

TIME SENSITIVE  
ANNOUNCES  
NOVEMBER  
COMPUTER BASH!

# SILICON GULCH GAZETTE

26

NUMBER 81/10

Computer Faire, 333 Swett Road, Woodside CA 94062

(415) 851-7075

## "Computer Chronicles" In Tune With Viewers

Want to learn about the new IBM computer? . . . computer music and graphics? . . . software and hardware entrepreneurs? . . . or the latest developments in the microcomputing industry?

Then tune in to "Computer Chronicles" — the new television show about computers today.

"Computer Chronicles" is a weekly half-hour show, currently aired on KCSM-TV, Channel 60, a 1.75 megawatt station that blankets the San Francisco Bay area.

The first show on September 17 featured John Whitney, Sr., and John Whitney, Jr., with some state-of-the-art computer graphics. Other shows have discussed the Osborne I, educational computing, the IBM personal computer, etc.

Shows are aired Thursday evenings 7-7:30pm, and repeated Friday mornings 9-9:30am, and Saturday afternoons 5:30-6:00pm.

The show schedule is as follows:

- Nov 5 Software Entrepreneurs
- Nov 12 More Educational Computing
- Nov 19 Computerized Games & Electronic Toys
- Nov 26 Mass Digital Telecommunications via TV
- Dec 3 Computer Music
- Dec 10 Public Information Utilities
- Dec 17 The IBM Personal Computer (repeat)
- Dec 24 The Whitneys on Computer Graphics (repeat)
- Dec 31 Computer Music, Part 1 (repeat)
- Jan 7 Computer Music, Part 2

### UNDERWRITING THE SHOW

Currently the show is entirely funded by KCSM. The host and each week's guests donate their time and services.

Companies and organizations interested in the possibility of underwriting "Computer Chronicles" should contact Executive Producer Stewart Cheifet, KCSM-TV, 1700 W. Hillsdale Blvd., San Mateo, CA 94402.

### PRODUCT REVIEWS AND INTERVIEW EXPERTS

Reviews of interesting products and events, as well as investigations of interesting applications will be a regular part of "Computer Chronicles". So will interviews with interesting microcomputing experts.

If you have any suggestions of possible products, applications or individuals, please send them to Jim Warren, 345 Swett Road, Woodside CA 94062.

### SEE IT IN YOUR AREA

KCSM management is planning to syndicate the show to other television stations—particularly those Public Broadcasting Service stations located in other high technology areas around the U.S.

Individuals and groups wishing to have the show aired in their area should contact their local PBS station, as well as contacting KCSM-TV.



Notewriter and Musictutor added to Soundchaser Product Line

Apple product

## From Bytes To Bach

Passport Designs continues to develop the SOUNDCHASER Computer Music System by adding a music transcriber and a music educator to their polyphonic synthesizer.

SOUNDCHASER's performance software combines with state-of-the-art synthesizer cards and a music keyboard to become a dynamic polyphonic synthesizer. Fully programmable, the sounds are constructed graphically using a game paddle or joy stick to "draw" the waveforms and contours of the sounds on the monitor screen. The sequencer can record up to 3000 notes with one sound and be played back as an accompani-

ment for live performance with a different sound. All sounds and sequences can be stored on disk for later use.

NOTEWRITER is a computer program that turns SOUNDCHASER into a real time music transcriber. The notes you play on the music keyboard will be written on the screen in standard music notation. The advanced editing features facilitate quick changes in tempo, key signature, phrasing, thematic material and all other aspects of music notation. Using a graphic printer, the score can be printed out in its entirety.

MUSICTUTOR is another support



software package that turns SOUNDCHASER into an educational tool. Programmed learning courses in ear training, music therapy and harmony can be used to develop skills and basic musicianship.

A Six Voice SOUNDCHASER System with keyboard and performance software lists for \$1350.00. Other support software prices are available upon request.

For further information contact: Chris Albano, Passport Designs, Inc., 785 Main Street, Suite E, Half Moon Bay Ca 94019, (415) 726-0280.

## PreChristmas Games Faire & AppleFest Scheduled for San Jose Convention Center

An electronic double-show will occur the weekend before Thanksgiving — the Silicon Gulch Games Faire & AppleFest — taking place in San Jose's Convention Center, November 21-22.

### TOYS FOR THE MIND: CONSUMER COMPUTERS & ELECTRONICS

The Games Faire is actually a holiday season "Computer Faire", focusing exclusively on computers and electronics for education and entertainment. The product show will range from components and computer & electronics kits, through full-blown personal computers and low-cost computer subsystems.

### APPLES & APPLE ADD-ONS

The AppleFest is a show focusing on Apple and Apple-related hardware and software products for those who

have an Apple or are thinking of getting an Apple. This is the first time west of Boston that a major end-user computer show has explicitly emphasized Apple products.

### LOW ADMISSION & DISCOUNT COUPONS

Both shows are taking place at the same time in separate parts of the Convention Center. Full-day admission is only \$6 for adults, and \$4 for kids under 12 (who must be accompanied by an adult). Furthermore, this issue of the SGG carries a discount coupon good for a \$1 discount on the adult admission.

### SHOP ALL IN ONE PLACE, NOT ALL OVER THE PLACE

The Faire & AppleFest will offer an excellent opportunity to shop for a wide variety of products from a wide variety of national and local companies and retailers — why do your pre-

Christmas shopping all over, when you can do it all in one place?

### SPECIAL SHOW DISCOUNTS

There is a long-standing custom that some of the Faire exhibitors offer show discounts. It seems likely that this tradition will continue with exhibitors in the Games Faire & AppleFest.

The Faire & AppleFest will be open on Saturday, November 21st, 9am-6pm, and on Sunday, November 22nd, 10am-5pm.

### The Silicon Gulch GAMES FAIRE

### & APPLEFEST

November 21-22, 1981

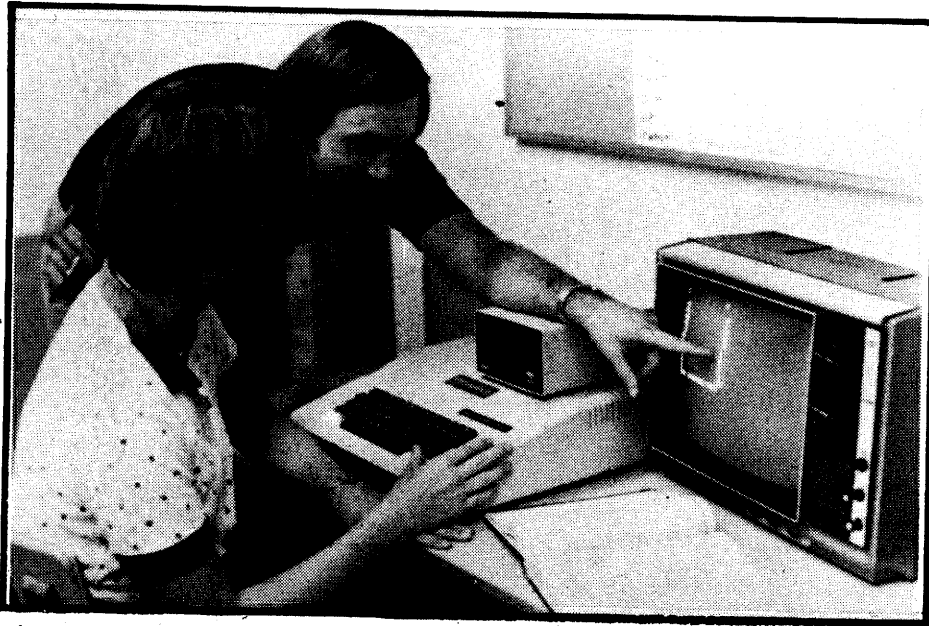
Saturday, 9am-6pm

Sunday, 10am-5pm

San Jose Convention Center  
Market & Park Avenue, San Jose, California  
Adults \$6

Kids under 12 — \$4

Children must be accompanied by adults



Apple product

## Deaf Children Compute

Some unusual opportunities are opening up for handicapped children at the American School for the Deaf (ASD) in West Hartford, Connecticut, because of a microcomputer training system donated to the school early this year.

The system, a gift of Computer Systems Research, Inc. (CSR), of Avon, Conn., is being used in an exploratory program of computer-assisted education for 10th, 11th, and 12th graders who are either deaf or have impaired hearing.

### NUMEROUS BENEFITS

Use of the system in six of ASD's math classes last spring helped 48 students to do drill exercises in subjects ranging from basic arithmetic to trigonometry.

The students have also learned to enter data and control it, and some of them have even acquired basic skills in programming in just a few weeks' time.

The system, a CSR product designated TRAINER-3000, interacts with the student, letting him or her enter one answer and indicating whether the answer is right or wrong.

The program has aroused the curiosity of other staff people at the school who are finding that the computer can be useful outside the classroom as well for such tasks as computing student averages and preparing report cards.

CSR is donating to ASD more than 100 self-study video tapes and computer-aided instruction courses to train students for computer operator and programmer jobs at large-scale IBM data centers.

### UNTAPPED ABILITIES REVEALED

In addition, it has opened the administration's eyes on the value of the computer in educating the handicapped. As ASD Executive Director Winfield McChord Jr. says, "It is helping us to pinpoint those children with abilities to work in the data processing field, who might otherwise never have such opportunities."

### TRAINER-3000

Trainer-3000 was designed for implementing low-cost training for IBM mainframe computer users. The hardware/software package, presently employed at a number of IBM installations throughout the U.S., is portable and features the Apple II microcomputer.

Both ASD and CSR are jointly developing courses for high school-level children in an effort to market a similar package to other schools for the deaf and for other handicapped people.

For further information contact: Mike Daversa, Computer Systems Research, Inc., 195 W. Main St., P. O. Box 45, Avon, CT 06001, (203) 678-1212.

## Forth Used To Discover Huge Outer Space Void

A recent discovery by astronomers of an immense hole in the universe, large enough to encompass 2,000 galaxies the size of our Milky Way, was brought about with the help of the FORTH programming methodology.

Astronomers at Arizona's Kitt Peak National Observatory and Mount Hopkins Observatory set out to survey the large-scale structure of the universe using FORTH to position their telescopes and to transcribe telescopic images into computer terms.

Prior to the availability of the FORTH-based IIDS unit, astronomers had never noticed the huge void in the universe because galaxies are in front of it as well as behind it. Normal observation allows only a two-dimensional view of the nighttime sky.

The hole they discovered during their two-year study, measures 300 million light years in diameter, and could be enough evidence to demand revision of our current theories on how the universe evolved, according to Dr. Garry Mechler, spokesman for the Kitt Peak Observatory.

"A FORTH-based data acquisition unit called an IIDS (Intensified Image Director Scanner) transfers the telescopic images onto computer tape," Mechler said. "After the images are transferred onto tape, we then work with

computer analysts to chart the actual position of the stars in the universe."

A measurement process in which astronomers use the various colors emitted from stars to determine their relative distances is aided by the FORTH-based IIDS's ability to pinpoint a color's proximity to the red end of the spectrum.

FORTH also is used in pointing the 2.1-meter telescope at Kitt Peak and the 200-inch multiple mirror telescope at Mt. Hopkins toward a predetermined point in the sky.

The FORTH language, adopted in 1976 by the International Astronomical Union as a standard language, is widely used among astronomers around the world. In fact, this non-traditional high-level language with unique capabilities had its beginnings as a result of astronomical applications.

In 1970, Charles H. Moore, inventor of FORTH, developed an advanced minicomputer-based data acquisition and analysis system at the request of astronomers at the National Radio Astronomy Observatory, who used it to extract very faint radio signals from the sky "background" noise, to study complex molecules in outer space.

For further information contact: Winnie Shows, FORTH, Inc., 2309 Pacific Coast Highway, Hermosa Beach, California 90254, (213) 372-8493.

## Atari Finds Educational Institute

The Atari Institute for Educational Action Research, an organization that will foster the innovative, yet practical, use of personal computers in education, was founded recently by Atari, Inc. of Sunnyvale, California.

The Institute will provide grants of Atari computer products and/or cash stipends to selected institutions, individuals or organizations able to develop and promulgate new uses for computers in education, whether that usage will take place in established institutions, in community programs or in the home.

Dr. Ted M. Khan, formerly an education consultant to the Computer Division of Atari, has been named execu-

tive director of the Institute, which will be located in the company's headquarters in Sunnyvale.

Grants totaling more than \$250,000 in cash and equipment will be given during the Institute's first year of operation. Initially, all support will be exclusively for domestic U.S. programs.

One key program is the support of a small number of model schools or alternative learning centers to act as "centers of excellence: to illustrate various uses of computers in education."

For further information contact: J. Peter Nelson, Atari, Inc., 1265 Borregas Avenue, P. O. Box 427, Sunnyvale, California 94086, (408) 745-5227.

### Silicon Gulch Gazette

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(415)851-7075

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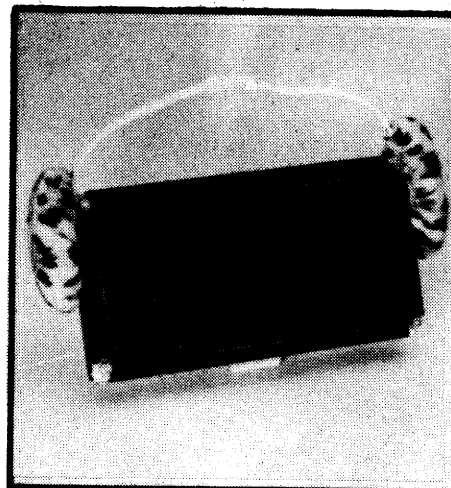
Subscriptions: Upon request, random issues will be sent without cost. To receive all issues, subscription price for U.S. is \$6.00 per year. Please write for foreign rates. Send subscriptions and requests for sample copies to: Computer Faire, 333 Swett Rd., Woodside CA 94062.

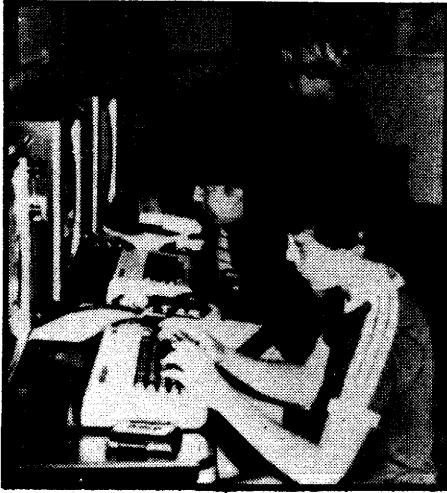
## Noisy Environments Displayed

The Industrial Products Division of Industrial Electronic Engineers, Inc., (IEE), has introduced a new line of ASCII input alphanumeric flat panel display modules designed specifically for noisy

EMI environments such as machine tool control, process control and oil fields.

