mini'app'les

apple computer user group newsletter

VOLUME VI No 4 APRIL 1983

CALENDAR WHICH	CALENDAR WHEN	CALENDAR WHERE	CALENDAR WHAT
St. Paul Branch - Note 3	Tue Apr 5 7pm-10pm	Mahtomedi Fire House Hallam & Stillwater.	Earl Keyser on Apple Pilot
Pascal Note 1	Wed Apr 6 7:30pm	Minnesota Federal 9th Ave S Hopkins	Regular Pascal Special Interest Group Meeting.
Dakota County Branch	Tue Apr 12 7pm-10pm	St. John Neumann Church Pilot Knob Rd, Eagan	Pete on 3M Diskettes. Note 7
Business Note 10	Thu Apr 14 7:00pm	Minnesota Sch of Bus's 11 S. 5th St., Mpls	Eric Carlson on Visifile.
REGULAR MINI'APP'LES Note 2 Map Inside	WEDNESDAY Apr 20th Prgm-7:00pm SIGs-8:00pm+	PENN COMMUNITY CENTER 84th & Penn Bloomington	Annual election of officers and review of club Bylaws.
Investment Note 4	Thu Apr 21 7.00pm	Minnesota Sch of Bus's 11 S 5th, Mpls	Market Maverick and DJ Market Analyzer
VisiCalc Note 9	Tue Apr 26 7.00pm	PBS 4306 Upton Ave S.	
Minnetonka Branch	Wed Apr 27 7pm-10pm	Minnetonka High Sch Cafeteria, 18301 Hwy 7	Business graphics & Q&A groups - Note 8
St. Paul Branch - Note 3	Tue May 3 7pm-10pm	Mahtomedi Fire House Hallam & Stillwater.	Doug Arnott on GRPRINT and the LOGO Language.
Pascal Note 1	Wed May 4 7:30pm	Minnesota Federal 9th Ave S Hopkins	Regular Pascal Special Interest Group Meeting.
Dakota County Branch	Tue May 10 7pm-10pm	St. John Neumann Church Pilot Knob Rd, Eagan	General branch meeting. Note 7
Board Meeting Note 5.	Wed May 11 7:30 pm	Place to be determined.	Installation of board. Meeting is open to all members.
Business Note 10	Thu May 12 7.00pm	Minnesota Sch of Bus's 11 S 5th, Mpls	Dick Marchiafava on Magic Window II
REGULAR MINI'APP'LES Note 2 Map next month	WEDNESDAY May 18th Prgm-7:00pm SIGs-8:00pm+	UNIVERSITY MINNESOTA ST. PAUL Room B45 Bldg 412 or Student Ctr, 2017 Buford Near State Fair	
Investment Note 4	Thu May 19 7.00pm	Place to be determined 11 S 5th, Mpls	
VisiCalc Note 9	Tue May 22 7.00pm	PBS 4306 Upton Ave S.	
Minnetonka Branch	Wed May 23 7pm-10pm	Minnetonka High Sch Cafeteria	Note 8

Notes: (See page 2 for telephone numbers.)

1. John Schoeppner
2. Ron Androff
3. Pete Halden
4. Eric Holterman
5. Ron Androff
6. Dan Buchler
7. Bob Pfaff
8. Martin Thames
9. Mike Carlson
10. Subir Chatterjee
11. Bill DeCoursey

MINI'APP'LES

The Minnesota Apple Computer Users' Group, Inc.
P.O. Box 796
Hopkins, MN 55343

MINI'APP'LES OFFICERS

President	Ron Androff 1725 Crest Ridge Lane, Eagan, Minnesota, 55122	452-5230
Past President	Stephen K.Johnson 6053 Wentworth Ave S. Minneapolis, Minnesota, 55419	869-3447
Vice President	Ron Androff (Acting)	452-5230
Treasurer	John L. Hansen 38 Birnamwood Drive, Burnsville, Minnesota, 55337	890-3769
Secretary and Newsletter Mailer	Hugh Kurtzman 11622 Live Oak Dr., Minnetonka, Minnesota, 55343	544-7303

BOARD MEMBERS

Membership Co-ordinator	Ann Bell 8325 39th Avenue N. New Hope, Minnesota, 55427	544-4505
Newsletter Editor	Daniel B.Buchler 13516 Grand Avenue S. Burnsville, Minnesota, 55337	890-5051
Software Distr. - Mail and Software Sales	Terry Schoeppner Box 241 Inver Grove Heights Mn., 55075	455-8613
Bibliographer	Chuck Boody	933-5290
Blank Disk Bulk Purchases Co'tor	Peter Gilles	475-3916
Education Co'tor	Chuck Thiesfeld	831-0009
MECC Librarian	Dave Nordvall	724-9174 (after 5pm)
Program Editor	Al Peterman	721-3295
Publicity Co'tor	A. Michael Young	884-2841
Spcl Int. - Apple ///	Keith Madonna	474-3876
Spcl Int. - Business	Subir Chatterjee	330-7347
Spcl Int. - Education	Janelle Norris	920-1430
Spcl Int. - Geneology	Bill Decoursey	574-9062
Spcl Int. - Invest'nt/ Adv Co'tor	Eric Holterman	332-8460
Spcl Int. - Nibble	Ken Foss	774-7772
Spcl Int. - Pascal	John Schoeppner	455-8613
Spcl Int. - Visicalc	Mike Carlson	929-4120
Spcl Int. - Z80/CPM & Meeting Hdw Support	Rick Gates	735-0373
Assistant NL Editor	Jo Hornung	922-7665
Contributing Editors	Arsen Darnay	933-0399
	Rita Wetzel	474-5725
Board members at large:	Ken Slingsby	507/263-3715
	Larry Larson	788-0728
	Marilyn Thomas	872-7669
	Chase Allen	432-6245
Branch Co-ordinators:		
Dakota County	Bob Pfaff	452-2541
Minnetonka	Martin Thames	934-3517
St.Paul	Pete Halden	770-6624
Technical Advisers:	Dave Laden	489-8321
	Jim White	636-4865

INFORMATION

This is the Newsletter of Mini'app'les, the Minnesota Apple Computer Users' Group, Inc., a non-profit club. Articles may be reproduced in other User Groups' publications except where specifically copyrighted by author.

Questions
Please direct questions to appropriate board member or any officer. Technical questions should be directed to one of the Technical Advisers listed here.

Membership
Applications for membership should be directed to the Membership Co-ordinator. $12 buys membership for one year. Members receive a subscription to this newsletter and all club benefits.

DOMs
The 3 most recent DOMs (Disk of the Month) are available at meetings for $5/disk or any DOM may be ordered by mail for $7.50/disk. Contact Software Sales coord'r.

Dealers
Mini'app'les does not endorse any specific dealers but does promote distribution of information which may help club members to identify the best buys and service. Consequently, the club does participate in bulk purchases of media, software, hardware and publications on behalf of its members.

Newsletter Contributions
Please send contributions directly to the Newsletter Editor. Hard copy binary or text files are preferred, but any form will be gratefully accepted. Deadline for publication is the 1st Wednesday of the month preceding the month in which the item might be included. An article will be printed when space permits if, in the opinion of the Newsletter Editor, it constitutes suitable material for publication.

Advertising
Direct Advertising inquiries to our co-ordinator Eric Holterman at:
19S 1st St., B1704
Minneapolis, MN, 55401
612-332-8460

Circulation this issue: 1800

IN THIS ISSUE

Announcements 5
Apple //e User Group Conference
by Dan Buchler 16
Back Up
by Ron Androff.....15
Classified 30
Daisy Wheeling - The Joys of Mucking About
by Arsen Darnay.....22
Dan on Printers
by Dan Buchler.....20
Inspector Users
by David Nordvall.....28
Map of Meeting Place.....30
Member Profile - Roger Flint
by Dan Buchler and Hugh Kurtzman.....9
Minutes - Mar Board Meeting
by Hugh Kurtzman.....28
New Products - a column
by Mike Casey 27
Orchard Subscription.....29
Platforms of Candidates for Office.....7
Point of Interest
by Peter Bernstock.....29
Protection of Computer Software - Part 3
by Kurt Oelschlager.....24
Quic-N-Easy, a review
by Kathleen Leo.....12
Tunnel Terror, a review
Ray Goebel.....14
Why Poke Me?
by Tom Vanderpool.....18
Wondai.....26

ADVERTISERS

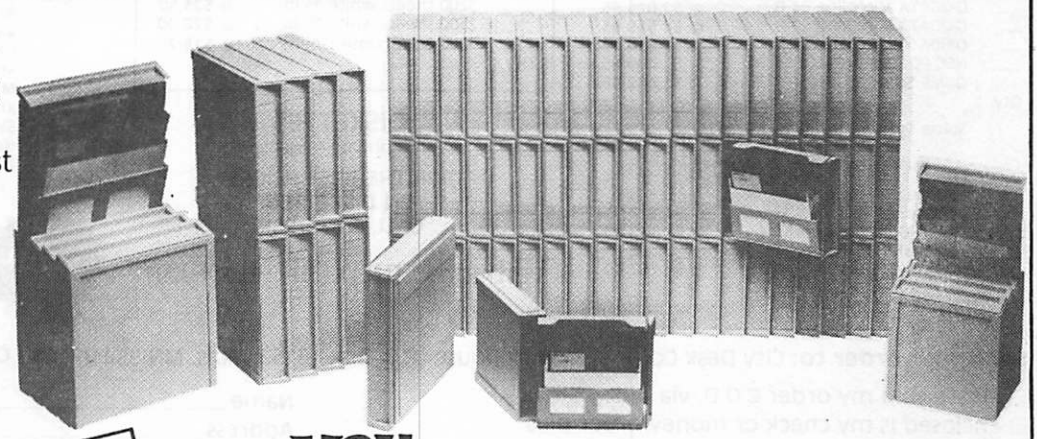
City Desk Computer Warehouse...4
Conroy Associates.....12
Dayton's Electronics.....21
Dayton's Repair.....26
Diskcover.....10
GolfSoft.....14
Hagen Office Equipment.....6
House of Forms.....31
International Apple Corps.....29
Nifty Info.....8
Onyx Computer.....25
Unpainted Place.....19
You Can Count On It.....3
Yukon Computer Products.....BC

Note Most of this newsletter was prepared on an Apple LQP (Qume Sprint 11) printer using an Elite (12 pitch) daisy wheel but with the pitch reset to 9/120ths inch. Line feed increment is set to 7/48".

Note The logo at top of each page was printed using D. Buchler HIGHER PRINT program and a LOGO Font.

FOR ALL YOU NEED...
YOU CAN COUNT ON US!!

We carry everything for the home computer enthusiast including:
- Diskettes
- Diskette Storage
- Paper
- Ribbons
- Labels
- Furniture



SPECIAL OFFER
Disk Bank with 10 Diskettes
$24.95

you can Count on it

3515 Hennepin Ave. So.
Minneapolis, MN 55408
827-5448
Hours:
Monday-Friday 8-5

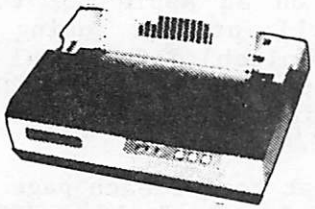
WE'RE NO. 1

IN SERVICE • AVAILABILITY • PRICE

We guarantee it, City Desk Computer Warehouse will not be undersold. And, it's nearly impossible to beat our service. Normally, we fulfill an order and ship it via UPS within 24 hours from when we receive the order. If you need it even sooner pick it up yourself at our offices.

Call (612) 933-1771 or mail the order form below.

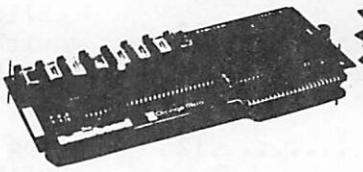
NEC PC-8023
Dot Matrix Printer



- Graphics–proportional spacing
- Lower case decenders
- Bi-directional logic seeking
- 136 characters per line
- 100 CPS print speed
- Friction and tractor feed
- Adjustable tractors
- 2K Buffer

___ Qty. _____ @ $499.95

The Bufferboard™
For Apples and Printers

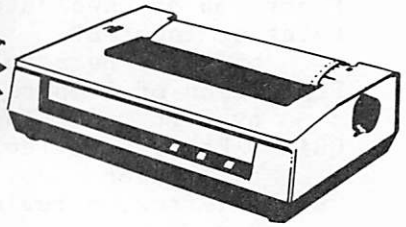


- Plugs into the Apple
- Standard 16K memory buffer
- Upgradeable to 32K or 64K
- Automatic memory configuration
- Speeds operation of printers with no buffer
- Easy to install and operate

___ Qty. _____ @ $127.00

We also carry paper!

