PRINTOUT

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PRODUCTS

Mobile Data Communications

Pocketerm is a mobile device which allows simple and reliable computer data communication over any normal telephone, using all of the familiar letters and numbers that are included in ASCII code. The unit has self-contained battery power, low weight, and a rugged design. The Pocketerm has a simple typewriter keyboard and a built-in display. The device contains a 32-character alphanumeric LED display, the ASCII-compatible keyboard, an integral acoustic coupler, some control logic electronics, and four rechargeable batteries, providing power for over 5 h of continuous mobile operation. Price: \$995.

The CASSETTERM is a mobile device which allows simple and reliable computer data collection and storage plus remote communication over any normal telephone. Utilizing a minicassette, the CASSETTERM provides compact permanent data storage for up to 40,000 alphanumeric characters. This unit weighs only 5.3 lbs and is 10 x 8½ x 3 in. The keyboard has 31 keys including space bar; the display is 32-position alphanumeric LED. Nickel cadmium batteries supply the internal power; external power is 115 V ac. Battery life is 3 h of continuous operation. One merely enters the data from any location, carries the small unit to a phone, and transmits the data to a remote computer. Price: \$1,995.

MICRON Industries
252 Oak Street
Oakland, CA 94607

HandiVoice System

The Vortrax HandiVoice System provides communication capabilities for many speech-impaired individuals, but it also has many other research applications. The System has a prestored self-contained vocabulary of over 400 words. A selection from this set, which might include preset phrases, may be accessed randomly. The user-designated selections are stored in temporary memory. The stored selections may then be commanded to be spoken as an entire phrase. Various vocabulary options are available. Groups of words and phrases may be chosen to meet the user's needs.

This is a stand-alone system that does not require a computer connection. Several input devices are available including a Touch 'N' Talk command device which provides rapid access to all prestored words and phrases.

The keyboard area is a flat surface with graphic symbols. Touching a symbol causes the device to speak the prestored selection corresponding to the symbol. There are 128 touch-sensitive locations, which allows the user to select any of up to 128 words or phrases with a single touch. Any number of incorrect entries can be deleted. Entire message strings may be repeated simply by touching a "Talk" key.

The HandiVoice speech generator weighs 20 lbs and is 11.9 x 11.25 x 6.25 in. The Touch 'N' Talk enclosure is 15.8 x 7.0 x 1.6 in. and weighs 22 oz.

The HandiVoice has a self-contained vocabulary of 400 words that can be accessed by other means, for example, a calculator-style input terminal with 16 keys: 0-9, Enter Talk, Talk Repeat, Clear Entry, Master Clear, and Scroll test. Words are represented as three-digit numbers. Auxiliary sensors include a palm switch and a throat pick-up.

Vocal Interface
270 Concord Street
Framingham, MA 01701

or

4340 Campus Drive
Newport Beach, CA 92660

Audio Tones

This solid state audio tone transducer provides sound-intensity outputs ranging from a quiet audible signal to over 100 dB at 10 ft. The item measures .030 in. thick and comes in a variety of configurations.

Gulton Industries, Inc.
Piezo Products
Fullerton, CA 92634

ECG

The Survival Tech ECG recorder is held against a subject's chest. A written ECG is produced in seconds. The unit is no larger than a paperback book.

Survival Technology, Inc.
Bethesda, MD 20014

Blood Pressure

This portable recorder of blood pressure consists of a belt loop containing a cassette, transducer, a wire lead

connected to a microphone, and a cuff with bulb. The recorder case can be slipped beneath the wearer's coat and the microphone put on the brachial artery. At specified times, the subject squeezes the bulb which energizes the recorder and inflates the cuff. Arterial sounds are translated into a coded frequency on the tape; this can be translated later. Up to 50 readings can be recorded on one tape.

Remler Company
280 Visitacion Mall
Brisbane, CA 94005

Aversion Conditioning

The Veri/PaS unit allows one to use preprogrammed cassette tapes activated by Veri/PaS which, in turn, activates audio or electrical stimulation devices. The experimenter presets controls and switches after attaching electrodes to the subject. The audio and electric stimulators work automatically when selector switches are set. Up to five subjects can be run at one time.