The new ARGUS, model 26500, Display Module has 8 lines or 32 characters. Other models include 8x40 and 12x40 devices. The ARGUS 26500 accepts asynchronous ASCII input up to 120KHz. The data input cable can be up to 10 feet (2.5 meters) long. 5VDC, 12VDC and 150VDC are provided via a separate connector. The characters are formed in a 5x7 dot matrix with cursor underbar. The display is available in bright 50fL neon-orange or green. The ARGUS model number 26500 is priced at \$686.00 in quantities of 100. For additional information please contact your local IEE Representative or Carl Doria, National Sales Manager, Industrial Products Division, IEE, 7740 Lemona Avenue, Van Nuys, CA 91405, (213) 787-0311, ext. 210, Monday through Thursday.





## "Computers For Kids"

Now there is something for kids other than Saturday morning cartoons. The Creative Computing Education Center has been holding special Saturday morning programs in microcomputer concepts and programming for young people ages 10 to 17. The format provided an hour of teaching time and two hours of hands-on experience in each session.

The Saturday morning program was also offered by Challenges, a non-profit educational organization located in Rockaway, N. J. for the enrichment of gifted and talented children in that area.

The curriculum was planned on three levels for beginner, intermediate, and advanced students. Each student was individually appraised by the teacher for placement in the program. Enrolled youngsters learned to write and run their own programs and got an overview of the microcomputer world through slides, videotapes and films.

For further information, contact Barbara Garris, Creative Computing Education Center, 39 East Hanover Avenue, Morris Plains, N. J. 07950, (201) 540-0445, ext. 45.

Apple & TRS-80 products

## Computers and Sun Get Into Hot Water

A new program has been created to help put together and evaluate a variety of solar hot water systems.

Anyone thinking of adding a solar hot water heating system to their home can use SUNHEAT1, by Solartek, to find out how various types of solar collectors, heat exchangers, preheat tank sizes and hot water tank sizes affect the amount of useful solar energy available from their system. SUNHEAT1 can also be used to find the best tilt angle for the collector, type of collector and type of heat transfer fluid used within the collector.

SUNHEAT1 is customized for each user's specific location with average temperature, cloudiness and available solar energy data. Typical hot water usage can be selected, or users can enter their own values. Once a system is configured, the program calculates the amount of useful solar energy that can be collected each month and the percentage of a user's hot water needs that can be supplied by solar energy on a monthly and yearly basis.

SUNHEAT1 is written in BASIC and requires 16K bytes of storage. Versions are available for either the TRS-80 Model 1 Level II or the Apple II Plus systems. Purchaser must specify TRS-80 or Apple and whether the program is to be shipped on diskette or cassette.

SUNHEAT1 is available for \$19.00 from Solartek, P. O. Box 298, Guilderland, NY 12084.

Apple & TRS-80 products

## Shoo Fly!

Now home computerists can try to eradicate that pesky med fly with "STERL", a computer simulation game from Creative Computing. According to a news release from Creative Computing, the simulation allows the use of two methods of pest control—pesticides and release of sterile males—either alone or in combination.

Use of the simulation indicates that a combined approach of pesticides plus sterile males is the most economic approach to controlling insect populations, but rarely can an insect population be totally eradicated.

"STERL" is one of four simulations in the package, "Ecology Simulations I" from Creative Computing Software. Other programs in the package include "BUFFALO," a program which simulates the buffalo population in 1850; "TAG," a simulation of the tagging and recovery method of measuring animal populations; and "POP" a simulation of animal population management.

"Ecology Simulations I" is available for Apple II and Radio Shack TRS-80 computers for \$24.95 from Creative Computing, 39 E. Hanover Ave., Morris Plains, NJ 07950 (201) 540-0445.

Entrepreneurs!

## Games Faire & AppleFest Offer Very Low Cost Exhibit Space

Shades of the 1st West Coast Computer Faire a half decade ago! The forthcoming Silicon Gulch Games Faire & AppleFest is offering exhibit space for innovative entrepreneurs at a low cost, comparable to the pre-inflation exhibit fees found in the first Faire in 1977. Exhibit space starts as low as \$200; 8,000-12,000 or more attendees are expected.

If you wish to sell hardware or software products in this Pre-Christmas computer show, contact one of the Exhibitor Coordinators at (415)851-7075.

## Computer Key Ingredient At Bakery Expo

Castle Computer Group, an Alpha Micro dealer, showed how computers can be a tasty addition to a bakery at the International Bakery Exposition held recently in Las Vegas, Nevada. The company markets bakery accounting systems internationally.

"Bakers who in the past invested in the shop are now realizing that the office also needs to be upgraded in order to run a profitable operation," said D. Scott Jacobs, President of Castle Computer Group.

The system was originally developed by Jacobs for use at the Jacobs family owned Castle Bakery in Chicago. Since then the system has been installed in bakeries across the United States.

Jacobs designed the system to be used by bakeries who sell to distributors and those who sell to truck-driving baked goods salesmen. The system handles all accounting functions and complete order entry. It produces load sheets for trucks, shop orders, lists of what items need to be made that day allocated over three shifts, types of dough, ingredients with costs, costing breakdowns, route settlements for commissioned drivers, and balance sheets of payables and receivables.

For further information contact: D. Scott Jacobs, Castle Computer Group, 4747 W. Petersen Ave., Chicago IL, 60646 (312) 685-8100.

## Toys for the Mind!

don't miss the —

## Silicon Gulch Games Faire

all the latest  
computers & electronics for entertainment & education

&

## Apple Fest

glorious goodies for your Apples

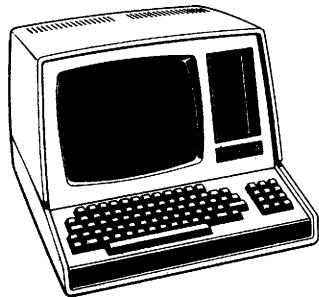
*This Xmas, Give the Future to Your Kids!*

just before Xmas

November 21-22

San Jose Convention Center Saturday & Sunday

a Computer Faire event, 333 Swett Rd., Woodside CA 94062  
(415) 851-7075



NEW! for the '88 and '89 from

**MAGNOLIA**  
MICROSYSTEMS

## DOUBLE DENSITY DISK CONTROLLER \$595

including CP/M™ 2.2

This new board adds complete hardware and software support for FOUR 8" Single or Double sided drives and FOUR 5" Single or Double Sided, 48TPI (40 track) or 96TPI (80 track) drives, in addition to the three 5" drives supported by your Heath/Zenith controller.

Drive Size	Double Density Capacity
5" Single Sided	162 KBytes
5" Double Sided	343 KBytes
5" 96tpi, Dbl Sided	700 KBytes
8" Single Sided	594 KBytes
8" Double Sided	1210 KBytes

A total added capacity of up to 7.6 MegaBytes of on-line storage!

Plus, the obvious advantage of being able to use Single Density 8" media for program and data interchange.

Full compatibility is retained with MMS support of the '89s built-in 5" floppy, as well as several different Winchester hard disk subsystems.

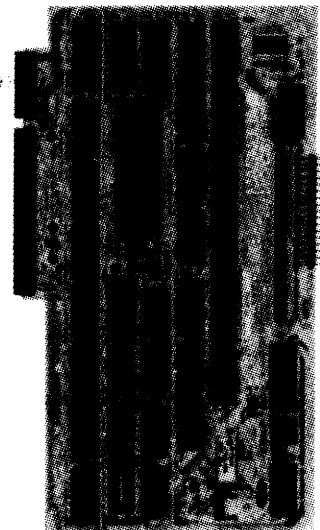
This controller is compatible with standard drives made by Shugart, Gume, Tandon, MPI, and Siemens.

This package includes:

- The Double Density Controller card
- Cables for both 5" and 8" disk drives
- CP/M 2.2 on either 5" or 8" media
- New I/O Decoder and Monitor PROMs

MMS has both 5" and 8" drives (in cabinets with power supply) available.

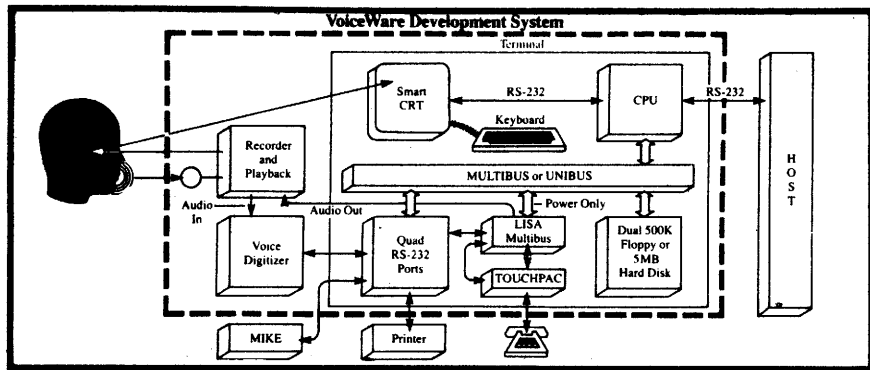
If your '89 isn't ORG-0 CP/M compatible yet, our modification is available for \$50 additional.



MAGNOLIA MICROSYSTEMS, INC.  
(206) 285-7266 • (800) 426-2841

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CP/M is a trademark of Digital Research.



## Unlimited Digital Voice Is Heard From

The VoiceWare Development System provides unlimited digital speech capabilities for almost any computer system. Developed by Centigram Corporation, the VoiceWare System allows users to program digitized voice vocabularies in real time, with unlimited storage on disk. Operators need have no technical or programming knowledge to use the system and the resulting speech quality has the tone, cadence and emphasis of natural voice.

The VoiceWare System enables users to custom-design voice applications. For example, the system can be used to support applications such as Touch Tone data entry and retrieval, electronic voice mail, and computer-aided instruction. Because the system generates speech in real time, it is useful for development of interactive dialog and applications where the speech data changes frequently.

The VoiceWare System produces voice at bit rates as low as 4800 bits per second through Parametric Waveform Coding (PWC). The low bit rate enables

the system to store large quantities of data on disk, reducing the cost of storage.

The basic VoiceWare System includes: an intelligent CRT terminal incorporating a CPU with 64K bytes RAM; four RS-232-C serial interface ports with local and self-test; dual 500K byte 5.25 inch floppy disks for voice data storage; a voice digitizer with The LISA voice synthesizer is supplied in a Multibus format and is housed within the VoiceWare System. Options include: the MIKE voice recognition system; the MIKE application development support software package; a 5 Mbyte Winchester disk, Touch Tone inquiry LISA unit, and custom hardware interfaces.

The VoiceWare Development System is available immediately, allowing 90 days ARO. The price of the basic system is \$25,000.

For further information contact: Len Magnuson, Centigram, 155A Moffett Park Drive, Sunnyvale, California 94086, (408) 734-3222.

## MOSFETS That Can Survive a Killervolt

Motorola has announced the availability of TMOS Power FETs that extend the voltage ratings of such devices to a new limit of up to one kilovolt. These devices are double-diffused, N-channel, enhancement mode, silicon gate power MOSFETs. They are rated at a continuous drain current of 1 ampere, a peak drain current of 6 amperes, and are capable of dissipating 75 watts.

The price of the device is around \$12 in quantities of 100 or more. Parts are currently available off-the-shelf at authorized Motorola distributors. Volume delivery is 6 to 8 weeks.

For further information contact Jack Takesuye, Motorola, PO Box 20912, Phoenix AZ 85036, (602) 244-4911.

## AppleFest to Focus on Apple-Related Products

San Jose is adjacent to the home of Apple Computers, as well as the home of a number of manufacturers of Apple-related hardware and add-ons, and a number of producers of software for the Apple. It is appropriate that it is the site of one of the first major end-user shows focusing on Apples and Apple add-ons & software. (We blush to admit that the Boston Computer Society was the first to create such a show — in Boston — a continent away from the Apple center.)

The AppleFest will offer the Apple-interested individual an excellent opportunity to survey the Apple offerings from a broad range of local and national vendors... probably including some desirable show prices offered by reputable local retailers.

Apple, CP/M & TRS-80 products

## New Games From Creative Computing

### New Games From Creative Computing

#### TWO SIMULATIONS

Creative Computing Software announced the availability of two new simulations for Atari, Apple, and TRS-80 users.

**Trucker** allows the user to experience a trucker's haul from coast to coast. While traveling along Interstates and back roads; flat tires, sudden blizzards, dense fogs, and obstructive road construction are just some of what may be seen on the trip. The player must choose a route from Los Angeles to New York as well as decide what type of cargo to transport (oranges, freight, or U.S. Mail). As the 18-wheeler moves across the screen through Las Vegas, Phoenix, El Paso, Birmingham, and Atlanta, there are many risks to take (being fined for speeding by sly "smokies", having tires blow out, or falling asleep at the wheel) but prudent risk-taking results in maximum profit. If you end up in New York with cash in hand, you're a winner!

**Streets of the City** is a simulation modeled on Grand Rapids, Michigan—a metropolitan area with a population of 550,000. The budgeting, cost and work standard bases are derived from actual experiences of the city over the past five years. The objective of the simulation is to complete a ten-year plan of street and transit improvements while retaining the support of the majority of the City Commission.

During your tenure, you must construct streets and Interstate highways, repair existing streets, improve traffic safety, upgrade an aging bus fleet, perform maintenance, and improve on-schedule performance. Tax levies, construction bonding, and labor regulations must also be considered. The simulation provides a substantial challenge and is both educational and entertaining.

**Trucker** and **Streets of the City** are available together on disk for the Atari, Apple, and the TRS-80 personal computers. It is also available on cassette for the Pet. The price for each is \$24.95.

### NEW GAME PACKAGE FOR THE APPLE

Another new program is **Blister Ball**, the first original arcade-type game for the home computer.

As the aliens hurl the exploding balls from the top of the screen, one or two players fire below from their laser bases. The pace becomes more frantic as the game continues; the number of bouncing balls increases, the balls drop lower and lower, and soon the walls begin to close in. Each time the player is hit, the laser sinks lower and lower into a gutter at the bottom of the screen. After three hits, the round is over.