PROWRITER 8510



- 120 CPS Print Speed
- 1K Buffer
- 136 characters per line
- Friction and tractor feed
- Adjustable tractors

___ Qty. _____ Subject to availability @ $425.00

PRINTERS

___	C. ITOH Prowriter 8510 P	@ $ 425.00
___	OKIDATA Microline 82A P	@ $ 429.95
___	OKIDATA Microline 84 P	@ $1,025.95
___	OKIDATA Microline 92 P	@ $ 539.95
___	OKIDATA Microline 93 P	@ $ 910.95
___	NEC PC-8023 A P	@ $ 499.95
___	QUME Sprint II	@ $1,449.95

Qty

Some Printers subject to availability

INTERFACE CARDS

___	Grappler + Graphics Interface	@ $ 127.00
___	PKASO Graphics Interface	@ $ 135.00
___	The Bufferboard (Printer Buffer)	@ $ 127.00

Qty

9½ x 11 TRACTOR PAPER

___	3200 sheets white 15 lb.	@ $23.50
___	2500 sheets white 20 lb.	@ $20.00
___	5000 Continuous labels	@ $15.25

Qty

DISKETTES
All Formats Available

FOR THE BEST PRICES ON DISKETTES CALL CITY DESK

Verbatim maxell ELEPHANT

HARDWARE

___	Novation Applecat II Modem	@ $285.95
___	D. C. Hayes Micromodem II	@ $289.95
___	Rana Elite One Disk Drive	@ $310.00
___	Videx or Bit 3 80 Column Card	@ $244.95
___	Microsoft 16K Ramcard	@ $ 77.96
___	Microsoft Softcard	@ $269.95
___	Kraft Joystick	@ $ 50.95
___	System Saver (fan & power cond.)	@ $ 72.95
___	Zenith 12" Green Monitor	@ $105.00

Qty

SPECIAL

ELEPHANT MEMORY #1 DISKETTES
NOW ONLY **$17.50**/box

Send your order to: City Desk Computer Warehouse P.O. Box 16152, Mpls. MN 55416 **Call Our Bulletin Board (612) 929-8966**

☐ Please ship my order C.O.D. via UPS.
☐ Enclosed is my check or money order plus 6% sales tax & shipping.
Check or money order enclosed for $ _____

Name _____
Address _____
City _____ State _____ Zip _____
Telephone _____

CITY DESK COMPUTER WAREHOUSE

(612) 933-1771

420 Excelsior Avenue East, Suite 101, Hopkins, MN 55343

ANNOUNCEMENTS

Minnetonka Branch
By Steve George

The April 27th Minnetonka Branch meeting will feature an introduction to three popular Business graphics packages: ApplePlot, VisiPlot and PFS:Graph. The versatility and use of each software package will be demonstrated to help attendees determine which package best suits their individule or business needs. Following these presentations, we will break into our usual small 'question and answer' groups: Technical, Business and Graphics.

Computers for the Disabled

There will be National Conference on Computer Applications for the Disabled in Minneapolis from Sept. 12-14, 1983.

If anyone wishes to give a paper or demonstration please write to
Janet E. Roehl, Ph. D.,
University of Wisconsin-Stout
Office of Continuing Education
Menomonie, WI 54751.

Deadline is April 22nd.

National Computer Show

Those of you who enjoyed the subject show in '82 will get another opportunity this year. The show will be here in Minneapolis from Sept 15th through 18th, 1983. We have applied for a booth. There will be no attempt to call it an Applefest. Such distinction is reserved for Anaheim, Boston and San Francisco.

The Orchard

We plan to discontinue the purchase of the Orchard magazine in bulk. Subscriptions are available directly with the IAC (See coupon elsewhere in this newsletter). The subscription rates are lower than the $2 per copy price at which we have been selling the bulk copies to our members.

Please note that the Orchard is the official magazine of the IAC and it is through the advertising sustained by the Orchard that the IAC derives most of its income. So please support this magazine!

Mankato State University Microfair '83

Mini'app'les will have a booth at the MSU Microfair '83 to be held in the MSU Student Union Ballroom in Mankato, April 18th and 9th. Fair opens at 12 noon on April 18th and closes on the 19th at 8pm. Call Hugh Kurtzman for more information.

Business SIG
by Subir Chatterjee

The Business SIG met on Thursday, March 9th., when an impromptu discussion on 'hard disks' was held. This was caused by our inability to arrange demonstrations of alternative hard disk systems, particularly those that cost less than Winchester based, fixed media disks (like the Corvus).

The resulting discussion on members' experiences in selecting hard disks identified the fact that, while many individuals have explored their purchase, very few people have actually done so. They are all waiting for the other person (like me!). Also, it appears that most disks bought are made by Corvus. There was some confusion about the ability of a Corvus to deal with CP/M, and whether one had to allocate space for different operating systems (Apple DOS, CP/M, Pascal, etc.) at the time the disk was configured, or whether this could be altered during use.

The discussion also highlighted the fact that some 'RAM based Semi disks' - devices that behave as disk drives, but at RAM memory speeds - are only useable with non-copy protected software. Unfortunately, most business software is copy protected....!!

I am still interested in arranging for a demonstration of hard disks and other storage devices, so remember to renew your Club subscription!

Once again, Ken Ruzik requested inputs for topics that should be included on Business DOM's, and invited submissions of programs written by individuals for inclusion.

The next meeting will be on April 14th. when Eric Carlson will review Visifile - if there are some esoteric questions you wanted answered, but were afraid to ask...pass them along to Eric and be at the meeting!

The May meeting will be on the subject of Magic Window II - Dick Marchiafava will review the updated version. The program has some attractive VisiCalc- compatible features.

The June meeting will be to review Business applications of SAVVY, as applied to Databases and General Ledger systems. Bruce Williams, of TEAM on Hennepin Avenue, will be the speaker.

GOTO 6

Announcements Concluded from page 5

St. Paul Branch

The St. Paul branch has a new permanent meeting place. It is the Mahtomedi Fire House, Stillwater Rd. and Hallam. Meetings will be on the 1st Wednesday of each month.

How to Type in Programs

At the May Mini'app'les meeting, in Bloomington, Dave Nordvall will lead a special group during which members will be instructed on how to type in binary programs published in magazines.

INVESTMENT SIG

by Eric Holterman

At our February meeting, Chrys Zaglifa demonstrated the use of VisiCalc and VisiPlot/Trend in the analysis of security prices. He stepped us through the entire process, from setting setting up the template, to data entry, to the production of a moving average chart. The interest of those present was readily evident by the many questions, and the requests that he conduct another session at a later date. Further interest in setting up an Investment 'DOM' or encouraging investment contributions to the regular club 'DOM' surfaced as a result of his presentation. Thanks were expressed by all present to Chrys for his efforts.

Our next meeting will be on Thursday, April 21 at 7:00 PM in the Minnesota School of Business, 11 So. 5th St. in downtown Minneapolis. Two of our members have offered to demonstrate The Market Maverick and the Dow Jones Market Analyzer.

The April meeting will be our 5th consecutive monthly meeting and it seems to be a good point to devote some time to discussing future meeting topics, formats and locations. If you want to see some changes, express some gripes or suggestions for improvements, bring them with you. Your club can be what you want it to be if you do something to make it that way. I wanted to see an investment SIG, so I started one. Now there is one. Doesn't seem too complicated!

** CAUTION **

by Eric Holterman

Applied Engineering of Dallas, Texas has advertised in our newsletter in 1982 and in the January and February issues of 1983. They have refused to pay their bill for the 1983 ads, claiming they were not ordered. Since I took the order for the ads, I give that claim a credibility rating of 0 (or slightly less). While the manner in which they deal with your club may or may not be indicative of how they would deal with you, as a customer, I would suggest that caution is in order. Even if you feel their claim of not ordering the last two ads is valid, you should be aware that no effort was made by them to advance their claim during a period of almost two months. In that time they were billed, written to and phoned concerning the charges they owe until, by telephone, one day I happened to reach them instead of their answering service. This would not seem to make a case for good customer service.

Professional Service

Get it done right the first time!

We give quality service on all Apple products and Epson printers.

Need on-site repair?

Call us--on site and maintenance contracts available.

hagen
OFFICE EQUIPMENT, INC.
801 WEST 77½ STREET
RICHFIELD, MINNESOTA 55423 866-3441

PLATFORMS

of Candidates for Office

Ron Androff for President

I am a native of Minnesota, been employed in electronics and computers for the last twenty years. I became interested in the "micro" sometime in 1976 or 1977, and could finally afford to buy an Apple in 1981. Having served as your president last year, and as secretary of Mini'app'les the year before, I believe the club should serve each of its members and I've tried very hard to pursue that goal. I take every call I receive seriously, and have tried to take action on every request appropriate to the club. I have a very strong interest in providing seminars and classes for the members. There are hundreds of topics from which. to choose. But that is not the problem; the problem is finding the people qualified and willing to teach.

Our membership increased again last year, this time from about 1000 to some 1500. This is gratifying and fortunate for the group, but also a burden; there are more members to serve, and only a modest increase in volounteers to accomplish this. We are suffering (if that is the right word) from the pains of rapid growth. Our recourse is to improve our efficiency - be better organized. Last year we started moving in that direction by having regular and more frequent board meetings. We started several branch groups to ease both the long distances some of our members were forced to travel and to reduce the sheer numbers at the main meetings. This appears to have been well received, but now the need to coordinate and service those meetings is becoming apparent. New members are confused as to where some of these meetings are, why they can't buy diskettes or DOMs, and in general why all the services of the main meeting are not at all the other meetings. The answer seems obvious: we do not have enough people to provide it. But that is not the right answer, is it? One must find the right people, probably at the group meetings, and see that they have the materials, DOMs, etc. to serve that group - getting organized, again.

I request your vote and support in the April elections, and pledge to continue the effort to find better ways to serve the members of the club. Thank you.

Chase Allen for President

Until early this year it has been my privilege to serve Mini'app'les, first as Education Coordinator and then as Vice President. I now ask for your vote for the office of President. In support of that request I feel that a brief explanation of the circumstances which precipitated my resignation as Vice President is in order. As I noted to the Board at the time of my resignation, several factors, largely of a personal nature, came together in the late months of last year which prevented me from giving the duties of my office the time and attention that was required. I therefore felt that it was in the best interests of the club that I remove myself from the office, and concentrate on solving my problems. I am happy to say that those problems were resolved, and that they are not of the recurring type.

The program I propose to pursue, if I am elected, consists of working for a restructuring of the club to better administer the club functions. The Board of the club has presented for your approval a set of By-Laws, to govern our operation. As you know, the principal business of running the club is conducted by the Board. The By-Laws spell the responsibilities and procedures. Approval of these By-Laws will document those procedures. Unfortunately, the By-Laws have not been published or formally reviewed in over two years. In that time the club has grown to the point where today we have over 1500 members. Our average meeting attendance is over two hundred, and we have three healthy, active branches and several SIGS holding regular monthly meetings. Our current organization does not adequately serve this size of an organization.

To provide more membership oriented support of our club the Board has developed a plan consisting of six Directors, with each director having a specific relationship to the various operating entities. The exact breakdown of the Directorships will be the subject of further submissions, hopefully by mid-summer. It is my proposal that these directors be elected by the membership, to serve two year terms, with three elected each alternate year.

Our fiscal planning has been somewhat lax. I propose to place the club on a July to July fiscal year. Newly elected officers will have an operating budget long enough into their term to allow consideration of a new budget and still give them sufficient time to review old programs or to institute new programs which will be effective during their term in office.

As President, I would travel to the Branch meetings on a regular rotating basis. I will delegate responsibility to see that at least one elected representative is present at every

GOTO 8

Platforms of Candidates for Office
Continued

scheduled club activity. This effort is to improve the communication between our somewhat diverse activities and the Board, to better advise the Board of the needs of the membership.

I thank you for your past support and association in an endeavor that is dear to our hearts: the education of our friends and associates in the use of the Apple.

Larry Larson for President

I am a recent graduate of North Western Electronics Institute. I have been a member of Mini'app'les for two plus years and am currently serving on the board. I am past chairman of the house committee of the church of which I am a member and am serving a second term as President of the board of trustees of that church.

The experience above would be helpful to the office of President. If elected I would encourage more new member participation in club activities and more programs to be geared to the entry level computer user.

Hugh Kurtzman for Secretary

Having been Secretary for the past year I found the office to be a learning experience and a challenge.
I have been a member of Mini'app'les for several years and know many of the members.
Now that I know the ropes I will be able to do a better job during the next year.
I have been able to write the minutes and have them ready for the officers and club members by the next meeting.