Verite Scientific
4060 West 226th Street
Torrance, CA 90505

Up/Down Counter

The LS7040 is an asynchronous, dual three- or six-decade device that provides all BCD data in parallel. This enables off-chip comparisons with as many predetermined values as desired. The unit operates from dc to 350 kHz.

LSI Computer Systems, Inc.
1235 Walt Whitman Road
Melville, NY 11746

Resettable Counter

This four-digit ITT general control resettable counter is priced at \$1.99. Minimum make time is .050 sec; break time is the same.

EDI
Department PE1
4900 Elston
Chicago, IL 60630

PET Microcomputer

In the last issue of this Journal, I noted that the PET system drew raves at the Dallas National Computer Conference. The unit sells for \$595 with 4k RAM and \$795 with 8k RAM. But the price is sensational only because of what the system includes: The self-contained unit contains the memory, a video display unit (9-in. CRT with 1,000-character display, 40 columns by 25 lines), a 9½ x 3 in. 73-key keyboard, cassette storage with modified drive, an operating system that supports

multiple languages (cassette file management from BASIC), input/output through IEEE-488 instrument interface, and expanded 8k BASIC interpreter.

Commodore International Ltd.
901 California Avenue
Palo Alto, CA 94304

Pulse Rate Monitor

The Cardio-Tach Series 4600 combines pulsatile rate and ECG capabilities in one package. The unit displays heart rate digitally and in real time. In the basic operating mode, the Series 4600 utilizes a standard photo-electric finger sensor to detect pulse rate. Results are presented on a three-digit display. Readout is instantaneous or a four-beat average. The unit also provides a capability for detecting and displaying the rate of electrical activity occurring during the heartbeat. The 4600 not only monitors through peripheral flow, but also by ECG signal. The compact unit is battery operated.

G & W Applied Science Laboratories
335 Bear Hill Road
Waltham, MA 02154

Arterial Tonometer

The ML-105 arterial tonometer provides continuous display of pulse pressure and ECG waveforms, and continuous digital display of systolic and diastolic pressures, mean pressure, pulse pressure, and heart rate.

Nicolet Instrument Corporation
5225 Verona Road
Madison, WI 53711

Multischedule Skinner Box

The Opcon System includes a chamber with two levers, a pellet dispenser, trays, and pellets. No programming or tape punching is required. Merely set a switch for magazine training, CRF, FR, FI, VR, VI, DRL, discriminated DRL, light-tone discrimination, chaining, escape, discriminated avoidance, and modified Sidman avoidance.

Life Science Associates
One Fenimore Road
P.O. Box 500
Bayport, NY 11705

Inexpensive Line Printer

The Axiom EX-800 is a complete stand-alone printer that includes case, power supply, and paper-roll holder for \$655. The 80-column printout is at 160 characters/sec. The unit has a 96-character ASCII interface and character generator built-in. A serial interface with 16 switch-selectable baud rates from 50 to 19,200 is avail-

able for \$85. The electrosensitive printing provides silent nonimpact operation at 120 lines/min. Three character sizes are programmable by software or hardware connections to give 80-, 40-, or 20-column printing, or any combination of all three sizes on a single line. The unit is 9-5/8 in. wide, 3-7/8 in. high, and 10-7/8 in. deep and weighs 12 lbs complete with a 240-ft paper roll.

Axiom
5932 San Fernando Road
Glendale, CA 91202

BRIEFS

Color Graphics

The Intercolor 8031 is a 13-in. eight-color desktop computer (priced at \$5,495) which offers light-independent background and foreground colors and vector graphics. A stand-alone microcomputer system, the 8031 supports a high-level BASIC language and comes with front-mounted single-disk and "floppy tape" drives.

The vendor has also developed a keyboard operating system for its Intercolor 8001 color terminal which allows English and numerals to be entered from left to right. At the same time it automatically switches from right to left input for Arabic, Farsi, and other Middle East languages. The software and terminal for this system will be priced under \$5,000 according to the manufacturer.

Intelligent Systems Corporation
5965 Peachtree Corners East
Norcross, GA 30071

Call for Papers on

"The Sociology of Computerwork"

Submissions are encouraged for a special issue of the *Sociology of Work and Occupations* on the social impacts of computer technology, to be edited by Ronald Anderson and Jeylan Mortimer of the University of Minnesota. Though the following topics are not all-inclusive, they illustrate the scope of concern.

