

SILICON

GULCH GAZETTE

77 Feb 7

Volume 4, Number 1

Computer Faire, 333 Swett Road, Woodside CA 94062

(415) 851-7075

TOUR GROUP ORGANIZERS

If you wish to organize a tour group to come to the 4th Computer Faire - to obtain reduced air fares - let us know as soon as possible, and we will publicize it widely in the next *Silicon Gulch Gazette*. In the past, such groups have been organized in such diverse areas as Japan, Sweden, New York, Cleveland, Los Angeles, etc.

SEMINAR ROOMS AVAILABLE

The 4th Computer Faire has lecture rooms that may be rented on a daily basis by those wishing to conduct in-depth seminars and training programs during the Faire. The Faire will draw the participants - 12,000-16,000 estimated; you can teach them.

You may use these rooms as you wish. If you wish to provide free seminars concerning your products, you may do so. If you wish to conduct fee seminars for paying attendees, you may do so. In either case, please note that the 200,000-copy *Gazette* is an ideal means by which to contact potential attendees. Call the Faire (415-851-7075) for additional information.

4th WEST COAST COMPUTER FAIRE

San Francisco Civic Auditorium & Brooks Hall
May 11 - 12 - 13, 1979
9am-6pm 9am-6pm Noon-5pm

SAN FRANCISCO BUREAU OFFERS VISITORS ASSISTANCE

The San Francisco Convention & Visitors Bureau offers a variety of information to assist out-of-area visitors to 'The City.' The Bureau may be of particular assistance to those attending the 4th West Coast Computer Faire, to be held in San Francisco's Civic Auditorium & Brooks Hall, May 11-13.

Among other things, the Bureau offers guides to restaurants and 'night life,' and has a daily events 'hot line' - (415) 391-2000. For guidebooks and more information, call or write:

San Francisco Convention & Visitors
Bureau
1390 Market Street
San Francisco, CA 94102
(415) 626-5500

IF

You receive more than one copy of
Our Glorious *Gazette*,

THEN

You're obviously a true computer fanatic
(oh joy!)

AND

are on more than one magazine mailing list.

PLEASE

Pass the extra copy along to a fellow
Computer Enthusiast

March 1st deadline

BE AN ACTIVE PARTICIPANT IN THE 4th COMPUTER FAIRE

Call for Speakers & Conference Leaders

Eighty to one hundred speakers and panelists have participated in each of the Conference Programs at the first three West Coast Computer Faires. The 4th Computer Faire, to be held in San Francisco's Civic Auditorium & Brooks Hall, May 11-13, appears certain to be even larger than the preceding Faires. Attendance is expected to be 12,000-16,000, with 150 to 200 different companies exhibiting the latest in low-cost computing power for home, business, and industry.

The Faire has issued a call for speakers and conference leaders to discuss a wide range of techniques and applications relating to usage of microcomputers. Topics may include, (but are certainly not limited to):

Tutorials for the Absolute Novice
Computer Graphics Systems & Software
Electronic Music Systems & Techniques
Computer Games & their Design
Amateur Radio & Computers
Design of Systems Software
User Groups & Interest Group meetings
Inexpensive Business Computing
Digital Broadcasting & Telecommunications
Low-Cost Educational Computing
Computers for the Physically Impaired
Artificial Speech Synthesis & Recognition
Hardware Design & Implementation
... and much more

SPECIAL EMPHASIS ON INEXPENSIVE BUSINESS COMPUTING

Speakers and demonstrations are particularly sought addressing topics in low-cost business computing. These are expected to include tutorials for business people who know little or nothing about computers, but who know they wish to use computing power in their businesses. Speakers are also expected to discuss such things as comparisons of competing business systems, characteristics of business software, requirements of good data processing systems, and the design and implementation of various business packages.

LEADERS & ORGANIZERS SOUGHT

Conference Section Leaders and individuals interested in actively organizing a Conference program addressing a topic of particular interest are encouraged to contact the Faire and volunteer to organize and lead a Conference Section.

TIME IS SHORT

The deadline for receipt of the full-text, final drafts of papers and proposed talks is **MARCH 1st**. Papers should be submitted in a format specified by the Faire Publications Office, so that they may be included in the *Conference Proceedings* of the Faire (that will be published and available at the Faire). Speakers should contact the Faire headquarters, as soon as possible, and request a Speaker's Kit:

Computer Faire
333 Swett Road
Woodside, CA 94062
(415) 851-7075

MORE THAN 100 EXHIBIT BOOTHS ALREADY ASSIGNED FOR 4th FAIRE

As of January 3rd, 62 exhibitors had already formally contracted and paid for 104 booths in the trade exposition to be held during the 4th West Coast Computer Faire. What's even more noteworthy is that these exhibitors have joined the Faire based on essentially no major publicity - just a preliminary Exhibitor's Prospectus that was distributed to companies that explicitly requested 4th Faire exhibit information.

