

SILICON GULCH GAZETTE

July 1982

Computer Faire, 345 Swett Road, Woodside CA 94062

(415) 851-7077

'Us' Festival Will Feature Music and Computers Sept. 3-5 in San Bernardino County 250,000 Expected at Concert and Technology Fair

The 'Us' Festival, a concert and computer technology exhibit designed to refocus attention on working together, will be held September 3-5 at Glen Helen Regional Park in San Bernardino County, Ca. The Labor Day event, the brainchild of Apple Computers co-founder, Stephen Wozniak, is part of a national awareness campaign to usher in the "Us' Decade of the 1980's."

More than 250,000 people — computer hobbyists, music fans, and others — are expected to attend the holiday weekend celebration that will feature three days of rock, blue grass and country western music and a computer technology fair.

Wozniak is chairman of UNUSON Corporation, the San Jose-based communications and education development

company producing the 'Us' Festival.

"The intent of the festival is to encourage a shift away from the 'me' decade of the seventies to a clear focus on the power of teamwork, the 'us' concept," says Wozniak.

"The problems we are facing as a nation are many," he says, "and the solutions won't come easily. But we believe that the future of America, and society in general, lies in people accepting that these difficulties belong to all of us and that by working together, we can solve them."

The festival will feature an impressive array of musicians and internationally known speakers who will comment on technology and cooperative work.

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Computists Urged to Exhibit at 'Us'

The 'Us' Festival may host the largest group of computer users ever assembled, say organizers.

The 'Us' Festival — to be held Sept. 3, 4, and 5 at Glen Helen Regional Park in California's San Bernardino County — will include one large circus tent housing strictly "homebrew" and user group exhibits. The Festival, a combination concert and technology exhibit, is the current project of Apple originator, Steve Wozniak.

In addition to the exhibits, homebrew creators can compete for prizes in software and hardware development for microprocessors.

The Technology Fair portion of the 'Us' Festival will highlight the technology that brings people closer together, solves problems faster, and does not waste natural resources. Included in the exhibit area will be displays of

microprocessors, communication devices, alternative energy and fuel systems.

User group meetings will be scheduled throughout the three days of the Festival. It is expected that groups representing not only Apple, but Atari, IBM, Hewlett Packard, Commodore, and Tandy, will draw members from all over the country to meet and share ideas.

While the entrance fee for the general public will be \$37.50 for the three-day period, participants in the homebrew or user group exhibits will be able to purchase tickets for \$25.

For more information on tickets, exhibit space, and scheduling of user group meetings, contact: UNUSON Corp., 2001 Gateway Pl., Suite 500, San Jose, CA 95110. Please mark inquiries "Users" or "Homebrew."



Photo by Steve Strickland

The 'Us' Festival is the brainchild of Apple Computers co-founder, Steve Wozniak, pictured here with Peter Ellis.

Rumors Mongered Here

by Jim C. Warren, Jr.

For those of you new to this questionable column, be forewarned: This is some fact, some outrageous (or outraged) opinion, and some jus' plain fancy. Mostly however, it should be taken as merely ribald rumor and humor for the entertainment of computer folks.

ROCKY RACON RIDES AGAIN

Steve Wozniak just finished his Bachelor's degree in EE at UC-Berkeley . . . registered under the name of Rocky Raccoon Clark. Rocky is his favorite dog. Clark is his wife's maiden name. (Steve is the dude who, while working full-time for Hewlett-Packard, used some of his spare time to design and implement both the hardware and the software for the first Apple computer, and is co-founder of Apple.)

It seems that Steve is going to have to file a special petition with the megaveristy to have his diploma issued in his 'old' name.

UNFOUNDED RUMORS

IBM is unreliably rumored to be looking very closely at the UME 68000-based system, and has bought hundreds of manuals for that system from Signetics. This rumor mongered by an editor friend of ours — his rag was probably too reputable to publish such totally unverified rumblings.

Friend Robert Baer called last April to report his understanding that IBM's Boca Raton, Florida, group — the Personal Computer crowd — have decided to define the PC Warranty period as beginning when the first payment is made on the machine, rather than when it is delivered. Note: It was quite typical at that time for buyers to make a downpayment to some PC dealer, say ComputerLand, then wait for weeks or more to get the machine.

FOUNDED RUMORS

Xerox introduced their personal computer, the 820, in May of 1981. For reasons

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Continuous Systems Simulator

Applied i, of Palo Alto, Ca., has acquired the North American rights for Tutsim, a computer program designed to simulate continuous dynamic systems for scientific and financial applications.

Developed in Europe by the Twente University of Technology in Holland, Tutsim has been used in European academic and scientific communities for over 10 years. Currently, Tutsim is available for use on Apple and CP/M operating systems. An IBM version is under development and should be available this fall.

Tutsim is an interactive "hands on" program which permits the user to

simulate a linear or piecewise linear system, operate the system, and evaluate system operation as displayed graphically or numerically. Input modeling is either by block diagram or Bond Graph simulation. The user can vary the model and any of its operating values at any time in the procedure.

Applied i is marketing Tutsim directly, but plans to develop dealer and volume sales in the near future.

For more information, contact: Applied i, 200 California Ave., Palo Alto, CA 94306, (415)-325-4800.

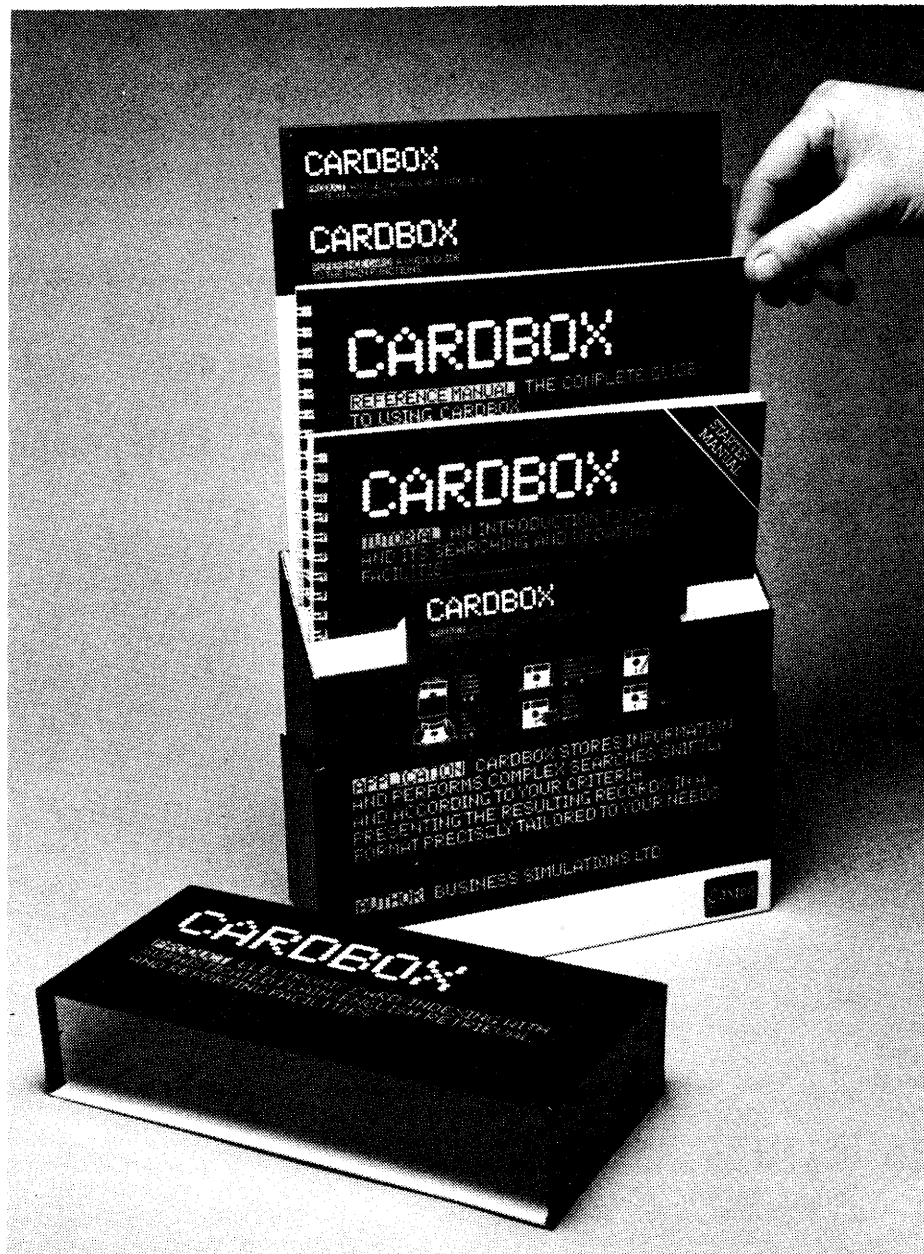
Caxton Introduces Cardbox Indexing System

Caxton, an English software publisher, introduced its second product, Cardbox, an electronic card indexing system for microcomputers at the 7th West Coast Computer Faire in San Francisco. The product is a computer replacement for manual card index systems. People who would never trouble to use a conventional card index can easily utilize Cardbox. Users simply draw a "card" of their own design on the screen and fill in the required headings and data. Cardbox allows for up to 26 fields, 1404 characters and 65000 cards. Once the database of cards is created, the user can search through the data on key words, which are highlighted on the screen, or any word or part word in the file. Up to 99 levels of search are provided to satisfy the most demanding application. Searches can be refined or extended at will and a neat history of searches is available.

Cardbox users need little computer experience. The plain English commands and free format layout mean that users do not have to think in computer terms, and the accompanying tutorial manual takes the user step-by-step through a real application. A reference manual explains Cardbox's features, including working with other CP/M programs and special terminals.

Caxton Software was established in London expressly to acquire and publish the works of software authors and small software companies. The first product the company released was Optimiser, a spread sheet linear programming program, for optimising resource allocation. Optimiser is available on Apple II and will be shortly released for CP/M systems. Recommended retail prices: Cardbox \$245, Optimiser \$495.

For further information, contact: Caxton Software, 10-14 Bedford St., Covent Garden, London WC2E 9HE, ENGLAND.



Rumors . . .
(continued from page 1)

that are not clear, its sales have been far below what Xerox expected. Perhaps it was the IBM PC intro, three months later. Perhaps it was their failure to exhibit in the Computer Faire — guffaw!

Now, several months ago in Kansas City, they demo'ed their new 820-II, with a base price of \$3295. It should be available about the time you read this column.

Targeted for business and professional use, it can "store about 4000 pages of data," and has the option of connecting to an Ethernet. We look forward to a more aggressive and effective marketing campaign for this follow-on than they pursued with the original 820, for strong competition has been of major benefit to the industry and the user.

PANASONIC OFFERS 10-DAY WARRANTY

We recently discovered that Panasonic offers a full, 10-day warranty on the rechargeable batteries for its portable teevees. This illustration of their faith in their products should be given ample publicity, particularly since it is not mentioned in the product literature.

LITTLE TOOT

Working on a gov't contract? Watching waste thereupon? Blow the whistle. You can call the Government Accounting Office's special, toll-free hot line with such hot info — 800-424-5454, offering 24-hour recorders to accept your tasty tidbits. The whole department that accepts and checks on such tips is protected by a security system appropriate for the CIA or Pentagon.

Since it was set up by Congress in 1979, it has taken over 34,000 calls, almost a third of which have resulted in tax-saving corrections of abuse and fraud by government officials and government contractors.

NUTS & BOLTS

Ever need a few nuts, or bolts, or washers, or connectors, or shrink tubing, or pliers, or . . . you get the idea — basic mun-

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DataPro Reports on Disk Drives

Analysts predict that by 1985 the 5.25-inch and 8-inch Winchester disk drives will dominate the market, according to a new Datapro report, "All About Winchester Disk Drives."

The report goes on to say that Winchester disk drives represent the most rapidly growing segment of the disk market and provides an account of what has happened since IBM introduced its 3440 Winchester disk drives in 1973.

"All About Winchester Disk Drives" provides 215 comparison charts with basic characteristics of Winchester disk drives from 66 vendors.

Describing Winchester technology, and choices in backup devices, the report presents a full history of the trend from the earlier 14-inch drives to the 5.25-inch and 8-inch drives that have proliferated in the past year.

Included with the report is a user rating survey where users were asked to rate the drives on overall performance, ease of operation, and equipment reliability.

"All About Winchester Disk Drives," reprinted from the April supplement to "Datapro 70," is available for \$15 a copy from Datapro Research Corporation, 1805 Underwood Blvd., Delran, NJ 08075.

Linguist Translation Program

A new educational software program called The Linguist, a foreign language translation and tutorial program for the Apple II, is the newest offering from Synergistic Software. It allows the Apple to correctly print the foreign alphabets of such languages as Hebrew, Russian, Japanese, Greek, German, plus the Romance languages and English. This program can work with words, phrases, definitions, technical terms, or phonetic pronunciations.

The Linguist requires an Apple II computer, Applesoft, 48K, DOS 3.3 and \$40.

The Linguist user types in the words, phrases or definitions he or she would like to learn and is tested on these words. The Linguist keeps score and corrects mistakes. If a phonetic pronunciation is desired, the user can decide which pronunciation guide to use (from American Heritage Dictionary, the International Phonetic Alphabet, or the Trager-Smith Phonemes). The Linguist can operate with one or two stored languages with a maximum storage capacity of 4400 words, 2600 definitions, or 2000 foreign phrases.

For more information, contact: Synergistic Software, 830 N. Riverside Drive #201, Renton, WA 98055, (800)426-6505.

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7th West Coast Computer Faire Draws Over 36,000

The 7th West Coast Computer Faire was a tremendous success. Over 36,500 attendees flocked to San Francisco's Brooks Hall and Civic Auditorium to see the computing conference and exposition. The 6th West Coast Computer Faire drew 31,800 visitors.

The 7th Faire featured 456 exhibitors in over 600 booths, including a set of microbooths, unique to the Faire, that provide exposure to undercapitalized companies.

National and Bay area media gave the Faire extensive coverage. A "60 Minutes" camera crew spent three days filming the Faire as part of an upcoming feature on technologist Adam Osborne.

Attendees were able to enjoy, along with the product exhibition, a Conference session of over 100 speakers, an address by internationally known educator, Seymour Papert, and introductory and advanced microcomputing seminars.

'Us' (continued from page 1)

The Police, Fleetwood Mac, Tom Petty and the Heartbreakers, the Talking Heads, Pat Benatar, the B-52's, and Santana will be some of the musical talent featured at the Festival. Groups currently in negotiation include the Who and Simon and Garfunkel.

