Number 47

Front-end network processor based on DSA protocols

Honeywell has introduced a front-end network processor, the Datanet 8, based on the rules and protocols embodied in the company's Distributed Systems Architecture.

Characterized as a flexible, open system and network architecture eliminating the need for a hierarchical organization of processing elements, DSA conforms to the ISO's reference model for open systems architecture and supports the X.25 and X.21 packet and circuit switched network protocols.

The Datanet 8, based on Honeywell Level 6 technology, handles communications in a DSA network for a DPS 8 or Level 64/DPS host computer using, respectively, the GCOS 8 or GCOS 64 operating system. Its central processor operates asynchronously under firmware control and accommodates a high-speed processor option which, under appropriate configuration and optimum instruction mix, can execute up to 1,000,000 instructions per second. All data transfers between elements take place through a high-speed bus at a rate of up to 6,000,000 bytes per second. Attached to the bus are the controller for the console and network processor diskette, the host interface adapter for connection to the host system, and channel interface bases through which the network and remote devices are connected to the system.

High-speed memory subsystem features include single- and double-word fetch, self-

contained initialize and refresh logic, and standard EDC. The automatic control function provides a PROM extension to the main memory, a system timer, and a set of control settings for failure detection and restart.

Datanet 8 can accommodate two, eight, or 16 channel interface bases. Low-, medium-, and high-speed data communications terminals and subsystems, operating at up to 56,000 bps, can be connected to the system. Also supported are synchronous and asynchronous transmissions, and combinations of half- and full-duplex transmission modes.

The channel interface base accepts up to four of the following communications channel interfaces in a combination of any two transmission types: RS-232C dual synchronous, to 9600 bps each; RS-232C dual asynchronous, to 9600 bps each; HDLC RS-232C, one channel up to 9600 bps; HDLC wide band, one channel up to 56,000 bps; and HDLC wide band CCITT V.35, one channel up to 56,000 bps.

The basic Datanet 8 FNP includes 256K bytes of memory, a diskette, and automatic control function, and can be configured with up to two channel interface bases (up to 16 communication lines). A host connection and one 30- or 120-cps communications console are required.

Reader Service Number 48

Two disk drive models provide 516M-byte capacities

Two 516M-byte Trident disk drive models from Century Data Systems, a Xerox company, offer increased capacity, output, and resolution over earlier Trident models through the use of narrower heads of manganese zinc ferrite core.

Other enhancements include rewriting the servo surface of conventional 3330 II-type media to provide for 1349 cylinders; maximizing servo electronics to control positioning; optimizing read/write electronics to meet performance requirements; and tightening mechanical tolerances and modifying logic to address additional cylinders.

The Model T-600 has the standard Trident TTL/DTL interface, and the Model T-602 provides the SMD (differential) interface, compatible with many independently available controllers. The T-600 has a capacity of 27M, 54M, 82M, 208M, 312M, and 516M bytes of unformatted storage. The T-602 offers 83M, 210M, 315M, and 516M bytes of storage. Standard features include dual-access operation and fixed or variable sectoring.

High data integrity is achieved by track offset, variable data strobe, and track following servo. An enclosed contamination control system with regulated air flow to heat-generating components and a simplified lid seal protect sensitive components. MTBF is specified at 4000 hours and calculated at 6000 hours, with an MTTR of less than one hour.

Seventy percent of the components in the two models are common with other members of the Trident family. A standard exerciser and intelligent exerciser are also available.

In development since early 1979, the T-600/602 disk drives will be available in production quantities in early 1981. Price per unit in quantities of 100 and more will be below \$12,000.

Reader Service Number 49

Single-board tape controller emulates DEC TM-11

A Unibus-compatible interface from Digi-Data Corporation connects the corporation's Series 40 formatted magnetic tape transports to DEC PDP-11 Unibus minicomputers. Contained on a single modified quad board, the interface plugs into a small peripheral controller slot in PDP-11 units.

Because the UCI emulates the DEC TM-11, it is compatible with standard DEC software. It provides dual-density NRZI/PE operation without software modification. The interface supports operation in 9-track, 800 bpi NRZI; 9-track, 1600 bpi PE; and dual-density 800/1600 bpi. Tape speeds from 12.5 to 75 ips can be utilized.

The interface is compatible with any Digi-Data Series 40 tape transport with embedded microprocessor-controlled formatter.

Reader Service Number 50



Trident T-600/602 disk drives are compatible with the earlier T-200 and T-300 models.