The emergence of computer occupations: Differentiation and hierarchy of computer occupations, establishment of occupational boundaries, conflicts with other occupational groups, "professionalization" processes, classification and dimensionality, and occupation-organization relations.

Impacts of the computer on change in occupations: Problems of professional and managerial obsolescence, change in clerical work after computerization of the office, and change in blue collar work following installation of continuous-flow industrial processes.

The "computerworker": Career choice and recruitment, occupational socialization and training, occupa-

tional identity, responses to work experience (satisfaction, alienation, change in work values), ethical dilemmas and role conflicts, effects on attitudes and behaviors outside the work sphere, societal images of computer technology and technologists.

The Editors are particularly interested in research-based papers and encourage reexamination of already collected data which contain information concerning computers and occupations.

Send 200-word abstracts by December 1, 1977 to the Editors, who will give prompt notification of encouragement to submit finished articles for consideration. *Complete manuscripts are due by April 1, 1978*, for possible publication in winter 1978-1979.

Final articles should not exceed 30 typewritten double-spaced pages and should include an abstract (up to 200 words), the author's biographical sketch (including institutional address, title, and current specialization/interest), and separate footnotes and bibliography in current journal style. Send abstracts and manuscripts to

Professor Ronald Anderson or
Professor Jeylan Mortimer
Department of Sociology
1114 Social Science Building
University of Minnesota
267 19th Avenue South
Minneapolis, MN 55455

Luminance Probe

The J6523 1-deg luminance probe will measure a spot as small as .23 in. at 18 in. from the probe. The probe's 1-deg acceptance angle makes it useful for measuring a very small spot or a small area from a distance. The probe includes an optical sighting system with a 9-deg field of view. Focus range is 18 in. to infinity, closer with commercially available lenses. A hold switch stores luminance readings. Price \$850.

Tektronix, Inc.
P.O. Box 500
Beaverton, OR 97077

Inexpensive Electric Eye from Junkbox Parts

The circuit for an electric eye that can be built from junkbox parts is described in the July 1977 issue of *Popular Electronics*. The circuit consists of a CdS photocell, a 7486 exclusive-OR gate IC, and an npn switching transistor. Interrupting the light beam causes the gate output to go high and energize a bell, feeder, or whatever. A simple pc board can accommodate up to four independent circuits.

RCA Replacement Guide

The *RCA 1977 Solid State Replacement Guide* (SPG-202T) has 195 pages of cross references of more than

123,000 solid state devices, transistors, rectifiers, thyristors, and ICs that can be replaced with RCA's Series SK types. The Guide features an index of Series SK semiconductors and accessories, application information, line drawings of dimensional outlines, and terminal arrangements. Cost: \$1.50.

RCA Distributor and Special Products
P.O. Box 85
Runnemede, NJ 08078

Minicomputer Add-On Memories

The June 1977 issue of *Mini-Micro Systems* lists the manufacturers (with addresses) of add-on memories for minicomputers along with specs.

Used Minicomputers

PDP-8/E with 4K is advertised at \$3,600; PDP-8/I and 8/L with 4K are \$795; with 8K the price is \$1,600. The ASR33 Teletype with DEC modification kit is \$950. The TU55 DECtape transport is \$495.

Newman Computer Exchange
1250 North Main Street
Ann Arbor, MI 48104

American Used Computer advertises the PDP-11/10 with 32K for \$13,250 (includes VT50 scope, DR11C bootstrap loader, and RX11 dual floppy). The PDP-11/40 with 16K, MR11, and VT05 is \$14,500. A LINC-8 with 8K, dual type, ADC, scope, and TTY is advertised at \$4,950.

American Used Computer Corporation
P.O. Box 68, Kenmore Station
Boston, MA 02215

Eating Management System

Water Pik is marketing a small portable electronic device to monitor food intake for those interested in modifying eating behaviors. To use the COUNTDOWN system, one determines the average number of bites per meal over a 1-week period. Each bite is recorded as it is taken with the digital "computer"/pacer. Then the bite record of each meal is transferred to a section of the Week 1 chart which is inserted under a plastic cover above the display. After the first week, the daily bite total for each meal is totaled and divided by seven. If, for example, the total number of breakfast bites for the week is 140, the breakfast average is 140 divided by 7, or 20. This is recorded in a progress chart. At the start of the second week, the Week 1 chart is removed and the Week 2 regime begins. The daily bite averages from Week 1 are reduced by 10% and this figure is recorded on the chart. After each meal, a check mark is placed in the box if the bite limit has not been exceeded.