**Mad Bomber** is an exciting game in which players must defend themselves from bombs dropped from a huge spaceship hovering overhead. The spaceship has 10 bomb racks that are repeatedly filled with bombs. One or two players move the laser bases from side to side along the bottom of the screen, zapping the bombs as they gather in the racks or as they fall. As the game progresses, the bomb racks fill up more quickly and the bombs drop faster. The player loses once 10 bombs have hit the ground.

**Blister Ball** and **Mad Bomber** are now available for \$29.95 on disk and require a 48K Apple with paddle controls.

### ORIGINAL ADVENTURE FOR ATARI AND TRS-80

Also announced was **Original Adventure** for Atari and TRS-80 users.

Lost treasures, underground caverns, giant clams, nasty dwarves, and more—all must be faced by those who enter the world of **Original Adventure**, some of whom will never return. This version of the game makes no compromises from the original game written for much larger mainframe computers. Currently available on disk for CP/M (as a bi-lingual English/French program) and TRS-80 users, the Atari version is available on both disk and cassette. Disks are priced at \$24.95 each and the Atari cassette is priced at \$19.95.

For more information on any of these programs contact: Creative Computing Software, 39 E. Hanover Ave., Morris Plains, NJ 07950, (201) 540-0445.

TRS-80 product

## Video Banking Gains Interest

First Interstate Bank of California, California's fifth-largest bank, has instituted a six-month electronic home banking pilot program using Radio Shack Videotex equipment.

Selected customers of the San Fernando Valley bank are now participating in Day & Night Video Banking Service, the West Coast's first electronic home banking pilot program. Customers use Radio Shack TRS-80 Videotex terminals and videotex-equipped TRS-80 Color Computers. They can access the bank by telephone from anywhere in the country.

In addition to flexible funds transfers between any number of checking and savings accounts held by one customer, an electronic bill paying service is also offered. Customers pre-select which of the bank's 7000 merchant base will be authorized to be paid with this service; payments are then made on request by a direct transfer of checking account funds to the merchant.

Balance inquiries may be made to checking accounts, savings accounts or customer-held certificates of deposit. The bank also posts general information, including current certificate of deposit interest rates and the locations of its

automated teller machines.

Individual account security is being maintained through the use of one-way password encryption and individual customer I.D. numbers. In addition, repeated attempts to access an account results in an automatic lockout, requiring manual intervention to revalidate the account.

For further information contact Martin B. Winston, Radio Shack, 1800 One Tandy Center, Fort Worth TX 76102, (817) 390-3300.

# SAVE \$1

FAIRE DISCOUNT COUPON

When filled in, this coupon is good for a \$1 discount on an adult admission to the Silicon Gulch Games Faire & Applefest at the San Jose Convention Center, November 21-22, 1981 — Saturday, 9am-6pm and Sunday, 10am-5pm.

Please print or type

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I receive the *Silicon Gulch Gazette*

I own, have or use a

CP/M-Based System

Apple

DEC-8 System

Unix-Based System

TRS-80

DEC-11 System

Admission! \$6-Adults (\$5 with this completed coupon), \$4-Kids under 12 accompanied by an adult.

Present this completed coupon to the cashier to obtain the reduced adult admission.

### Free Future Copies of the Silicon Gulch Gazette

If you wish to receive the *Silicon Gulch Gazette* from time to time, without cost, all you need do is complete the subscription request form printed elsewhere in this issue and return it to the publisher.

If you wish to assure that you receive all issues of the *Gazette* — regardless of their possible regional or topical orientation — please complete the subscription form and include payment of \$6.

## Court Management System Goes Before The Bench

### Or How To Fight Crime With Micros!

Justice Information Management, Inc., (JIM) has installed several microcomputer-based court management systems in Texas.

According to a Justice Information Management spokesman, JIM/100 is one of the first, if not the first, multi-county judicial district system in Texas to be connected by remote terminals and printers.

In Comal County, Texas, where the population has doubled in the last 10 years, and the crime rate has increased as well, JIM/100 is speeding the process of indexing cases, issuing warrants, mailing docket notices and maintaining the docket. According to County Attorney Bill Reimer, Comal officials predict the system will allow them to handle more hot check complaints and handle them more efficiently, making it less profitable for people to write hot checks.

JIM/100, which is based on the Alpha Micro AM-1031 Business System, is also currently installed in Comal County, Texas, and connected, via the phone lines, to Hays and Caldwell Counties.

Within five to ten seconds, whatever information is needed on pending cases, witnesses, bondsmen, attorneys, time and date of trial and more can be obtained.

The Comal County system communicates with a remote terminal and printer at both district court offices in Hays and Caldwell Counties—creating an information network spanning over 100 miles.

According to the court administrator for these three counties, Martin Allen, "The system cuts the time spent on clerical and secretarial work by two hours a day at each office using the system in each county."

But there are also other savings.

"In the past, jury selection has been accomplished by purchasing computer time", Allen said. "But, now we can put the voter registration roster on this system and move that process in-house. The system will also cut the travel time of some county employees because many problems can be analyzed on the terminal screen, rather than requiring on-site analysis."

"The system also has several more immediate benefits for the public. It allows us to process and resolve cases much faster. We will know who has been served and arrested as it happens daily. We will also be able to better estimate the court's case load for the day, and minimize overbooking the court dockets. People will spend less time in court," said Allen.

Dunlap explains the benefits of the system further: "Formerly law enforcement officers never knew who was on probation from one county to the next. A suspect can be checked from any of the three counties and if his criminal record is known by any one county it will be known by all three."

"Cases can be called up from the system by name or can be narrowed down by race and sex. Names are entered phonetically not alphabetically. For instance, if you are looking for a Caucasian male with a last name that begins with B, you simply type in these three facts and the system provides a list of possibilities," Dunlap said.

JIM, INC., also markets JIM/LAW, a law office data management

system and JIM/FAS, a financial accounting system. Both are based on Alpha Micro Business Systems and are designed for smaller organizations that cannot afford large-scale data processing systems.

For further information contact: Jim Dunlap, Justice Information Management, Inc., 3636 Executive Center Dr., Suite 250, Austin, TX 78731, (512) 346-5467.

### Apple product

## Video Imaging System Causes a "Dither"

The Ditherizer II is a new kind of picture transmission device for the Apple II computer available now from Peripherals Plus.

In less than a second, the Ditherizer converts input into dithered images which produces the appearance of gray scales on the Apple II screen. With the press of a key, the Ditherizer can produce shaded or black and white images, freeze an image, and (with the use of game paddles) produce a variety of contour images. Scenes can also be saved and recalled from the disk. An increase in the number of scan levels allows

higher contrast and more shades of gray. For example, an 8 x 8" scan produces 64 gray levels from white to black.

Manufactured by Computer Station and sold by Peripherals Plus, the Ditherizer II package consists of motherboard, camera (a Sanyo VC 1610) and cables as well as software for image contouring (for movement detection or graphic design applications). The cost for the entire system is \$650.00 plus \$6.00 for shipping and handling.

For more information contact: Peripherals Plus, 39 E. Hanover Ave., Morris Plains, N. J. 07950, (201)540-0445.

**SYSTEMS KICKER.**

Reliability, price, and a performance kicker that leaves other 8-bit systems far behind: Real-time hardware vectored interrupts and the OASIS multi-user OS for an economical system that rivals 16-bit performance. CP/M is included. Floppy disk and hard disk subsystems, terminals, printers, board-level modules — all part of CCS full S-100 product line. A product line brochure is yours for the asking.

CP/M is a trademark of Digital Research.  
OASIS is a trademark of Phase One Systems.

**California Computer Systems**  
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Sunnyvale, California 94086  
(408) 734-5811  
Telex 171959 CCS SUVL

**MAKING MINIS OUT OF MICROS.**

Apple product

# CompuCourse Programs Introduced

CompuCourse Programs offers three new self-paced learning packages comprised of microcomputer software and printed self-study materials which address business and general interest areas.

## MEMORY SKILLS

One program, Improving Memory Skills, helps the user organize thoughts and accomplish tasks in half the time. The "Micro-Applications" software (which runs on the Apple II with Extended Basic, and the Apple II Plus, with a single disk) using memory techniques which the student learns in the text. The computer helps the user select the best individually suited memory recall method by providing tests of memory retention rate, and the instant plots of retention vs. time; computer

administered pre-testing and computer based monitoring and post-testing; and computer interplay to develop and improve reading retention, learning of names, and memorizing of lists.

## FINANCIAL PLANNING

A second program, Personal Financial Planning, helps the user plan for a more secure financial future. The program allows the user to prepare a personal balance sheet for use in analyzing net worth; compile annual income and expense summaries for the past years, using checkbook entries, charge slips, and cash receipts, and to prepare budgets for upcoming years; create automated systems for maintaining records of one's personal insurance; and assist in one's estate and retirement planning, including analysis of insurance, invest-

ment, and retirement programs.

## CASH FLOW

A third program, Planning Cash Flow, provides techniques for the management of working capital (including not only cash, but also short-term securities, receivables, inventory, payables, and short- and intermediate-term debt), and covers sources and uses of short-term funds. It also teaches timing of cash flows, how to turn inventory into cash, and how to manage money more efficiently.

The price of each of these CompuCourse programs is \$99.95. They are available from local computer stores, and from Educational Programming Systems, Inc., 1328 Baur Blvd., St. Louis, MO 63132, (314) 991-0300.

## Games Faire Offers Computers & Electronics for Entertainment & Education

The Games Faire provides a one-weekend specialized "shopping mall" for people seeking low-cost computing systems and components for personal use for education and entertainment.

It is timed for the beginning of the Christmas shopping season. It is a shopping show — an excellent opportunity to get an early start on holiday shopping, doing all of it in one place and at one time.

## Atari Software Contest Winners

Eleven prizes of Atari computer equipment, software and peripherals, worth \$18,000 at retail, were awarded in the first round of Atari's contest for software authors.

The contest, announced in April, is for people who have had submitted software accepted for publication in the ATARI Program Exchange quarterly catalog. During the first year of the contest, prizes will be awarded every quarter for three quarters, and a grand prize of \$25,000 in cash will be given to the program judged best for the year.

The first quarterly winners are:

### Consumer Category

- 1st Alan M. Newman, Brooklyn, NY — \$3,000  
 "Domination" — Three stage strategy game of super-powers; 1-5 players.  
 2nd Joel Gluck, Merrick, NY — \$2,000  
 "Babel" — Players score points by building towers to reach the stars; 2 players.  
 3rd W. H. Northrup, Marina del Rey, CA — \$1,000  
 "Blackjack Tutor" — Players, while playing Blackjack, are taught playing and better strategy; 1 player.

### Education Category

- 1st Richard S. Waller, Seven Hills, OH — \$2,000  
 "Video Flash Cards" — A program that helps teach arithmetical skills through the use of computerized flashcards.  
 2nd Harry Koons and Art Prag, Harbor City, CA — \$1,500  
 "Mapware" — Allows creation, storage and display of high-resolution maps in any of four projections.

### Business And Professional Category

- 1st Ronald and Lynn Marcuse, Freehold, NJ — \$2,000  
 "Data Management System" — A data base management system for short records, such as telephone and address directories, and record, tape and book catalogs.  
 2nd Robert A. Waldman, Greenwich, CT — \$1,500  
 "Financial Assets Management System" — Tracks up to 99 different personal assets and produces printed financial records.  
 3rd James L. Bruun, Idaho Falls, ID — \$750  
 "Decision Maker" — Displays the most logical outcome, based upon a weighting of factors involved in choices.

### System Software Category

- 1st John Howard Palevich, Bethesda, MD — \$2,000  
 "Chameleon" — Converts Atari computer into a computer terminal supporting an 80-column screen display and editing functions.  
 2nd Ronald and Lynn Marcuse, Freehold, NJ — \$1,500  
 "Diskette Librarian" — Catalogs all the files on collection of diskettes.  
 3rd James Woods, Guymedd, PA — \$750  
 "BLIS" — Produces nicely formatted BASIC language program listings for debugging or publication.

Atari Program Exchange programs are available through participating Atari dealers and from the company by mail. Typical programs range from about \$6.00 to \$50.00. Program authors are paid royalties quarterly, based upon actual sales.

For further information contact: J. Peter Nelson, Atari Inc., 1265 Borregas Ave., PO Box 427, Sunnyvale, CA 94086 (408) 745-5227.

# SPEAK!

at the

## 7th West Coast Computer Faire

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Some of the topics presented at previous Faires:

### Tutorials for the Computer Novice

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 Electronic Music  
 Computers and Law  
 Speech Synthesis & Speech Recognition by Machines  
 Exotic Computer Games  
 Computer Assistance for the Physically Impaired  
 Designing Systems for Humans  
 Low-cost Educational Computing  
 Computer Esoterica  
 The History of Computers & Computing

### Intelligent Mass Communications

Electronic Mail  
 Residential Energy Conservation Systems  
 Tutorials on Software Design  
 Hardware Design & Implementation  
 High Level Languages for Micros  
 Multi-Tasking on Microcomputers  
 Business Aspects for Computer Craftspeople  
 Peripherals: Plain & Fancy  
 Public-Access Computer Centers  
 Computing in Amateur Radio Systems  
 Heretical Proposals

## YOUR TALK WILL BE PUBLISHED

all accepted papers will appear  
 in the Conference Proceedings of the 7th West Coast Computer Faire,  
 which will be available at the Faire.

the **DEADLINE** for  
 abstracts & camera-ready papers is  
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- † Propose a conference session you would like to organize (we'll be glad to help)
- † Request an Author's Kit, soon.

Computer Faire

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## HELPS Is On Its Way

Researchers at Battelle's Columbus Division are developing a computer-assistance modeling method for use in strategic planning and evaluation of elements within the health-care industry.

The method, called Health Environment Long-Range Planning Support (HELPS), can be used by specific health-related companies or organizations to evaluate the impacts of new technologies and to assess the potential impact of anticipated federal legislation. In addition, it can forecast industry performance resulting from structural changes to determine the social change on the industry.

The Battelle-developed approach relates the performance of the health-care industry to the dynamics of its environment. It takes into account such environmental factors as population size, federal legislation and the effect of preventive medicine and environmental safety on illness occurrence. The approach also incorporates industry factors, including physician practice patterns, patient access to care, mechanisms of health-care financing, and availability of patient-care resources such as pharmaceuticals and medical equipment.