Candidates for BOARD MEMBERS.

At the last board meeting, candidates for board positions were established as listed below. According to our bylaws, it is the prerogative of the incoming President to appoint board positions as he sees fit. For obvious reasons such appointments are strongly influenced by the desires and capabilities of the individuals concerned. The Directors are positions suggested by the committee for reorganization. It is suggested that if anyone who thinks he/she can be of service to the club, that person should contact the President elect after election at the next meeting, and make the President aware of your ideas and in what capacity you might serve.

GOTO -11

WORD MACHINE

THE PERSONAL WORD PROCESSOR

Word Machine allows you to use your Apple for writing letters, lists, memos, school papers, Etc. Furthermore, once your text is in memory or on disk, you can easily edit, rearrange, or add to it. Commonly used information (address, letter heads, form letters, recipes, Etc.) can be merged with other text or modified for a particular purpose. Word Machine is versatile, very fast, affordable, and easy to learn and use. SEE THE PRODUCT REVIEW IN THE JANUARY, 1983 ISSUE OF MINI'APP'LES

PRODUCT OVERVIEW

Word Machine simulates two very long sheets of paper on your monitor screen. Each sheet, or page as its called, consists of 250 (40 column wide) lines. The screen displays 24 lines at a time.

Any part of either page can be rapidly accessed by swapping pages, jumping to the top, middle or bottom of a page, or by fast scrolling in either direction. The cursor is easily moved up, down, left, right, to top or bottom of screen, to prior or next word, to start of next or end of last line. The editor allows you to change, insert or delete individual characters or whole lines. The editor also allows you to move blocks of text, as well as find any word in your text and then replace, edit, or delete it. Printed lines can be from 40 to 132 columns wide. There are far to many more features to mention here, but if you have questions, give us a call.

ONLY $39.95 ppd.

If your dealer doesn't have a copy, you can still get fast service by mail.

STSTEM REQUIREMENTS:

48K APPLE][,][+ OR][e
WITH APPLESOFT IN ROM &
1 OR 2 DOS 3.3 DRIVES.
WORKS WITH MOST PRINTERS

NIFTY NET

P.O. BOX 20081 - MPLS., MN 55420
(612) 854-8712

MEMBER PROFILE

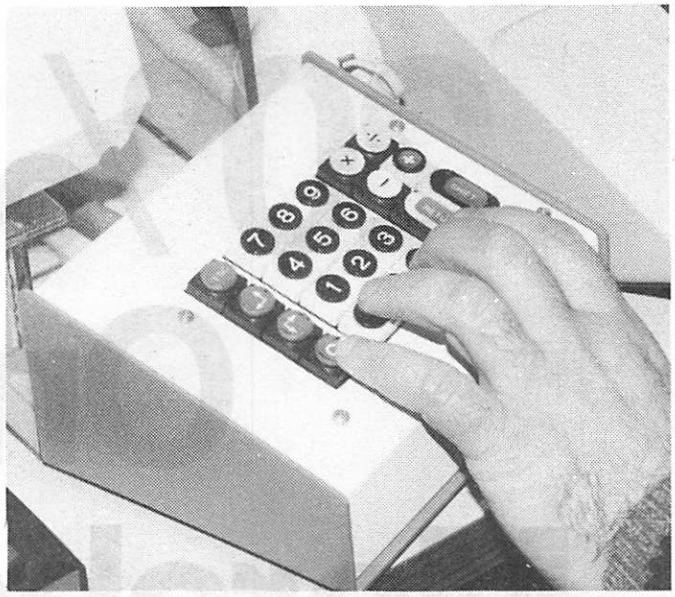
An interview with Roger Flint
A Mini'app'les member and hardware entrepreneur

by Dan Buchler
Photography by Hugh Kurtzman

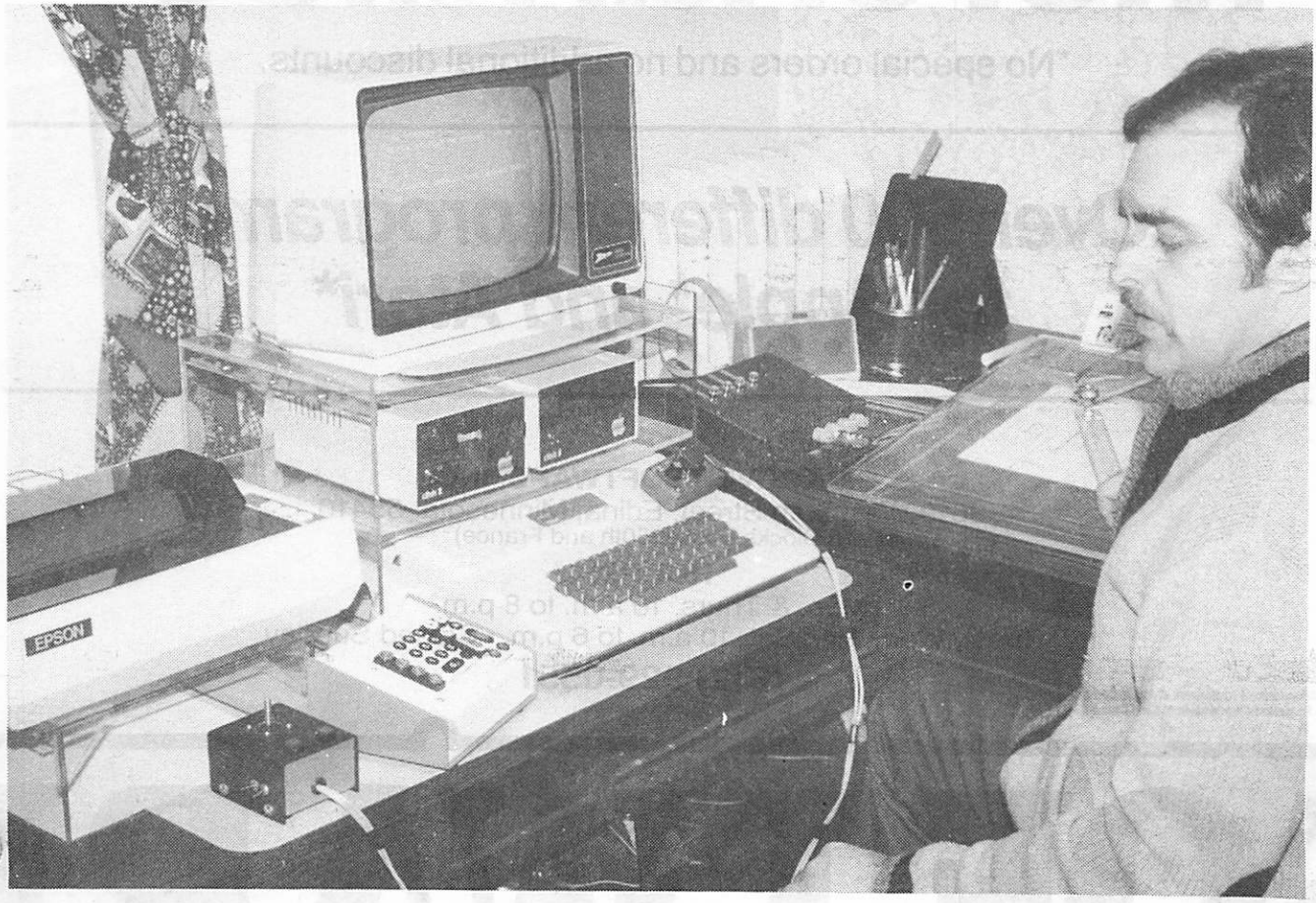
Roger is one of our hardest working members. He holds a job at Goodyear, goes to the St. Paul Technical Vocational Institute where he is learning electronics, and still finds time to design, build and document hardware for the Apple. In fact, not only does he build the hardware himself, but he has helped dozens of club members to replicate these items themselves. If you read this newsletter regularly, you will have noticed the series of articles entitled **Home Projects.**

These projects and his Apple are just a hobby to Roger. In the future he may capitalize on his hobby experience and VTI training.

For the present, his main motivation, besides the hobby aspect, is that he wants to build an earth home in which everything will be computer controlled. He feels that this hobby will give him the knowledge he needs to achieve that end. Rogers says that for that type of application machine code is the way to



Keypad



Roger Flint at home with his projects.

GOTO 11

DISKCOVER

20% OFF On All Merchandise*

*No special orders and no additional discounts.

Over 600 different programs for Apple* and Atari*

DISKCOVER SOFTWARE, INC.
3619 West 50th Street, Edina, Minnesota 55410
(2 Blocks East of 50th and France)

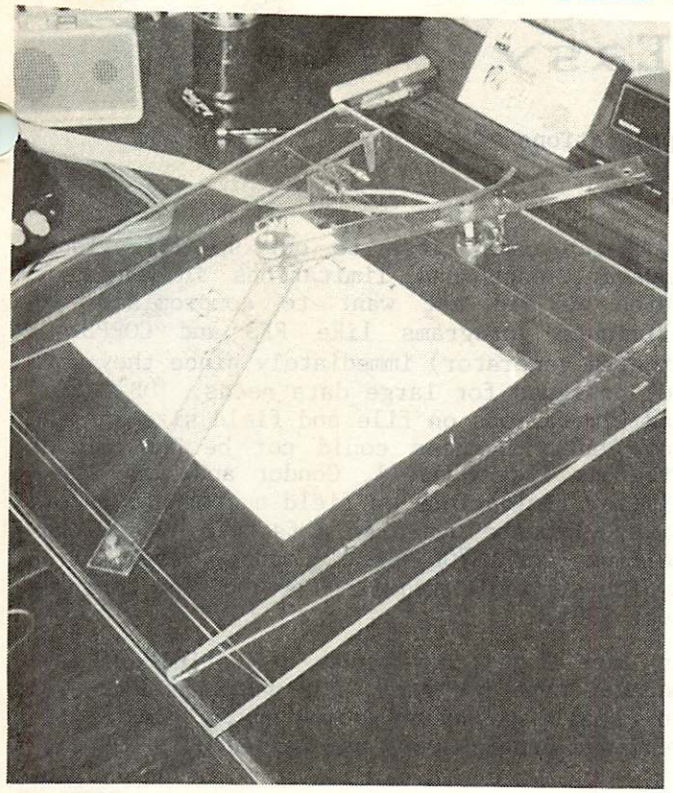
HOURS:
Mon. & Thurs. 10 a.m. to 8 p.m.
Tues., Wed., Fri., Sat. 10 a.m. to 6 p.m. • Closed Sunday

(612) 929-0551

*APPLE—Registered Trademark of Apple Computer
*ATARI—Registered Trademark of Atari Computer

SOFTWARE™

Member Profile concluded from page 9.



Graphics Tablet

go. Consequently, he has been studying all he can in the area of machine code. He wishes that the club would offer an Assembly language class. (One of our members, Max Coe, used to teach a class, but Max moved to California about 6 months ago!)

Roger's current Home Project is a clock board with battery backup which he hopes to build for about $30! He, with help from some other members, is also looking into a 128k RAM board.

The pictures show Roger at home with his Apple and various projects. You can see most of the items he has built, all of which have been documented in this newsletter. These are:

- Printer stand of plexiglass.
- Computer stand of plexiglass. Later models used a heavier material and had reinforcement so that weight of monitor doesn't cause sag.
- Key pad.
- Power control center. A later version was redesigned and it looks a little different.
- Graphics tablet with two pots. Roger based this on a 'Home brew graphics digitizer' article from Byte magazine. The device interfaces to the game port and uses some special machine language software to drive the interface. Roger has developed a whole library of shape tables. He uses a variety of software, but often uses Easy Draw in conjunction with his library of shape tables to produce such drawings as the logic diagrams which we have published in this newsletter.
- Auto fire device or Repeaterrrrr . (Sitting on computer just above keyboard). Roger plans to market this device, which was the subject of last month's Home Projects article. His first production run will be of 10 units, as a trial. It will sell for $35, direct to consumers.

Roger has an Apple CAT Novation II in his system. He used to have a Hayes Micromodem II, but switched to the Cat so that he could communicate with the deaf network at 45.5 baud. He also uses BSR adapter on the Cat to remotely control his lighting and appliances.

Roger has learned a lot from each project. People make suggestions all the time so that the product evolves rapidly, and benefits heavily from user exposure. I myself have enjoyed working with Roger and I know all of the club members who have had his help making projects feel the same way.

Platforms concluded from page 8.