Business software executes 24 programs simultaneously

Datapoint Corporation's Datashare 6 business timesharing system is a multiuser, multitask, virtual memory system that allows the simultaneous execution of up to 24 applications programs. Programs are written in Databus, a high-level, business-oriented programming language designed for operation in an interactive environment.

The software system is compatible with existing application programs and can run on any Datapoint 1800, 3800, 5500, or 6600 series processor. It can be used in a stand-alone environment or as part of the company's Attached Resource Computer system—a functionally dispersed, locally interconnected processing system.

AIM software, part of the Datashare release, allows users to access information in parts, inventory, personnel, and other files without specifying a small exact part of a record. It provides a method where the "key" is defined at the time of inquiry, not at the time the file is set up by the system designer.

The Datashare 6 software package, offering a 15.5 K-byte user data area, is available for a one-time license fee of \$500 when purchased alone. The license fee is waived when the package is ordered with a system and for Datashare 5 system users wishing to upgrade. Users running Datashare 4 and earlier versions are subject to the standard licensing agreement. Monthly maintenance for the package is \$10 plus applicable media charges.

Reader Service Number 51

Conversion tool developed for NCR VRX and I-Series users

IBOS/5, a comprehensive implementation tool which allows NCR IMOS and IRX applications to run on NCR VRX machines, has been released by Century Analysis. The conversion tool was designed to allow existing VRX users to take advantage of the interactive applications developed for the I-Series user, as well as to enable I-Series users to migrate into the VRX environment. In both instances, the development and communications capabilities of Century Analysis' teleprocessing monitor, BOSS/3, can be used concurrently.

IBOS/5 provides full background capabilities, allowing each individual user terminal to continue on-line processing after one or multiple background jobs are initiated. It supports menu and control string functions, and, with its self-documenting feature, provides a complete audit trail of IMOS program modifications.

The software tool consists of two components. The filtering utility modifies IMOS programs for compatibility with the VRX-Cobol compiler and provides full documentation of program changes. The communications manager has built-in logic which handles all IMOS program communication requests, allows users to catalog and execute VRX jobs remotely, performs detailed tracing of communication activities for debugging purposes, provides source-program text-editing capabilities, and provides the I-Mode terminal user with the capabilities of BOSS/3, including management reporting and word processing.

The conversion tool can be implemented on any NCR Criterion using the VRX operating system, and it can run as a stand-alone system or as a feature under the BOSS/3 teleprocessing monitor. It is priced at \$8000 for the stand-alone version and \$3000 for use with BOSS/3.

Reader Service Number 52

DEC-compatible software automates distribution

An automated distribution package from Clyde Digital Systems is designed to simplify process and ordering in distribution operations and provide financial management.

Continuously updating inventory, customer files, and general ledger, the Clyde Automated Distribution Package lets clerks take orders on-line and immediately check availability of goods and customer credit. Then, it can generate a picking list, invoice, and shipping papers, and process back orders.

Running on DEC VAX and PDP-11 hardware, the package can automatically recover the data base in the exact sequence of events, when required. Utilizing simple self-prompting commands, the interactive package has an advanced data base, allowing fast random access regardless of file size. It can be tailored without reprogramming.

Reader Service Number 53

Buffered editing terminal has nonglare display

Dialogue 80, an interactive video display terminal from Ampex Corporation, is a buffered editing terminal that operates in either conversational or block mode.

The unit has a detached keyboard with fast repeat keys and a numeric pad section. Separate keys control the movement of the switch-selectable cursor that operates in block or underline, blinking or nonblinking modes. A 25th display line allows the operator to determine the status of various operational modes and note detected errors. A new-line key performs the carriage return and line feed functions.

Dialogue 80 has an RS-232C asynchronous interface, which operates up to 19.2K bytes, half or full duplex, as well as a standard serial printer interface. A lock and unlock function that secures the keyboard from unauthorized use is standard. Scrolling is standard in the conversational mode.

With a data format of 24 lines by 80 characters plus a top status line of 80 characters, the unit provides a total of 2000 displayable positions on the 12" diagonal screen. Character format is a 6x8 dot matrix in a 7x10 field.

The terminal has reverse video, blink, blank, underline, and half-intensity features—all program- or operator-selectable. Protected fields appear at half-intensity and cannot be changed when in the protect mode; only nonprotected fields are transmitted.