(An up-to-date list of exhibitors is contained elsewhere in this *Gazette*.)

Proceedings Section

FAIRE PAPERS FOR THE NOVICE

Three articles aimed at orienting the beginner in the world of personal computing appear in "Introduction for Novices," a chapter in the Third West Coast Computer Faire *Proceedings*.

In "You Don't Have to Be 'Good in Math' to Fall in Love with Computers," Donna Norris describes how, while preparing a computer literacy course for fifth and sixth graders, she went from being a total novice to being considered an expert. One recommendation she makes is to expect nothing useful from books over two years old.

Norris outlines the sessions of the course she designed, and how the material was presented in orderly stages. The sections of her course began with a discussion of the various parts of the computer, continued through I/O, and concluded with the different types of storage. The programming section began with preprogramming (flow-charting) and concluded with Basic, and involved the students getting "hands on" experience on a newly purchased micro. The author relates how, as she prepared the course, she herself became deeply involved.

"An Introduction to Personal Computing: A Beginner's Guide," by Bob Moody, Mike Triolo, and Jerry Fox, takes the reader past some of the buzz-word hurdles by providing simple glossaries for the most common software and hardware terms. In a section on programming, the authors discuss the relationship between ASCII and Basic, and give simple examples of some program techniques in Basic, such as loops and variables.

The article ends by addressing the question, "What can I do with it?" An effort is made by the authors to steer the novice away from the most visible answer - games - to some of the more practical, but equally fascinating, applications of home computers.

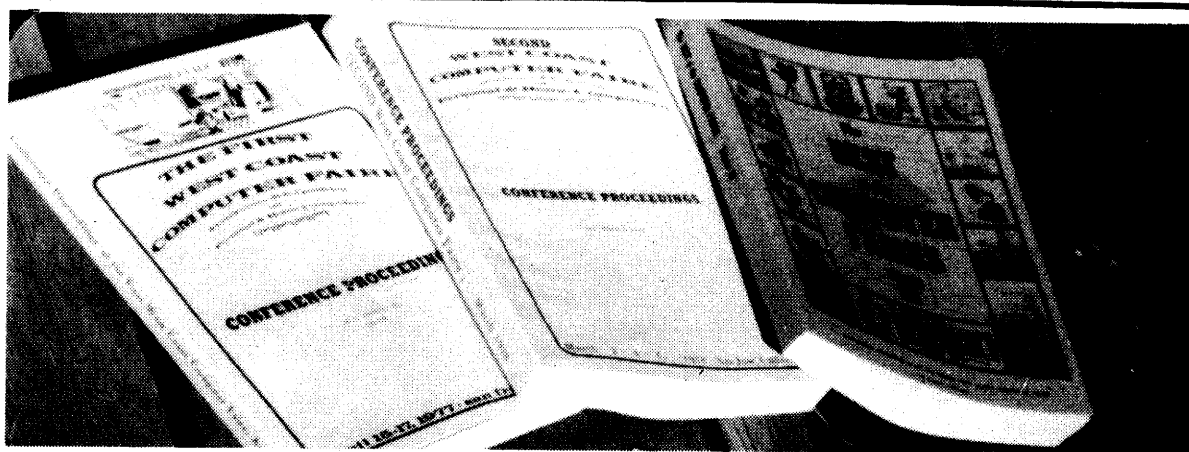
HOT FLASH!

After the first day of the Digicast Workshop, being held at Stanford University, it appears that an excellent, public domain technique may exist for transmitting digitally-encoded data over FM at 4800 BPS or better. If the proposal proves viable, this means that electronic "newspapers" and information utilities - transmitted to the general public as well as special-interest groups over established broadcast channels - may reasonably be expected to be operational before the end of 1979.

Watch the next issues of the *Intelligent Machines Journal* for details.