For further information contact: James P. Barrett, Battelle's Columbus Division, 505 King Avenue, Columbus, Ohio 43201 (614) 424-4940.

### TRS-80 product

## H. S. Teachers Become Computer Students

Lyons Township High School District 204 of LaGrange, Illinois is offering workshops and labs towards the goal of full computer literacy for its staff.

The school has established eight workshop lab areas, each equipped with more than twenty-five TRS-80 Model III computers (with 16K and 48K memory) linked with Radio Shack Network Controllers to a "master" TRS-80 equipped with disk and 48K of memory.

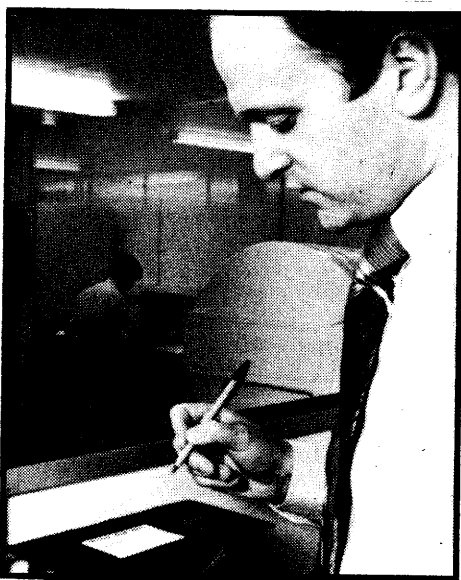
They began last spring with a voluntary program to train their staff on these computers.

"We're starting from a different point of view than has typically been the case," explains Dr. John Bristol. "We are accepting the premise that the computer impacts all areas of the curriculum, so computer literacy is a multi-disciplinary issue. We said, let's do something about computer literacy for students, recognizing the development program should come from the teachers. But while most curriculum development is done by teachers, most teachers were educated—like most managers—in the private sector, without the opportunity of learning about computers because they were not a tool at the time."

So far 99% of the teachers have volunteered for the eight hour workshop.

"From this workshop comes the next phase: After the teachers become a little more literate about the computer—and they're from all disciplines, all departments—they then make recommendations as to projects, two-week modules to be placed into their courses. These will be developed this summer, so next fall, students will receive literacy instruction right in their classes, not in a separate unit. The students almost want to knock down the doors to get into these classrooms."

For further information contact: Martin B. Winston, Radio Shack, 1800 One Tandy Center, Fort Worth, TX 76102, (817) 390-3300.



## Q Sign In Please

Q Sign, by Quest Automation, is a new method of personal identification by means of signature verification. The computerized system replaces the traditional method of using identity cards, keys, passwords or i.d. numbers. By comparing a user's signature, as it is written, with the memory-stored copy, it enables identity to be verified quickly and easily. The signature can be written with an ordinary pencil or ballpoint pen.

Q Sign is an on-line, real time approach which recognizes the highly personal and characteristic writing "rhythm" of the author, as well as the geometric shape of the signature. A high level of security against forgery is obtained, as the writing rhythm is not present in a static signature and cannot be practiced by a potential forger.

For further information contact: Micropad Inc., Suite 1510, 35 East Wacker Drive, Chicago, IL 60601 (312) 346-4667.

## Loch NEC Monster?

Nippon Electric Company (NEC) is building their largest European factory in the New Town of Livingston, Scotland, 15 miles from Edinburgh. The 180,000 sq. ft. facility will triple NEC's capacity for assembly of integrated circuits by 1983.

### TRS-80 product

## TRS-80 Computer Used In Mental Health Center

A Texas mental health facility is using a TRS-80 computer as a diagnostic aid. William Dossett, consultant for the Community Mental Health Center in Temple, Texas, has developed a computer-assisted diagnostic system for mental health clinics. Using a series of questions with "yes" or "no" answers the computer works through a decision sequence until a recommended diagnosis is achieved.

"Computers have been used in mental health centers for years to perform many management information functions," said Dossett, "but until recently programs have either not been available or they have been ineffective in gathering and evaluating data for the purpose of treating clients." Dossett's

system, called DSMY (based on the American Psychiatric Association's Diagnostic and Statistic Manual), documents its diagnosis with a printout of the decision sequence as well as reference manual page numbers to confirm the decision.

Professional colleagues with TRS-80 computers and an interest in the DSMY program have formed a six-state network, sharing data with each other by linking their computers to their telephones. This enables them to achieve a more comprehensive study for large scale experiments.

For further information contact: William Dossett, P. O. Box 9758, Austin, TX 78766, (512) 345-6560.

### Apple product

## Apple 3 Gets WORD 3

Westico, The Software Express Service, announces WORD 3 - a comprehensive word processing system for Apple 3 computers by System Decisions Group. WORD 3 is designed for use by first-time computer users who need to get useful work from their computer immediately.

Besides the standard word processing operations, WORD 3 has automatic text search and replace and a magazine-type two-column format.

WORD 3 works with any standard printer but will perform micro justification, bold face and underlining on NEC, Diablo, and Qume printers or their equivalents. Multiple files may be printed as well as multiple copies of a file. Printing may be started at any page and WORD 3 is able to pause at the end of each page.

WORD 3 is \$195 for software and documentation.

For further information contact: Westico, Inc., 25 Van Zant St., Norwalk CT 06885, (203)853-6880.

## Presto! Typewriters Become Printers

Now you can turn your typewriter into a printer with the Dynatyper from Rochester Data.

The Dynatyper is now RS-232 serial, Centronics parallel, IEEE 488 (GPIB) and 15 Pin Current Loop Compatible via the Dynastar. The Dynastar/Dynatyper system (\$699.00) is turnkey compatible with all Heath, Zenith, Hewlett-Packard, DEC, as well as many other computers. Features include a 3.5 K RAM Buffer, 37.5 to 9600 switch selectable baud, top of form option, 80 or 132 column option and downloading capability to 4 special character sets. Print speed is 12 cps for IBM selectrics and 8 cps for all other standard keyboard typewriters. No modification is necessary to the typewriter, and manual operation can be resumed in 5 seconds.

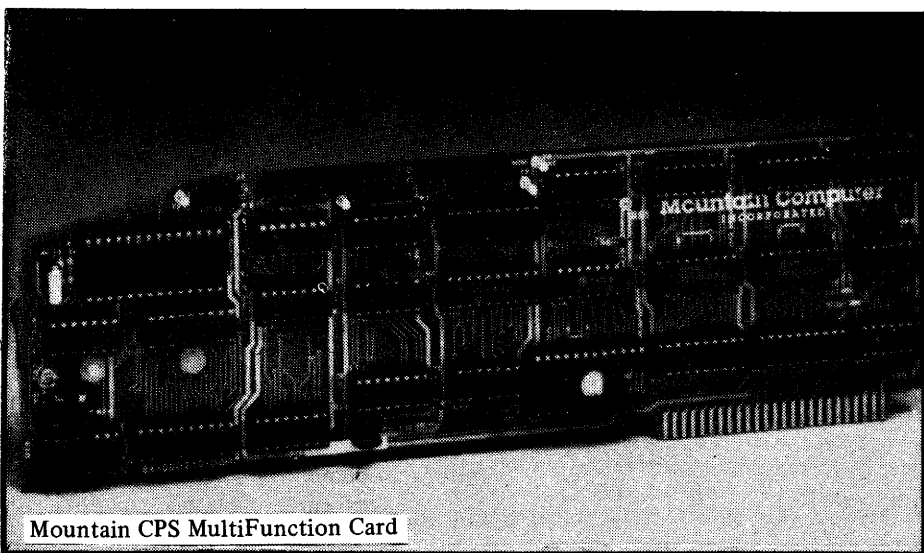
For complete information contact Rochester Data, 3000 Winton Rd. South, Rochester, NY 14623, (716)244-7804.

# Bay Area Grand Opening

# JADIE Computer Products

We are proud to announce the opening of another Jade Computer Store. Beginning in January 1982, we will provide the Bay Area with the convenience of shopping locally without sacrificing the tremendous selection and competitive prices that have been a Jade trademark for years.

We look forward to seeing you in January.



Mountain CPS MultiFunction Card

Apple product

## Three Cards in One

The Mountain Computer CPS MultiFunction Card provides the capabilities of a serial interface, parallel output interface and real-time calendar/clock - all on one card - occupying only one slot in an Apple II.

Serial and Parallel output may be used simultaneously from CPS. CPS is configured from a set-up program on diskette which sets the parameters (such as baud rate, etc.) for all functions contained on the card and is stored in CMOS RAM on the card. Once you have configured your card, you need never set it up again. You may also change parameters from the keyboard with control commands. All function set-ups stored on-board are battery powered for up to two years.

"Phantom slot" capability permits assigning each of the functions of CPS to different slots in an Apple without the card actually being in those slots! For example, insert CPS in slot #4 and set it up so that it simulates a parallel interface in slot #1 and a clock in slot #7 and leave the serial port assigned to slot #4. CPS's on-board intelligence lets it function in a wide variety of configurations, thereby providing software compatibility with most existing programs.

For more information contact: Mountain Computer Inc., 300 El Pueblo Road, Scotts Valley, CA 95066.

## Articles Sought For Heath/Zenith Magazine

*Sextant*, a new quarterly magazine devoted solely to Heath and Zenith computer systems and their users, is seeking articles.

*Sextant* will carry news and features on all aspects of Heath/Zenith systems. Products will be critically reviewed, and there will be space for tutorials and program listings. Philosophies of the industry, advantages and disadvantages of products from Heath Co., Zenith, and independent supporting suppliers, and new applications of the systems will be among the topics explored.

Writers and articles are now being sought for the first issues of the magazine. Heath/Zenith fans are encouraged to send their ideas for articles to *Sextant*, c/o Buss, 325-G Pennsylvania Ave. S. E., Washington, D. C. 20003. Contributors will be paid. *Sextant* hopes to reward and encourage quality research and writing on Heath and Zenith concerns.

*Sextant* is a new venture of the publishers of *Buss: The Independent Newsletter of Heath Co. Computers*.

For further information contact: Charles Floto, *Sextant*, 325-G Pennsylvania Ave. S. E., Washington, D. C. 20003 (202) 544-0900.

## Software Copyright Report Published By Sofprotex

Sofprotex, a new division of Government Copyright Services (a private organization not connected with the U. S. Federal Government), has recently released a report on the copyrighting of computer software.

A company spokesman said, "There's been much confusion in this area of copyright protection. Major corporations are finding themselves involved in litigation over computer crime at an alarming rate of increase. This matter not only concerns the computer industry, but reflects managerial competence in all areas of business. With new legal decisions, such as the recent ruling on patents involving software, and the general lack of available information, we feel this report will eventually become a necessary addition to the library of anyone supported by software development."

The new report sells for \$25.00 at various outlets, but can be purchased direct for \$20.00 from the publisher at: Sofprotex, PO Box 271, Belmont, CA 94002.

## Kids Accompanied by Adults Welcome at Games Faire

Unlike the West Coast Computer Faire, which is primarily for adults with a serious interest in computing, it is appropriate for well-behaved young people to attend the Silicon Gulch Games Faire & AppleFest. As such, a reduced admission of \$4 is offered for children under 12, accompanied by an adult.

Because of the expensive and somewhat delicate nature of most of the products being exhibited in the Faire & AppleFest, children will not be admitted without accompanying adults, and uncontrolled or misbehaving children will be ejected from the Convention Center.

TRS-80 product

## New Encyclopedia For The TRS-80

Do you have a TRS-80 that you'd like to do more with? Now there is an encyclopedia to help.

The *Encyclopedia for the TRS-80* is a series of ten books which includes reviews of programs and accessories, programs which are ready to use, articles on writing software for the Radio Shack TRS-80 microcomputer and advice on how to modify commercial programs for specific uses.

Volume 1 of the *Encyclopedia for the TRS-80* is available in either soft or hard bound copies at computer stores throughout the country or directly from Wayne Green Books.

For more information contact: Wayne Green Books, Peterborough, NH 03458, (603) 924-7296.

## CRT Graphics Terminal Market To Exceed \$1.4 Billion By 1986

According to a recent study by Venture Development Corporation, the CRT graphics terminal industry is growing by leaps and bounds, and shipments will exceed \$1.4 billion by 1986.

The study, *The CRT Graphics Terminal Industry: a Strategic Analysis*, shows the fastest growing product segment in the graphics terminal industry is the color raster scan market with unit shipments growing at a compound annual rate of 64.8 percent. Color raster scan industry leaders include Ramtek and Intelligent Systems. IBM, another contender, is coming up from the rear with their new 3279 color unit. Industry observers report that there are tens of thousands of orders for the 3279, but VDC research found that less than 50 percent of those in the field are being used for graphics. Most 3279 users plan to upgrade these terminals to handle graphics applications in the future, but currently most are only used for alphanumeric.

Other alphanumeric terminals will compete with graphics terminals in the future as users install graphics circuit boards such as those being marketed by Digital Engineering. These circuit boards add graphics capability to DEC VT 100's and Lear Siegler ADM-3A's.

According to Wendy Abramowitz, VDC analyst, "Digital Engineering has a good concept which is already cutting into sales of graphics terminals for business applications. Small companies that previously could not afford a graphics terminal can now put graphics capabilities on a dumb terminal for only \$1,000."

One thing that the circuit board terminal enhancements are lacking is color, which is becoming increasingly important, especially for process control and image processing applications. Many CAD/CAM vendors are also switching from direct view storage tube terminals to high resolution color raster scan terminals. By 1986 color units should account for 84.8 percent of CRT graphics terminal shipments.

In addition to examining technology and the impact of color terminals, VDC's study also provides installed base information, shipments by display type through 1986 in units and dollars, and a profile of users and potential users of CRT graphics terminals. Also included are discussions of applications, distribution channels, industry structure and strategic recommendations for manufacturers.

Further information regarding this report can be obtained from Wendy Abramowitz, Market Research Analyst, Venture Development Corporation, One Washington Street, Wellesley, MA 02181, (617) 237-5080.

Apple product

## Data Plot Thickens

DATA PLOT is a new graphing program from Muse Software. It is useful to anyone who has a need to plot numerical information. Among the many powerful features are quick data entry and editing; bar charts and line graphs; scatter diagrams; pie charts; multiple line and additive bar plots; automatic or manual scaling and labeling; basic statistics; and all plots may be output to a Trendcom or Silentyper printer.

DATA PLOT is available at computer stores or from Muse Software, 330 N. Charles Street, Baltimore, MD, 21201, for \$59.95 on disk, for any Apple computer with Applesoft ROM and 48K.