Board candidates

Branch Director	Pete Halden
SIG Director No. 1.	John Schoeppner
SIG Director No. 2.	Pete Gilles
Publications Director	Dan Buchler
Software Director	Chuck Boody
	Ken Slingsby
Membership Coordinator	Ann Bell
Newsletter Editor	Dan Buchler
Assistant Editor	Joe Hornung
Speaker of the house	S.K. Johnson
Tecnical Support	Dave Laden
Advertising Coordinator	Eric Holterman
Parliamentarian	Larry Larson
Software distribution	Terry Schoeppner
Blank Disk Bulk Purchase coordinator	Pete Gilles
MECC Sales	Dave Nordval
Program Support	Dave Nordval
Publicity Coordinator	Mike Young
Forth SIG Coordinator	Mark Abbott
Investment SIG Coordinator	Peg Bohanon
Education SIG Coordinator	Jane Chatterjee
Apple III SIG Coordinator	Keith Madonna
Pascal SIG Coordinator	John Schoeppner
Geneology SIG Coordinator	Bill Decoursey
CP/M SIG Coordinator	Rick Gates
	Loren Stark
Nibble SIG Coordinator	Ken Foss

Platforms were not received by closing date for the other candidates for office. See Minutes, elsewhere in this issue.

Education Coordinator Arthur English

Medical SIG

Quic-N-Easy

Developing Your Own Applications

by Kathleen Leo

Finding the right computer program for business applications is difficult enough these days given the rapid increase in sheer numbers; add to that the detective work required to figure out what a data base system, data manager, filing system, application generator, report utility or program generator will actually do once installed in your computer and you have a complicated undertaking.

My business partner and I began such a project late last summer. We were looking for a tool to computerize some fairly complicated manual systems which we had developed — including a project management system and a tracking and analysis system for human resources management. We wanted a program which would allow us to spend the majority of our time on design and definition of the system rather than writing program code — a frequently tedious and time consuming activity. We needed considerable flexibility in data relationships, fields, files and report generation and were concerned that the final product be aesthetically as well as functionally pleasing, that screen "painting" be relatively simple, and that the system allow us to include user prompts, help screens and data translation tables resulting in a final product which would be sophisticated but not complicated for an unfamiliar or first time user.

Our search began with not just a clearly outlined definition of our needs, but also with the knowledge that a system which met those needs was already available on a mini computer. We had used it the previous year when working on the design of an automated employer infomation/client tracking system with job matching capabilities. Coming from such a system made it doubly hard to compromise on "almosts" in a system for our Apple II+; we stubbornly hoped that we could match the design power and ease of use to which we had grown accustomed, even though we would be working with a microcomputer. Our hardware base for the search included 64k of RAM, an 80 column board purchased for word processing capability, and a Microsoft Z80 CP/M softcard purchased to allow access to the world of CP/M business software.

In the process of taking a look at the data manager/application generator territority we reviewed over thrity programs — some from literature, others with hands on tests of our specific applications. In the process we found a number of very good programs, several of which came close to our specifications. However, each had limitations in areas in which we did not want to compromise. We eliminated programs like PFS and CORPS (a program generator) immediately since they were not designed for large data needs. DB Master had limitations on file and field size and the data entry screens could not be customized. Programs like dBaseII, Condor and FMS-80 had similar limitations on field number and record size. Expense was also a factor; dBaseII was selling for $700, and Condor level three (which we would require for our application) cost $995.

In late August we found a listing of data manager type programs in a magazine dedicated to small business computers. Among the reviewed programs was one called Quic-N-Easi.

GOTO 13

CONROY ASSOCIATES

Education & Training

Consultants

Wordhandler II	$150	Facemaker	$ 30
Listhandler	$ 75	Snooper Troops	$ 35
Rapid Reader	$ 30	Story Machine	$ 30
EZ Learner	$ 33	Rhymes & Riddles	$ 23
Toddlers Tutor	$ 25	Delta Drawing	$ 48
The Snapper	$ 25	Juggles Rainbow	$ 36
Master Type	$ 32	Bumble Games	$ 48
LOGO-Terrapin	$125	Bumble Plot	$ 48
Rocky's Boots	$ 60	Early Games	$ 25

CALL (612) 888-9447

Quic-N-Easy continued from page 12.

We sent for information which, when it arrived, looked like just what we needed. After my partner made a phone call to the program developer in Pennsylvania, we decided that the program sounded too good to be true. It appeared that it would handle data and data entry in every way we wanted at a very reasonable price — $395. The only drawback was the lack of a flexible report generator, but the developer described the report package they would have available in two months which would allow such things as automatic file updates from report runs, totals and subtotals, six different files open for a report, range checking, no limit on length, width of up to 300 column and use of 255 accumulators. True to their word, the report generator update arrived within two months of our purchase of the **Quic-N-Easi (QNE).** package. The package which we purchased was the first version of QNE. Since then they have issued another called the "AG" (Application Generator) which sells for $295. The original is now called the "Pro" and includes the full report generator (as does the AG). It still sells for $395.

The Pro and Ag share the same screen building and field definition capabilities. The screen builder enables you to create any format desired on a blank screen. It can be made to look exactly like your paper pencil form if desired and can be printed with or without data at the touch of a key exactly as shown. This is nice for invoicing or generating forms. You can then put enterable fields anywhere in that screen — with or without labeling them. At the same time as you position the cursor to the beginning of the enterable field the program allows you to state its length and any other field definition items such as numeric only, special calculation, may or must enter, automatic duplication from the last entry, increment or decrement after each entry and range checking expressions (zip codes only within 55104-55108 for example). Any relationships between data elements or with constant values can also be defined.

The Pro then allows you to write "procedures" associated with various fields. You can write error messages, check field validity, set it to perform mathematical calculations, tie files and/or fields together, exchange information with another file, and declare the file to be sequential, index sequential, or random access. You can also set up general table definitions so that the data entry person puts in a two digit code (thus saving disk space) which can translate on the screen or in a report to the full prose associated with the code.

The QNE Pro program comes with its own interpretive language and includes a manual with examples, a tutorial, and other aids. The interpretive language is easy to learn and is used to write the procedures. You do not need to worry about line numbers or extensive program coding when using it. For example, the statement **Function 2 Printscn** means that the key defined as function #2 (in our case we used escape 2) when pressed will print the screen exactly as shown.

The AG eliminates the need to write procedures. Rather, it automatically generates the procedures from its standard repertoire after you finish telling it how the data items in fields should be treated. This is done from a menu driven program with extensive help screens along the way. A sophisticated mailing list or filing type program could be generated by the Application Generator in an evening — with time out to watch your favorite TV program. The AG allows you to automatically set up "FID" (File Item Descriptor) files on the data disk. These FIDs contain the mask which defines for the computer the sequence of data storage in a file on the disk. This feature means that the data is not tied to the input screen—thereby allowing you to change that screen, adding, subtracting or moving enterable fields without having to redo the whole program and reenter your data. The AG merely regenerates the program file and sets up a cross-reference FID file which is used the first time you use the regenerated program to realign all your data. That means that you can correct or up-date in three months and not lose any of the data put in during that time. Finally, the AG allows you to set up a customized menu which can contain up to ten program files or reports per menu — you can also nest menus to allow for more choices. The final product is completely menu-driven and, as with the QNE Pro, does not require all of the QNE development overlays to make it run. With QNE.Com it becomes a stand alone, useable, copyable system tailored exactly to your needs.

The AG does not allow quite the range of customization which the Pro supports—but it is more than satisfactory for most general business applications. We use the two in tandem, programs generated by the AG can be customized using the Pro. Thus we can use the generation capability of the AG to automatically write standard procedures which are used by all programs (make and open a data file for example) and then add special procedures to be associated with a specific field or fields, with the whole file, with another procedure or as a link to an outside program. The Pro also offers a wider range of customized FID and Menu capabilities.

GOTO 17

TUNNEL TERROR

A review

by Ray Goebel

This is an arcade type game where the player revolves around the edge of a tunnel firing down at climbing invaders.

Tunnel Terror from Adventure International can be used on either an Apple II or II+. DOS 3.3 and 48k are required. Paddles are optional but are recommended.

The game includes these features:
- Hi-res graphics game
- From 1 to 4 players can play
- It's possible to turn sound effects off and on (something I especially appreciated)
- Optional keyboard or paddle game controls
- Saves and displays high scores

The screen looks down into a tunnel that is divided longitudinally into segments up which invaders fly or crawl. Needless to say, if certain types of nasties make it to the top, the player's remaining game time is seriously threatened.

The player controls a "ship" that revolves around the edge of of the tunnel. The player uses either paddle 0 or the keyboard to control direction of revolution and to drop "fission torpedoes" on the invaders. The number of segments in the tunnel increases with each successive level gained. The next level is achieved by destroying the requisite number of invaders. There are 61 levels — this reviewer only got up to eleven. Level one starts with three segments and seems to increase one segment for each level. The speed and number of approaching enemies of course increases with each higher level. The bombs are limited to seven on the screen at one time (which I didn't find to be much of a limitation at the lower levels I was in). A player starts with three ships and gets an extra every 50,000 points.

The escape key can be used to stop the action. The graphics is a little disappointing in that the invaders are very simple geometric shapes. The scale of things falling down or climbing up the tunnel works fairly well. The speed and action of the animation are average for a game of this type and are satisfying. The sound effects also work well and you have the option of switching them off.

It's possible to start playing a game at higher levels than the first, but only after you have proven yourself by working up to the higher levels. I found the inability to at least try the higher levels of the game frustrating.

Fine control of the ship with the paddle takes some practice (there are two revolutions around the tunnel to one complete twist of the paddle). Using the keyboard for control gives the player a finer degree of manipulation but reduces the speed of the ship. To get more practice, try playing the game as four players!

No directions were given for putting the controls into key board mode and there weren't any prompts when the game started. Prompts are achieved by typing K after the game starts. Otherwise, the documentation is very accurate and complete.

No backup copies are available. There's a replacement for up to one year if your copy goes bad. It'll cost five dollars after a year.

Although the game is interesting, it does get somewhat monotonous. The graphics are simple. Perhaps the the higher levels offer more interesting graphics and more of a challenge.

Get to the CORE of your golf game!

GolfSoft "Statistician" puts state-of-the-art technology in the ancient game of golf. Created for the Apple computer by a PGA golf pro and former tour player, "Statistician" is not a game, but a new software tool for golfers who want to lower their scores.

System requirements: Apple II computer, Applesoft, 48K RAM, DOS 3.3* (Printer is optional.)

SPECIAL PRE-SEASON PRICE:

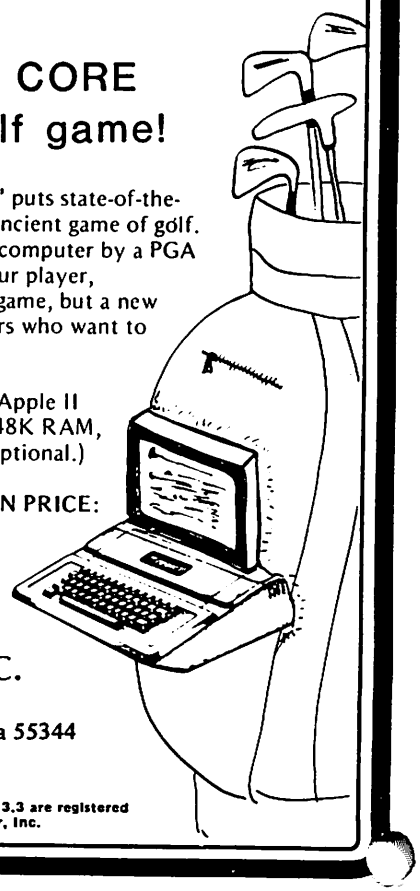
$34.95

ORDER TODAY!

GolfSoft, Inc.

10333 Balsam Lane
Eden Prairie, Minnesota 55344
(612) 941-2172

*Apple II, Applesoft and DOS 3.3 are registered trademarks of Apple Computer, Inc.



BACK UP

by Ron Androff

The first commandment a newcomer to computers learns is "Back it up", referring of course, to the making of a copy of a program or file of data. It follows, then, that to back up a disk one makes a copy of it. But, when one follows that reasoning, backing up his data base, for example; he generates the base (types it in) and copies it - no problem. He adds, deletes or makes changes to one of the diskettes and then copies it to the backup disk, and probably no trouble occurs. But one time he does this and finds out his updated disk was damaged and he overwrote the other disk with garbage. Now what happens? He has two disks, neither of which is any good to him. He thought he was following the rules - faithfully copying his updates to a backup disk, and now, the first time he really needs a backup, it has been destroyed. What happened? He has confused back up with copy. What does back up mean? It means always having one or more good copies of a disk. Before we see what our friend did wrong, let us also consider other reasons for making copies; archival, history and catastrophe protection are some of the other reasons.