TABLE OF CONTENTS

C. Warren, Jr.	5
ents.	7
SECTION FOR NOVICES	
on't Have To Be 'Good In Math' To Fall In Love With Computers, Donna Norris.	9
roduction To Personal Computing: A Beginner's Guide, Bob Moody, Mike Triolo, Jerry Fox.	14
umer's Guide To Personal Computing and Microcomputers, Stephen Freiberger.	21
OF THE NEAR FUTURE	
ions Of A Futurist, Alan P. Hald.	27
Computers and Society: What Next?, Jack M. Nilles.	29
g Paradigms and the Computer, Carl Townsend.	32
FOR MUSIC SYSTEMS	
omputer Music Synthesizer, Henry L. Pfister.	36
st Multi-Part Music Programmed In BASIC, Dorothy Siegel.	42
ality Direct Music Synthesis Using Microprocessors, Hal Chamberlin.	44
MENT MACHINES TO AID THE PHYSICALLY IMPAIRED	
Developments On An Interactive Language For The Severely Handicapped, Michael S. Bodner,	45
y M. Hoelen, William J. Zogby.	45
Tracking Guide For Blind Persons Reading Information On CRT Screens, Yvonne S. Russell,	48
san H. Phillips.	48
COMPUTERS IN BIOMEDICAL ENVIRONS & HEALTH DELIVERY SYSTEMS	
Applications For Small Computers In The Practice Of Medicine, James Gagne, M.D.	49
omputer and Biofeedback In Psychological Laboratory For Treatment Of Emotional Ills,	52
ussell N. Cassel.	52
omputer As Antidote: Medical Data Base Applications In The Home And Office:	55
cidental Poisoning Information; Medical Journal Abstracts, Roger O. Litte, M.D.	55
omputer Feasibility In The Hospital Setting: A Microcomputer System As A Cost Effective	59
penditure In Computer Applications Feasibility Studies, Robert C.A. Goff, M.D.	59
terized Clinical Support System And Psychological Laboratory, Russell N. Cassel.	63
omputer Applications For Biomedical Instrumentation: A Monitor For The Corning M-175	69
ood Gas Analyzer, Robert C.A. Goff.	69
RS FOR EDUCATION & TEACHING	
ta Looks At Microcomputers, Kenneth E. Brumbaugh.	76
The Home Marketplace, Silas S. Warner.	84
's New Staff Member, Gerald Hasty.	87
omputers In The High School - Expanding Our Audience, William J. Wagner.	90
perimental Support For Educational Computer Games, Muata Weusi-Puryear.	96
ame Microprocessor In The Elementary School, Al Ahumada & Sam Hersh.	99
y Learning In Mathematics, Ludwig Braun, Jo Ann Comito, Philip Reese, Robert Wlezien.	100
olorado's Community Computer, Stephan K. Elliott.	101
er Simulation In The College Classroom: Implementation And Evaluation, Gene D. Steinhauer.	104
er Assisted Self-Evaluation At The University of California - Davis, Eli Cohen & Kathleen	107
Fisher.	107
rehensive Pupil Personnel Accounting System Utilizing Micro Computer Systems, Melvin L.	110
ddies.	110
AMES & PUZZLE SOLVING	
Serious About Computer Games, Bob Christiansen.	116
Soma & Polyominoes Puzzles By Computer, David M. Collison.	120
LEGISLATION AFFECTING COMPUTER USERS & OWNERS	
off Bill, John S. James.	125
erience On Capitol Hill, John Draper.	129
COMPUTER AIDS TO GOVERNMENT	
omputers In Local Government: Applications & Implications, Charles E. Barb, Jr. &	130
mes R. Carter.	130
omputers In City Government, Monroe H. Postman.	137
ECTS OF COMPUTERS & SOFTWARE	
nt & Software: Some Philosophical & Practical Considerations, Kenneth S. Widelitz.	138
nt & Computers, Neil Boorstyn.	140
ility Of Computer Software, Martin C. Fliesler.	142