## 10 MHz Z8000s From Zilog

A version of the Z8000 16-bit microprocessor that runs at a clock rate of 10 megahertz has been announced by Zilog, Inc. This is an improvement of nearly 70 percent over the fastest version previously available.

The 10 MHz Z8000B comes in segmented and non-segmented versions that address different applications.

The 48-pin segmented Z8001B permits the user to address up to 32 megabytes of memory for highly memory-intensive applications. Its 10 MHz clock can be used in new systems that require very high system throughput, such as distributed processing systems. When used with Zilog's Z8010 Memory Management Unit, the Z8001B can offer a memory-addressing range of up to 48 megabytes.

The 40-pin non-segmented Z8002B, which has a 256-kilobyte memory-addressing range, is suited to less memory-intensive uses such as high-speed controllers.

Introductory prices for quantities less than 10 are \$300 for the Z8002B, which is currently available from Zilog and its distributors, and \$360 for the Z8001B, which will be available in November.

For further information contact: Sara Killingsworth, Zilog, 10340 Bubb Road, Cupertino, CA 95014, (408) 446-4666.



## Don't Forget To Protect Your Memory

Ladco Development Co., Inc., has a computer equipment protection system that conditions supply line voltage and provides a safe operating environment for electronic equipment, particularly computer memory circuits. Using a RAMLOK controller guarantees a regulated, dedicated line. Whenever line supply voltage moves outside the +/- 10%, HI/LO window, either due to a drift downward (brown-out), complete voltage drop-out or voltage surge, RAMLOK senses the change and switches to an uninterruptible standby power source such as a battery/inverter combination. The response time to complete voltage failure is within 20 milli-seconds. When line voltage returns within acceptable limits, RAMLOK recovers automatically, switching back to line voltage. The unit quantity price is \$495.

For further information contact: J. P. Wiles, Ladco Development Co. Inc., PO Box 464, Olean, NY 14760 Tel. (716) 372-0168.



## Heathkit/Zenith Introduces Linear Circuits Course

A new "hardware-oriented" course in Linear Circuits has been introduced by Heathkit/Zenith Educational Systems, a division of Heath Company, Benton Harbor, Michigan, to meet the needs of the electronics students, experimenter, radio amateur or computer enthusiast.

According to Heathkit/Zenith, the student learns how each circuit operates by building the circuit and observing its performance. And when the course is finished, the individual has a handy circuit reference file for future use. The Course is mail order priced at \$49.95,

FOB Benton Harbor, MI 49022.

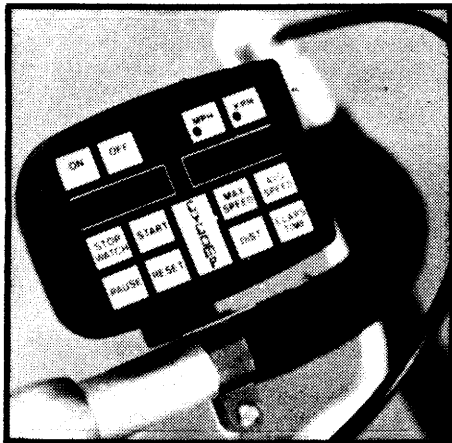
For more details on the EH-701 Linear Circuits Course, see the latest 104-page Heathkit Catalog. For a free copy write Heath Company, Dept 350-155, Benton Harbor, MI 49022. In Canada, write Heath Company, 1480 Dundas Street, East Mississauga, ONT L4X 2R7. Free catalogs are available at Heathkit Electronic Centers in the U.S. and Canada (units of Veritechnology Electronics Corporation in the U.S.). Consult telephone directory white pages for locations.

## You'll Flip Over This Display

The Industrial Products Division of Industrial Electronic Engineers, Inc., (IEE), has introduced a 6 line by 40 column, 240-character addition to its FLIP line of Vacuum Fluorescent Display Modules. Incorporating the features of the previous FLIP Models, this current module sports a full 96-character ASCII font with European ECMA-7 overlays plus the added ability to accept user defined characters in any or all of the ASCII locations. Data can be entered beginning at the top or bottom line, or randomly located, and can be vertically scrolled. The user can also select an au-

tomatic carriage return/line feed or over write of right-most character end-of-line mode, and character editing is a standard feature. The .20 inch (5mm) characters are a bright (175fL) blue-green color filterable to blue, green, aqua or yellow and the module operates from a single 5V power supply. The price is \$840.00 in units of 100. Delivery time is 2-8 weeks.

For further information contact: Carl Doria, National Sales Manager, Industrial Products Division, IEE, 7740 LeMona Ave., Van Nuys Ca 91405, (213)787-0311, ext. 210.



## Handlebar Computer Checks Time and Speed

A new handlebar-mounted speedometer and computer from Britain helps cyclists check precise time and speed over measured distances. CYCOMP, a very light unit, incorporates a microprocessor to drive an eight-digit display. Operated by a simple keyboard, it continuously shows bike speed in miles/hour or kilometers/hour and also indicates maximum speed, average speed, distance traveled and time elapsed on a trip. In addition, it can be used as a stopwatch on or off the bike. The handlebar bracket has a miniature plug and socket which makes the unit easy to remove.

Electromagnetic transmitters and receivers mounted on the fork, and on two front wheel spokes ensure that wheel speed is measured without friction. The adjustable unit can fit most international wheel sizes. It is powered by eight 1-1/2V penlight batteries.

For further information contact: Mr. P. W. Addison, Micronic Computer Systems Ltd., 81 Hersham Road, Walton-on-Thames, Surrey KT12 1RJ England. Telephone: Walton-on-Thames (98) 47555.

## Creative Computing Acquires Magazine

Creative Computing has acquired the magazine, *Computers and Programming*, (formerly *Elementary Electronics*) from Davis Publications. This marks the fourth magazine acquired by Creative Computing since 1978.

For further information contact: David H. Ahl, Creative Computing, 39 E. Hanover Avenue, Morris Plains, NJ 07950, (201) 540-0445.

# The Computer Chronicles

The Computer Chronicles focus is personal computing; in a wide variety of applications, hardware and new technologies. Jim Warren, the Chronicles host, talks with leading designers, engineers and artists in the micro field.

Watch The Computer Chronicles on Channel 60 and on cable tv throughout the Bay Area.

Thursday 7:00 PM  
Friday 9:30 AM  
Saturday 5:30 PM

November/December schedule of programs:

November 5th.: Successful Software Entrepreneurs.  
November 12th.: Educational Computer.  
November 19th.: Computerized Games and Toys.  
November 26th.: Mass Digital Telecommunications via TV.  
December 3rd.: More Games.  
December 10th.: Public Information Utilities.  
December 17th.: The IBM Personal Computer.  
December 24th.: The John Whitneys on Graphics.  
December 31st.: Computer Generated Music #1.

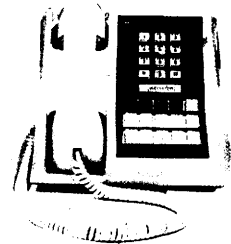
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# Best of the Computer Faires

Conference Proceedings of the

## West Coast Computer Faires

**(1)**

**THE BEST OF THE COMPUTER FAIRES, VOLUME I**  
Conference Proceedings of the 1st West Coast Computer Faire

Section	Pages
Banquet Presentations	18
Tutorials for the Computer Novice	16
People & Computers	14
Human Aspects of System Design	9
Personal Computers for the Physically Disabled	7
Legal Aspects of Personal Computing	6
Heretical Proposals	11
Computer Art Systems	2
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Tutorials on Software Systems Design	11
Implementation of Software Systems & Modules	14
High Level Languages for Home Computers	15
Multi Tasking on Home Computers	9
Homebrew Hardware	8
Bus & Interface Standards	17
Microprogrammable Microprocessors for Hobbyists	18
Amateur Radio & Computers	11
Commercial Hardware	8

**(2)**

**THE BEST OF THE COMPUTER FAIRES, VOLUME II**  
Conference Proceedings of the 2nd West Coast Computer Faire

Section	Pages
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An Introduction for the Absolute Novice	14
Computers for the Physically Disabled	13
Computers for the Visually Handicapped	29
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Computers in the Arts	24
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**(3)**

**THE BEST OF THE COMPUTER FAIRES, VOLUME III**  
Conference Proceedings of the 3rd West Coast Computer Faire

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Visions of Near Future	9
Computer Music Systems	9
Intelligent Machines to Aid the Physically Impaired	4
Low-Cost Computers in Biomedical Environs & Health Delivery Systems	27
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**(4)**

**THE BEST OF THE COMPUTER FAIRES, VOLUME IV**  
Conference Proceedings of the 4th West Coast Computer Faire

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**BULK ORDERS**

Computer Faire proceedings may be ordered in bulk quantities at a discount.  
For complete details, write or phone Computer Faire, 333 Swett Road, Woodside CA 94062, (415) 851-7075.

**(5)**

**THE BEST OF THE COMPUTER FAIRES, VOLUME V**  
Conference Proceedings of the 5th West Coast Computer Faire

Section	Pages
Tutorials for the Novice	14
Artificial Intelligence & Micros	10
Computer Games & Computer Education	11
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**THE BEST OF THE COMPUTER FAIRES, VOLUME VI**  
Conference Proceedings of the 6th West Coast Computer Faire

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S-100 product

# SWAT Those Bugs

Ithaca Intersystems, Inc. has released version 4.0 of their Pascal/Z compiler which includes SWAT (Soft-Ware Analysis Tool), an interactive symbolic debugger. SWAT is designed to provide a valuable programming tool to the professional programmer, by aiding in the isolation and correction of faults in programs generated by the Pascal/Z compiler and software package.

SWAT permits the user to set both absolute and conditional breakpoints, to set a watch on a variable or a routine, to display these breakpoints as well as variables and statement/module numbers, to display runtime requirements at any point in the program, to display the last ten statements executed, and to trace and display the procedure/function stack. SWAT also allows the user to modify both global and local variables, including subscripts of arrays, fields of records, and enumeration types.

The Pascal/Z compiler also has a new overlay capability which permits the programmer to develop programs which are larger than the memory size of the computer.

Pascal/Z is shipped in 8" CPM compatible format with other formats available from Pascal/Z distributors.

Ithaca Intersystems Inc. manufactures and markets a line of 8 and 16 bit S-100 microcomputer systems and support software, designed specifically for applications in software development, systems integration, and single and multi-user educational, scientific and commercial environments.

For further information contact: Chris Russell, Ithaca Intersystems, Inc., 1650 Hanshaw Rd., Ithaca, NY 14850.

## 5 1/4-Inch MicroDisc Cartridge Announced

Seagate Technology, DMA Systems, and Dysan Corporation have announced mechanical specifications for the MicroDisc, a 5 1/4-inch removable disc cartridge.

The Microdisc cartridge dimensions are 5.551 inches by 5.394 inches by .748 inches. A single magnetically-clamped, oxide-coated 5 1/4-inch disc is contained within the plastic housing. Disc rotation is specified at 3600 rpm and the certified recording area is from 1.300 inches inside radius to 2.450 inches outside radius. The head entry port, which was designed to accommodate both Winchester and thin film heads, and the air exit port both open automatically during cartridge insertion, and close upon removal. The Microdisc cartridge also provides an insertable tab, which may be used for write protection upon tab removal.

For more information contact: Finis Conner, Seagate Technology, 360 El Pueblo Road, Scotts Valley, CA 95066, (408) 438-6550.

## Streaming Tape Systems Backup a Winchester

MICROTECH Business Systems introduced a high-performance family of DART-based minicomputers, all built around Winchester disk drives and all featuring the flexibility of streaming tape backup.

The DART family—available in seven basic configurations—includes a high-speed, 16-bit minicomputer and 64Kbytes of RAM memory on a single board. All models support a variety of hard disks, from 10Mbytes on a single spindle to as much as 732Mbytes on four spindles.

The DART-based systems run the IRIS operating system and a wide variety of existing applications packages.

Software currently available from MICROTECH includes everything from word processing (TIPIST) and accounting packages to a variety of medical, dental, legal and architectural programs.

The smallest computer, called the System 50, includes a CPU with 64K of memory; four serial I/O ports; a 20Mbyte Winchester disk drive with a 20Mbyte streaming tape backup drive and controller; a 27-inch cabinet; and the IRIS operating system. Available immediately, it lists at \$14,950. Optional printers and CRTS also are offered.

At the top of the line, the System 400 includes a POINT 4 computer with 64K of memory and battery backup; a 158Mbyte Winchester disk and microstreamer tape backup; a controller; four serial I/O ports and the Mighty MUX multiplexer; a 27-inch cabinet; and the IRIS operating system. Also available immediately, it lists at \$36,000.

For further information contact: Bill Gallucci, Microtech Business Systems, 3180 Pullman Street, Costa Mesa, CA 92626 (714) 557-8640.

TRS-80 product

## Psychological Software

The Psychological Corporation, a subsidiary of Harcourt Brace Jovanovich, Inc., is beginning a cooperative working relationship with Radio Shack to develop and sell educational software. The Psychological Corporation publishes tests and related print materials to the education market at the elementary, secondary and college level.

The company plans to offer software programs for the TRS-80, including management of industrial training systems, industrial reading tutorial programs, a speed reading program, personnel record keeping systems, and basic math programs.

For further information contact: Martin B. Winston, Radio Shack, 1800 One Tandy Center, Ft. Worth TX 76102, (817) 390-3272.



## And Now... A Spot Announcement From Your Computer!

A Serial Line Controller which combines microprocessor intelligence with a versatile voice synthesis capability has been introduced by Digital Pathways.

Called the SLC-II, it can automatically dial phone lines and "talk" by means of an electronically synthesized voice. Its vocabulary includes more than 300 words as well as the complete alphabet and all numerals. In addition, the SLC-II will spell what it can't say, for an unlimited message capability.

It requires no software changes to the host computer's operating system and connects between any computer and terminal to monitor the flow of messages. It can then be "taught" to initiate desired voice messages at specific time intervals or upon recognition of certain messages moving from

computer to terminal. The SLC-II can also "listen" and respond to incoming phone messages that originate at a remote terminal, or that are generated by a telephone keypad.

The applications include data collection/transmission, telephone access to large data bases (e.g., credit verification), alarm signaling, and security/facility monitoring.

The SLC-II provides an ASCII input/output, touch-tone input, printer output and external amplifier output—as well as the synthesized voice output.