Archival is seldom used on the micro or single user system, but its power can be seen on a mainframe computer. Computer operators routinely save all the files on the system by copying them to tape; often daily, but at least weekly. Now if the system crashes and files are lost, or if an irate customer calls and complains that one his files is "missing" and wants to know what did the computer do with it, there need not be any arguments as to whose fault it was. If the customer can name the file it will be pulled off the archival tape, reloaded on the system and the customer is happy again. In the event of a "crash" the system operator re-initializes the system and loads all of the files from the latest archival tape and the loss is limited to the loss of files created since the last archival. If the customer had old backup files (on archive) of those, he has lost very little.

History files are used to capture a particular period. Yearly, monthly or even weekly, they are "snapshots" of the operation at a particular time. Now if it is important to retrace what happened last April, the user can load the history file for April and proceed.

Catastrophe backup - what happens if you get a call some night and are told your place of business is burning to the ground and you know your business records are also being destroyed, or if an ex-employee destroyed them in a fit of temper. If you have backups in two or more locations, chances are good that you are not doomed to try to recreate every thing. With the backup you can be back in business in a day or two.

So that covers the extracurricular backups that you may want to consider. The backups just discussed are truly just copies, and they are adequate because no attempt will be made to write back to them - you wouldn't have ... would you? Really?

Backups that will be written on are vulnerable and more protection is needed. For those backups I recommend this procedure:

> Do all the updates on the working disk, then copy that disk to one of the two backup disks, and when that has been done successfully then copy it to the other backup disk. Now if a problem arises one of the three disks will always be good; either with the latest changes or at least the previous version. When you know or suspect you have a problem, be sure to make copies of that good disk before you attempt any operations on it, and if you suspect the system could have caused the problem make those copies on another machine.

Two backups and a working disk is a set, and if your data base now consists of three disks then, in the backup method, your data base will require nine disks. Ouch! Oh, too expensive! I can hear you scream (even from here). Yes there is a certain overhead. Disks sitting around gathering dust, as it were, do cost money. But what does it cost to recreate your files, in both work and time? Peace of mind is worth something, too.

But, that does raise the question: What does one backup?

Software that is common: if several of your friends have copies of the same program, you need not back it up, unless you cannot bear to wait to get a copy from them.

The result of a process or procedure that can be repeated need not be backed up. If it is transient or temporary data, and if like yesterday's newspaper it will be worthless, then you need not back it up.

BUT! If you have the only copy in existence, that program is a candidate for backup.

If the loss of it would make the basis for a good nightmare for you, it is a candidate for backup.

If it is the result of a long evolutionary process, writing a program, or a book for example, it is a candidate for backup.

Apple //e User Group Conference

Apple Computer Incorporated

by Dan Buchler

At the end of February, our club received an invitation to send a representative to an **Apple //e User Group Conference** to be held in Santa Clara, CA on March 4th, 5th and 6th. After a last minute reselection of candidates as a result of work conflicts, I became the selected candidate and was off to sunny (?) California. For three days thereafter, in company with 100 other representatives of selected user groups from around the USA, Germany, Australia and Canada, I was wined, dined, entertained and educated by Apple Computer Incorporated. Finally, for the last 24 hours ending at noon on Monday, March 7th, we held an International Apple Corps (IAC) meeting.

From the start this was a meeting which was paid for by Apple Computer but which was organized jointly by Apple and the IAC. I would like to say that these were some of the most fascinating four days of my life. We were lavishly entertained. But, that simply made the whole weekend that much better.

Apple realized that the representatives being sent to such a meeting would likely be knowledgeable about their products and that they could not hope to pass on much new technical information. Instead, Apple concentrated on selling **Apple Computer Incorporated.** At that they were successful. My overall impression is that Apple is an extraordinarily well organized and managed company. Did you know that they are a **Billion Dollar** operation?

We had presentations by several well known personalities including Phil Roybal, manager of Communications, and Walt Broedner, the designer of the //e. In addition, we had presentations from managers of various departments such as Hardware, Product, Service, Publications and Training.

In about 1980, when Apple turned to the business user for their sales and released the ///, there was a noticeable souring of relations between the user groups and Apple itself. User groups were thought of as bands of **hackers** who perpetuated software piracy and related activities. There now seems to be a shift back towards realizing that the user groups today consist of a cross section of the typical Apple owner. Now Apple mentions user groups in at least two of its brochures. In Apple's latest brochure they project a sales distribution as follows:

Home/Hobby	38%
Med/Large Business	32%
Small Business	12%
Education	10%
Science/Industry	8%

It was with this in mind that they, Apple, are trying to improve their image among the users. Incidentally, Apple spends quite a bit of money conducting sample surveys of its users. At the convention we set in motion steps to try to get Apple to give us their questionnaire so that the IAC member clubs can also conduct a survey to try and show Apple that the club memberships are indeed representative of the typical Apple user.

Some tidbits of information gleaned during the conference follow:

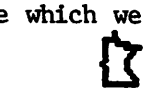
- The Technical notes may be ordered through individual clubs for $40.
- Apple Computer Inc. have about 8 buildings in their Cupertino complex. PC boards are made in Singapore and shipped to Dallas or Cork, Ireland, for assembly. The Cork, Ireland, facility builds the EuroApples.
- The nearly 800,000 Apples produced to date, if stacked one upon the other, would reach 59 miles high (9 miles into true outer space)!
- By 1990 there will have been 24 million personal computers manufactured - Phil Roybal.
- Why Apple was called Apple according to Phil Roybal: This was at the start of manufacturing of the Apple. They needed to obtain a tax number so that they didn't need to pay California state sales tax on procured items. In order to obtain a tax number you must be registered with the state with a name. Jobs went to the local tax office and looked through a book of names currently in use but could come up with a suitable name that was not already in use. Steve Jobs, Steve Wozniak and a few other then held a meeting relative to finding a name. Jobs said that no one could leave until they came up with a name. Jobs was eating an Apple and said that if they didn't come up with a name by quitting time, they would call it an Apple - and so they did!

- Apple goals, according to Roybal, are to generate revenue for research and software development rather than to maximize sales!
- Future ///s will probably have the //e keyboard. Individual keys can be replaced on the //e keyboard. There may be a DVORAK keyboard as an option.
- Assembly cost (includes testing) of //e is about half that of][+. Material cost currently is slightly higher for the //e than for the][but they expect that to change as volume increases. MTBF of //e is about 20,000 hours - much higher than the][.
- Earlier //e rev A boards will not handle the double Hires capability on the 64k boards. 30,000 Rev A boards were made. Also, there were some component tolerance problems with respect to the video output levels on the A boards. (The //e does not have a video out level adjustment like the][.)
- New replacement power supplies will be shipped without rivets!
- One reason why 80 columns was not built in is that people with color don't need and can't use the 80 col capability.
- Because of the built-in control/reset/open Apple boot capability which removes necessity to turn off power to reboot, Apple believe that the problem with the failing switch on the power supply will go away.
- Steve Jobs doesn't like fans.
- Future disk drives may have connectors.
- Look for lots of new development of cards to fit into the 80 col. slot. The standard Apple 80 col. board uses no custom LSI so anybody could build it or variations on same. Broedner, who developed the LSI for the //e, now owns a company called Video 7. He demonstrated a new board that fits into above mentioned slot and provides RGB output plus 64K. Also expect to see NTSC boards in same slot. By the way, an early design of the //e contained NTSC output but flicker problem at 30 fps without interlace caused that feature to be dropped.
- Also, according to Broedner, in the early days of developing the //e, Apple was unsure how fast the 64k bit chip technology would mature. So they designed an alternate MMU chip which would work with 4116 16k Dynamic RAMs.
- POKE 36 still a problem on Apple 80 col. board, though somebody supposedly has a fix.
- AppleCare is a new extra fixed-cost service plan which was introduced in Oct., '82. At $90/year for the][or //e, or $45 for a drive, you get one year service. To obtain repair you must take your computer to an authorized repair place. Apple claim this to be the lowest cost in the industry. Under AppleCare, dealer is authorized to swap modules. To get into AppleCare with an older machine, you must get it inspected first!
- RCA will be handling on site service for industrial and business users.
- If you really have a major problem with your dealer, your next stop in the chain of command is the Apple office in Chicago.
- The /// SOS manual and Driver Writers' Guide is at the printers.
- Only the owner's guide is shipped with the //e. The reference manual is a $30 extra cost option. It was not bundled with the machine as Apple felt some less sophisticated users didn't need it.
- Apple have some excellent **Product Training Packs** available for the //e and some Apple software. Horizons is a 3 hour slide show supported training tool available for the /// and //e through the dealers at around $200. (Supposedly, there is little mark-up on this product)
- //e is being built at rate of 30,000 per month.
- If you are a software developer and wish to be licensed by Apple to sell software with DOS and such related software, call 408-554-5213. All user groups under the IAC are licensed through a special agreement with the IAC to distribute public domain software without futher licensing needed.
- Apple receives 10,000 letters a day!

Quic-N-Easy concluded from page 13.

We have used the Pro for five months and the AG since its release in December. As with any new program it takes getting used to — which was why the excellent technical support from Pennsylvania was appreciated. As is always the case, the programs are only as good as our ability to define our needs — but we have yet to come up with an idea that QNE can't handle.

My first foray at the report generator caused me to call on all the vengeful deities at my disposal. It was well worth the effort, however, and suprisingly easy once the general concepts were mastered. I now couldn't imagine living without it. Our overall evaluation of both programs is very favorable. We continue to look at other similar programs and have found none which we would trade for — at any price.



WHY POKE ME?

by Tom Vanderpool

From APPLE BITS - The K C User Group
relayed through the IAC compiler

This article talks about finding the "Hello" program on your disks. Sometimes in using Super Disk Copy, you will see the message about DOS copied with the greeting program name. Later if you try to boot that disk, it will look for the name of the greeting program that was on the disk that the DOS was copied from. This is not a real big problem if you only have your own disks (never got a copy from anyone) and you are using only one name for all your greeting programs (preferably Hello so that if you copy master DOS you won't run into a problem). Now that we have decided that there is a need for something like this, let's get on with it!

Before I go any further, I must recommend that you purchase a copy of BENEATH APPLE DOS by Don Worth and Pieter Lechner from Quality Software, because this program uses one of their routines from that book (namely the Zap utility). After acquiring a copy of their book, type in the Zap program on pages A-10 & A-11, then the following short programs and you will have a working "Hello" finder.

What is happening in this program is:

- First we load a file called "A" which is really the Zap program from BENEATH APPLE DOS.
- Next we load a file called "B" which is the machine language program that is listed here.
- Finally we get down to what we came for!
- Starting at line #30, we clear the screen so that things will look a little nicer.
- Line #35 insures that we are going to READ the disk, not write to it. Then we set up where on the disk we want to read. In this case we are going to read Sector 9 on Track 1. If you would like to use this on 3.2 DOS you can change the Poke 3,9 to Poke 3,12 and everything else stays the same.
- Line #40 prompts for the insertion of the disk in question.
- Line #50 waits for the carriage return.
- Line #60 calls the disk Zap routine.
- Line #70 again clears the screen of all that has gone before.
- Line #80 tells you what you have been looking for.
- Line #83 sets the program name apart from the other text.
- Line #85 loads the machine language routine at $300 with the starting value of printout.
- Line #90 we call the routine at $300 (decimal 768).
- Line #100 ends the whole thing. If you want another run type "Run 30". This will eliminate the BLOADing of the files again.

In short the machine language routine at 768 decimal (300 hex) is just a selected printout of what the Zap program has already found. It takes the 30 characters starting at 117 and prints them out. As you will remember, the disk files are limited to 30 character names so that is why we only print out 30 characters.

That about does it for this time. I wonder if we could get this all in binary to go on a RomPlus chip...Looks like I will have something to do until next time.

Why Poke Me?...

```
0300-  A9  01  85  02  A9  09  85  03
0308-  A9  01  A2  4B  BD  00  08  20
0310-  ED  FD  E8  E0  94  D0  F5  60
```

```
10  PRINT "BLOAD A"
20  PRINT "BLOAD B"
30  CALL-936
35  POKE2,1:POKE3,9:POKE4,1
40  PRINT "INSERT THE DISK YOU WANT TO
    KNOW THE":PRINT "GREETING PROGRAM OF
    AND HIT THE RETURN": PRINT "KEY."
50  INPUT A$
60  CALL 2304
70  CALL-936
80  PRINT "THE GREETING PROGRAM NAME
    ON":PRINT "THIS DISK IS:"
83  PRINT
85  POKE 779,117
90  CALL 768
95  PRINT
100  END
```

DOMS by MAIL

Now members can order DOM's using their own diskettes. Make up a package containing the following:

1. Blank diskette.
2. Mailer . Diskettes will be returned in same protective device used to send the the mailer.
3. Return postage. (same as sending postage)
4. Self addressed return label and $1.00 copying fee per DOM or disk.
5. A note indicating which DOM's are desired.