g Software Without Patents - What Alternatives, David B. Harrison.	144
ment And Licensing Of Proprietary Property, Sheldon R. Meyer.	150
rks And Service Marks As Modern Goodwill And As Franchisable Properties, Hubert E. Dubb.	151
IVE COMPUTING FOR BUSINESS	
Microcomputers: Fraud Or Reality?, Rodney Zaks.	156
conomics Of Purchasing A Small Computer, Casimir C. Klimasauskas.	161
nting A Small Computer System, Casimir C. Klimasauskas.	166
ESS OF INEXPENSIVE COMPUTING	
onnel As Independent Consultants, T. Michael Flynn.	171
ent Situation Of The Japanese Microcomputer Market & Hobbyists, Toshiaki Yasuda.	174
ects Of Trade Associations In The Retail Microcomputer Industry, Oscar A. Rosenbloom.	176
Conduct A Low-Cost Market Survey, Donald M. Dible.	177
Raise Capital For Your Business, Donald M. Dible.	180
Get Distribution For Your Product, Donald M. Dible.	184
YSTEMS SOFTWARE	
nd The Business Community, Richard E. Barnhart.	189
Of Brings Business To Micros, Paul O'Grady.	193
rt Of COBOL As The Standard Language For Small Business Applications, Dick Burkhalter.	198
POINT STANDARDS & MATHEMATICAL MICROS	
osed IEEECS Floating Point Standard: What It Means To Hobbyists, Engineers,	202
Businesses, Tom Pittman.	202
tions For A Proposed Standard For Floating Point Arithmetic, Jerome T. Coonen.	206
Avoid Rounding Errors, David M. Collison.	223
tical Programming On A Microcomputer With High Resolution Graphics, Christopher L. Morgan.	227
PUTER SOFTWARE	
omputer Program Correctness, W. D. Maurer.	230
he Wonders Of UCSD PASCAL Going On An S-100 System, Jim Gagne.	238
le Compiler For A PASCAL-Like Language, Mark Green.	240
in And The APL/S Language, Ted Haynes.	246
duction To APL/S: A Modern Computation Language for Personal Computing, Robert G. Brown.	247
LS: PLAIN & FANCY	
t We Have A \$49 Correspondence-Quality Printer?, Bill McLaughlin.	251
ative Memory For The S-100 Bus, Sydney M. Lamb.	258
; Wand - A Computer Display In A Pen, Robert A. Freedman.	259
ensity Recording On Floppy Disks: A Comparison Of Techniques, Jefferson H. Harman.	261
PROMS: How To Use Them In Your Microprocessor System, Bob Greene.	266
ATING COMPUTERS	
Manual, Dave Caulkins.	275
onal Computer As A Universal Communication's Terminal, Mark Cummings.	284
SSIFIEDS: A POTPOURRI	
History: The Early Computer Environment In Southern California, Paul Armer.	292
d Gruenberger, Henry S. Tropp.	294
ourcing CPUs: Emulation, Ethics, and Electro-Politics, Chuck Hastings.	294
nd Computer Controlled Editing Sound System (ACCESS), William R. Deitrick.	304
x: Very Low Cost Voice Input For Home Computers, Bill Georgiou.	310
ersonal Computing Applications For Attorneys and Court Reporters, Douglas DuBrul.	313
s Before The Masthead or Write The Text Editor, Then The Text or How The Computer	315
le Me Into A Writer, Jef Raskin.	315
g A Local Group Of Computer Users, Douglas J. Mecham.	317
omputer May Speak, But Can You?, Jeffrey R. Wise.	322
UM PAPER: ARRIVAL AFTER THE PRESS BEGAN TO ROLL	
ures Research To Assess Policy Implications of the Personal Computer, Paul Gray.	326
at Situation of the Japanese Microcomputer Products, Market, & Hobbyists, Toshiaki Yasuda.	331
CONTENTS OF THE BEST OF THE COMPUTER FAIRES	
.	342
.	344