Priced at \$1,975 in single-unit quantity, the SLC-II is now available in 60 days ARO. Discounts are offered on quantity purchases.

For further information contact: Digital Pathways, Inc., 1260 L'Avenida, Mountain View, CA 94043, (415) 969-7600.

### CP/M SYSTEMS COMPATIBLE 8080/Z80 SOFTWARE

STANDARD UTILITIES		\$	Source/Object
COMMXTM	Menu Driven Communications with Information Services (DEC - IBM - UNIVAC - CBBS - etc.) and Remote COMMXTM Systems Transfer Any File Type/Size. Nine Link and Eight Local Functions Prompt for Mindless Operation.	250.00	75.00
D	Disk Directory 4 Column Sort with File Size/Disk File and Space Status.	40.00	20.00
DDB	Disk Directory Database UPDATE/INQUIRY Catalogs Files Fast.	60.00	25.00
DCOMP	Disk File Compare with Another Disk File with Display Option.	30.00	20.00
MCOMP	Memory Range Compare to Memory (ROM or RAM) - Console Logs Errors	30.00	20.00
MTEST	Memory Test Any Range with Before/After Write Error Bits + Pass #	30.00	20.00
ADVANCED UTILITIES			
CDIR	Comprehensive Sorted Disk Directory/Cross File Block Allocation Check	30.00	20.00
COPSEO	Specify Disk Area and Copy Sequentially to CP/M File	30.00	20.00
DASM	8080 Object Dis-Assembler with Symbol Table/XREF/ASCII MAP	100.00	40.00
DXRSIZ	Disk Exerciser Read or Write/Track/Sector/All/Set and Check Skew	60.00	25.00
GEDIT	Gang String Substitution Made Globally in One Pass Editor	50.00	20.00
PREDIT	Source Program Version Number Maintenance at Pre-Edit Time	40.00	20.00
PROMER	Load/Display/Patch/Copy/Verify/Burn 1/2K+1K+2K+4K Proms.	60.00	30.00
RELOC	8080 Object Code Relocator. Put This Into Your Program	30.00	20.00
X6502	6502 Crossassembler MAC Macro Library and Post Processor	100.00	
MEMORY MAPPED VIDEO			
CGEN	EPROM Character Generator Editor for Video Display Boards	50.00	20.00
DXAM	Disk Track Sector Examine with Update in HEX or ASCII or EBDIC	40.00	20.00
VBASIC	9K Disk Basic with Super Video Commands and Full Screen Program Editor. Supports Different Video Cards with Identical Program Execution!	CALL	100.00
VGAMES	For VBASIC: Othello/Blackjack/Breakout/Blockade/Poker Slot and Draw.	100.00	50.00
SOUNDS	VBASIC Development System for AY-3-8910 Sound Chip Sounds	75.00	30.00
PMIS	Program Management Information System (Critical Path Method).	200.00	90.00
DBMS	VBASIC Data Base Management System/Define/Enter/Report.	150.00	75.00
VIDEO	Parameter Controlled Multi-User or Scroll Window Video Driver.	50.00	
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## FREE SILICON GULCH GAZETTE SUBSCRIPTION

Please enter my free subscription to the Silicon Gulch Gazette. In return, I am answering the QUESTIONS, below, to provide information profiling the microcomputing user community and the SGG readership.

I have a computer for personal use:  company owns it  I own it

manufacturer:	memory:	disc:	hardcopy:
<input type="checkbox"/> TRS	<input type="checkbox"/> <17K	<input type="checkbox"/> 5-1/4"	<input type="checkbox"/> none
<input type="checkbox"/> Apple	<input type="checkbox"/> 17K-33K	<input type="checkbox"/> 8" floppy	<input type="checkbox"/> dot-matrix
<input type="checkbox"/> Commodore	<input type="checkbox"/> 33K-66K	<input type="checkbox"/> Winchester	<input type="checkbox"/> non-impact
<input type="checkbox"/> S-100 system	<input type="checkbox"/> 66K-132K	<input type="checkbox"/> hard	<input type="checkbox"/> < 72-column
<input type="checkbox"/> other:	<input type="checkbox"/> >132K	cartridge	

maker: \_\_\_\_\_ model: \_\_\_\_\_

operating system:	major languages:
<input type="checkbox"/> CP/M	<input type="checkbox"/> Basic <input type="checkbox"/> assembler
<input type="checkbox"/> MP/M	<input type="checkbox"/> Fortran <input type="checkbox"/> others: _____
<input type="checkbox"/> Oasis	<input type="checkbox"/> Pascal _____
<input type="checkbox"/> mfgr's o.s.	<input type="checkbox"/> C _____

I use a DEC computer:

<input type="checkbox"/> PDP-8 family	<input type="checkbox"/> PDP-10 family	running:
<input type="checkbox"/> LSI-11 family	<input type="checkbox"/> System 20 family	<input type="checkbox"/> OS-8
<input type="checkbox"/> PDP-11 family	<input type="checkbox"/> PDP-9 or PDP-15	<input type="checkbox"/> RT-11
<input type="checkbox"/> VAX family	<input type="checkbox"/> LINC, LINC-8, or PDP-12 family	<input type="checkbox"/> RSTS
		<input type="checkbox"/> Unix

I  recommend  decide on computer equipment/supplies expenditures, annually:

<input type="checkbox"/> <\$300	<input type="checkbox"/> \$1000-\$4000	<input type="checkbox"/> \$10000-\$30000	<input type="checkbox"/> >\$100K
<input type="checkbox"/> \$300-\$1000	<input type="checkbox"/> \$4000-\$10000	<input type="checkbox"/> \$30000-\$100K	

I am

<input type="checkbox"/> not a computer person	<input type="checkbox"/> a computer hobbyist	<input type="checkbox"/> a computer professional
<input type="checkbox"/> programmer/analyst	<input type="checkbox"/> electronics technician	<input type="checkbox"/> electronics engineer
<input type="checkbox"/> business owner	<input type="checkbox"/> manager, administrator	<input type="checkbox"/> teacher, professor
<input type="checkbox"/> physician, dentist	<input type="checkbox"/> attorney	<input type="checkbox"/> student
<input type="checkbox"/> unemployed/idle rich	<input type="checkbox"/> self employed	<input type="checkbox"/> employee

age:  <15  15-18  19-25  26-35  36-45  46-65  >65

Highest education completed:

<input type="checkbox"/> high school	<input type="checkbox"/> Bachelor's	<input type="checkbox"/> Ph.D.
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I have attended major microcomputer conventions in

<input type="checkbox"/> San Francisco	<input type="checkbox"/> San Jose	<input type="checkbox"/> Los Angeles	<input type="checkbox"/> Dallas	<input type="checkbox"/> elsewhere
<input type="checkbox"/> New York	<input type="checkbox"/> Boston	<input type="checkbox"/> Philadelphia/Atlantic City/Trenton NJ		

I currently subscribe to or receive:

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<input type="checkbox"/> Kilobaud	<input type="checkbox"/> 80 Microcomputing	<input type="checkbox"/> Computerworld	
<input type="checkbox"/> Wall Street Journal			

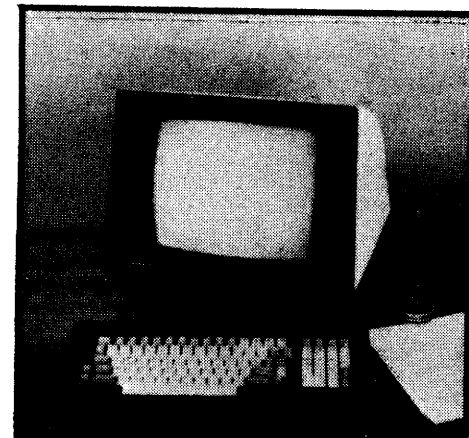
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 Main radio stations to which I listen: \_\_\_\_\_

## COMPUTER FAIRE PARTICIPATION

Please send me a Speaker's Kit for the 7th Computer Faire.  
 I wish to organize a Conference Section at the 7th Computer Faire on \_\_\_\_\_  
 I wish to organize a club/user group/organization meeting at the 7th Computer Faire about \_\_\_\_\_  
 Our nonprofit group (below) would like a free table in the "Organizations" area of the 7th Computer Faire. \_\_\_\_\_

## EXHIBITION PARTICIPATION

My company may be interested in exhibiting in one of your conventions. Please send an Exhibitor's Prospectus for the: \_\_\_\_\_ to (manager, company): \_\_\_\_\_  
 7th West Coast Computer Faire \_\_\_\_\_  
 Business Systems '82 (September, 1982) \_\_\_\_\_



## Teleray Offers Green (and Amber) Giant

Bigger is better, think the people at Teleray, who have just announced the availability of large-screen, 15-inch green and amber CRT's in all terminal models.

These large-screen CRT's present a display area 30% larger than standard 12-inch units. Green and amber screens are considered by some users to be easier to read for longer periods of time than black and white screens.

All Teleray terminals are designed with an 18.6KHz horizontal video scan rate.

The 15-inch green and amber CRT's are available in Models 10 (single-page editor), 11 (APL/ASCII), 12 (two-page editor), 14 (extended memory, interactive) and 100 (132-columns, with non-volatile programmable functions).

Standard-size 12-inch green and amber CRT's also are optional on all models.

Add-on quantity-one prices for the 15-inch green and amber options are \$200 and \$215, respectively; and for either the 12-inch green or amber option, \$10. Delivery is quoted at 5-6 weeks.

For further information contact: R. M. Deegan, Teleray, Division of Research Inc., Box 24064, Minneapolis, MN 55424, (612) 941-3300.

## Desktop Computing

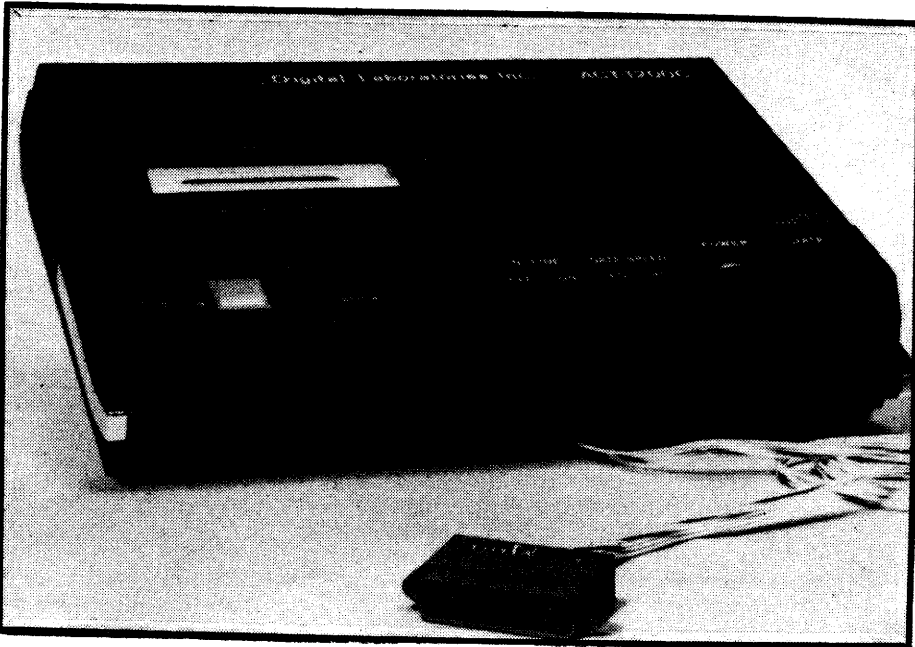
*Desktop Computing*, a magazine about small computers premiered in October. Touted as "the first computer magazine written completely in plain English", it will feature articles on case histories of small computer installations which have been successful, the kinds of work that can be done by a computer, and how computers affect the businessman.

For further information contact: Sherry Smythe, Wayne Green, Inc., Peterborough, N H 03458 (601) 924-7296.

## High Brow Computing

**COMPUTER CULTURE '81**, the only public event in the world to focus on the cultural aspects of computers and microelectronics, will be held in Toronto from Monday, November 16th to Sunday, November 22nd. The seven-day program, to take place at the Ontario College of Art, The Art Gallery of Ontario, the Flavio Belli Gallery, Gallery 76, the Music Gallery and the Village by the Grange, features displays and demonstrations, an open conference, an art show, a multimedia tribute to Marshall McLuhan, a day of computer animation and a computer music symposium.

For further information contact: The Photo/Electric Arts Foundation, Box 7109, Postal Station A, Toronto, Ontario, M5W 1X8, (416) 367-0590.



## Portable Storage Unit Speeds On-Site Program Loading

A new, portable storage unit that permits downloading into any RS232C port with diagnostics and other programs has been introduced by Digital Laboratories, Inc.

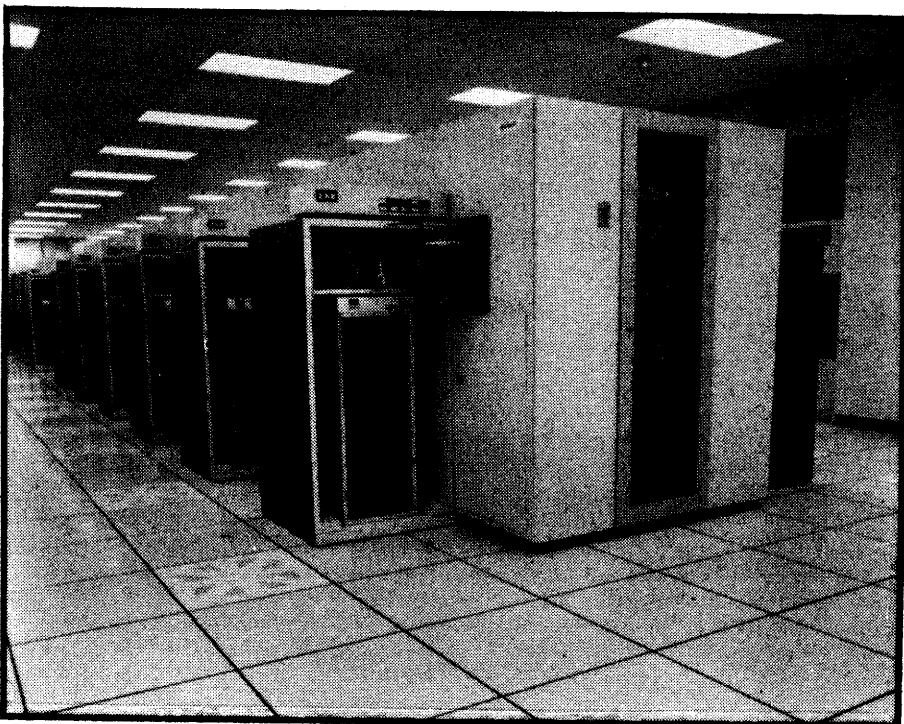
The Digital ACT-1200C Portable Storage Unit is a self-contained RS232C compatible cassette recorder that plugs into any asynchronous port. Compact enough to fit into a briefcase or field service kit, it eliminates extraneous interfacing or hardware for on-site program loading.