While eating, the subject presses the "minicomputer" before each bite. This records and displays the number of bites. When the button is released, a light flashes at regular intervals, providing a cadence which teaches the subject to chew at a slower rate. The pace of the flashing light is .9 sec, which has been established by the developers as the chew rate of an average nonobese person. After 25 flashes, the light ceases to flash and becomes steady, informing the subject that he may now take another bite. If too large a bite is taken, the subject assumedly will not have finished it in the 22.5-sec time interval. Pressing the button before the light has ceased flashing will not advance the counter, so that the subject must wait for the light to become steady before taking and recording another bite. The subject then goes on for one or more additional weeks. Also, each caloric drink counts as a bite, and must be recorded as such. Price: \$16.25 plus shipping (95 cents). For orders of five, the buyer may pay for four and receive one free.

Teledyne Water Pik
1730 East Prospect Street
Ft. Collins, CO 80521

Ralph Gerbrands Company New Releases

Ralph Gerbrands Company, Inc. recently published a new brochure describing their complete line of tachistoscopes and accessories. Products featured include one-, two-, three-, and four-field tachistoscopes, pushbutton programmers, automatic stimulus card changers, reaction time equipment and other accessories.

The new Gerbrands G5000 programmer is a low-cost computer-like device with nonvolatile memory that allows programming both simple and complex schedules of reinforcement. The new G5000 programmer utilizes a CMOS random-access memory with a standby power pack. This combination of CMOS RAM and power pack enables the G5000 to retain programmed data for 30 days or more after line power to the unit has been either discontinued or interrupted.

Ralph Gerbrands Company, Inc.
8 Beck Road
Arlington, MA 02174

Texas Instruments Calculator for Programmers

A hand-held calculator from Texas Instruments, intended for use by computer people, does arithmetic in three different number bases. The TI programmer also rapidly converts to and from any of these bases, which include hexadecimal (base 16) and octal (base 8) as well as decimal for everyday arithmetic. Typical applications include: conversion of memory addresses to decimal form, addition of relative addresses to a base address to find specific memory locations or to determine if enough space is available in memory to hold an

additional block of data, emulation of a computer's internal operations. Price: \$49.95. The unit is being marketed by direct mail.

Texas Instruments
P.O. Box 5012
Dallas, TX 75222

Grason-Stadler 1100 Series Price Reductions

Savings of 15% to 50% are offered on Grason-Stadler 1100 Series electromechanical programming equipment and animal research chambers. The Grason-Stadler Division of GenRad is phasing out its 1100 Series product line and offering its remaining inventories at specially reduced prices on a first come/first served basis. All orders received at special sale prices will be filled as soon as possible, and GenRad reserves the right to ship partials when inventory levels preclude complete shipment. All sales are final.

SCAT Software to Eliminate Need for Paper Tape

GenRad's Grason-Stadler Division announces a new optional SCAT software package which eliminates the need for paper tape. The SCAT editor/compiler and SCAT assembler are compatible with any OS-8 file-

structured devices, such as those manufactured by DEC. The SCAT operating system is conversive with RTS-8 and can be used with magnetic disks such as the RK-8EA. Both user programs and data can be stored on the RK-8EA. (OS-8 and RTS-8 are registered trademarks for software systems developed by Digital Equipment Corporation, Maynard, MA. Valid OS-8 and RTS-8 licenses are required to use the new SCAT software. Contact DEC for details and prices.)

A typical SCAT system capable of using the new software would include: (1) SCAT hardware, (2) DEC PDP-8/E with 16K core, EAE, positive I/O Bus, (3) RK8-EA disk cartridge system, (4) dual floppy disk drive or high-speed reader, (5) LA-36 or Teletype.

GenRad is now accepting orders for this new software, and delivery is scheduled for early August. Please order under the following number: 3002-0158 disk-compatible SCAT software. Price: \$2,000. For further information contact

Don Church
GenRad, Grason-Stadler Division
Route 117
Bolton, MA 01740
(617) 779-6961.