Technology Fair speakers will include Carl Sagan, author of "Cosmos," former television newsman, Walter Cronkite, and entertainer, Harrison Ford.

More than 500 computer innovators and manufacturers are expected to participate in the Festival's technology fair, say organizers. A major "homebrew" display at the fair will show computer hobbyists' latest hardware and software innovations. Prizes will be awarded for concepts which will best support communications and education in the 'Us' Decade.

Other displays by major technology manufacturers will help the public understand how technology will change our communications, education, ecology, businesses, and homes in this decade.

"This will be a lively and visible way to introduce young people, especially, to the advances in technology and how they will affect their futures through the use of computers," says Dr. Peter Ellis, president of UNUSON. "But even more important, we want them to see how they can be an integral part of the communications adventure of the future."

'Us' campaign organizers have been busy spreading their teamwork concept throughout the country since UNUSON's inception in 1981. The organization produced an award-winning film on cooperative work that is being distributed to more than 3400 U.S. and Canadian schools.

Tickets for the 'US' Festival are on sale for \$37.50. These cover the three day event. No single day tickets will be sold. All tickets must be bought in advance — none will be available at the Festival site.

Tickets can be purchased at Ticketron or ordered by phone from Teletron (213) 410-1062. Call (213) 670-2311 for information on Ticketron outlets.

User group meetings were scheduled throughout the Faire.

The Faire's Conference program contained a major section on preschool computing this year, highlighted by keynote speaker, Seymour Papert, internationally known for his work with children and computers. Papert is affiliated with the World Center for Informatics & The Human Resource in Paris.

Computer assisted design of Tiffany lamps, a computerized home control system, and stock market software were just a few of the topics discussed by

Apple Co-Founder —

Steve Wozniak is Festival's Driving Force

Steve Wozniak, co-founder of Apple computers, is the moving force behind the 'Us' Festival.

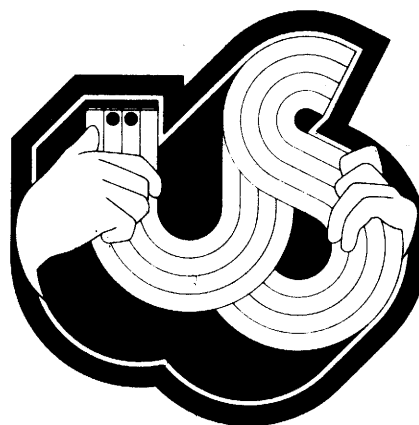
"It really came to me — of all places — while I was driving along the freeway," he explains. "I wanted to throw the 'party of the century' for computer hobbyists and clubs."

Wozniak has been on leave from his Apple position to attend the University of California, Berkeley, where he recently completed his undergraduate degree. There, he found the time to develop his new idea with the same teamwork approach that helped build Apple into a billion dollar corporation.

He recruited some of the nation's top educators, promoters, entertainment specialists and communications leaders to help stage the 'Us' Festival. Working with them, he says, reaffirmed his belief in and love for working with others

towards a common goal.

"It was then that Peter Ellis and I realized that what we were experiencing ... the joy of seeing people come together from diverse backgrounds, work



'The Computer Chronicles' Syndicated Nationally

"The Computer Chronicles," a television show on microcomputing hosted by Computer Faire Chairperson Jim Warren, will be syndicated nationally. The technology series is now airing over 28 Public Broadcasting stations and statewide networks and several more stations are expected to pick it up before summer's end, reports producer Dave Carlson.

In the San Francisco Bay Area, the show is produced by and broadcast over KCSM Channel 60, a Public Broadcasting Station, Thursday evenings from 7-7:30 p.m. with repeat showings on Fridays from 9-9:30 a.m. and Saturdays from 5:30-6 p.m.. In Southern California, the show is broadcast over San Diego's KPBS and KCET in Los Angeles.

Underwriting is being sought for "The Computer Chronicles." Currently,

the series is funded entirely by KCSM, with Warren and his guests donating their time.

The show, which has attracted a wide Bay Area audience since its premiere last September, will reach whole new communities with national syndication. Computer enthusiasts from Honolulu to Washington, D.C. will now be able to tune into discussions on the latest in microcomputing. Beginning with a program featuring Adam Osborne and Lee Felsenstein, co-creators of the Osborne I microcomputer, "The Computer Chronicles" has featured some of the most fascinating authorities and applications in computing today.

Gary Kildall, inventor of the CP/M operating system, Dan Flystra, creator of VisiCalc, and head of IBM's Personal Computer project, Dan Estridge, have all

Amber Screen Video Display from USI

A vector drawing graphics capability for ADM 3A and ADM 5 Dumb Terminal video displays and ADM 24, 31, 32 and 36 smart terminals is now available from Lear Siegler, Inc./Data Products Division.

The graphics board is a single circuit board designed to mount inside the terminal's housing. It can be installed either at the factory or by the user in the field.

Completely Tektronix Plot 10 software compatible, the board gives the terminals full vector drawing capabilities to develop bar charts, pie diagrams, histograms, and function plots.

Priced at \$1050 the graphics board features a selective erase function for modifying the graphics image without

erasing and redrawing the entire display.

Besides vector drawing graphics, the graphics-equipped Dumb or smart terminal has two alphanumeric modes. The terminal mode features 24 lines of 80 characters with a nondestructive cursor. The Tektronix Model 4010 mode displays 35 lines of 73 characters per line. Both alphanumeric modes and the graphics mode can be activated from the keyboard or host computer.

Additional features of the graphics board include an optional joystick, which generates cross hair movement for graphical input.

For more information, contact: Lear Siegler, Inc./Data Products Div., 714 N. Brookhurst, Anaheim, CA,

ment, as well as UNIX and C.

Apple, TRS-80, Zenith, and North Star user groups met to exchange ideas and information. CP/M, UCSD, Pascal, APL, and Logo program users also met.

Sixty-five percent of the space for the 8th West Coast Computer Faire is already sold, according to Exhibitor Coordinator Sarah Candelario. The Faire, internationally recognized as the place to hear the latest on microcomputing, will be held again in San Francisco's Brooks Hall and Civic Auditorium.

together, learn from one another and see results for our joint effort ... was probably even more important than the event," Wozniak says.

This unique team, headed by Wozniak and Ellis, decided to use the 'Us' Festival as a way of making a memorable statement about America's need to start solving problems through cooperative effort. UNUSON Corporation was created not only to produce the 'Us' Festival, but to communicate the 'Us' concept through educational programs nationwide.

"I don't know where this will lead," says Wozniak, "but if we have communicated the power of working together to 250,000 festival participants in a compelling way, and shown how effective future technology will be in helping us do that, we feel we will have been successful."

appeared on "The Computer Chronicles." Programs have covered such diverse topics as computer generated music, successful software entrepreneurs, computer aided instruction, and public information utilities. "The Computer Chronicles" is the first national series, says Warren, geared for a computer literate audience.

Future "Chronicles" programs will showcase new computer applications, authorities, and equipment. The series will feature more remote reports on microcomputing developments, but not at the expense of Warren's interviews with microcomputing notables.

'Software Protection' Journal premieres

Law & Technology Press has just published its premiere 16-page issue of "Software Protection," a journal on the legal, technical and practical aspects of protecting computer software. Eight times per year, this periodical will probe the laws of software protection (copyright, patent, trade secret, unfair competition, criminal and contract), new technologies to protect computer software from piracy, and practical issues that face software developers, marketers, and users.

Subscriptions to "Software Protection" are available for \$48 a year in North America and \$60 a year elsewhere. For more information, contact: Technology Press, 3500 S. Figueroa St., Los Angeles, CA 90007, (213) 748-9416.

A Computing Potpourri

The "Potpourri" section of the 7th West Coast Computer Faire "Proceedings" is a collection of seven papers covering topics from cures for computer phobia to computer theft and its impact on the industry. These papers, which defy classification under any of the current "Proceedings" headings, explore recent computing innovations.

"Despite the fact that the microcomputer can be a tremendous tool in increasing a worker's productivity as well as enhancing creativity, it is often unwelcome in the work setting," writes Alexandria Colman in "Computer Phobia: What It Is And How To Cope." Colman describes computer phobia and the type of people effected by it. She includes a two-hour program in her paper that defines proven methods of

fear reduction and social influence.

Asynchronous conferencing with personal microcomputers will let special interest groups link up and be heard as never before in history, writes Dean Gengle in "Micro Videotext/Electronic Publishing or Fairwitnessing for Fun and Profit." Gengle describes government and industry experiments in computer conferencing, including what he calls "true corporate guerilla electronics" at IBM. He discusses a new communications game called the "conference tree," and shares his thoughts about creation of "non-coercive organizational structures" that can fully utilize this conferencing.

In "Participative Management via Telemail," Bernard Husbands discusses

commercial electronic mail — "one of the technological infants waiting on management's doorstep" — and the use of Telemail as a conference tool. Husbands asserts that electronic conferencing can make meetings more productive and less costly, and that an "electronic forum" encourages participants to focus on ideas instead of personalities.

"From tiny enterprises to great industrial giants, the strength of the economy is based on the caliber of project management," writes Joan Dornfest in "Cost/Schedule Control System — The Heart of Project Management." Dornfest's analysis combines features of several such systems with her personal experience to define an integrated Cost/Schedule Control System for project

management. Her CSCS can be implemented on a variety of computers including micros.

In "Managing Information for Productivity," Thomas Hill urges businesspeople to set up efficient channels of communication. According to Hill, elements essential to good communication include: establishment of an information audit of data links; increased dialogue; acceptance of people with new ideas; meetings using consensus; use of computer conferencing; and use of graphics to speed understanding of data.

Mark Cummings, a systems architecture consultant with Bank of America, laudes the value of small organizations in "Managing the Knowledge Industry." Cummings discusses how organizational structures can preserve small group productivity in large organizations. If the personal computer industry hopes to meet "the challenge of realizing the productivity gains inherent in the technology" it ought to consider "restructuring the institutional and social contexts in large organizations to create more balanced communication patterns," urges Cummings.

"Much of the computer crime chronicled today concerns cases of fraud and software-related problems. However, another major and equally significant problem looms on the horizon — the problem of computer hardware theft," writes Thomas Smith in "The Impact of Computer Theft." Smith of Anchor Pad, a company that designs, produces, and markets office and computer equipment safety products, urges computerists to think of security before they're robbed. His paper, filled with illuminating statistics, has two security checklists useful for the office or home.

System Z Native-Code Compiler

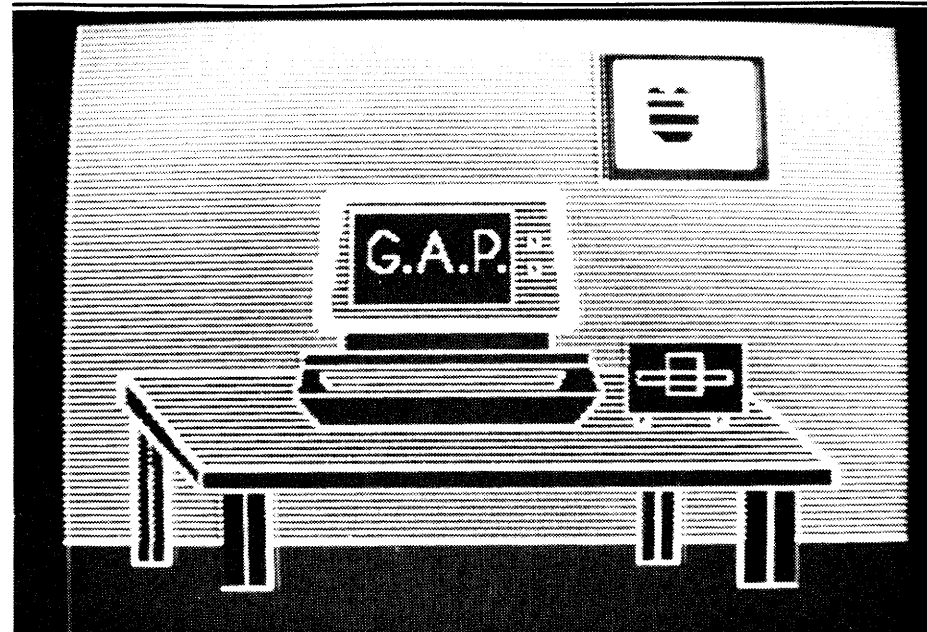
System/z has released a new BASIC compiler, BASIC/Z, for computers with CP/M operating systems. BASIC/Z has a library of over 200 key-words, self-contained sort, advanced string handling capability, and elective data filing strategies. It generates machine code compatible with 8080, 8085, and Z-80 cpu's.

BASIC/Z offers multi-tiered error trapping. The elective use of alphanumeric labels in place of line numbers with goto and gosub provides programmers flexibility in software development.

The system features nested DO/UNTIL, WHILE/WEND, FOR/NEXT, and IF/THEN/ELSE constructs. PUSH/POP allows manipulation of the subroutine stack.

All floating point mathematical operations are performed in decimal (BCD), to avoid the "conversion" or "round off" errors which are commonly found in binary systems. In addition, the accuracy of numerical storage and computation may be program defined to any level, with up to eighteen digits of precision available.

For more information, contact: System/z, inc., P.O. Box 11, Richton Park, IL 60471, (312)481-8085.



Synergistic Game Software

Synergistics Software has announced the release of a new utility software program called the Game Animation Package. The Game Animation Package allows Applesoft programmers to create full color pictures on their Apple computers with the type of program used to create high resolution graphics and arcade games.

The Game Animation Package features bit mapped graphics, Vector graphics and full screen creation that

allow users to make full screen pictures as used in adventure games for logos, maps and gameboards. The complete color fill option allows the users to create beautiful high-resolution pictures. Programmers can now produce two dimensional images with lines, circles, ellipses, and more.

For more information, contact: Synergistic Software, 830 N. Riverside Dr., #201, Renton, WA 98005, (800)426-6505.

Rumors . . . (continued from page 2)

dane materials and tools for the modern world. Write D.R.I. Industries, 11100 Hampshire Ave. South, Bloomington MN 55438.

They are a mail-order operation that offers all sorts o' packages of such things, that come with appropriate multi-drawer containers and labels, making it economical and convenient to stock your shop for the needs of a fixiteer.

We have ordered a number of kits from them over the past year, found them to be low-cost, efficient in response, and acceptable in quality.

WHO NEEDS UNIONS?

We in the computer industry seem to be holding the golden goose. The U.S. Department of Labor is projecting a shortage of 1,754,000 trained EDP personnel by 1985. (Of course, they're talking about business DP hackers, to a large extent, rather than microstuff, but it still projects job security for us all.)