Character buffered to prevent tim-

ing errors, the Digital ACT-1200C Portable Storage Unit operates at 110 to 9600 baud with an error rate less than 1 in 100,000,000 using typical audio cassettes. Measuring 10"W x 6.5"H x 2.3"D, the unit comes complete with an RS232C connector and 4' cable.

The Digital ACT-1200C Portable Storage Unit sells for \$995.

For more information contact: Digital Laboratories, Inc., William M. Kahn, 600 Pleasant Street, Watertown, MA 02172, (617) 924-1680.



## Small Mass Storage System

(Not Yet Appropriate For Micros)

The Braegen Corporation has introduced the Automated Tape Library (ATL) to efficiently control ever-increasing amounts of data.

Accessing as many as 150 reels per hour, the ATL can store more than 8,000 standard tape reels in a lockable, self-contained library that can service up to 32 tape drives.

The ATL mounts tapes faster than the industry average. A generally accepted industry standard for manually mounting tapes averages from 75 to 90 seconds. The ATL slashes mount time to

15-20 seconds.

Manual tape handling and staging are virtually eliminated, and clerical and administrative tasks associated with recordkeeping are eliminated. Physical tape damage is sharply reduced, and the valuable and proprietary business information stored inside the ATL is secured behind locked doors in a closed, protected environment.

For more information contact: Dan Jakle, The Braegen Corporation - ATL, 3320 E. La Palma Avenue, Anaheim, California 92806, (714) 520-9240.

## WANT ADS

The Silicon Gulch Gazette will accept want ads for publication in future issues. SGG is published six times each year.

Want ads must be paid for on the basis of number of words in the copy. A "word" is defined by SGG as a phone number or any alphanumeric group delineated by a non-alphanumeric character.

The classified ad rate for want ads is \$1.00 per word, with a \$25.00 minimum.

Payment must accompany the typewritten ad copy. Ads and payment must be sent to: Silicon Gulch Gazette, 333 Swett Road, Woodside CA 94062.

DEC CABLES. BC05C-25 Cables. New. \$25. Other misc. DEC cables and boards. SASE for list. W. Herr, 1419 Saltair, Los Angeles, Ca. 90025, eves. 213-478-8673.

### ODELL SYSTEM 8085 DESK TOP COMPUTER

FEATURES: Shugart disk drives, CRT, and CPU in one cabinet, with Centronics printer.

SOFTWARE: Basic, Pascal, with Pascal compiler, sequential disk operating system, assembler, self diagnostics, and 14-PLUS digit extended precision arithmetic.

TERMS: Negotiable, call Ray at ENERGY COMPLIANCE SYSTEMS INC. (408) 244-1220.

## DIRECT'S New VP825 Runs Hewlett-Packard's View/3000

DIRECT, Inc. recently unveiled its latest ASCII video display terminal, the VP825. Designed to run Hewlett-Packard's View/3000 forms design and data entry programs, the VP825 is a terminal that can be tailored to meet the requirements of the user.

The VP825 offers a unique combination of features and capabilities that meet both the needs of the operator and the technical requirements of CPU interface.



For further information contact: Lloyd Graff, West/CSA, 3055 Clearview Way, Suite 308, San Mateo, CA 94402; (415)349-9834.

## Creative Computing Acquires Small Business Computers

The bi-monthly magazine, *Small Business Computers*, has been acquired by Creative Computing. Howard Falk will continue as editor of *Small Business Computers*, however, the rest of the staff will be substantially enlarged. The publication will also be greatly enlarged with both editorial material and advertising.

Now in its fifth year, *Small Business Computers* provides product information, tutorials, reviews and applications in a language easily understood by

computer novices.

Subscriptions to *Small Business Computers* are available for \$12.00 per year (6 issues). The magazine will also be available through retail computer stores nationwide. Base advertising rate is \$1000 (one time, one page, black and white).

For more information contact: *Small Business Computers* at 39 E. Hanover Ave., Morris Plains, N. J. 07950 (201) 540-0445.

## J. R. Robot

The industrial robot today is defined and the pros and cons of installing an industrial robot are discussed in *A Survey of Industrial Robots*, researched and written by Productivity International, Inc. of Dallas.

The comparatively new business of robotics involves applying the robot to a specific task and environment. The level of sophistication of the tasks performed by the robot is governed by the rate of technological progress afforded by engineering techniques.

The publication, *A Survey of Industrial Robots*, is available from Leading Edge Publishing, Inc., 5622 Dyer Street, Suite 217, Dallas, TX 75206.

### PRODUCTIVITY INTERNATIONAL OPENS NEW OFFICE

Productivity International, Inc., of Dallas has opened a new office in Stratford, Connecticut.

The new East Coast PI office is located at 54 Black Hawk Ln., P. O. Box 626, Stratford, CT 06497, (203) 377-7174.

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## SMART-E

Priam Corporation announced the SMART-E Winchester Controller, an improvement over their earlier Smart Interface.

Thomas Phinney, Vice President of Marketing at Dataplex, said that in benchmark tests, "the SMART-E reduced the required runtime of the benchmark program to six minutes from 20 minutes with the Smart Interface."

William J. Schroeder, Priam President, credited the improved performance to the SMART-E's sector interleaving command and the use of a 10MHz 8085 microprocessor in the SMART-E, instead of the 6MHz 8085 used in the Smart interface.

The SMART-E adds error checking and correction, with a 5-bit correction span and a 32-bit detection span; logical sector addressing; sector interleaving;

direct, non-buffered data transfers; and parity generation and testing on the data bus to the basic Smart Interface functions.

The SMART-E Interface is 8 inches by 14 inches in size; it piggy-backs on any Priam drive and it is powered by the drive power supply. The interface can also be mounted separately.

Future enhancements to the SMART-E Interface, due in the first quarter of 1982, according to Schroeder, will include full-track write and read for high-speed data transfer; user-selectable sector size for format flexibility; and automatic on-track alternate sector assignment.

For further information contact: Len Wilker, Priam, 3096 Orchard Dr., San Jose, CA 95134, (408) 946-4600.

## 6809 Pascal Compiler Debuts

A 6809 Native-code Pascal Compiler for operation under the 6809 FLEX and UniFLEX Operating Systems has been announced by Technical Systems Consultants, Inc.

The compiler produces 6809 assembly language source mnemonics which are assembled into object code. This native-code results in faster program execution speeds than common "P-code" interpreter Pascals.

The compiler supports integer and floating point math with up to 16.8 digits of accuracy, scientific functions, variable names unique to 160 characters, sets of up to 128 elements, dynamic storage allocation and deallocation, pointer types, true file I/O using file buffer pointers, sequential files, packed and unpacked record and array types, parameter passing from the command line to the Pascal program, and the ability to call other Pascal programs. The UniFLEX version supports random access files.

Additional operating system dependent routines exist for both the FLEX and UniFLEX versions of the compiler.

The compiler includes a user's manual, a copy of the *Pascal User Manual and Report*, by Jensen and Wirth, the compiler and run-time object code programs, and several example programs. The UniFLEX version sells for \$200.00. A single cpu license for the UniFLEX version costs \$300.00 and includes one year of maintenance.

For further information contact: Dan Vanada, Technical Systems Consultants, Inc., P. O. Box 2570, West Lafayette, IN 47906, (317) 463-2502.

## WRITE-ON! For Apple II

WRITE-ON! II, a word processing system for Apple II computers, has just been released by Rainbow Computing, Inc.

WRITE-ON! II is for anyone who wants to print many personalized form letters, mailing labels, bills, or checks. It allows you to create and maintain data files, like mailing lists, and then merge them into text files, such as letters or mailing labels. Software is provided for creating data files from most existing mailing list and accounting system files. In addition, WRITE-ON! II can preformat often-used text for faster printing on high speed and unbuffered printers, and has special features for playwrights and screenwriters.

WRITE-ON! can be used with a 48K Apple II with disk and Applesoft ROM. WRITE-ON! I (without script writing and data file merging capabilities) is available at \$99.50, and WRITE-ON! II costs \$150.

For further information contact Rainbow Computing, Inc., 9719 Reseda Blvd., Northridge CA 91324, (213) 349-0300.

(Rainbow Computing expects to have an Apple III version of WRITE-ON! II ready for sale by the end of March. This program would be the first word processor to be available for the Apple III computer.)

## Finally! DataCast — A Reference Publication for Microcomputer Users!

### DataCast is a Reference Series for Microcomputer Users

DataCast is the reference publication for users of major microcomputer software systems — particularly CP/M users, and for those interested in mass digital telecommunications.

It presents comprehensive software documentation, written in a clear and simple style.

It offers in-depth surveys and tutorials about the major information utilities now being created to serve large user communities.

Experienced, full-time staff documentation professionals write the majority of the contents of each publication.

All articles are carefully edited to assure the consistent style, accuracy, and quality expected in a good reference book.

The unsolicited praise in the letters responding to the first issue reflect the value and quality of DataCast.

### DataCast is for Both Novices & Experienced Users

DataCast offers tutorials for new users, reference documentation for experienced users, and — from time to time — internal systems documentation for those who wish to modify a system or understand its internal operation.

### DataCast Offers Consistent Coverage of Many Systems

DataCast covers a wide variety of systems and applications software from a number of suppliers. However, all the documentation has the same style, organization and clarity.

### DataCast is More of a Book than a Magazine

You can call it a "bookzine" or a "magabook".

Its content is that of a permanent, often-used reference book. Its physical format makes it easy to use as systems documentation.

On the other hand, it is like a magazine in that it is slender, available by subscription, and carries some advertising.

It is an ongoing series, published on a bimonthly basis. This assures that the documentation is timely and reflects the current version of the systems being documented.

Think of it as a magazine, and it's expensive. Think of it as a user's reference book, and it's very inexpensive.

### DataCast Subscriptions Save Time and Money

Save 25% over the single-copy price by subscribing to DataCast.

You receive each new issue when you subscribe. (Subscribe quickly enough and you can begin with No. 001.)

Prompt posting of each issue to your mailbox is assured when you are a subscriber.

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This is your last chance to be a charter subscriber. Issue No. 001 is nearly sold out. Subscriptions can start with No. 001 only while the supply lasts.

Subscribe now and have a complete set. Don't delay!

### About the Technical Staff . . .

#### Jim Warren

Jim has been a consultant, lecturer, writer and editor specializing in small computers since 1968. Back in the first days of microcomputers, he was the first editor of *Dr. Dobb's Journal*, the first publication to provide in-depth software articles and documentation, and a publication that took a strong consumer-advocacy position. He went on to create the microcomputer community's first newspapers (the *Silicon Gulch Gazette*, and later the *Intelligent Machines Journal* — now called *InfoWorld*). He founded and currently chairs the West Coast Computer Faire — the largest microcomputer conventions, held annually. He is the permanent host of "Computer Chronicles", the first weekly television show focusing on micro-computing and oriented to a computer-literate audience. He has chaired Chapters of the ACM, SIGMICRO, and SIGPLAN, and has served on the Program Committees of the National Computer Conference, IEEE Compcom, and the Computer Society's Asilomar Microprocessor Workshop. He holds a Bachelor's, three Master's degrees and has completed all but his dissertation for a Ph.D. in computer engineering at Stanford University.

#### Tony Bove

Tony is an experienced technical writer. He has been a tech writer for Data General and for Intel. When he left Intel to join DataCast, he was project leader for operating systems documentation. Among other publications, he wrote Intel's *Guide to the Intellex Series III Microcomputer Development System* and the operating instructions for their *Pascal-86 User's Guide*. While at Data General, he wrote a number of publications including their *Business BASIC Reference Manual*, and received several awards for the quality of his publications. He also wrote most of the material for one of the major CP/M reference books, currently in print. He has written for several nontechnical publishers on the east coast, and holds a Bachelor's degree, cum laude, from Tufts.

#### Cheryl Rhodes

Prior to joining DataCast, Cheryl worked extensively with ComputerTown U.S.A., affiliated with People's Computer Company. This work included designing and teaching computer courses, writing computer materials, and designing software examples for tutorial purposes. She also worked for Lawrence Hall of Science preparing computer literacy materials used in their "AppleVan" project. She began her work in computing at Data General, which included documentation and computer operations.

### Here's what DataCast USERS have to Say

Unsolicited comments from our first readers (and subscribers).

"This first issue should become a collector's gem."

— Bill Roch, *Elliam Associates, Woodland Hills CA*

"Finally, THE PUBLICATION that covers CP/M from a user's standpoint! ... I suspect that your DataCast magazine will soon be in the forefront as 'The User's Reference' ... your magazine fills the specific needs of CP/M users ..."

— Kelly Smith, *CP/M-Net News, Simi Valley CA*

"I think the magazine will make a name for itself not only through its unique orientation but by being well-focused and practical. Unfortunately good publishing like this is becoming a real rarity these days."

— Stephen C. Keeble, *Lifetime Learning Publications, Belmont CA*

"I found your first issue to be excellent! I'm at a loss to say which article was best. I found they were all very readable, useful, and relevant."

— Carl Burlin, *The Software Group, Anaheim CA*

"The idea of three approaches to CP/M for various levels from beginner to existing users is well executed. ... Nice mixture of user oriented material and a general overview of the status of CP/M ..."

— Herb Moore, *Palo Alto CA*

"The articles on telecommunications for personal computerists were particularly needed these days."

— Walter Zintz, *Uni-Ops, Walnut Creek CA*

**IN THE FIRST SEVERAL ISSUES**

**DataCast No. 001**

published August, 1981

Approaching CP/M (25 pages)

- The Illustrated CP/M Tutorial
- The Impatient User's Guide to CP/M
- CP/M User's Reference
- CP/M Command Summary

A Seminar for Independent CP/M Software Vendors

- Software Documentation Protocols
- An Index to CP/M Software and Vendors
- Overview of Home Information Services
- What is Telidon and Why is AT&T Adopting It?
- Telidon Project Update

**DataCast No. 002**

published in October 1981

Writing with CP/M Systems

Writing with WordStar (30 pages)

The Impatient User's Guide to WordStar

ED: A Text Editor

Lockheed's DIALOG: A Major Reference Information System

**DataCast No. 003**

December 1981

Database management with CP/M systems (tentative theme)

This issue will also include a listing of CP/M hardware vendors.