Send to : C. Thiesfeld
8416 Xerxes Avenue S.,
Bloomington, MN 55431

Please allow 60 days for delivery in USA. Incomplete packages will not be returned. DOMs 1 thru 22, except 18, and 8 Pascal disks are currently available.

THE MORE YOU INVEST IN COMPUTER EQUIPMENT, THE MORE OUR COMPUTER DESKS MAKE SENSE.

We've designed a series of furniture components specifically for minicomputers. Two styles of desks, a printer stand and a table—all to bring order and efficiency to the system, comfort and convenience to its user.

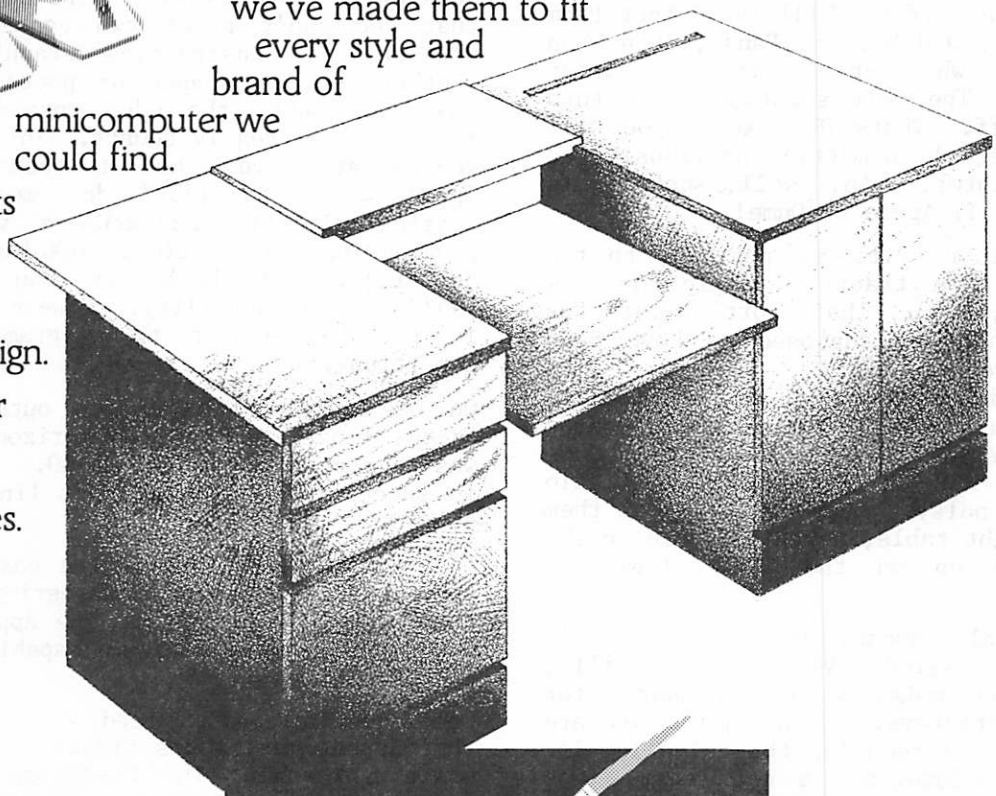
Our Computer Desk I is an entire computer work area. Your keyboard will sit at a comfortable 26 inch typing height. Your monitor rests directly behind the keyboard on a movable shelf which adjusts to your chosen viewing distance.

One side accommodates a 3-drawer file giving you extra storage for software and filing space. On the other side, the printer stand doubles as a place to store and feed paper. The paper runs smoothly through a slot on the back of the desk top.

Each desk accommodates both self-contained keyboard/monitor units and modular type computers. And we've made them to fit every style and brand of minicomputer we could find.

All these parts are modular to fit your work habits and area design.

See our other office components at our two stores.



the UnPainted Place Inc.

1601 Hennepin Avenue • 2005 East Lake Street
339-1500 721-3346

DAN on PRINTERS

by Dan Buchler

Selecting a Daisy Wheel Printer Follow-up

The article on selecting a Daisy Wheel printer was published in the TCCU as well as the January Mini'app'les. As a result, I have had several calls.

I stated that the Diablo 620 was not a heavy duty unit. I still believe that, but, apparently, data published in a newer brochure put out by Xerox, claims MTBF in the over 2500 hours category.

Having lived with the Apple LQP for two months now, I offer some minor criticism which may equally apply to other printers.

1. The power cord comes into the back right where you lay the paper. If it had been moved to the left by 3 inches it would clear the paper stack completely.
2. Apple insisted on maximum simplicity with respect to switches. So on the front there is a **Pause** button and a **Top of Form** button. That's it. The **Pause** button stops printing. The problem I frequently encounter is that I have messed-up my output, and I want to stop it and go to start of page. If you kill the output from the computer, and hit the **Pause**, then when you resume, whatever is in the buffer prints out. The only solution is to turn the thing off. Thats OK, except you will lose any special formatting previously fed to the printer. Ah, well, nobody is perfect, not I, Apple or Qume!
3. A not so minor criticism pertains to the delivery of the tractor. Apple are now saying June, 1983. Thats sort of late for something that was supposed to have been ready in November, 1982!

I have workjed with several letter quality printers throughout the last few months including the Apple LQP, Qume Sprint 5, Qume Sprint 9, the NEC (all models) and Diablo 630s. All are noisy. If you put any of them on a light weight table, anything loose on the table may end up on the floor from the vibration.

There's a local company here in the Twin Cities area called Viking (Lakeville, Minnesota) which makes sound enclosures for all types of printers. Such enclosures are quite effective in reducing the noise levels. However, the enclosures are not cheap. One could build one oneself. The enclosures are essentially boxes lined with soft foam plastic.

New Epson FX-80

I looked at the new Epson in the store last week and spent half an hour reading the manual. It's a nice printer. People trying to decide whether to buy a C-Itoh or Epson will now have a tough time making up their minds. For example:

Item	Epson FX-80	C-Itoh
Bi-directional paper moving.	Yes	Yes
Proportional spacing.	Yes	Yes
Down-load character set into printers RAM (i.e. you define your own character set)	Yes	Yes

An interesting feature of the FX-80 is what they call **quadruple density bit image graphics.** What this means is that one can output dots in the horizontal direction at a density of 240 dots/inch. The only problem is that you can't print two consecutive dots. However, in constructing graphical images, whether they be shapes or photo-typeset-like character sets, the edge resolution of the image is what really counts. Inside the image you can still make the dots touch. Thus, the Epson with its 1/3rd dot motion in the vertical direction can achieve, with suitable programming, a vertical resolution of 216 dots/inch. This is better than the C-Itoh's 144/dot inch capability. However, the C-Itoh is probably easier to program under such conditions.

On one sample of Graphics output from the FX-80, I noticed that the horizontal tracking was poor relative to the MX-80. That is, dots in successive passes did not line up as they should.

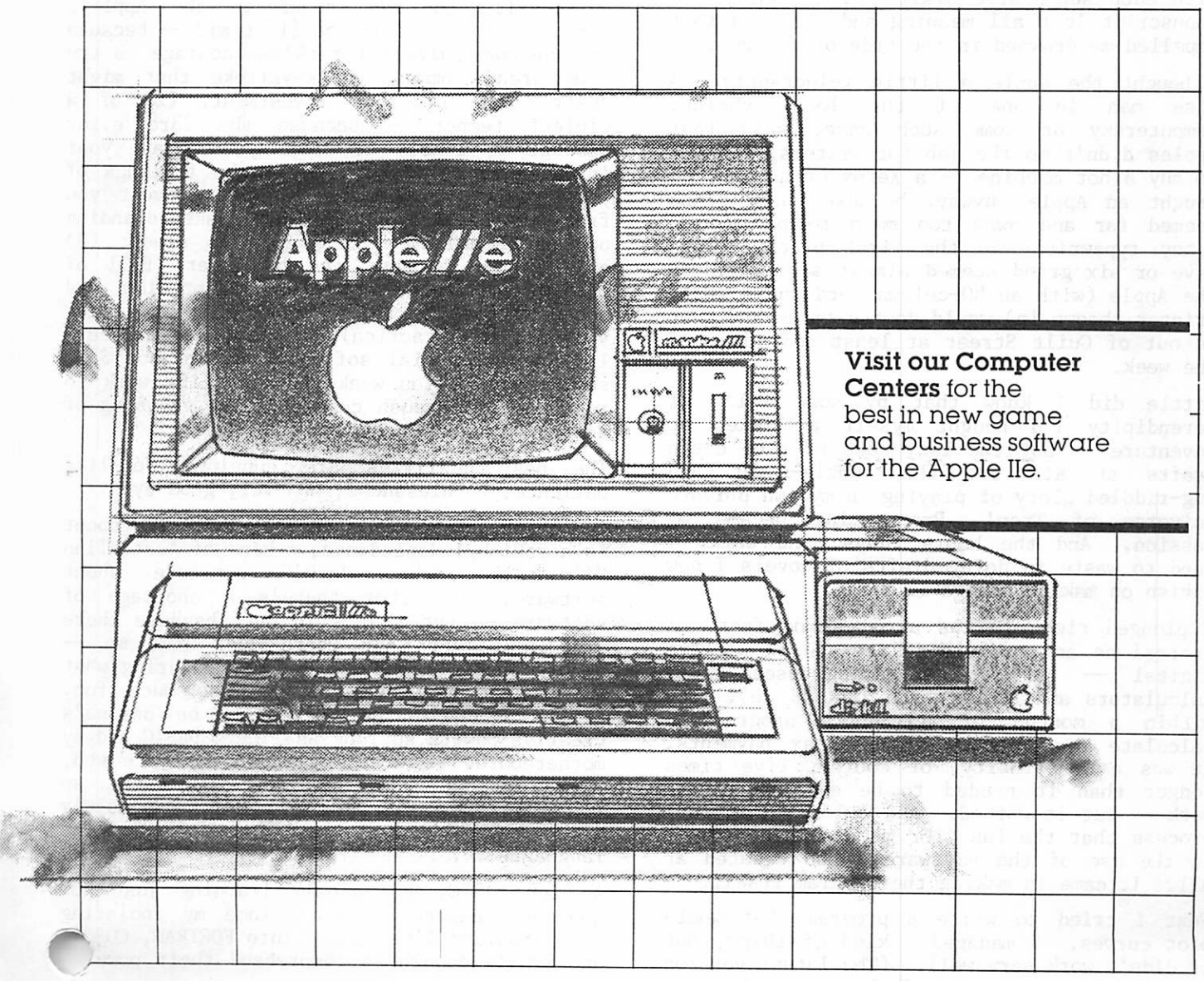
None of this will effect the casual user but the potential for some interesting graphics is there in both machines. The Apple Lisa will make use of the maximum capability of the C-Itoh.

One other thing I noticed about the Epson is that Epson America has finally learned how to write a manual. The FX-80 manual, after a relatively short introduction, devotes one or more pages per command. In other words, to find out how to do Italics, you look up

GOTO 23

A is for Apple–the leader in nome computers.

Here at Dayton's we recognize the name's standing by offering a complete selection of Apple hardware, software and peripherals. Plus we have a knowledgeable staff to assist you, as well as credit plans for easier financing.



Visit our Computer Centers for the best in new game and business software for the Apple IIe.

Dayton's Electronics

Minneapolis 375-2008, St. Paul 292-5041, Ridgedale 375-5554, Burnsville 435-3466, Southdale 375-4178, Rosedale 375-6373.

DAYTON'S

DAISY WHEELING

The Joys of Mucking About

by Arsen Darnay

This piece will be about a cluster of subjects all tied to one another by a thread of sorts. Liberation, the love of adventure, the joys of discovery, the praise of BASIC, and some small tricks that I've learned and which, because I've learned them, seem valuable to me.

The last thing I thought I'd ever do when I got my computer back in my own personal era of B.C., was to program the damn thing. My objective, pure and simple, was to conquer the rocksplitting labor of writing long manuscripts. I saw the computer as a new way to type and to edit without doing all the hard labor of keying over and over and over again with each successive draft . . . until the manuscript lost all meaning and the idea that impelled me drowned in the tide of fatigue.