On the other hand, in the early '60's, the road to security was to be trained as a science or math educator, or perhaps a physicist. Perhaps the best training is the training to change. (Certainly Detroit could use it.)

GHASTLY GOVERNMENT RULE #34

Here we have all these computers in the nation's banks — and Regulation Q of the Federal Reserve Board prohibits automatic transfers from company savings accounts to checking accounts to cover overdrafts. This word from Oscar Oroszco, our local Wells Fargo branch manager (in response to our plea for reasonable banking services — we forgot the gov't was involved).

HOT PRODUCT #18

Who makes a stand-alone 9-track tape drive system that runs through an RS-232 port and looks like a terminal to the computer? If there is no one, why not?

We microfolk often have a need to (a) archive large quantities of data (for safety, or due to limited disk capacity), and to transfer back and forth between our micros and megamonster mainframes. Few "industry-compatible" tape systems exist for micros. Fewer still — if any — are applicable to a large variety of micros.

It should offer at least 1600bpi, allow a customer-specified buffer memory of 4K to 32K in 4K increments, have down-loadable program RAM, and implement both XON/XOFF and pin-20 transmission control. After the RS-232 version, additional units could

offer interfaces for 488, S-100 (some already exist), Apple, TRS-80, and the IBM PC. And, the entire system should cost under, say, \$6000.

Isn't it time that we allowed our big little computers to do what big big computers do — process useful quantities of useful data?

WHERE TO PUT THE MFD

For all you folks who are designing disk file systems:

Where should you store the master file directory (MFD) and the disk's bitmap? There is a better approach than to place them in track 0 or in the maximum track.

Instead, place them in the middle track. The MFD and bit map are the most-often accessed sectors. By placing them in the middle of the disk, the worst-case access delay will be 1/2 the maximum track access delay.

Additionally, since hardware faults are often all-0 or all-1 faults, a fault is more likely to cause a 'Write' to the outermost or innermost track than it is to cause a write to the middle track.

One might object that such a scheme would prohibit the use of over half of the disk as a quickly-addressable random file. Not so — simply have the track computing algorithm increment by one if the track number is

greater than or equal to the middle track number. The time lost in such an incrementing would likely be much less than the time lost by requiring the r/w head to run all the way in or all the way out for each MFD or bit-map access.

CO-OP CABLE

Cable systems are proliferating at a rapid rate around the U.S. Most are installed by for-profit companies that offer no more services and facilities to the community than are required by an often-naive franchising body — city or county government. Alternatively, some local governments are choosing to install their own, tax-supported, bureaucracy-operated cable systems — hardly a move to excite an increasingly tax-conscious public.

Though they have massive potential for data comm with personal computers, most cable operators are doing little more than paying minimal lip service to such services since there is little immediate profit potential, and since they generally have a business orientation rather than a community service or technology orientation.

Some folks in high tech Palo Alto, California, are proposing another alternative: a cooperative cable system, patterned along

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New Drives by Micropolis

The first three models of a new series of 5.25-inch Winchester disk drives designed for multi-user small business systems, featuring a maximum storage capacity of more than 50 megabytes, were unveiled recently by Micropolis Corporation.

The new 1300 Series provides 17.3, 34.6, and 51.9 megabytes of unformatted storage. All models feature an average access time of 38 ms and an audible noise level of less than 50 dbA.

In addition to the standard ST-506 interface, the new drives incorporate industry standard dimensions, bezel, mounting and data rate. Each unit employs a shock-isolated head disk assembly as well as rugged, die-cast construction.

The drives also feature automatic positioner lock, disk brake and head retraction on power down, as well as field proven head and media technology to ensure volume production in OEM quantities. A balance rotary voice coil positioner is incorporated in all Micropolis Winchester drives.

Additional specifications include a track density of 960 tpi, maximum recording density of 9400 bpi, and a 5.0 megabit per second transfer rate.

Evaluation units of the new drives will be available in the fourth quarter 1982, with volume shipments expected to begin in the first quarter of 1983. Quantity 1000 pricing of the drives is between \$900 and \$1400 depending on capacity.

For more information, contact: Micropolis Corporation, 21329 Nordhoff St., Chatsworth, CA 91311, (213)709-3300.

Courseware Simulates Chemistry Experiments

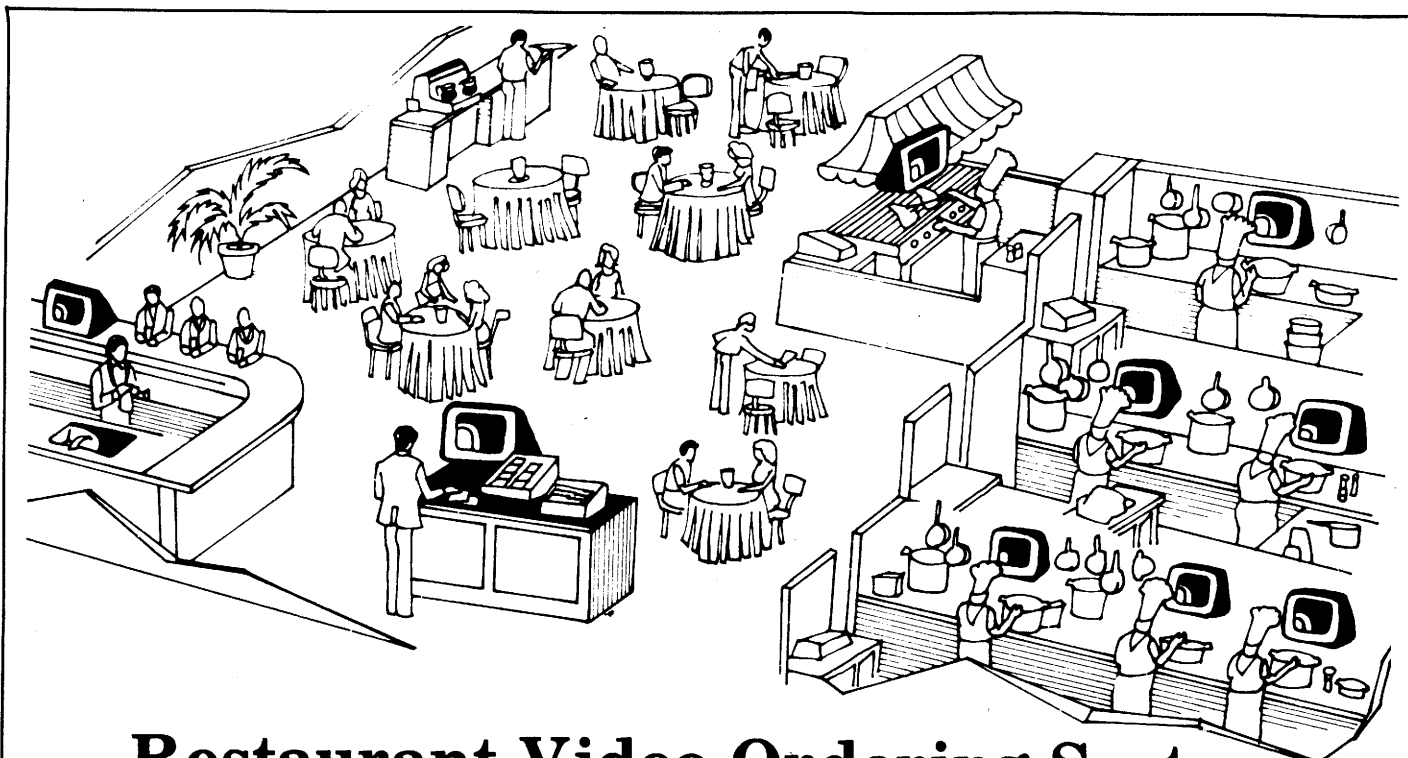
Radio Shack now offers TRS-80 microcomputer courseware that simulates actual chemistry laboratory experiments. Chemistry Simulations for the TRS-80 Model I or Model III microcomputers and Color Chemistry Simulations for the TRS-80 Color Computer are available for \$199 each.

Chemistry Simulations uses graphics and mathematical equations to simulate chemical reactions that occur under actual laboratory conditions for six basic chemistry experiments - kinetic theory, Charles' Law, Boyle's Law, solubility, titration and conductivity. Students can witness experimental results, plus collect, graph and analyze experimental data with the aid of the computer.

Chemistry Simulations includes software, an instructor's manual and 25 student manuals. The instructor's manual offers suggested areas for emphasis and methods of presentation.

Chemistry Simulations requires a TRS-80 Model I or Model III disk system with a minimum of 32K of memory. Color Chemistry Simulations requires a 16K TRS-80 Color Computer with Extended BASIC and CTR-80A cassette recorder.

For more information, contact: Tandy Corporation/Radio Shack, 1800 One Tandy Center, Fort Worth, TX 76102.



Restaurant Video Ordering System

Sweda International has introduced its Expediter two-way food and beverage video ordering control system and Model 5640 "Budget Genius" electronic cash register for front-desk operations at budget hotels and motels.

The Expediter system links dining room, bar and kitchen employees through standard video monitors. It displays orders continuously in each stage of production and consecutively by number until they are picked up by waiters and waitresses. The system provides complete menu instructions.

It allows restaurant managers to monitor the progress of all dining room orders, which can be assigned individually to various video monitors in the kitchen. As each item is prepared,

the cook makes a simple entry indicating on all screens that the order is ready for pickup.

The Expediter system has been designed to complement and function with Sweda's L-45 family of electronic cash registers.

The Model 5640 "Budget Genius" is designed for 60-to-150-room hotel or motel operations and can help prevent errors that can occur at the one-person front desk.

The register allows separate tracking of revenue totals for different clerks, single-key posting of guest rooms, two-column posting of debits, credits and balances on guest bills, and offers check digit verification capability.

The Model 5640 can function as a

previous balance register, rejecting balance pickup entries that do not agree with what is printed on the folio. It also automatically positions a folio in the printer to meet the next available line of print.

The keys of a Model 5640 can be preset for 14 or more departments with descriptors of up to four letters. Separate accounting totals can be maintained for guest and city ledgers. Since folios and vouchers are given separate print stations, both can be posted at the same time to provide greater accuracy and faster checkouts.

For more information, contact: Sweda International, Inc., 34 Maple Ave, Pinebrook, NJ 07058.

'Us' Festival Will Feature Computers

Members of California's electronics and computer community have already received a package announcing the 'US' Festival and inviting their participation in an exhibition focusing on technological development in the areas of microprocessing, communications, and energy conservation.

Festival creator and UNUSON Board Chairman, Steve Wozniak, says he hopes this exposition of talent and creativity—individual and corporate—will illustrate the tremendous benefits of teamwork in technology.

Spread over 35 acres of the

Festival's Glen Helen Regional Park site, will be six festively colored circus tents offering the 250,000 expected to attend a look at technology of significant value to us and our future.

This unique coupling of technology and entertainment—a non-selling show—will provide massive exposure for all products on display.

Anyone desiring further information or an exhibitor's package should call (408)294-8424, or write UNUSON Corporation, 2001 Gateway Place #500, San Jose, CA 95108.

North Star Announces Price Cuts

Citing manufacturing economies and vendor-supplied price reductions in purchased components, North Star Computers has announced a series of price cuts that range across the company's entire line of Multi-User Horizon Series and Standalone North Star Advantage microcomputer systems.

The price of the North Star Advantage microcomputer, with an integrated diskette and integrated 5/1-inch 5 Mb hard disk has been reduced by 24 percent from \$6,599 to \$4,999. The company's basic Horizon Series system with a diskette drive and a 5/1-inch 5 Mb hard disk has also been lowered by 17 percent, from \$5,999 to \$4,999.

For more information, contact: North Star Computers, Inc., 14440 Catalina St., San Leandro, CA 94577, (415)357-8500.

Control-C to offer Full C Compiler

Control-C Software, a Portland, Oregon software house, has signed a contract with Mark Williams Co. of Chicago, to transport their full Bell V7 Compiler to run under CP/M-86 and MP/M-86.

"This compiler, named CC-86, is a very attractive project for us. Not only can we offer a full C Compiler in a market that badly needs one, but also we can use it as a vehicle to transport our Basic Four-compatible Business Basic interpreter into the 16-bit marketplace," said Andy Johnson-Laird, Control-C's president.

"Our Business Basic interpreter will be completely compatible between CP/M and MP/M in the 8-bit world and the corresponding operating systems in the 16-bit world," he said.

The starting point for this compiler

is the C Compiler from Williams' 8086-based implementation of the Coherent operating system. The transportation requires conversion of the compiler, the linking loader and the run-time package.

Prices are \$500 for the Compiler, including the Relocatable Assembler and Linker, and \$250 for the Relocatable Assembler and Linker when purchased separately.

The compiler handles the complete C language as defined in "The C Programming Language," by Kernighan and Ritchie (Prentice-Hall). In addition, the features found only in Bell's Version 7 compiler will be supported.

For more information, contact: Joyce M. Kemp, Director of Marketing, Control-C Software, Inc., 6441 S.W. Canyon Ct., Portland, OR 97221, (503)297-7153.

FERGUSON "BIG BOARD" USERS:

Now Winchester SASI HOST ADAPTER available for \$239.50. With this you can install a 5 MByte Winchester disk on your "Big Board" system for less than \$1,500., including Adaptor, Controller, Disk, PS, and software. Write for information: Applied i, 200 California Ave, Suite 205 PALO ALTO, CA 94306 [415] 851-1282

Giving Computers Your Business

Four 7th West Coast Computer Faire "Proceedings" papers cover business computing, a topic of growing interest to entrepreneurs. Management's need for desktop computers, computerized business gaming, and stock portfolio management software are some of the computing topics businesspeople can read about in this section.

"More and more managers are discovering that they need their own small computers, because corporate data processing operations are designed to serve the needs and slow metabolism of the large corporate entity, not the needs of the department and manager," writes Nicholas Rosa in "The Manager's Desktop Computer."

A department is a small business within a larger one, he asserts, and has the same needs for a computer as the independent small firm. Rosa, of Nicholas Rosa Associates, Campbell, Ca., explains how to analyze an office's computer needs, buy appropriate software and hardware, and overcome the "opposition and obstructionism from the high priesthood of the corporate DP center."

Guidelines for purchasing a small business microcomputer are also discussed in David Pittle's "Bottom-Line Micros." Pittle outlines requirements analysis, feasibility studies, benefit/cost analysis, and choice of hardware and software. He recommends computers and software in light of how well they serve managerial needs. The article concludes with an appendix of major CP/M software options. Pittle works with Smart Management Systems of San

Rafael, Ca..