**DataCast No. 004**

February 1982

Software development tools for CP/M systems (tentative theme)

**DataCast No. 005**

April 1982

Comparison and analysis of the ease-of-use of major software systems (tentative theme)

"DataCast" and "Impatient User's Guide" are trademarks of Wireless Digital, Inc.

"CP/M" is a trademark of Digital Research

"WordStar" is a trademark of MicroPro International

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DataCast is a user's reference publication for major microcomputer software systems and mass digital communications.

DataCast provides application oriented tutorials, software documentation and user's reference guides, and progress reports on new computerized information services. The content is up-to-date and complete, the writing style is consistent, and the documentation is designed for long-term use.



**SUBSCRIBE.**

CLIP THE FORM BELOW AND SEND IT TO: DATACAST, 345 SWETT ROAD WOODSIDE CA 94062

YES! Please enter my subscription to DataCast<sup>TM</sup> (the hardcopy version), Jim Warren's new user's reference periodical.

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Please bill me. I will promptly pay, so my subscription can promptly begin.

Please send me foreign rates.

Please bill to my charge card:  Master Charge,  VISA

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Do you use a computer system? If so, what operating system?

What software packages do you use?

What applications do you use a computer for?

What devices do you use with your computer system?

Do you use any information services or computer networks?

What services do you recommend?

What information do you regularly receive?

SGG 81/10

**EAC Course Focuses on Foreign Employees**

The vast influx of foreign workers entering the electronics industry workforce in Santa Clara County prompted the Electronics Association of California (EAC) to hold a course recently which was specifically designed to address the problems associated with supervising non-English and limited English speaking employees.

Entitled "Supervising Non-English Speaking Employees," the six-hour course was one in the EAC's Manufacturing Mini-workshop series.

According to Sherril LaRocca, vice president of training and personnel services for the EAC, an estimated six or seven hundred Indochinese refugees and several thousand Cuban refugees enter Santa Clara County each month.

"In the past it was fairly easy to deal with a bilingual workforce because the language spoken was largely Spanish," LaRocca said. "With the inrush of Indochinese refugees, particularly Vietnamese and Laotians, in the last six years, the problem has expanded.

There are four or five dialects spoken in the Vietnamese language alone, and many of these people are illiterate in their own language."

LaRocca notes that Orange County, Los Angeles County and Santa Clara County receive the largest concentration of immigrants in California.

"Along with the Cuban, Indochinese, Asian and Mexican refugees, we are seeing more and more Persian, Syrian, Russian, Filipino and

Samoan immigrants coming to the United States."

The EAC workshop included information on language skills and structure, strategies for communicating successfully, how to deal directly with non-English speakers and information about cultural backgrounds and differences.

Inquiries about future courses may be made by calling the EAC at (408) 736-7600, or by writing Electronics Association of California, 185 San Gabriel Dr., Sunnyvale CA 94086.

## MICROBOMP Joins MicroBiz Line

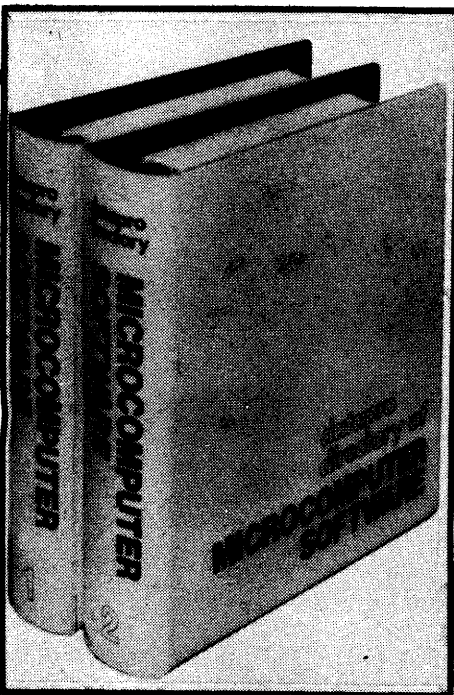
There is a new addition to the MicroBiz product line of accounting software, by COMPUMAX. It is called MICROBOMP, and it features a bill of manufacturing/materials program for the microcomputer.

MICROBOMP is specifically designed for the small manufacturer to handle inventory control and materials requirement planning, and it will also "explode" your bills of material. The program sets-up and maintains three files; 1) a stock file that contains the inventory master information; 2) a bill of materials file that defines the product structures and 3) a schedule file that contains production schedule data.

In addition a data base manager allows the operator to input and update information in these files. Separate reports provide stock valuation, ABC analysis, materials requirement listings and a "MaxMin" report.

MICROBOMP is written in Microsoft Basic, requires 48K and retails for \$350.00.

For further information contact: Compumax Associates, Inc., P.O. Box 1139, Palo Alto, California 94302, (415) 321-2881 X56.



## Datapro Directory Delivered

*Datapro Directory of Microcomputer Software*, a new two-volume monthly updated information service from Datapro Research Corporation is offered now at a reduced rate for charter subscribers.

The Directory is designed to help EDP professionals and managers locate, compare and evaluate applications and system software for computers in the under-\$40,000 range.

The Directory has information on over 2,000 software products marketed by over 1,000 different companies, and is indexed four ways: 1) An applications index covers 27 major applications areas; 2) a vendor index lists companies both alphabetically and geographically; 3) a product name index helps locate and identify software products; 4) a computer system index tells on which computer each software package will run.

The charter subscription rate is \$290 a year, reduced \$50 from the regular rate of \$340. To order, or for more information, contact Datapro Research Corporation, 1805 Underwood Blvd., Delran, NJ 08075, or telephone toll free (800) 257-9406.

## FIFO Memory Fast & Dense

The industry's fastest and most dense First-In-First-Out (FIFO) memory ICs, 67401A and 67402A, are now available from Monolithic Memories, Inc.

Two-port word-serial devices, the FIFOs are organized as 64 words by 4 bits and 64 words by 5 bits respectively. Both guarantee a data rate of 15 megahertz—a 50 percent improvement over similar devices.

Because of their high speed, the 67401A and 67402A FIFOs are used for digital signal processing for video and radar applications. They can also be used as economical buffers in high-speed minicomputers and peripherals.

If the user wishes to increase memory capacity, 67401A and 67402A FIFOs designated by the letter "C" can be expanded in both word and bit dimensions.

All these devices have TTL inputs and outputs, with input pins located directly opposite corresponding output pins.

The 67401A is housed in a 16-pin, 300 mil wide, ceramic dual in-line package (DIP). The 67402A is housed in an 18-pin ceramic DIP. All are available now in commercial (5V +/- 5%, 0 degrees centigrade to +70 degrees centigrade) as well as military versions (5V +/- 10%, -55 degrees centigrade to 125 degrees centigrade).

Pricing in 100-up quantity ranges from \$32-\$74.

For further information contact: Ray Gouldsberry, Monolithic Memories, 1165 E. Arques Ave., Sunnyvale, CA 94086 (408) 739-3535.

TRS-80 product

## Heath Gets The BASEX

The BASEX interactive compiler and loader programs from Interactive Microware are now available on cassette for Heath H8 microcomputers.

BASEX is a new intermediate level language for microcomputers that can run up to 10 times faster than similar BASIC programs.

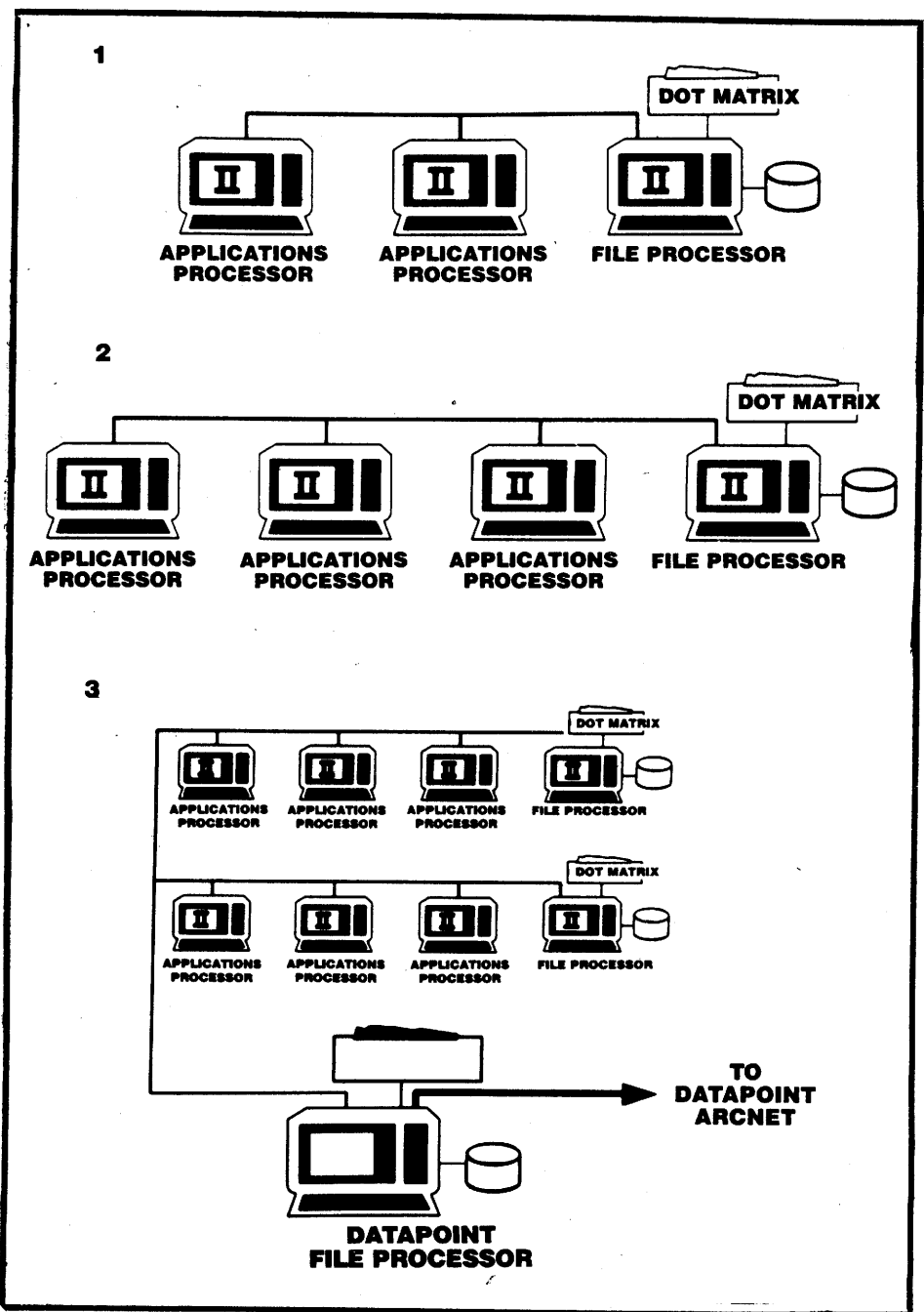
The 8K BASEX compiler is fully interactive and allows you to enter, list, edit, and run your program without the help of any auxiliary programs such as editors, or linkage editors. Most programs that would normally have to be written in assembler language can now be written much more easily in BASEX. Also, the BASEX run-time routines are only 2K bytes long, and thus typically require approximately 6K bytes less memory than similar programs that are run with an 8K BASIC interpreter.

This enhanced revision of BASEX includes a custom console driver and commands to save and load programs on tape.

BASEX cassettes are also offered for TRS-80 Level II, Sorcerer, SOL, Poly 88, and Meca Alpha systems. BASEX disks are available for 5-inch disk North Star and 8-inch single density disk DP/M systems.

The BASEX user manual includes completely documented listings of the compiler (written in BASEX) and execution routines (written in 8080 assembler language). The 97-page manual, 5-page Heath H8 addendum and cassette are offered for \$33.00. The BASEX manual can be purchased separately at \$8.00. The primer called "My Micro Speaks BASEX" is now available for \$9.95.

For additional information contact: Interactive Microware, Inc., PO Box 771, State College, PA 16801 (814) 238-8294.



TRS-80 product

## ARCNET Ties TRS-80's

ARCNET, the local network component of Datapoint's Attached Resource Computer, has been chosen to provide a low cost high speed local network for the Radio Shack TRS-80 Model II microcomputer. ARCNET allows multiple computers to be linked into large scale systems.

Multiple TRS-80 Model II computers on an ARCNET can access common data bases, such as accounting, word processing information or electronic filing systems, and share the use of peripherals throughout the network.

A TRS-80 ARCNET can also include Datapoint file processors, computers and peripherals. This permits adding Datapoint processors and peripherals, such as their 137 Megabyte disk memory and 900 line per minute printers, to a TRS-80 system, or TRS-80 application processors to a Datapoint

network. Also, Tandy's recently announced bisynchronous communications software packages for the TRS-80 Model II which permit linking an ARCNET system to certain IBM, DEC and other mainframe equipment.

A few components are necessary to implement ARCNET with the new LSI network component from Datapoint. An interface card, costing \$400, is required in each computer on the network.

Other necessary elements are common RG-62 coaxial cable and a junction box. Tandy estimates that thirty feet of cable with connectors will retail for approximately \$30. A junction box for up to four processors will cost less than \$200, or an active junction box for larger systems will cost about \$2000.

For further information contact: Martin B. Winston, Radio Shack, 1800 One Tandy Center, Fort Worth, TX 76102 (817) 390-3300.

## Double Wide Printer Announced

The Basic Four Information Systems Division of Management Assistance Inc. (MAI) has announced a double wide printer for use with Basic Four information processing systems.

The double wide printer, capable of utilizing the horizontal scrolling feature of DataWord II, can print documents up to 250 characters in width. It contains a print wheel of 96 characters and offers a print speed of 40 cps. It measures 36.5 inches wide x 13.5 inches deep x 7.1

inches high with power requirements of 115V 15amps 60Hz. It can also be used for standard word processing applications.

The new printer with one 25 foot cable is priced at \$7500 with a monthly maintenance cost of \$50. An optional feature is a Forms Tractor for \$600.

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