Please send _____ copies of the 334-page *THE BEST OF THE COMPUTER FAIRES, VOLUME I: Conference Proceedings of the FIRST West Coast Computer Faire*, for which I have enclosed payment of:

() U.S. \$13.72 each, for shipment by United Parcel Service (in continental U.S.)

Please send _____ copies of the 505-page *THE BEST OF THE COMPUTER FAIRES, VOLUME II: Conference Proceedings of the SECOND West Coast Computer Faire*, for which I have enclosed payment of:

() U.S. \$14.78 each, for shipment by United Parcel Service (in continental U.S.)

Please send _____ copies of the 345-page *THE BEST OF THE COMPUTER FAIRES, VOLUME III: Conference Proceedings of the THIRD West Coast Computer Faire*, for which I have enclosed payment of:

() U.S. \$13.72 each, for shipment by United Parcel Service (in continental U.S.)

SPECIAL, COMPLETE-SET (Volumes I, II, & III) OFFER

() **YES, I WISH TO SAVE \$3.** Please send _____ sets of all three *Proceedings*, for which I have enclosed:

() U.S. \$39.22 per set, for shipment by United Parcel Service (in continental U.S.) (Please write for shipping rates to locations outside of the continental United States.)

Please charge this to my () Mastercharge () Visa

Card number _____ Expiration date _____

Signature _____ Date _____

name _____

street _____ address _____

(UPS cannot deliver to a box address)

city _____ state _____ ZIP/postal code _____

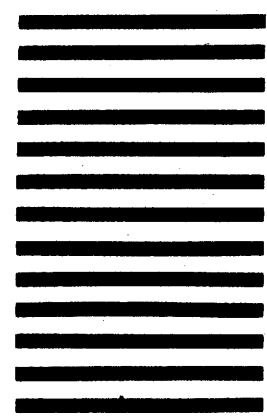


**NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES**

BUSINESS REPLY MAIL
 First Class Permit No. 169 Redwood City CA

POSTAGE WILL BE PAID BY ADDRESSEE

COMPUTER FAIRE
 333 Swett Road / Woodside CA 94062
 (415)851-7075



SOFTWARE AND COPYRIGHT PATENT LAW

"Legal Aspects of Computers and Software," a section in the *Proceedings* of the Third West Coast Computer Faire, discusses the impact on computer software of recent copyright legislation and Supreme Court decisions regarding copyright and patent law.

Articles by Kenneth Widelitz and Neil Boorstyn, both attorneys, deal with the problems of copyrighting software and data bases. Although the Copyright Office has been accepting registration of computer programs since 1964, there has yet to be a clear statutory authority for their protection, which distinguishes them from literary works. According to the authors, the absence of an official distinction between an idea and the expression of that idea is one of the main problems in copyrighting software. Further, no criteria have been established for something's being a derivative work, i.e., when does the modification and inclusion of a part of one program in another constitute infringement? "Fair use," the non-profit copying of parts of works for educational purposes, is also discussed as it applies to software.

Martin Flieser's "Patentability of Computer Software" outlines the basic principles of patent law as they apply to the patentability of software. These principles include what constitutes an invention, what makes an invention patentable, and the procedure for obtaining a patent. The article then goes on to outline the present state of the law, and the views of various government agencies regarding software inventions.

"Infringement and Licensing of Proprietary Property," by Sheldon Meyer, is a reference guide, in outline form, both to statutes governing questions of patent infringement (types of infringement, which infringer to sue, and where to bring suit), and to the use, sale, and licensing of patent rights (including royalty structure, anti-trust considerations, and the rights of joint owners of a patent).

In "Protecting Software Without Patents - What Alternatives?" David Harrison updates his survey, published in the *Proceedings* of the Second Faire, primarily with regard to the recent Supreme Court decision in the case of *Parker vs. Flook*. In that case, the Court denied the patentability of an invention which centrally involved a computer program. Harrison says that copyright law is more applicable to computer programs than is patent law, but that it does not go far enough in ensuring the return on the investment necessary to produce quality software. He then goes on to outline some of the special areas in which further legal protection is needed, which includes the trade secrets doctrine.

On a related topic, Hubert Dubb, in his article "Trademarks and Service Marks as Modern Goodwill and as Franchisable Properties," explains some of the requirements for obtaining and protecting a trademark. He points out that such symbols can be extremely valuable properties, and that the owner of such a trademark must exercise extreme care and control in franchising its use, so that he preserves his rights to it. Dubb goes on to demonstrate that the prominent use of a trademark or service mark is one of the best means of protecting it, and concludes by outlining some of the requirements for obtaining registration in foreign countries, and preventing infringement.

COBOL - NOT BASIC - FOR BUSINESS SYSTEMS SOFTWARE

All three papers comprising a section of the Third West Coast Computer Faire *Proceedings* detail the shortcomings of Basic and advocate the use of Cobol for business applications on microcomputers. The section, titled "Business Systems Software," contains papers by Richard Barnhart, Paul O'Grady, and Dick Burkhalter.

In a critique of Basic, "Basic and the Business Community," Barnhart notes that Basic was initially conceived as a subset of Fortran for use as a teaching tool, not as a language to be used for any practical business applications. In support of his argument, he describes the differences between analytical languages and those primarily oriented toward maintaining and altering large files of data.

Observing the lack of standards for Basic, he points out that most people in business situations have other jobs to do besides learning programming,

ASPECTS OF MICROCOMPUTER BUSINESS EXPLORED IN FAIRE PROCEEDINGS

A series of articles dealing with the problems, methods, and opportunities for business in the microcomputer market appears in the *Proceedings* of the Third West Coast Computer Faire. Also included is a report on the microcomputer situation in Japan.

T. Michael Flynn, in his article "EDP Personnel as Independent Consultants," states that since a large percentage of the present market is going to retailers with little or no electronic data processing experience, there exists a rich field of opportunities for people with EDP experience.