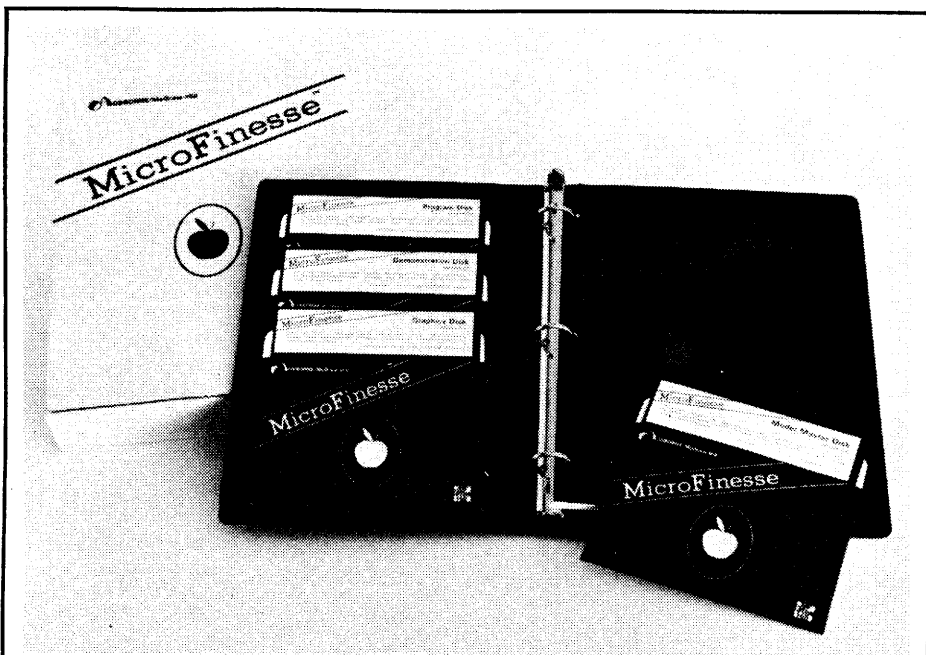
"Business games are defined to be a simulation model in which a decision shall be made under the mimic situation of running an enterprise. They have been studied and developed and widely adopted as a tool of management training in business schools or within enterprises since 1960 or so," writes Professor Mituo Takahashi of Seikei University, Tokyo.

Computers are essential for business games, explains Takahashi, as he gives us a glimpse into the workings of this Japanese management tool. They create business game situations as complex as those in the real world, make game practice easy, and, by processing detailed information, make decision making easier. "Really authentic business games will not be able to be practiced without use of computers," concludes Takahashi.

"Stock-Market software to support the small investor on his desktop computer is a new product - even on the short-term timescale of computer technology," writes R. E. Packer in "Which Stock-Market Software?"

Packer reviews four levels of software for the small investor including: straightforward accounting programs; building and managing a database of stock quotes and information; timing transactions; and total portfolio management.

"Hundreds of programs to aid investors will appear during this decade. Only the earliest and most solidly backed will be touched on here," promises Packer.



Financial Modeling for Apple II

Osborne/McGraw-Hill has begun distribution of a financial modeling software package - MicroFinesse. For both small business and corporate executives, MicroFinesse applications can be expanded and customized to fit almost any need.

This financial modeling, forecasting, and decision-making program was originally developed by the P-E Consulting Group, an English management firm, with over 10 years experience in financial modeling. It is now offered by Osborne/McGraw-Hill throughout the U. S. A. and Canada. MicroFinesse is a complete menu-driven package with

documentation which runs on the Apple II 48K microcomputer supplied with a Pascal card. The cost of MicroFinesse is \$495.

MicroFinesse enables the user to create investment models, accounting statements, and sales productivity analyses which allow the user to answer "what if" questions. In addition, MicroFinesse provides color graphics, model consolidations, and report generation.

For more information, contact: Osborne/McGraw-Hill, 630 Bancroft Way, Berkeley, CA 94710, (415)548-2805.

Rumors . . .

(continued from page 4)

the lines of the multitude of nonprofit, member-directed grocery stores (where membership is open to all members of the community being served).

This would allow everyone in a community who is interested, to have access to control of the community's cable system, without burdening the community with a mandatory tax requirement or bond issue. And, it would keep the system out of the hands of politicians (for those who have less than total faith in the responsiveness of elected officials and bureaucratic staff).

The Palo Alto experiment involves only a small group at this time, however it could grow and become successful. For more information, write Co-op Cable, Box 11637, Palo Alto CA 94306.

GALLUMPING GODBOUT

Keep an eye on Bill Godbout's CompuPro line. As he gears up his production and business operations to respond to the demand, this line is likely to be a major product for serious technologists who demand trustworthy hardware.

Godbout is already widely known for iconoclastic but highly reputable business practices, and he has a Mack Truck approach to building hardware (he sez it has a "high Mack factor"). His gear isn't cheap, but it is definitely reliable and potent. Much of it runs at 6MHz to 10MHz.

His CompuPro line currently includes 8085/8088 and 8086/8087 dual-processor boards, 32K to 128K static RAM boards (an order of magnitude more reliable than dynamic RAM), a batch of I/O boards, an enclosure with a power supply sufficient to heat a hotel, and several disk options including a winnie that's about to be shipped. He also has a 32-bit CPU more than on the drawing board. By the end of the summer, it is likely that CompuPro will be offering a full system; not just high class boards and boxes.

He has hooked up with Mike and Dale Gifford at G&G Engineering for significant software support. This includes CP/M 2.2, and

MP/M 8-16, a multi-user system capable of running both 8-bit and 16-bit software, complete with memory cache. (It is rumored to have been the system used by MicroSoft to develop the MSDOS for the IBM PC before PC's were available, and supports program development and software transfer to and from the IBM PC.)

G&G currently offers SuperSheet, a spreadsheet that is an upgrade of the old SuperCalc from Sorcim, allowing 1/2-megabyte addressing under CP/M. (By the time this reaches print, Sorcim will almost certainly have finished massaging their SuperCalc-86 to run under MP/M 8-16, allowing the same massive size and running on the more powerful 8088.)

G&G is purportedly also the only CompuPro dealer to currently offer a multi-user CompuPro system with a winnie. E. g., a 2-user system with a 5MB winchester is available from 'em for under \$11K.

Fully licensed Unix is also in the immediate future.

One of the nice things about CompuPro hardware is that one can order 'CSC' boards - Certified System Components - and get units that have an honest, 200-hour hi-temp burn-in. Additionally, systems ordered through G&G have another week of burn-in after integration. It delays receipt of the system, but it guarantees that the vendor - not the buyer - deals with 'infant mortality' problems.

For details, contact G&G Engineering in San Leandro, (415)895-0798, or CompuPro at the Oakland Airport, California. (Bill likes airplanes).

(An aside: Although Bill is well known as a business person, he is actually an excellent electronics engineer who made his original loot as a design engineer with IBM, working day and night and socking excess paychecks into IBM stock options . . . which split and split again.)

(continued on page 11)

Digital Research Moves into Graphics

Digital Research Inc. will extend its product line to include a full complement of graphics products to support the rapidly growing array of graphics hardware, announced Gary Kildall, president

of Digital Research.

"Our goal is to develop microcomputer industry standards for graphics, just as CP/M is the standard for operating systems. To accomplish this, our products will incorporate the emerging graphics standards of the American National Standards Institute (ANSI) and the International Standard Organizations, as well as the North American Presentation Level Protocol, where appropriate," he said.

Digital Research will offer its first graphics software products through a joint development and marketing agreement with Graphic Software Systems Inc., of Wilsonville, Oregon, according to Fred Langhorst, Digital Research manager of graphics development.

Under the agreement, the companies will develop graphics products to provide application developers with a programming interface consistent with emerging ANSI standards for computer graphics. Initial products will include a library of graphic primitives, necessary to graphically produce lines and text, and a library of higher level functions for plotting bar graphs and pie charts.

The Digital Research/Graphic Software Systems agreement includes a significant amount of technology sharing over and above its marketing aspects, according to Langhorst. This includes the creation of graphic subroutine libraries for Digital Research Compiler languages and the integration of graphic functions at the operating system level.

For more information, contact: Digital Research, 160 Central Ave., Pacific Grove, CA 93950, (408)649-3896.

**ENLIGHTEN!
ELUCIDATE!
EDUCATE!**

Give a talk on your favorite computing topic at the 8th West Coast Computer Faire, March 18-20, 1983 in San Francisco. You can even create and chair your own conference session.

All accepted papers will appear in the *Conference Proceedings of the 8th West Coast Computer Faire*, available at the show.

The deadline for abstracts and camera-ready papers is November 30, 1982.

Call or write for a Speaker's Kit and more information today: Computer Faire, 345 Swett Road, Woodside CA 94062, (415)-851-7077.

Unique Team Will Bring Festival to Life

A coalition of unusual people is working hard to make the 'Us' Festival a reality this Labor Day weekend. A former vice president of Lucasfilm, an architectural designer who worked on Yosemite and Olympic Glacier Parks, and a multi-cultural productions specialist are just some of the people who make up UNUSON's internal team.

Stephen Wozniak is chairman of the UNUSON Corporation and principal financial backer for the Festival. A co-founder of Apple Computers, he holds patents for the Apple I and has been named one of the top entrepreneurs in the country.

Peter Ellis, Ph.D., is president of UNUSON and a leading innovator in educational concepts. Ellis was co-founder of the University of Phoenix, the nation's first for-profit university. Earlier, he was president of the Institute for Professional Development, a management education consulting firm.

Executive vice president for operations and secretary-treasurer of UNUSON is Gerald Cory, Ph.D., a retired U.S. Air Force lieutenant colonel. Cory has developed and taught Bachelors and Masters degree programs for public safety personnel. He is president of U.S. Education Systems, a corporation that develops management, sales, and personal development programs throughout California.



Wozniak and his team hold a planning session at the Festival site.

Photo by Steve Strickland

UNUSON's vice president for communications is Priscilla Lisicich, Ph.D. She was regional director for the University of Phoenix, as well as division manager for the Institute of Professional Development. Prior to that, she was key administrator for community development programs in Michigan and a consultant to the U.S. Office of Education for Community Education Programs.

A fourteen year law enforcement veteran, Stanley Kephart is the group's vice president for land acquisition, development and public safety. Kephart, a former Pleasanton, Ca. city council-

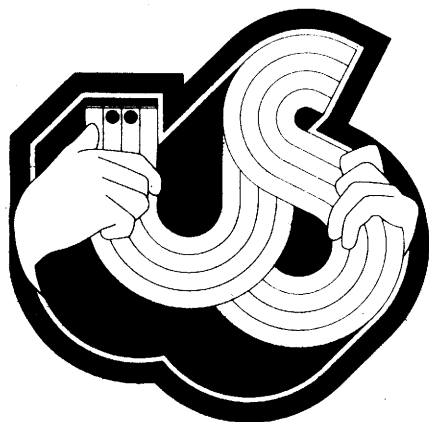
man, was a land developer before joining the UNUSON team.

Otis Swanson is UNUSON's construction coordinator. For over a decade, "Swaney" has been involved in major recreation construction projects, first for Disneyland and Walt Disney World, then for Marriott's Great America. He supervised a \$50 million project for Disneyland and then served as construction superintendent for the \$400 million Walt Disney World.

Craig Tocher, a registered landscape artist, will be responsible for

design of the 'US' Festival site and land restoration planning. Tocher was involved in master plan preparation for Yosemite, Olympic Glacier, Big Bend National Parks, and other recreational sites.

A specialist in multi-cultural productions, Pancho Rodriguez, will work on Festival production and site development. Rodriguez is booking manager and a performer with "Music es Cultura," and in 1981 was coordinator and promoter for the "Festival Primavera" at the San Jose Convention Center for the Performing Arts.



John Moohr is UNUSON's executive vice president for administration. Formerly, he was senior vice president for Lucasfilm, Ltd. responsible for the financing of "The Empire Strikes Back" and worldwide marketing of ancillary rights for that film. Moohr has also worked with Walt Disney Productions.

ORGANIZE

a Conference Session at the 8th West Coast Computer Faire, March 18-20, 1983 in San Francisco. Give a talk and introduce other speakers, decide their speaking order, and help field audience questions.

Choose your own topic. Previous Session subjects covered computer art, mass communications, electronic mail and esoterica.

Write or call today for more information and a Speaker's Kit to: Computer Faire, 345 Swett Road, Woodside CA 94062. (415)-851-7077.

IN SEARCH OF 132 COLUMNS

by Jim C. Warren, Jr.

It's frustrating. Having an entire collection of 132-column CRT terminals appear on the market . . . and find that every one of them is apparently myopically designed to be a DECish. Every one we tested insists on multibyte control sequences for cursor and screen control — in spite of the fact that there is a whole mountain of software (text editors, word processors, spreadsheets, etc.) that assumes a unDEC dumb terminal.

What's worse, some of them have amazing aberrations. E.g., one terminal has 'PF' keys — "Programmable" Function keys . . . that are not programmable. Another will run at 9600 baud . . . except if you want to clear the screen, which is limited to 4800 baud. Still another, from the manufacturer of one of the best and best-known dumb terminals, has a keyboard that is so poorly supported that it feels more like a springboard than a keyboard. (Come on; a couple extra support posts *couldn't* cost that much, and they could help make the difference between a cheap terminal and an inexpensive terminal).

ICONOCLASTS PREVAIL

The thoughtless designers of these me-too VTclones apparently refuse to even offer the option of the "old-fashioned" control-H, J, K and L for left, down, up and right cursor movement.

Thus, if one is to use a 132-column CRT with much of the micro ad not-so-micro software that exists, one must modify each one of that massive collection of usually-proprietary text processing software to accept multicharacter control codes from the cursor keys . . . or not use the cursor keys (and probably not use the software, either).

Since these manufacturers have chosen to modify the standards for simple cursor control that have been in widespread use for much of a decade, perhaps they will next modify ASCII — after all, there's no sense in merely discarding part of something that works. Perhaps they will next require that all alpha characters be preceded by a null, and followed by an octal 98. (Wow! They can keep us software pros in work for years.)

SOME MICROS DISLIKE 960 CPS TYPISTS

Also, since the cursor keys generate multibyte sequences at the full port speed, this means that the micro's terminal handler has to accept them at that speed — and some micro software just isn't designed to accept 960 characters/second from what is presumed to be a human-driven keyboard (e.g., when our Alpha Micro encounters such a 'high-speed' transfer, it promptly throws several of the bytes on the floor).