I bought the Apple a little reluctantly. A wise man in one of the local chains, Computersky or some such name, said that Apples didn't do the job for writers. I ought to buy a hot machine — a Xerox or an IBM. I bought an Apple anyway, because three grand seemed far and away too much to pay for a fancy typewriter in the first place — and five or six grand seemed almost sacrilegious. The Apple (with an 80-column card and a small printer thrown in) would do the trick and keep me out of Guilt Street at least some days of the week.

Little did I know that by some trick of serendipity I'd bought myself a ticket to adventure — not the lazy ease of nice clean drafts at all but the jungle-sweat and bug-riddled glory of playing in my own private universe of Tron! Programming became my passion. And the hours, days, and weeks I used to waste in doing drafts of novels I now lavish on making things in BASIC.

I plunged right in, as a matter of fact. I started as an absolute illiterate in matters digital — aside from having used fancy calculators and such (which I still do). Yet within a month I'd written a program to calculate my quarterly income tax payments. It was a monstrosity, of course, five times longer than it needed to be and awkward to work — but it worked. And I learned in that process that the fun (for me at least) wasn't in the use of the software I had created at all. It came in making the program itself.

Next I tried to write a program that would plot curves. I managed a kind of thing, but it didn't work very well. (The latest version of it, however, is a real beauty — it even prints labels on the HiRes screen using a slave program from Apple Inc.)

And after that I went to shop for an accounting program and didn't find one that I particularly liked for the price I was willing to pay. So I wrote a set of programs that have reduced my monthly bookkeeping chores from a day-and-a-half to three hours — and I get crisp, beautiful, printed reports! And again, the joy was more in the making (and is in the continuing refinement) than in the use — which soon grows old. But creation is ever refreshing . . .

Of course you have to have the right kind of personality to muck about in the Apple's innards. You must not be (1) timid — because the unknown calls for reckless courage to try some dread command or keystroke that might destroy the precious investment; (2) of a violent temper — because the 23rd error message is likely to tempt you to axe your investment; (3) sensitive to the feelings of your family — because it will prevent you from disappearing after supper (taken standing up) until all have long gone to sleep; (3) gullible — because the books are full of errors and only a healthy skepticism and contempt for the folk in Cuppertino will let you win; (4) practical — because a perfectly fine commercial software package for $90, say, may take you weeks of gruelling work to replicate (but such cursing, such gnashing of teeth, such sublime ecstacies) . . .

The best qualities are cunning, Job-like patience, ruthlessness, and very good eyes.

One of the things I learned from mucking about is a rakish independence, a kind of Australian "I'm all right, Jack!" attitude about software. Not that there's a shortage of software — but that's in part because there are many others out there just like me — people who go about their days wondering what to program next because it's so much fun. Still, I don't feel dependent on anyone's creative powers so long as I have BASIC and my motherboard. Like the pioneers of yore who, with a gun and axe, conquered a continent, so I feel fit to tackle the coming age solely with my Apple and my knowledge of one of its languages . . .

As for BASIC, I'm slowly learning just how good a language it is. Since my anointing into Tronland I've looked into FORTRAN, COBOL and RPG-II enough to comprehend their power

Daisy Wheeling Concluded

BASIC strikes me as a kind of Mississippi among the languages — broad and messy and at times unruly . . . and capable of carrying just about any cargo anyone might want to ship.

The Apple world, of course, is full of people who've made it to the next rung in the quest for status. They've mastered the 6502 Assembly Code and look down upon the rest of us who don't do JMP's and RTS's as yet. I know the feeling by analogy and so I understand; but until I'm fluent in that jargon, permit me this snide remark: assembly code, it seems to me, requires such fussy tedium that one must be half twirp to wish to score in that particular game! No doubt my opinion will soon change . . .

I had some surprises, too, along the way. One was that the Apple does not automatically produce a decimal and zeros after whole numbers. 100 Si; 100.00 No. This plays havoc with displays in home-written programs. I wrote my own "print using" routine before I even knew the phrase for it.

The way to do that is (1) to round the expression you want to print so it has no more than two decimal places; (2) turn the numerical value into a string; (3) check the string to see if it has a decimal point in it; (4) if yes, check to see if it is followed by one or by two numerals; (4) if there is no decimal, add ".00" to the string; (5) if there is a decimal and one number, add a "0"; (6) if the decimal is followed by two numbers, leave well enogh alone; and (7) pad the string so that it is of a standard length.

Here is the routine I use. Assume that you want to print 20 numbers, all lined up, stored in the variable dimensioned as A(19). Before you print, send the program to the subroutine at, say, line 8000.

```
8000 FOR I = 0 TO 19
8010 A(I) = INT(A(I)* 100+.5)/100
8020 A$(I) = STR$ (A(I))
8030 Q$= RIGHT$ (A$(I),2):Q1$= RIGHT$(A$(I),3)
8040 X = ASC (Q$):X1 = ASC (Q1$)
8050 IF X = 46 THEN A$(I) = A$(I) + "0"
8060 IF X <> 46 AND X1 <> 46 THEN A$(I)
     = A$(I) + ".00"
8070 IF LEN (A$(I)) < 10 THEN A$(I)=""
     + A$(I) : GOTO 8070
8080 NEXT I: RETURN
```

After your program returns, print A$(0 to 19) at the same horizontal tab setting, and the numbers will all be lined up. This presumes, of course, that you have dimensioned both A and A$ at the start of the program. (If you don't understand this program and are not dying to understand it, you probably haven't got the disease.)

Line 8010, above, rounds the calculated values so that they will end up with no more than two decimal places. If you want to round a number to a single decimal, the formula is as follows:

```
6000 X = INT (X * 10 + .5) / 10
```

It took me a fair amount of searching before I found these handy rounding routines, so it might help some of you new adventurers.

In my consulting work, I often have to calculate growth rates. The Apple does not have a built in routine for this, so you have to program it in — and this is true in your own programs, in THE Spreadsheet, or in VisiCalc as well.

Let's say that you want to determine the annual, compounded growth in a company's sales over ten years. The first year of sales is 2.5 million, say, and the last year is 7.9 million. Let's say further that the first year is in variable A and the last year in variable X. And let's assume further that the resulting growth rate will be stored in variable GW.

To solve this problem in BASIC, you would set up the following command:

```
100 GW = (EXP ((1/-9) * LOG (A/X))-1) * 100
```

GW will then contain the growth rate in the form of a percentage. The -9 in the formula is the 9 years during which the growth takes place.

Using VisiCalc or THE Spreadsheet, you would use the following formulae in the cell in which you want the growth rate to occur:

```
(@EXP((1/-9) * @LN(A1/J1))-1) * 100
(EXP10((1/-9) * LOG10(A1/J1))-1) * 100
```

The first of these is for VisiCalc, the second for THE Spreadsheet. This presumes that the first year's value is in Cell A1 and the 10th in Cell J1.

Bye for now . . .

Dan on Printers concluded from page 12.

Italics in the index and find Esc 4. You then look for a page with Esc 4, in large letters in the top corner. The page number is also given. On that page you find details and programming examples (for the TRS-80) on how to use the Esc 4. **Very nicely done!**

We hope to bring you a detailed review of the Epson FX-80 and perhaps a more detailed comparison between it and the C-Itoh in a future edition of this newsletter.

PROTECTION of COMPUTER SOFTWARE

by Kurt Oelschlager
and
condensed by Alan Peterman

PART 3 of 3 Parts

One of the most important challenges confronting the computer industry is how to define and protect ownership interests in software.

Recent legislation 18 U.S.C. #2319, enacted May 1982, and Minnesota Statute 609.87-.89, approved March 1982, impose harsher criminal penalties for the piracy and counterfeiting of computer software and data bases. Under federal jurisdiction the maximum penalty would be five years and/or $250,000, limited by the exclusions of 17 U.S.C. (see part 1 of this article). The Minnesota statute sets lesser sentencing guidelines but sets legal definitions for computer software, programs, systems, networks, access and property.

The protection of a software developer's investment can be accomplished by three traditional types of "intellectual property" laws: PATENT, COPYRIGHT and TRADE SECRETs.

In the two earlier parts of this article (Feb and March editions of Mini'app'les) we talked about PATENTSs and COPYRIGHT. This month article, the last in the series, will cover TRADE SECRETs.

TRADE SECRETs.

In contrast to patent and copy protections, which are created by federal statutes, trade secret protection is rooted in state statutes or common law. A trade secret includes "any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know how to use it" (Restatement of Torts #757, 1939). Computer software clearly falls within this category.

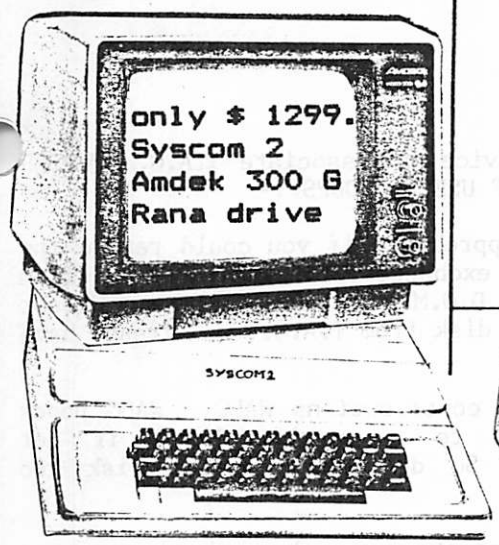
In WARRINGTON ASSOCIATES v. REAL-TIME ENGINEERING SYSTEMS 522 F.Supp.367 (1981), a Minnesota designer and marketer of computer software brought action alleging wrongful appropriation and use of its trade secrets. The court held that the plaintiff's common law trade secret claims are not preempted by federal copyright law. And when Minnesota law is applied, an area of protection beyond copyright is provided. Minnesota trade secrets tort law is premised on the concepts of breach of trust and confidentiality, and not copying (EUTECTIC WELDING ALLOYS v. WEST,281 Minn 13, and Minn Digest Torts 10(5).

Summary

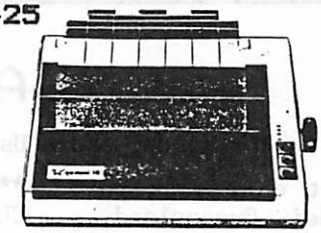
While this analysis has focused on the comparative stengths and weaknesses of patent, copyright and trade secret law in protecting software, the reality within the industry seems to be toward non-legal forms of protection. The software protection survey by the Commission on New Technological Uses, which was aimed at how software houses safeguard their products, showed that patent protection is viewed as the preferred form of legal protection.

The overall conclusion was that the typical company relies largely on its own technological resourcefulness in protecting its software. Cryptographic coding, release of the object code only, and a variety of ingenious mechanical systems are regarded as more effective than any of the legal forms. In Popular Computing, Nov.1982, Rachael Wrege describes this area as a rapidly expanding new market within the software industry.

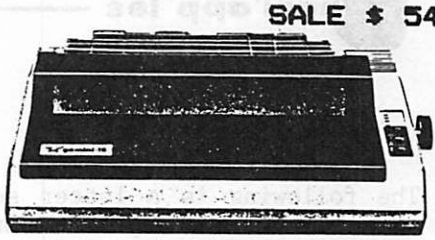
The problems of protecting computer software comprise the full spectrum of intellectual property law issues. Because of the very different nature of computer software, it is unlikely that any unified, single law could provide effective protection, especially in view of its ever-changing technology and evolving markets. A blend of elements from technology, public policy, economics and progressive legal thinking must be applied to effectively address the protection needs of what may well be the most economically important property of the future.