These opportunities can best be exploited, says Flynn, were EDP-experienced retailers to form a comprehensive association providing a broad range of products and services backed up by professional hardware, software, and maintenance support. Such an association could offer "personal consulting" to individuals and small businesses whose needs and applications are varied.

Further, Flynn argues, association-supported languages and systems software, as well as general applications programs, could be agreed upon and then be tailored, by the consultants, to individuals' needs. Flynn suggests that members of the association could be provided with national marketing support, as well as an educational resource for familiarizing themselves with background information on various fields of application, such as medical research or engineering.

In "The Current Situation of the Japanese Microcomputer Market and Hobbyists," Toshiaki Yasuda takes a look at the microcomputer scene in Japan, and points out that although NEC and Hitachi started producing their own microprocessors in 1973, Japan is also using and second sourcing a variety of American microprocessors. Further, Yasuda predicts a rapid expansion of the already-burgeoning hobbyist market.

"Legal Aspects of Trade Associations in the Retail Microcomputer Industry," by Oscar Rosenbloom, outlines some of the things a trade association can do, such as cooperative buying, setting standards, participating in statistical reporting programs, and exchanging price information. The role of various government agencies, as well as state and federal statutes affecting trade associations, is also noted.

MAKING FAIRE HOTEL RESERVATIONS?

If you call to make a reservation at any of the three hotels with which the Computer Faire has arranged reduced room rates for Faire attendees, be sure to indicate that you wish the Faire rates - that is, the Computer Faire rates - and that you are attending the Faire.

A Hotel reservation form is elsewhere in this issue of the *Gazette*.

and thus need a language which is easily understandable, available, and transportable.

In agreement with Barnhart's assessment of the usefulness of Basic, O'Grady, in "CIS Cobol Brings Business to Micros," and Burkhalter, in "In Support of Cobol as the Standard Language for Small Business Applications," argue that a National Standard Cobol already exists. They further contend that this Cobol is well-suited to the two areas most required by business (file manipulation and report generation); that there are many experienced Cobol programmers available; and that it is a sufficiently high-level language so that the purposes of its programs are readily apparent, making documentation and program maintenance easier for members of the business community.

4th FAIRE EXHIBITORS

As of January 17, 1979, the following companies have contracted to exhibit their products in the 4th West Coast Computer Faire's Exhibition (numbers at right indicate number of booths to be occupied by exhibitor):

Kathryn Atwood Enterprises	1
JHM Marketing	1
Specialty Division	1
Alpha Supply Company	2
ABS Business Machines	1
Artec Electronics, Inc.	2
Atari, Inc.	6
Biotech Electronics	1
Byte Publications, Inc.	3
California Digital, Inc.	2
Century Electronics Company	1
Circle Enterprises, Inc.	1
CLOAD Magazine	1
Computer Headware	1
Computer Information Exchange	1
Computer TEXTile	1
Computer Law Journal	1
Creative Computing	2
Cromemco	4
dilithiumPress/Matrix	2
FORTH Interest Group	1
G.R.T. Corporation	2
Hayden Book Company	1
Heath Company (Heathkit)	3
Hobby World Electronics	2
I.C.U.	2
Information Unlimited	1
Input/Output Unlimited	1
Ithaca Audio	4
Jade Computer Products	8
Kilobaud/Instant Software	1
Leedex Corporation	1
Microcomputer Devices	1
Micro-Ap	1
MicroAge	4
Micro Computerworld	1
MicroDaSys	1
Microsette Company	1
Microtronix, Inc.	2
Midwest Scientific Instruments	2
The Networks	1
Osborne & Associates, Inc.	2
Page Digital Electronics	1
Personal Computing Magazine	3
Practical Applications	1
Programma Consultants	1
Quality Software	1
Quest Electronics	2
RCA Corporation	3
The Software Works, Inc.	1
Southwest Technical Products Corp.	4
Speakeasy Software, Ltd.	1
SSI	1
Solid State Music	1
Summagraphics	2
Sybex	1
Technical Systems Consultants	2
Thinker Toys	2
Western Digital	2
Xitex Corporation	1
Zeta Systems Canada	1

FREE GAZETTES FOR YOU

If you would like to continue receiving the *Silicon Gulch Gazette*, and the mailing label on this copy doesn't say "from the Computer Faire -", please send your name and desired mailing address to the Faire headquarters. It will be entered in the Faire's Friends' database, and you will receive future *SGG*'s without cost or obligation - worth at least every penny you pay for 'em.