BUZZ OFF, XON

Then there are the XON/XOFF (control-Q/control-S) codes sometimes used to control the scrolling/freezing of continuous text display. It is very common to find that a o.s. uses XON/XOFF to control scrolling, but major text editors use those control codes for entirely different functions, since they are comfy, single-hand finger combinations.

Many of these new 132-column terminals have a "freeze" key. Pressed once, it sends an XOFF to the computer; pressed again, it sends an XON. That's delightful! However, if the use of this key is enabled, then these terminals pay attention to all occurrences of the XON and XOFF codes, even if they come from control-Q and control-S. Thus, either the user must avoid using this key, or must avoid using control-Q and -S in any program. Trying to use both can make a shambles out of an otherwise usable system.

E.g., our system uses XON/XOFF to control scrolling when in the monitor. However, its text editor uses control-Q to toggle insert mode and control-S to center the text ('S' for 'Senter?') . . . and totally confuses the terminal as to the appropriate state of a display freeze.

Such mismatches are not atypical.

(continued on page 10)



The 'Us' Festival will be held Sept. 3-5, Labor Day weekend, at Glen Helen Regional Park in San Bernardino County, Ca.

'Us' Festival Will Bring Jobs, Park Improvements to San Bernardino County

More jobs and improvements to Glen Helen Regional Park are some of the benefits San Bernardino residents will reap from the 'Us' Festival, say organizers. Their willingness to work with Festival planners, they add, is a good example of the 'Us' concept in action.

More than 2600 jobs will be created while the Festival site is developed

and close to one million dollars will be spent to turn Glen Helen's meadow-like bowl into the world's largest natural amphitheatre.

An additional two million dollars is being spent to ready the park for an estimated 250,000 Festival participants. Additional permanent improvements will include provisions for overflow parking and upgrading of the existing irriga-

tion and electrical systems in the park.

"In addition to the impact on the local labor and construction industry, concessions will be offered to community organizations to help raise funds for local benefits. The 'Us' spirit has really been exemplified by the citizens of San Bernardino County," according to Peter Ellis, president of UNUSON.

"These leaders have come together

from all aspects of the community — government, business and neighborhoods — to make the 'Us' Festival a success," he said. "And in doing so, we've all seen once again how by approaching a project and asking 'what's in it for us?' we can all enjoy the benefits of our labor and the excitement of seeing the power of 'Us' in action."

'Us' Network To Broadcast Festival

When a quarter of a million people converge on Glen Helen Regional Park in San Bernardino County, Ca. this Labor Day weekend for the 'Us' Festival, they will be joined by millions of others who will watch the Festival through the 'Us' Network.

UNUSON will use the network to broadcast the Festival live to select college campuses, theaters and homes throughout the nation, according to Steve Wozniak, UNUSON chairman and co-founder of Apple Computers.

"The broadcast will be an explosive example of the power of today's technology in the communications process," says Wozniak. "Ideas and activities — like the festival — can be shared immediately."

Geographic areas and institutions to be included will be announced as the Festival draws nearer.

High Technology Group Endorses Trade Liberalization Bill

The Computer and Business Equipment Manufacturers Association has endorsed a bill that urges the President to negotiate a reduction of trade barriers and lower tariffs on high technology products in return for greater access to foreign markets.

The bill, passed by the Senate Finance Committee in June, requires the Administration to report to Congress annually on trade barriers and outline a strategy to eliminate them.

"The Finance Committee and the Reagan Administration have teamed up to produce meaningful legislation which will help the United States maintain and expand its worldwide leadership in high technology and services industries," CBEMA President Vico E. Henriques said of the bill, S. 2094, known as the

Reciprocal Trade and Investment Act of 1982.

The bill requires, for the first time, that the Administration in annual reports to Congress make a systematic enumeration of all foreign trade barriers and outline a strategy to eliminate them.

It also gives the President, for the first time, a specific legislative mandate to negotiate the reduction of trade barriers in investment and services. In addition, it permits the President to lower American tariffs on high technology products, such as computers, in return for greater access for such American products in foreign markets.

"By giving the U. S. Trade representative a negotiating mandate to

remove barriers to trade in high technology, services and investment, this bill maintains the historic commitment of the U. S. government to a liberalized trade policy," Henriques said.

CBEMA is the trade association of manufacturers of computers and business equipment. Its 40 members include such companies as Apple Computer, CDC, DEC, Hewlett-Packard, IBM, and other computer manufacturers. Member firms had a combined sales of more than \$55 billion in 1981, representing some 80 percent of U. S. industry sales of these products.

Conference Proceedings of the 8th West Coast Computer Faire have a section on "Preschool Computing".

Enhancing Your Apple or 6502

Four papers in the 7th West Coast Computer Faire "Proceedings" deal with applications and enhancements of Apples and 6502 computers.

In "Enhancing Your Apple II," well-known author Don Lancaster describes a simple hardware modification called Field Sync that, along with its software, can let you do "an exact and jitterfree lock to your Apple II video screen."

"Simple Communication Between Apples," by Keith Schubert of Blue Mountain Community College, Pendleton, Oregon, describes a simple circuit that can be used to connect one Apple to the cassette input of other Apples. This interconnection, writes Schubert, could eliminate the need for duplicate disk drives, printers, and other peripherals.

Winifred Hofacker shows readers how to expand a VIC-20, Pet, Ohio Scientific Superboard, Atari 400, or Apple II computer in "Inexpensive Expansion for your 6502 computer." She describes how to hook up a motherboard that expands your system with five slots using four sockets like the Apple II bus and one slot like the American Industrie Standardbus S44.

Help is available for Apples limited by the lack of suitable temperature sensors, writes Walter Maclay in "A Thermometer in an Apple for Agriculture, Home, and Laboratory." The thermometer, manufactured by Strawberry Tree Computers, Sunnyvale, Ca., is available on a card that plugs into the Apple II computer.

Apple to Distribute Visual Tools

With tools that are not available on mainframe computers, Apple III users can now modify and develop application software designed for mainframes. Under an agreement announced recently between Apple Computer and Micro Focus, Apple will package and distribute Micro Focus Visual Programming Tools, Animator and Forms-2, with Level II COBOL as Apple III COBOL.

Level II COBOL is compatible with mainframe-level ANSI '74 Standard COBOL. Animator allows users to understand and debug COBOL applications interactively, without going through voluminous source code listings, and Forms-2 enables users to create interactive screen displays without additional programming.

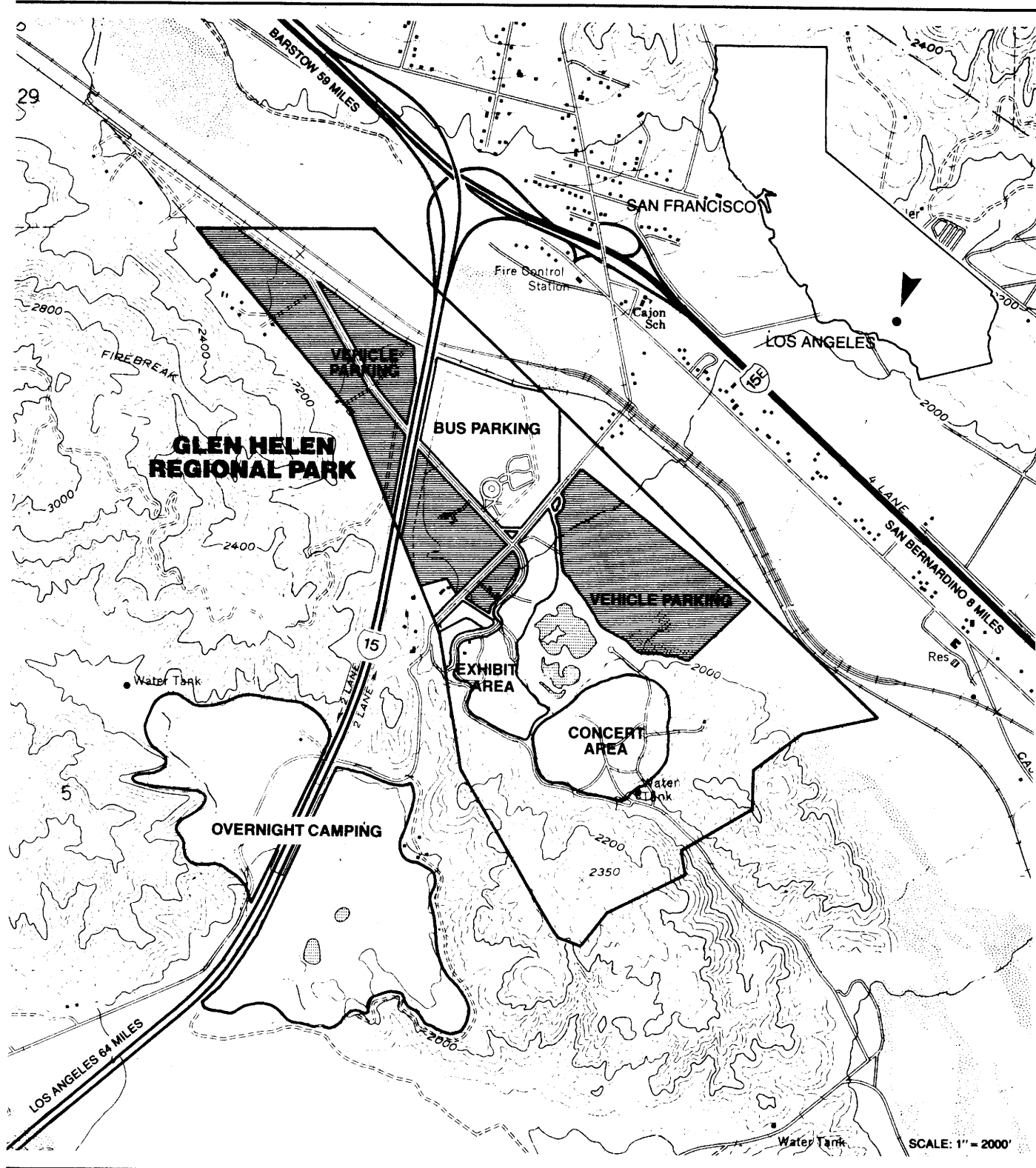
Apple III COBOL was developed by Micro Focus to run in native mode on the Apple III computer and under the Apple Sophisticated Operating System (SOS).

For more information, contact: Micro Focus Inc., 1601 Civic Center Dr., Santa Clara, CA 95050, (408)248-3982.

BASIC Conversion

"The BASIC Conversions Handbook for Apple, TRS-80 and PET Users" is a book that simplifies the method used to convert a BASIC program for the TRS-80, Apple II or PET into the form of BASIC used by another one of those machines.

The book costs \$7.95. For more information, contact: Hayden Book Co., Inc., 50 Essex St., Rochelle Park, NJ 07662, (800)631-0856.



Sound You Can Feel, See — Sensonics Theater to Premiere at 'Us'

Expanding, pulsating patterns of points merge to form rainbow mandalas that explode into rivers of golden light cascading through a dark starry sky. In the background, upwardly modulating sounds follow the flowing visual images. The physical senses relax, merging with the sensorium of light and sound.

Computer artists are creating living art that uses a new language, a language of images and sound that create an environment more vibrant and alive than everyday reality. Through the use of video and computer high technology, art is leaving the realm of recorded past experience to the world of the living present.

The Sensonics Theater, an unusual blend of high-tech light and sound creations, will premiere at the 'Us' Festival. The Theater, which holds up to 200 people, will be offering its 20 minute shows throughout the Festival.

Housed in a 60 foot diameter

inflatable dome, the Sensonics Theater will be an impressive example of high-tech artistry. The Theater will use the structure as a parabolic reflector for eight channels of discrete sound, creating three dimensional sound and space. The visual content of the show will be projected by eight Aqua-Star high resolution video projectors onto the inside surface of the dome, as well as other projected lighting effects to either side of the video portion of the images.

Music and computer art by recording artist, Todd Rundgren, Ron Hayes, who won an Oscar for his special effects in the movie "Demonseed," and Crystal, a group of professional musicians, will be featured. Infinity International, a group of multi-media specialists, will also contribute some material.

Speakers used in the Theater will include eight Bose 802 professional monitors for mid-range and high frequencies of sound. Low frequencies will be handled through four Bullfrog 18 inch Subwoofers.

The 'US' Festival



Sound amplification will be supplied by four 2100-series Yamaha stereo power amplifiers, rated at 120-watts RMS per channel. Sound will be mixed by Tascam 30-series and a Tascam 35 eight-channel, reel-to-reel audio tape machine interfaced with Teac graphic equalizers and noise gates on each channel.

Four Aquastar video projectors will be used for viewing visual effects, as well as synchronized strobes and frequency-divided lighting and chasers by Nite-Lite systems. A 3/4 inch Sony video-cassette deck will reproduce recorded shows.

For real-time digital computer graphics effects, a CompuPro S-100 microcomputer equipped with the new Cat 8000 graphics system will be used.

BETTER WAYS

For those manufacturers who wish to respond to the marketplace, rather than merely following one another in the Abyss of DECware, there are some reasonable alternatives.

Most of these systems offer a delightful and extensive set of switch-selectable options. Simply include a few more options — ones that are, in fact, simpler than those already implemented.

Along with the VT-52 and VT-100 emulations, allow the option of switching to control-H, J, K and L for cursor control (for compatibility with most of the rest of the world). Regarding the "freeze" key, simply allow the option that the terminal will toggle that function only when that particular key is pressed, rather than also toggling upon a control-Q or -S.

In other words, allow the terminal to be dumb, rather than mandating that it be intelligent, but only speak the Maynard dialect.

Another alternative might be the option of allowing down-loading of the terminal control program from the mainframe, thus allowing users to configure terminal behavior to meet their needs, rather than mandating the software interface in rigid — and limiting — ROM-code. (This may not be all that unreasonable, since several of the 132-column terminals already allow down-loading of bit-patterns for optional fonts.)

PHILOSOPHICALLY SPEAKING

There is a larger principle involved: A terminal should function as a terminal, at least optionally. I.e., it should first of all be designed to provide high-quality output, and easy input.

The output should be easy to read, in quality of characters (the terminal with the springy keyboard also had *ghastly graphics*), low phosphor persistence, glare suppression, and physical orientation to the user (tilt, turn). The "freeze" key is desirable, but only if its implementation does not limit the use of valuable systems software. Allow the option of a non-blinking cursor.