Two 1920-character pages and erase, insert, and delete character and line functions are standard. The 128 displayable symbols include 96 ASCII characters, 21 control characters, and 11 characters to support line drawings. Program A and B keys in combination with the 10-key pad provide 20 user-programmable



Ampex Corporation's Dialogue 80 terminal operates quietly, designed to function without a cooling fan. Display clarity is enhanced by brightness control and "half dot shift" features. Lowercase characters have descenders for increased readability.

functions: constants, screen formats, or command sequences for the terminal and/or host computer. Associated with these keys is a standard 256-byte memory, which can be downloaded for the host computer. A 2048-byte expansion memory is optional.

Available in a stand-alone configuration, Dialogue 80 automatically self-tests the program ROM, display, data RAM, and loop-back of serial interface when powered up.

Dialogue 80 is priced at \$1149, with OEM discounts available. Delivery is 30 days after receipt of order.

Reader Service Number 55

Development station supports 30 microprocessors

AMI's Phoenix 1 universal microprocessor development station supports software development for more than 30 microprocessors.

The station includes a microprocessor-based computer, 48K RAM, a 12" CRT, a full ASCII keyboard and keypad, three 5 1/4" minidisk drives (306K bytes total), two RS-232C interfaces for peripherals, the Pascal-based AMIX executive operating system, and assemblers for S2000, S2200, 6800, and 9900 microprocessors.

Hardware options currently available include an RS-232C compatible universal EPROM programmer/ROM simulator and a universal in-circuit emulation module to support S2200, S6800, S6802, Z80, 8021, 8048, 8080, 8085, and 8041 microprocessors. Most RS-232C-compatible printers can be used with the system.

The Phoenix I is priced within the US at \$5495. Additional assemblers are \$125 each. AMI Pascal and Fortran 77 are available at \$275 each.

Reader Service Number 54

Band printer equipped with 48-, 64-, and 96-character sets

A 900-lpm band printer, Southern Systems' B-900 features a 48-, a 64-, and a 96-character set as well as specialized and foreign character sets.

The unit's print speed is 1100 lpm at 48 characters, 900 lpm at 64 characters, and 600 lpm at 96 characters. Switch-selectable features include vertical spacing, for six or eight lines per inch, and for multiple-form lengths. The B-900 provides up to five copies.

Other features include a floorstanding quietized cabinet, a paper puller, a built-in diagnostic display, paper-out detect sensors, and print-to-bottom-of-form capabilities. The unit also features built-in self-test, which allows the printer to be run independently of the computer for performance monitoring. Paper and cassette ribbons are loaded from the front.

Parallel interfacing is standard. SSI also supplies serial interfacing, both synchronous and asynchronous, for operation of printers remote from computers.

Reader Service Number 56

Disk/tape controller supports next-generation transfer rates

Spectra Logic Corporation's Spectra 20 is a single-board, multifunction disk and tape controller for users of Data General Corporation's Nova and Eclipse minicomputers. According to the manufacturer, the controller supports the two-megabytes-per-second disk transfer rates and the 320-kilobytes-per-second tape transfer rates of next-generation disk and tape drives.

The unit emulates the Data General 6067 disk and 6021 tape subsystems under RDOS, AOS, IRIS, and BLIS/Cobol. It attaches up to four SMD disk drives and eight formatted tape drives without modifying the operating system software.

The controller's dual bipolar microprocessor design simultaneously controls the CPU, disk, and tape interfaces. Separate buffering for disk (3-sector) and tape (64-byte) allows simultaneous disk and tape transfers at full speed while eliminating "data late" errors.

All five versions of the controller support the 100-ips half-inch "streaming" or standard "start/stop" formatted tape drives. Model 20/A provides emulation of the DG 6067 disk subsystem, while Model 20/B offers increased storage capacity on the 80M-byte SMD through expanded emulation. Model 20/C uses expanded emulation to attach 300M-byte SMD-compatible disk drives, and Model 20/D allows the fixed/removable media CMD-compatible disk drives to be attached.

The multifunction controller is available in quantities of 25 for \$3900 each. Single units are \$5100 each.

Reader Service Number 57

Flexible computer controller designed for test systems

Custom Machine, Inc., has developed a computer controller, the Customatic, for automated ultrasonic test systems. Suitable for parts programming, the controller with DEC PDP-11 processor and peripherals provides 20K of words or 40K of characters, equal to 333 feet of paper tape.

Subroutines such as calibration or indication interrogation can be added or changed by keyboard entry. Other features of the controller provide protection from memory loss during power failure as well as automatic display, storage, and retrieval of indication positional data during inspection.

Options include remote jog control, a push-button control panel for operators, a paper tape reader, a hard-copy printer, computerized instrumentation control, and a host computer. Custom Machines, Inc., maintains a backup in-house system for development, modification, and testing of customer program software.

Reader Service Number 58