The keyboard should be detachable, on a coiled umbilical that is fully removable (a telephone handset cord provides economy and easy user replacement), plugging into the front portion of the terminal. It should have a rounded palm rest (rather than a sharp-angled palm cutter), a RETURN key that is no more than two keys away from the "L" (thereby avoiding Jai Lai development of little finger length), and extend as little as possible to the sides and top.

The programmable keys should be programmable. In the case of terminal-generated input to the computer — both from the function keys and from multibyte special keys (if you insist on using VT emulation) — offer a transmission character rate selection that is independent of the transmission baud rate. E.g., allow the output from the terminal to be, say, 110 CPS, even though the baud rate is 9600. This will accommodate anemic input handlers that presume input through a terminal port is generated by human-speed keyboarding.

All of the option switches (perhaps including the power switch) should be keyboard-accessible via a separate switch-option key and plain-English display (not a Mickey Mouse display of 0's and 1's).

Keyboard designers should at least look at the wealth of research data regarding design, placement, and spacing of keys. And, convection cool the thing. Quiet fans, aren't.

(continued on page 12)

CompuPro Signs Agreements With Sorcim, Ashton-Tate

CompuPro has launched an applications software marketing program by signing licensing agreements covering commercial packages with Sorcim Corporation and Ashton-Tate.

The new marketing program represents a continuation of CompuPro's strategy to provide software support for its business microcomputer system configurations and floppy disk subsystems to an expanding dealer network, according to Mark Garetz, company general manager.

The Sorcim package covered by the licensing agreements is SuperCalc

86, an advanced spreadsheet simulator that enables users to generate reports, combine sections of separate spreadsheets, and create formatted printed reports under CP/M 86.

The Ashton-Tate agreement includes dBase II, a relational data base management system that performs data base and file handling operations automatically. Users can write their own programs while using screen handling facilities for setting up input and output forms.

Prior to launching the applications

software marketing effort, CompuPro introduced MP/M 8-16, a proprietary implementation of the MP/M 86 operating system for its business systems. It permits existing 8-bit support or utility programs to supplement the creation of 16-bit applications. MP/M 8-16 can handle as many as eight concurrent CP/M 2.2- or CP/M 86-compatible packages in any combination, and allows 62 kB of user program space.

For more information, contact: CompuPro, Oakland Airport, CA 94614, (415)-562-0638.

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Zentec Heralds 'UNPersonal' Computer

The decision to expand its business with the introduction of the Series 2000 multi-user business computer system for the OEM market was a natural progression for Zentec Corporation, according to its President Richard Calfee.

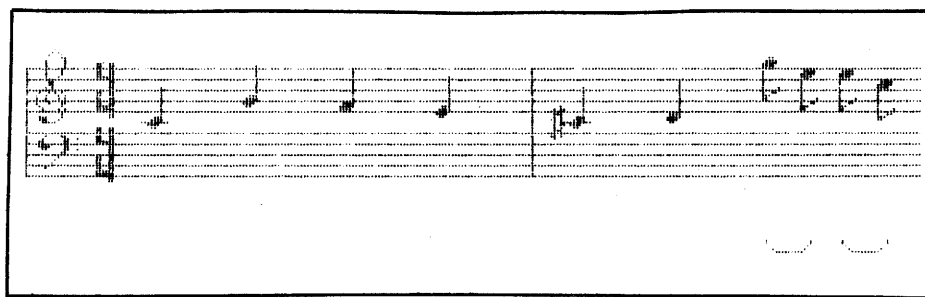
Zentec, a supplier of intelligent terminals for the OEM and system integrator since its inception in 1973, announced plans to market a multi-user system with intelligent workstations.

"We think the move to production of a business computer—not just any business computer, but one that we call the 'UNpersonal computer'—was a natural direction for our business to follow," he added.

The new Series 2000 system computer, which will be introduced this summer, offers multi-user, multi-tasking performance. Zentec will market to OEMs and system integrators this UNIX-optimized system that is expandable and configurable.

"The Series 2000 will compete directly against the personal computers that have been adapted for business use," Calfee said. "Most personal computers use operating systems that are oriented for single-user operation. Therefore, they don't offer the flexibility to expand with the demands of business applications."

For more information, contact: Zentec Corp., 2400 Walsh Ave., Santa Clara, CA 95050, (408)727-7662.



New Digital Synthesizer for Apple II

Passport Designs, Inc. has introduced Soundchaser Digital, a computer music system for the Apple II.

The Soundchaser is a polyphonic synthesizer, multi-track recorder, computer aided instruction device, and real-time music transcriber all in one package.

"The next higher level computer music system is over 10 times the price of the Soundchaser," said David Kusek, president of Passport Designs. "Soundchaser can be used in music departments of schools, by musicians during live performances, in the studio and by computer enthusiasts in their homes. This is the home organ of the future."

The user can play, compose, record, and play back up to eight live or recorded "voices" with a basic knowledge of music and no knowledge of computers.

Soundchaser Digital consists of a four octave keyboard and interface card, the Mountain Computer Music System and performance software. By defining waveforms, amplitudes, and frequencies with joysticks the user can create sounds

such as strings, horns, woodwinds, harpsichord, organ, vowel sounds, "space" sounds, and others.

MusicTutor is a CAI software package for the Soundchaser designed to develop listening skills and general music theory. By reinforcing the relationship between what is seen and what is heard, MusicTutor provides the training necessary for a firm background in music fundamentals.

Notewriter is Soundchaser's real-time monophonic music transcriber. It writes music as it played and prints it out on a graphic printer. Advanced editing features allow meter and key signature changes, additions, deletions, and transpositions.

"The Soundchaser is versatile and expandable," Kusek said. "You can buy the entire system or add the software as you progress. And since it is a software-based system, the initial value and versatility increases as software is added. It can be used to teach, to learn, to compose and to entertain."

For more information, contact: Passport Designs, 785 Main Street, Half Moon Bay, CA 94019, (415)726-0280.

Oasis 16 for IBM PC

Multi-user operation and a large body of business application software is now available to IBM Personal Computer users through the recent introduction of Oasis-16 for the popular new system.

Oasis-16 simultaneously coordinates up to 3 users on the standard IBM system, and up to 32 users with appropriate bus expansion. Private, shared or public files, optional passwords and privilege level security provide data protection in multi-user activities. A multi-queued, intelligent print spooler avoids printer bottlenecks. Automatic Record Locking and file locking guard against multiple users corrupting a data base through joint modification of the same record. Electronic mail facilities are additional multi-user features of the new IBM/Oasis-16 system.

Direct compatibility with Z80 Oasis BASIC and C-based application software makes over 500 professionally prepared programs immediately available for the new IBM/Oasis system. Corvus 5-, 10-, and 20Mbyte Winchester hard disks provide mass storage support.

Minimum configuration for the IBM/Oasis-16 system requires 128K RAM, monochrome display adapter, 5¼ inch floppy disk adapter with 1 drive, and a 5Mbyte hard disk.

Suggested retail price for Oasis-16 is \$1495.

For more information, write: Phase One Systems, 7700 Edgewater Dr. #830, Oakland, CA 94621, (415)562-8085.

Rumors . . . (continued from page 6)

SORCIM'S SOMETHIN'

We jus' gotta gossip about Sorcim for a minute or two. You may know of Sorcim as the originator of SuperCalc — one of the better spreadsheets under CP/M. This Santa Clara mob is not merely sitting idly on their software, however. They have recently released SuperCalc-86 — a souped up version that runs on 8086's and 8088's (that's spelled 'IBM PC', you-all).

Very shortly, they will release a plot package to accompany SuperCalc that will include the ability to plot on a CRT (for previewing), a dot matrixizer, a daisywheel . . . or even on a plotter. Equally soon, expect a data exchanger that will allow SuperCalc to transfer to and from other file-types in several formats including an ASCII comma-file.

However, they do much more. They are about to offer SuperWriter, a text editor that reportedly has a very nice user interface. Also, it will interact with ISA's SpellGuard — one of the best-reputed CP/M-based spelling programs on the market.

Scoop: Sorcim just completed the purchase of ISA. Yes, Sorcim's SuperWriter will, indeed, work with SpellGuard.

They have also had an 8080-to-8086 translator — Trans-86 — operational for over a year, and have a whole batch of macro cross-assemblers, e.g., for 8080, Z80, 6502, 6800, etc. At the moment, these produce absolute code, but they are working on mapping them into the appropriate loader and linker formats.

Finally, they offer Pascal-M, an interpreter for full-blown Pascal.

Aside: Of the 50 or so staff now at Sorcim, about three quarters of them are technical types.

A SCI FI ART & COMPUTER GALLERY

Where else but in California would you find a guy who wants to set up an art gallery with a computer store? Will Stone, who has run the Fantasy and Science Fiction Art Gallery in San Francisco, and who functions as an art agent regularly for Omni, Science Digest, Discover, etc., has decided he wants to include a computer store — the more exotic, the better — in his sci fi gallery. He is looking for the innovative entrepreneur who would like to

pursue such a venture; he already has the space at 560 Sutter, San Francisco CA 94102.

NOT A HOME COMPUTER

Have you heard about Symbolics? An MIT spinoff with facilities in Palo Alto, they are making a Lisp machine. This is sort of a Lamborgini of personal computers — for only \$75K or so, you can have a new one.

On the other hand, they have already sold a batch of 'em. Customers reportedly include Atari (to give Alan Kay, the sooth sayer of Smalltalk, his own video game machines), Hewlett-Packard (gee, an' we thought Hewlett-Packard only spoke Basic), SRI International (long known for artificial intelligence research), and Fairchild's recently invented AI Lab.

H-P's LATEST

While we're mentioning H-P, we should mention that they have just announced their newest personal computer, the HP-86. They also beefed up the 'old' HP-87, giving it mo' memory.

The minimal HP-86 is \$5 less than \$1800 (the first time H-P has broken the \$2K barrier for a computer). It comes with 128K of RAM as standard.

The new HP-87XM comes with up to 640K of memory ('XM' stands for extra memory, phonetically speaking). For some time, we have found that much memory useful in our in-house S-100 system, and applaud H-P's expansion. The 87XM is only \$5 less than \$3000. The plain-Jane HP-87 is being phased out.

ENTREPRENEURIAL MEAT

We just received word that the Western States Meat Association is lookin' for folks interested in offering computing services to meat packers and meat processors. It seems that the West has about 100 large meat packers and over 1000 smaller meat processing companies. The larger firms are already computerized, however the smaller ones are just starting to seek computer assistance.

For more information, contact Cal Santare of the WSMA, 415-982-2466. (They also run an annual WSMA trade show and would, of course, be happy to have computer exhibitors.)

A GREAT LINE

Victor Business Machines is tromping into the microcomputer marketplace, just like everyone else. As is the case with several sensible companies, they are making no pretense of being all things to all people. Instead, they are focusing exclusively on the business community — e.g., their machines have no color displays, and come with a minimum of 128K of memory.

To emphasize this market orientation,

they have the slogan, "We don't play games with your business." Great line, but will the boss' kids approve?

WHAT'S TALMIS

We still haven't gotten around to checking out what 'TALMIS' stands for, but it held a conference and exhibition for the electronic and training industry in Chicago, last spring. For those interested in such topics, contact TALMIS, 115 N. Oak Park Av, Oak Park IL 60301, (312)848-4001.

(continued on page 14)

Every designer sometimes wishes to test and refine his system before committing it to fabrication...



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Digital Research Develops CP/M for National Semiconductor

Digital Research will develop and market a multi-tasking version of CP/M for National Semiconductor Corporation's NS16016 16/32-bit microprocessor, announced John Rowley, Digital Research chief operating officer.

The NS16016 was selected by Digital Research because it is a microprocessor that supports the industry standard 8080 instruction set.

National's NS16000 16-bit products have complete 32-bit internal architecture. The arithmetic logic units, all internal data paths and registers are 32-bit. In addition, the processors support demand-paged virtual memory implementation.

Online Database Directory

The number of online databases broke through the 1000 mark during the past quarter, according to Cuadra Associates, publisher of the "Directory of Online Databases." The recently published directory describes 1133 databases available through more than 189 online services.

The "Directory of Online Databases" is published quarterly.

For more information, contact: Cuadra Associates, Inc., 2001 Wilshire Blvd. #305, Santa Monica, CA 90403, (213)829-9972.

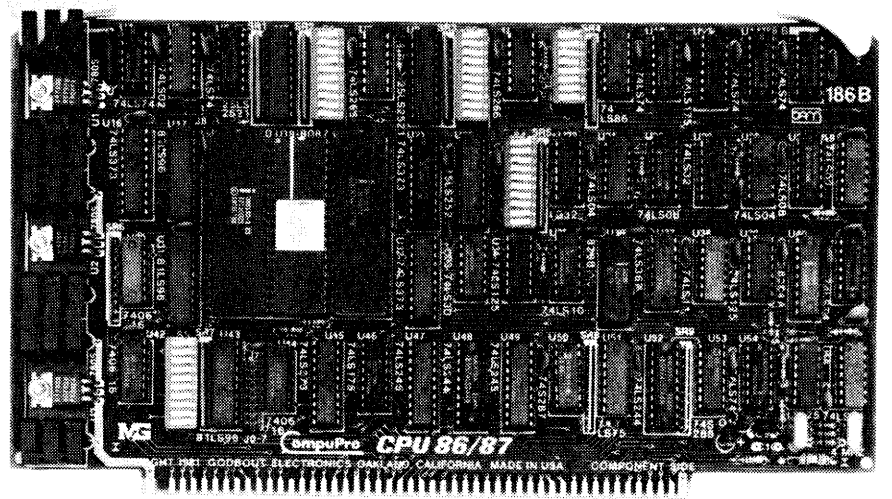
"National's NS16000 family supports true demand-paged virtual memory, and is one of the most exciting 16/32-bit set of microprocessor products we've seen to date," said Gary Kildall, Digital Research president. "We endorse it and will support it by developing systems software for the NS16016."

Digital Research is also considering development of operating system products based on the instruction set of National's NS16032 microprocessor, according to Kildall.

Digital Research will offer systems software products for the NS16016 as soon as the CPU becomes available.

Because the NS16016 can run the 8080 instruction set, Digital Research's multi-tasking, CP/M-compatible operating system opens up a broad base of application software for users of NS16016-based systems. These include more than 3000 packages for word processing, accounting, financial planning, database management and other business applications. In addition, a variety of high-level programming languages, including several versions of BASIC, FORTRAN, COBOL, Pascal and PL/I, currently run under Digital Research operating systems. This software runs on a variety of microprocessors including the 8080, 8085, Z-80, 8086, and 8088.

For more information, contact: Digital Research, 160 Central Ave., Pacific Grove, CA 93950, (408)649-3896.



CompuPro's 8086/87 CPU Board Features Floating Point Chips

An 8086/8087 microprocessor board providing 16-bit capability with provisions for adding a mathematics coprocessor and operating system firmware has been introduced by CompuPro.

Compatible with IEEE 696/S-100 standards, CPU 86/87 is available in either 8- or 10-MHz microprocessor versions. Accommodating 8- or 16-bit words, its on-board logic can read or write two bytes serially for 8-bit applications, or pass word-wide values for 16-bit operation. As a result, users can mix 8-bit and 16-bit devices in the same system.

In addition, CompuPro's new board accepts Intel's 8087 math processor and 80130 operating system firmware. The math processor offers a high-speed number crunching capability, while the firmware adds an 8-level vectored interrupt controller, three interval timers, and a choice of silicon-based operating

systems: the iRMX-86 kernel or CP/M-86.

The 86/87 CPU generates a full 24-bit address for its 16-Mbyte memory, and a power-on-jump capability allows jumping to any 4K boundary in the lower 1-Mbyte address space. Also, a clock-switching circuit permits slave processors to share a bus with the board, thereby eliminating bus conflicts by running the slave and the master at different clock rates.

Available for immediate delivery, the CPU 86/87 board from CompuPro comes configured with microprocessor, a ROM-less version of the 80130, and a socket for 8087. Suggested retail price is \$695 for the 8-MHz and \$850 for the 10-MHz version.

For more information, contact: CompuPro, Oakland, CA, (415)562-0638.



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making nuclear weapons. Period. We've got 30,000; they've got 20,000.* That's more than enough.

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Mail to: Nuclear Weapons Freeze Campaign, 330 Jackson, 6th Floor, San Francisco, CA 94111

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*Center for Defense Information, Washington D.C.

132 Col. (continued from page 10)

The point is — concentrate on making a good connection between the user and the computer; not on building in all sorts of features that may confuse, confound, and make unusable significant systems software. Offer terminals that allow the computer programmers to do the programming — or, at least, leave us the option of doing the overall system design and programming.

In the functions of the terminal, provide the hooks for the systems programmer to control the use of the terminal as freely as possible. This can be accomplished either by allowing full programmer access to low-level terminal primitives (cursor control, clear screen/line/end-of-line, reverse scroll, etc.), or else by allowing the programmer to download terminal software (thus to do the programming the systems designer finds most appropriate).

THERE IS HOPE

Lest we appear to be totally bitter about this subject (frustrated — yes; bitter — not yet), we must offer some well-deserved praise.

We are particularly impressed by the c.Itoh 101 terminal... except for the above-noted frustration features. It was an unusually solid and comfortable terminal with generally excellent features. When we howled to the designers, we

found them solicitous and apparently actively interested in our comments regarding design alternatives (and regarding the size of the micro marketplace). Considering the generally excellent design of the 101, we have hope that they will come out with a 101-B ('B' for 'Better', of course) that will meet the needs of non-DECites.

We are also looking forward to Televideo's announced 132-column terminal, due to be available in 4th Quarter. Among other things, it sounds like they have considered a number of points we have mentioned.

And, we offer particular praise for those several terminal makers who are offering the ability to download completely arbitrary bit-patterns for alternate character fonts — a greatly sought feature for those of us who are type jockeys.

Oh, by the way, we would also like 60 lines with our 132 columns... for under \$1500, of course.

EXHIBIT your commercial or homebrew gadget to 250,000 people during the 'Us' Festival this Labor Day.

Microcomputing: The Future

What's in store for the microcomputing industry? "The Future" section of the 7th West Coast Computer Faire "Proceedings" describes new technological and marketing developments that could take place very soon in this volatile industry.

In "The Microcomputing Industry Today and Tomorrow," Rodney Zaks of SYBEX Inc., Berkeley, CA, examines recent and projected developments in the microcomputer industry. His discussion zeroes in on hobby, personal, business computers, and software, as well as products and services.

David Ahl and David Lubar of "Creative Computing" discuss technological advances and computing fun in "The First Computer/Videodisc Game: A Glimpse Into the Future." With the lowest cost, commercially available hardware system (around \$3000) they have written a software framework for constructing adventure-type games using commercially available videodiscs of movies.

Legal Protection for Software

Two 7th West Coast Computer Faire "Proceedings" papers address the issue of legal protection for software. As computer software becomes more complex, so do the controversies surrounding its protection. In this section, authors review options open to developers who want to defend their investment from pirates.

Attorney Daniel Remer's "Legal Care of Software," taken from his book of the same name (1982, Addison-Wesley), covers areas of the law which effect software publishers and developers.

He discusses such protection methods as trade secret, copyright, disk copy protection, and patent law, but warns that there is no comprehensive body of law to protect developers. Remer discusses how to choose and work with a lawyer. But, he advises, a computist's best protection is knowledge, not an attorney.

"Even if you do decide to routinely use a lawyer, a basic knowledge of software law will help you make intelligent business decisions and will keep you from making costly legal mistakes," writes Remer.

"The electronic game market is growing rapidly. Manufacturers are spending hundreds of thousands of dollars to develop new, exciting games for both the arcade and the home. Yet, as soon as a game hits the market, it is subject to piracy by an unscrupulous competitor," writes Michael Scott in "Electronic Game Pirates: The Scramble for Viable Protection."

He discusses how manufacturers can guard their games by: protecting the program; safeguarding electronics containing the program (normally a ROM - a read-only memory chip); and protecting the audiovisual display of the game itself. Court cases of interest are also discussed.

EXHIBIT your wonderful widgeit to 40,000 people at the 8th West Coast Computer Faire next March.

all we want is more . . .

TEXT MANIPULATION SYSTEM DESIGNERS — PLEASE NOTE

by Jim C. Warren, Jr.

The more potent text processing systems also allow convenient printing of formatted text on a daisywheel printer, generally including underscoring, bidirectional printing to avoid carriage return delays, and perhaps proportional spacing.

But, there's a ringer: Such systems on microcomputers seem to invariably presume the daisy is hooked to a separate port on the computer. This may be reasonable if the terminal, the printer, and the computer are all adjacent — as has generally been the case in the past.

However, things are changing. An

increasing number of installations are placing the noisy, bulky computer in a closet or some out-of-the-way place and cabling some distance to the terminal and printer sites. This is particularly true in multiuser installations, e.g. those using MP/M. Thus, to use a daisy with a CRT, one must run two sets of cables, as well as use up two RS-232 ports on the computer.

There is a better alternative: Most CRT terminals have a secondary or printer port. Therefore, add the controls necessary to allow the daisy to be plugged into and controlled through the

CRT's secondary port. This can be done on any terminal that allows the second port to be enabled and disabled via escape sequences sent by the computer. And, since the system must have a custom handler for each terminal, anyway, it is reasonable to go ahead and add this additional customization.

It simplifies every installation where the printer must be adjacent to the CRT, reduces the number of ports used on the computer, and reduces the costs for cable-runs where the computer is placed some distance from the user station(s).

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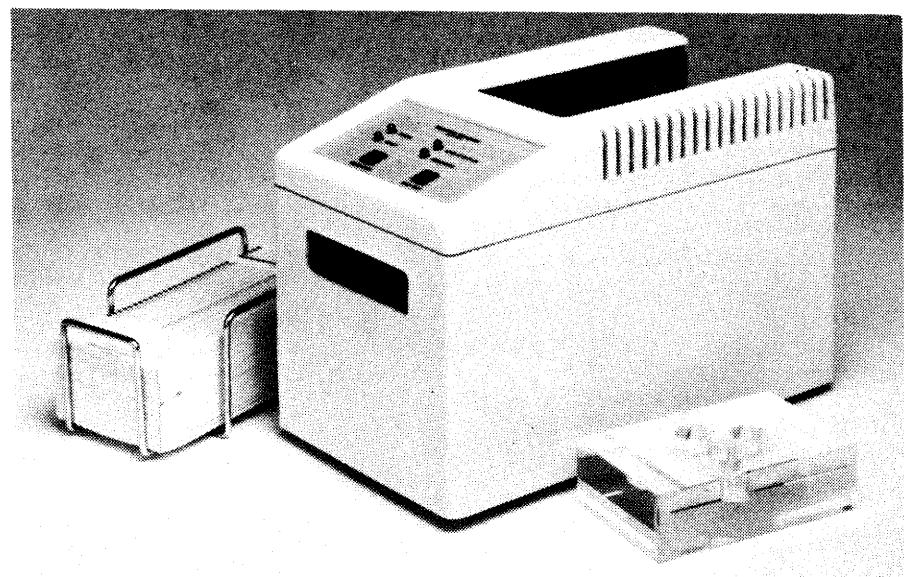
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New Optical Card Reader

Mountain Computer has announced an optical card reader for the personal and desk-top computer market. At \$1,495 the MCI Model 1100A Intelligent Card Reader offers automatic card feeding with sophisticated features previously available only on much higher priced equipment. For example, the MCI Model 1100A can: read pencil marked and punched cards up to 14 inches in length; automatically feed 200 cards at a rate of two cards per second; distinguish marks from erasures; perform a diagnostic self-test; and much more.

The MCI Model 1100A Card reader offers new applications for automatic data entry in the education, office, and manufacturing environments. For additional information, contact: Mountain Computer, Inc., 300 El Pueblo Rd., Scotts Valley, CA 95066, (408)438-6650.

CP/M Cross-Assembler

System-75, a CP/M cross-assembler for the NEC 7500 microprocessor, enables any CP/M system to serve as a development station for this processor. The software system features a macro-assembler, an interactive editor/assembler, a text editor, a cross-reference generator, and offloading facilities. The macro-assembler includes full macro and conditional assembly features as well as the ability to chain a series of source files together during a single assembly. The interactive editor/assembler is intended for the rapid creation, modification and test of program modules.

The assemblers adhere to the assembly language defined by NEC and can be used for any member of the 7500 family although without specific instruction or operand range validation.

Programs developed under this system must be off-loaded to the target processor for test. Facilities are provided to implement the off-loading mechanism as a direct transfer from memory, via a byte stream over a CPU port, or via .COM or .HEX disk files.

System-75 is one of a series of cross assemblers which includes systems for the National COP400, National 70-Series, Intel 8048, Intel 8051, Zilog Z8, RCA 1802, AMI S2000, Fairchild/Mostek F8/3870, and Texas Instruments TMS7000 processors. The development systems share a common operational structure, with uniform procedures for program entry, modification, assembly, and disk file handling.

Individual development systems are available for \$150 each on CP/M 8 inch soft sector (3740), 5 inch North Star, or 5 inch Micropolis Mod II (Lifeboat adaptation) diskette. The interactive editor/assembler of each system is available separately for \$75 on TRS-80 cassette (500) or Mod III diskette. Complete documentation is included, and full user support is provided by mail or phone. For more information, contact: Allen Ashley, 395 Sierra Madre Villa, Pasadena, CA 91107, (213)793-5748.

'Softalk' Free to IBM PC owners

Softalk Publishing is offering a new monthly magazine, "Softalk for the IBM Personal Computer," free to owners of Personal Computers.

The first issue features an article on banking applications for the PC, a summary of PC bugs, a description of the new disk operating system, and an article on Software Arts, the company that designed VisiCalc. Monthly columns cover spreadsheet use, hardware, and system software. There is a special column for beginners.

Personal Computer owners can sign up for a free subscription by writing: Softalk Publishing, 11021 Magnolia Blvd. #A, North Hollywood, CA 91601.

Rumors . . . (continued from page 11)

B'AREA DATES

This fall, the San Francisco Bay area is hosting a whole batch of computer events. Among others:

Sept 29 - Oct 2, Computer Showcase Expo, San Francisco. Last year, was the first year for this show. It had about 60 exhibitors, no conference program, and drew about 8400 attendees. It used extensive radio and television advertising, including a tv spot featuring Jonathan Winters.

Oct 4-7, 15th Annual Microprogramming Workshop, Palo Alto. This workshop is jointly sponsored by the Association for Computing Machinery and the IEEE Computer Society. It offers a potent technical program, no exhibits, and has scheduled Grand Ol' Man Maurice Wilkes as keynote speaker.

Oct 14-17, California Computer Show & Office Equipment Expo, San Francisco. This was a new show announced by Gerry Milden, a Boston show operator. It was scheduled, but has reportedly been cancelled.

Oct 26-28, Word Processing & Office Equipment Show, San Jose. This conference and exhibition has been going on for over half a decade. It is well entrenched and has a good reputation among exhibitors and attendees. Last year, it had well over 120 exhibitors. This year, it already has 150 exhibitors signed up for 280 booths, and will include a significant conference program.

Nov 18-21, AppleFest, San Francisco. This is a new show, also announced by Gerry Milden.

Data point: The Games Faire &

Software Advances for Kurzweil Font Scanning System

Significant software advances for the Kurzweil Data Entry Machine (KDEM), which can scan and convert to digital code all of the 200-plus typestyles in common use, were announced recently by Kurzweil Computer Products, a Xerox company.

Among the improvements is one which reduces by 50 percent the time required for teaching the machine the idiosyncracies of any particular document.

In Easy Mode, as the improvement is called, the system automatically trains itself to recognize most of the characters in a new document without operator intervention. It does so by guessing at the identity of each unfamiliar character based on its shape, and then checking the accuracy of its guess by comparing the spelling of the word in which the character appears against a 33,000 word dictionary in the system's memory. For example, if in a given document the KDEM wasn't sure of the identity of the third character in the word "computer," it would compare the word against the dictionary. Having concluded the character was an "m," it would in effect program itself to recognize that character as an "m" wherever it reoccurs in the text.

In addition, the software permits the operator to call a list of "confirmed" characters onto the video screen at any point during the training, so that the operator knows exactly when training is completed. An improved program for

automatically entering underlines in the text is also included in the software package.

The new software is available on all new KDEM systems and is being sent free of charge to existing KDEM sites. Over 75 KDEMs are now in use throughout the U. S. and Europe by corporations, government agencies, typesetters, and service bureaus, entering text for computer data bases, automated phototypesetting, and word processing media conversion.

For more information, contact: Kurzweil Computer Products, 185 Albany St., Cambridge, MA, (617)-864-4700.

Volkswriter Word Processor for IBM PC

Lifetree Software has created Volkswriter, a word processor designed specifically for the IBM Personal Computer.

"We waited until IBM got into the personal computer market to enter it ourselves and we definitely made the right decision," said Camilo Wilson, president of Lifetree Software.

Volkswriter is self-teaching and since its files are written in 100 percent standard DOS format, Volkswriter is compatible with other IBM Personal Computer software such as VisiCalc.

Volkswriter is also a program editor. As a program development tool, Volkswriter can help programmers in Pascal, Assembler, Fortran, COBOL and BASIC.

Volkswriter is written in Pascal. An IBM Personal Computer with 64K memory, one disk drive and IBM DOS is required. For extensive writing, 128K memory is recommended. The software costs \$195.

For more information, contact: Lifetree Software, Inc., 177 Webster St. #342, Monterey, CA 93940, (408)659-3221.

Free Future Copies of the Silicon Gulch Gazette

Just send your name and mailing address to Computer Faire, 345 Swett Road, Woodside CA 94062

AppleFest in San Jose last November drew about 60 exhibitors and 6500 attendees, using an extensive publicity campaign.

(Note: Nov 29 - Dec 2, Comdex, Las Vegas. This is a massive show but is not open to the general public.)

DEAR MR. COMPUTER

The Computer Faire recently received one of the more classic examples of "personalized" computer-generated form letters from John Blair Menswear, peddling denim jeans.

It was addressed to "Mr. F. Computer." Right!

It was mailed to "333 Sweet Rd" in Redwood City. (Somehow, keyboardists just balk at the notion that our street - Swett Road - is related neither to sugar nor to perspiration. This databanker chose the more tasty innacuracy.)

Additionally, we have a mailing address in the small community of Woodside with its own separate ZIP code . . . but serviced through the main Post Office in Redwood City. The computer preferred the official to the actual.

Along with a salutation of "Dear Mr. Computer," the letter had such attractive comments as, ". . . wear them you will, Mr. Computer . . .", ". . . you'll discover more comfort than you ever thought possible, Mr. Computer," and "You can be certain, Mr. Computer, that this special free trial offer is not being sent to everyone in Redwood City!"

We immediately ordered a pair, size 15MB with CRC.

Not to be outdone, Sears offered our Mr. Computer a free air gauge (for our hot air, no doubt). This was accompanied by a credit account application for "Faire Computer," again at 333 Sweet in Redwood City, proving, once again, that, with a computer, one can make millions of mistakes per second.

We can hardly wait for the offer of low-cost baby-doll see-thru negligees. We plan to use them for our memory boards - so we can see the little bits that really count.

NO-BOMB MICROS

On July 10th, we attended the initial meeting of an assortment of folks interested in possible anti-nuclear, pro-peace, anti-war, pro-environment uses of computers - Earthniks, you might say.

The meeting covered a surprising number of ad hoc groups (real or imagined) with names ranging from Systems for Survival, and Computers for Conscience, to Eve's Apple Tree, Megabytes vs. Megatons, and No Nuke Network. Gathering in an Oakland, California, home, it drew about 40 computer pros and 'new movement' organizers.

Though there was a predominance of computer people, there were also representatives of a number of the organizations. The level of technical expertise ranged from some of the organization leaders who had a vague idea that a computer might be of some assistance in some way, to hackers with several decades of systems experience. It included Lee Felsenstein, perhaps best known as the designer of the Osborne I and prime mover

(continued on page 15)

High Technology Report

Silicon Valley's high technology firms have a bright future, according to "Santa Clara County: Growth to 1990," a new study just released by Wells Fargo Bank. According to the survey, American high technology and semiconductor industries will grow, surpass foreign competition, and increase sales in the years to come.

The report, outlined in a recent issue of "IEEE Grid," says that high technology markets world-wide will grow about 14 percent annually in the coming years and could reach \$500 billion by 1988. Semiconductor sales should rise 18 percent annually during the same period, predicts the study.

"Although the semiconductor industry is now in recession, the longer term outlook is clearly one of continued sales growth," writes author Joseph Wahed, the Bank's vice president and chief economist.

Silicon Valley's greatest strengths — successful innovation, research and development of new technologies, and strict quality control — will keep it ahead of foreign producers, including the Japanese, writes Wahed.

"Although trade barriers in some prime markets continue to pose problems and there will be some loss of market share by U.S. producers, the outlook is for substantial sales growth world-wide," he concludes.

Wahed also discusses some of Santa Clara County's growth problems in the recent study. San Jose and Southern Santa Clara Counties can expect to capture some of the new businesses unable to locate in overcrowded Silicon Valley, he explains. But these areas will grow only if their governments enact land-use policies to accommodate industry and its employees.

"Perhaps the most crucial challenge facing the county will be housing," Wahed asserts. "Our analysis indicates that about 130,000 new households will be formed in Santa Clara County during the years to 1990, so about that many new homes will be needed."

The report is free and may be obtained by writing: Paul Watson, Vice President, San Jose Regional Commercial Banking Center, P. O. Box 970, San Jose, CA 95108.

Survey of Industrial Robots

"A Survey of Industrial Robots Second Edition," edited by Dr. John J. Allan, III, is designed for potential purchasers of industrial robots. It describes what robots do, how they work, different approaches used by various vendors and the effect of each feature on performance.

This report includes guidelines for integrating robots into current manufacturing operations. Topics covered range from the technical aspects of the hierarchical computer based manufac-

turing system, to insuring the robot's social acceptability with employees. Also discussed are applications, cost/benefit analysis, basic capabilities, and new developments in artificial intelligence.

This publication is available from Leading Edge Publishing, Inc., P. O. Box 8100, 5622 Dyer St. #217, Dallas, TX 75205, (214)739-0340. The single copy price of \$146 includes postage and handling.

Rumors . . . (continued from page 14)

behind the Community Memory Project, and Joel Yudken, an ex-Lockheed engineer heavily involved in the Midpeninsula Conversion Project, working on converting Bay area industry from military to non-military production.

Over half of the meeting was spent in the eminently useful function of simply introducing participants to each other and outlining who was doing what. The latter part of the gathering was spent predominantly on brainstorming possible uses, and then discussing desired features of such computer systems.

About 30 uses were mentioned, ranging from maintaining lists of volunteers and funding sources, and processing opinion polls, to electronic mail and bulletin boards, and supporting barter networks and skills banks.

Features discussed included encryption options, user-friendliness for nontechnical users, data communications standardization for information exchange among heterogeneous, decentralized systems, and some concern for protection against abuse and privacy invasion.

Several of the meeting's organizers are now condensing the pile of information into a more structured form to begin specific projects and system development. For more information, contact Martha Henderson, Disarmament Resource Center, 942 Market #708, San Francisco 94102, or Laurie Foster, 415-530-2354.

AUNTY ESTABLISHMENT

We have stumbled across an entertaining little almost-newsletter called T A P. It describes itself as "a small underground publication which makes available various anti-system technology (for informational purposes only)". It purports to have been around since 1971, created by the old Yippie mob and phone phreak 'Al Bell'.

If you are interested in such attractive information, or interested in monitoring such an offensive movement, their address is TAP,

147 W 42nd St, Room 603, NYC 10036.

FOR NAME FREAKS

Wang Institute (back East) has pirated Bill McKeeman away from California. Bill — the first Computer Science grad from Stanford — was the Chair of UC-Santa Cruz's Computer & Information Science Department for some years, and more recently a Xerox PARC prince. Among other things, he was the first author of *A Compiler Generator* — wherein XPL was defined and detailed (XPL was the forerunner of Gary Kildall's PL/M). A loss to the West Coast . . . but, he'll be back (sez we with provincial arrogance).

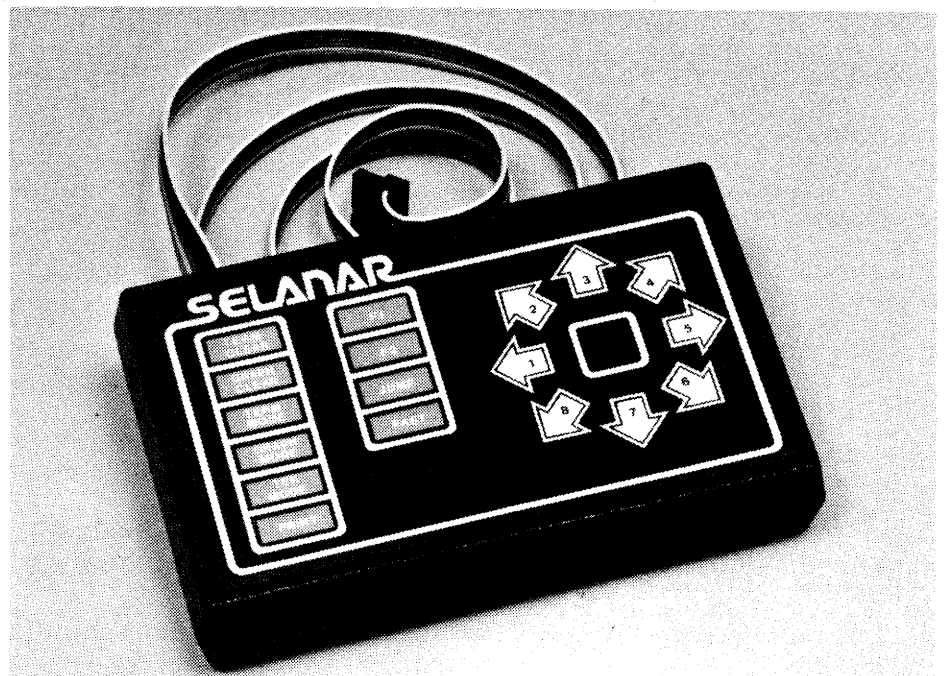
UC-Santa Cruz seems to be losing good folks, left and right. Frank DeRemer has also spun off, creating Metaware, a Santa Cruz operation of considerable computer potency.

(UC-Santa Cruz is an ethereal campus . . . that just never seemed to make it as the hyper-potent facility it was planned to be. Recently, a state legislator pointed out that California could save considerable loot by giving every UC-Santa Cruz student a fully-paid tuition to big-bucks Stanford, and simply closing the Santa Cruz beauty. If that is the case, then something is a bit haywire in state government — surprising news to you all, we are sure.)

Last April, shortly after we recovered from the 36,500 mob scene at the 7th Computer Faire in San Francisco, Bob 'Ozzie' Osband sent us an invitation to his 'West Coast Computer Faire Debriefing Party' being held in his apartment . . . in New York City! Now, that's gotta be a *dedicated* Faire follower. Thank ya kindly, Bob.

Bay area Alpha Micro abusers will be delighted to know that Gerry Baugus, chief wizard of the old Alpha Information of Palo Alto, is alive and well. He is happily doing hard and soft ware consulting under the name of Alpha GT at 415-948-0264.

Be aware or beware: Werner Erhard & Associates — the EST promoter — recently subscribed to DataCast. No doubt, they wish



New Cross-Hair Cursor Control Pad

Selanar Corporation, manufacturer of graphic enhancements for Digital Equipment Corporation, TeleVideo, and C. Itoh alphanumeric terminals, has introduced a new multiple-function control pad for the cross-hair cursor compatible with Selanar's graphics products.

The new cross-hair cursor consists of a four by six inch pressure-sensitive keypad with eight directional arrow keys, six mode selection switches, and two user-definable function controls. The attached 35 inch cable connects the controls to the Selanar Graphics board through the terminal's rear cover, allowing the user to place the controls adjacent to the terminal's keyboard.

The cross-hair cursor is operational in the Tektronix Emulation Mode of Selanar Graphics and will respond to normal Plot 10 commands. It also can be utilized in the Native Graphics Mode that is standard on all of Selanar's graphics enhancements.

The cross-hair cursor has been designed for compatibility with Selanar's graphics enhancements for the VT100 series terminals, the TeleVideo 950, the TeleVideo 925, and the CIT-101. The user must specify which graphics product will be interfaced to the cross-hair cursor. It is priced at \$250. For more information, contact: Selanar Corporation, 437-A Aldo Ave, Santa Clara, CA, 95050, (408)727-2811.

to maintain micro sensitivity. While we are on the subject, we can mention that the old Imsai (you gray-haired folks may remember that name, along with Mits, and Altair) operation was top-heavy with ESTies.

TECHNOLOGY & MARKETING

A closing observation: This industry is shaping up to have two types of companies — companies that are marketing-oriented, and companies that are technology-oriented.

The marketing companies tend to be headed by sales and marketing types with significant chunks of time, effort, and high salaries devoted to marketeers. They pursue what sells. In that context, they may often produce excellent products, simply because that is the path to most sales and greatest profits.

The tech groups tend to be headed by highly competent computer pros, and tend to dedicate much of their resources to high-quality technological development. Though they pay attention to the marketplace (they better, if the marketplace is to continue to be aware of them), they commonly pursue technical excellence and innovative quality in a manner that may be less than optimally cost-effective, but contributes greatly to continued improvement in our industry.

Although there are many of these tech-oriented companies, some that particularly come to mind for praise as we complete this column include Gary Kildall's Digital Research (CP/M and MP/M), Bill Godbout's CompuPro, George's Morrow Designs, Richard Frank's Sorcim (SuperCalc), Mike and Dale Gifford's G&G Engineering, and — as a quality-oriented techie, we must certainly mention Apple's originator, Steve Wozniak.

This writer admits to a strong affinity for these technologists — partially from 15 years as a computer pro, and partially from a preference for doing good things for their own sake, rather than merely doing them for profit.

"One nurtures what one respects."

Exhibit at the 8th
West Coast Computer Faire
March 18-20, 1983
San Francisco's Brooks Hall
and Civic Auditorium

Become part of the West Coast Computer Faire's continuing success. The 7th Faire, held this March, drew 36,500 attendees to see over 450 exhibitors.

The West Coast Computer Faire is an internationally known convention - the place to see state of the art micro-computing. Promotion includes distribution of 300,000-400,000 copies of our newspapers, the *Silicon Gulch Gazette* and *Inexpensive Business Computing*, leaflets, posters and extensive radio advertising.

For more information, write or call: Sarah Candelario, Exhibit Coordinator, 345 Swett Road, Woodside CA 94062, (415)-851-7077.

An Event Whose Time Has Come



Be a Part of It!

This coming Labor Day Weekend, September 3rd, 4th and 5th, 1982, Glen Helen Regional Park's meadow-like bowl nestled amid the scenic foothills of the majestic San Bernardino Mountains will be transformed into one of the world's largest natural amphitheaters.

For three days, a quarter of a million people will meander through colorful tents filled with state-of-the-art technology and rock to the sounds of groups like The Police, Tom Petty, Fleetwood Mac, Pat Benatar, Talking Heads, The B-52s, and Santana just to mention a few.

This could well be the last time such an awesome lineup of musical talent will be seen together in the same place.

This time, be part of it!

Tickets, priced at \$37.50, are good for all three days. Tickets may be purchased through Ticketron.