SALE $ 425



SALE $ 549



Gemini 10 & 15

100 CPS
9 x 9 Dot Matrix
Bi-directional
Gemini 15 has bottom paper feed

call for prices

Syscom 2

48 K Ram
16 Colors
Apple Compatible
Better Drives (40 track
Less Expensive

Rana System

40 Track Capability
Write Protect Indicator
3 ms Access Speed
Metal Head Positioner

Applete 1 & 2

300 % Faster track speed
40 Track w/ Enhancer Diskette
15 % More Storage Capacity
Metal Head Positioner
Halftracking

PRINTERS:

PROWRITER 8510	$ 440
EPSON MX80 III	$ 424
EPSON MX100 FT	$ 675
EPSON FX80	$ 645
GRAFTRAX	$ 79
GEMINI 10(100CPS)	$ 445
GEMINI 15(100CPS)	$ 549

MONITORS:

AMDEK GREEN 300	$ 159
AMDEK COLOR I	$ 339
AMDEK COLOR III	$ 415
DVM BOARD	$ 149

VIDEX:

VIDEOTERM	$ 240
VIDEOTERM/SOFTSW	$ 255
ENHANCER II	$ 115
FUNCTION STRIP	$ 65
ENHANCER II W/ FUNCTION STRIP	$ 169
LOWER CS/INVERSE	$ 25

ACCESORIES:

RANA ELITE I DRIVE	$ 349
RANA CONTROLLER	$ 99
HAYES MICROMODEM W/ TERMINAL PGM	$ 325
NOVATION APPLE II REV. 5.0 (80COL)	$ 309
KRAFT JOYSTICK	$ 52
TG JOYSTICK	$ 45
TG TRACBALL	$ 45
TG SELECTAPORT	$ 45
MICROBUFFER 16K	$ 185
PADDLE ADDAPPLE	$ 25
ORANGE GRAPPLER +	$ 145
BUFFERBOARD 16K	$ 145
SYSTEM SAVER	$ 69
FLIP N FILE	$ 23
MICROSOFT 16K RAM	$ 75
PLEXALOCK (II/IIE)	$ 29

DISKETTES :

DOUBLE DENSITY /10	$ 25
SINGLE DENSITY /10	$ 22

SOFTWARES:

LISA	$ 65
VISICALC 80 PREBOOT	$ 29
VISICALC EXPANSION	$ 49
SUPER TEXT	$ 125
SCREENWRITER II	$ 117
MAGIC WINDOW II	$ 105
VISICALC	$ 199
VISIFILE	$ 189
DESKTOP PLAN	$ 189
WORDSTAR	$ 309
HOME ACCOUNTANT	$ 65
MULTIPLAN	$ 215
FORMAT II	$ 199
DB MASTER	$ 169
HAYES TERMINAL PGM	$ 79
NOVATION PGM REV.5	$ 29
PEACHTREE INVENTORY	$ 289
S.A.M.	$ 89
WORD HANDLER	$ 175
LIST HANDLER	$ 75
SENSIBLE SPELL	$ 99
BANK STREET WRITER	$ 54

WE WILL TRY TO MEET ANY ADVERTISED PRICE IN TWIN CITIES, CALL TO VERIFY

MINI'APP'LES MEMBER : 5% DISCOUNT ON ALL GAMES

ONYX COMPUTER

2701 EAST LAKE ST. MPLS. MN 55406. TELP: 612-721-1234

M-SAT : 10 AM - 7 PM, SUN : 1 PM - 5 PM

WONDAI

The Wondai Apple Users Group

The following is a letter sent on a disk to our club all the way from Wondai, Queensland, Australia.

** JOIN THE W.A.U.G. AND
BENEFIT FROM SHARED EFFORTS **
APPLE COMPUTERS, PERIPHERALS, &
SOFTWARE NOW AVAILABLE FROM W.A.U.G.
++ WRITTEN WITH *
ZARDAX * WORD PROCESSOR ++
WONDAI APPLE USERS GROUP
P.O. BOX 19,
WONDAI, QLD. 4606
AUSTRALIA.
—— ** ——

Postal Address: W.A.U.G.
C/. DR. P. LIP,
P.O. BOX 19,
WONDAI, QLD. 4606
AUSTRALIA.

Telephone: 071-685396 (A/H)
071-685606 (BUS)
MEMBER OF I.A.C. (No:256)
26th. February 1983

Dear Club Member, Past Member, Future Member, I.A.C. Member,

Enclosed please find a copy of WAUG - WAUG, the Newsletter of the WONDAI APPLE USERS GROUP, membership of which exceeds 150 at present, some are very active, some a little active and some inactive.

Over the last few months a great debate went on as to the best method of presenting the Users Group Newsletter. Hardcopy was expensive to print and heavy to post. As members must have access to APPLES (that is why we are Apple Users) it was decided to send the Newsletter in Diskette form.

There are many reasons for these:

1. Each disk is identified as to the receiver. This will allow us to separate the active from the inactive.

2. If the disk is not returned then NO FURTHER Newsletters will be sent.

3. Contributions are required to keep the NEWSLETTER alive. The disk will allow you to forward your programs and articles. So please keep WAUG - WAUG alive.

4. The disk method is very time saving as transfers do not require retyping of long articles and programs.

**Special advice to associate I.A.C. MEMBER CLUBS & APPLE USERS GROUPS :-

WAUG would appreciate if you could return the disk with an exchange Public Domain disk, from your latest D.O.M. release. Please do not send Library disk from I.A.C., we already have them.

Depending on contributions WAUG - WAUG hopes to go back to a monthly basis if not bi-monthly. So do not keep the disk too long.

*** WAUG suggests you make a hardcopy or a copy of BOTH sides of the disk at your end, then copy your contributions on it and return to me.

Membership details are on the disk and the Membership Application Form is also on the disk.

With best wishes and hoping to hear from you again very, very soon,

Le Pres pro temp,
W.A.U.G.

Dr. P. Lip (Pat)

We solve the problems of the problem-solvers.

Dayton's Computer Repair Service

We're fully authorized for servicing the Apple® and the Osborne computers, as well as the IBM Personal Computer. We handle in-warranty, as well as out-of-warranty repairs, and offer extended service contracts that cover the cost of parts and labor. You may charge repairs on your Dayton's Flexible, Furnish-A-Home, or Invoice Accounts. The American Express® Card is also honored at Dayton's. Bring your computer in to 701 Industrial Blvd. for repairs, or call for on-site service at your home or office. Dayton's Electronic Service: 375-2586; 375-2587.

DAYTON'S

NEW PRODUCTS

by Mike Casey

This column is intended to provide, for your information, a brief summary of some of the many product announcements which we receive each month. We do not endorse these products in any way.

SOFTWARE

(Unless noted, system requirements are Apple II or Apple II+, 48K, one disk drive, and DOS 3.3)

- Pseudo-Disk

  Thermal Scan, Inc.
  1779 Bradburn Dr.
  St. Louis, Mo. 63131
  314-821-3482

  $34.95

  Store up to 62 sectors of data or seven programs on the 16K card.

- Ham Radio Software

  Computer Systems
  3763 Airport Blvd.
  Mobile, Al. 36608
  205-344-7448

  $39.95

  Includes CW,RTTY,ASCII transceive program. Interfacing through the game port.

- The Dimensional Analysis of the Great Pyramid

  Louis K. Bell
  PO Box 7
  Augusta, Ga. 30903
  404-790-6854

  $25.00

  Written after 25 years of research in Ancient Metrology. Remark statements are interspersed to guide anyone wishing to review or modify the routines.

APPLE ///

- Proforma

  Management Control Concepts, Inc.
  124 St. Mary's St.
  Boston, Ma. 02116
  617-267-4920

  New powerful financial projection and forecasting system. "What-if" situations.

- Apple /// COBAL

  Apple Computer, Inc.
  10260 Bandley Dr.
  Cupertino, Ca. 95014
  408-996-1010

  $500.00

  COBAL for the Apple ///. Requires 128K and at least 1 external disk drive. Full use of the Animator requires 256K.

HARDWARE:

- Apple Soft Card III

  Microsoft

  $450.00

  CP/M for the Apple ///.
  Requires Apple ///, 128K, with a suitable video display device.

- 18K Static Ram Card

  Legend Industries, Ltd.
  2220 Scott Lake Road
  Pontiac, Mi. 48054
  313-647-0953

  18K ram for Apple II, Apple II+, and Apple //e. Battery backup to save memory during power down.

- 64K RAM Adaptor

  Cramapple
  Box 98, Cambridge B Branch
  Boston, Ma. 02140
  617-628-0206

  $349.95

  Allows use of 64K ram chips on the Apple II+ motherboard. Includes address module, installation instructions, and documentation.

- Self-Reset Power Line Interrupter

  Electronic Specialist, Inc.
  171 South Main St.
  Natick, Ma. 01760
  617-655-1532

  $185.95-$205.95

  Safety device used to disconnect A.C. power if line voltage is disrupted or exceeds safety limits. Four minute time delay before automatic reset.

- Time Machine II

  The Computer Room
  1879 S. Main St.
  Salt Lake City, Ut. 84115
  801-486-4839

  $139.00

  Real time clock and calendar.
  Apple Spool Software ($19.95) allows the Apple to execute two programs at the same time.

  Pascal Software Option ($19.95)

MINUTES

Minutes - March 9th Board Meeting

by Hugh Kurtzman, Secretary

The meeting was called to order at exactly 7:30. Meeting place was the First Devine Science Church.

The treasurer reported a beginning balance for Feb of $12934, income of $4141, expenses of $3463, leaving a balance of $13611. (All rounded to nearest dollar)

Dan' gave a short talk on his visit to Apple computer to learn about the //e. This trip was paid for by Apple, in order that they might show off the new //e and build support among user groups. Representatives from 100 clubs were there. The IAC also called a meeting, at which concerns of the member clubs were discussed. Dan will be telling us more in the newsletter.

Dave Laden and S.K. Johnson presented a proposal to change our board structure from 5 elected and over 30 appointed members, to 5 elected and 6 appointed. The six will be serve in the following areas

1. Branch Director
2. SIG Director
3. SIG Director
4. Publications Director
5. Software Publications Director
6. Technical Support Director

A motion was passed thet the committee work on making these suggestions as amendments to our Bylaws.

A motion was passed that the present Bylaws, as published in the March Newsletter, be ratified by a vote of the membership at the April 20, 1983 meeting.

Nominations for elected office:

PRESIDENT
- Ron Androfff
- Chase Allen
- Larry Larson

VICE President
- Chuck Thiesfeld
- Mark Abbott

SECRETARY
- Ken Slingsby
- Hugh Kurtzman

TREASURER
- John Hansen

Moved that we have a booth at the Mankato Micro-computer Show April 18 and 19. Hugh Kurtzman will be in charge. Mike Young, Larry Larson, and John Schoeppner (maybe) will help. Passed

Moved $200 be available for all related expenses. Passed

Back Up Concluded from page 15.

To summarize the discussion:

- For backup that will not be written to, a simple copy will do.
- For backup that will be updated: use a working copy, update disk #1 and update disk #2 as a set.
- Always use the working disk to generate the changes.
- Always copy to update disk #1 first.
- Always confirm a good copy before copying to update disk #2. When a problem occurs you will be confused enough - don't leave any room for doubt that disk #2 is the disk with good data.
- Always be systematic. It requires discipline to make backups in a prescribed manner and to be wary of possible problems. The process is easy to neglect until the need arises, and then too late to realize it was several months since the last backup was made and the existing one is virtually worthless. Don't let that happen to you.

Inspector Users

by David Nordvall

When you buy a RAM card 16k to 512k and use it in slot 0, the old ROM Integer or Applesoft card seems to have little use. With two changes it can be used in any slot.

Look at Track 1, Sec. 4, Byte, $B8; it should be $80. This is for slot 0 and is the slot that is used with the FP or INT commands. To change the slot, just add $10 * 16 to the $80. Example: for slot 4; $80 + $10 * 4 = $C0. Byte $C0 will need to be changed to one greater than $B8. For slot 4 this would be $C1.

Write these changes back to the disk and, during the BOOT process, DOS will look for your ROM card in slot 4.

POINT of INTEREST

by Peter Bernstock

from "CRAB APPLE BULLETIN" - NOV'82
relayed through the IAC compiler

Even with the Autostart ROM, there is a possibility that you will be working away at an APPLESOFT program and when you try to save the program on a disk, your Apple does not respond. After a few seconds (may seem like an hour), you receive the "SYNTAX ERROR" message. How come? you ask. The most likely reason is that DOS has NOT BEEN BOOTED. Don't get upset. There is a "fix" for this problem.

The following routine will move the program which is currently in memory into a storage area, allows you to BOOT DOS, and then move the program from the storage area back into memory for additional work, or saving to disk.

1. Type **PRINT PEEK (175), PEEK (176)**← to obtain two pointer values. We'll call these values V1 and V2. ← means hit RETURN key.
2. Write the values V1 and V2 down on a piece of paper. We'll need these values in step #11.
3. Type **CALL-151** ← to enter the MONITOR. You will get an ASTERISK (*) as a prompt.
4. Type **6000<800.377FM** ← to relocate the BASIC program.
5. Insert an INITIALIZED disk into your drive.
6. Type **6 CTRL-P** ← to BOOT DOS. this assumes that your drive is connected to slot 6. (CTRL-P means "Control-P"). This will also return you from the MONITOR to APPLESOFT.
7. After the disk BOOTS, and the HELLO program runs, type **NEW** ← to clear the memory.
8. Type **CALL-151** ← to reenter the MONITOR.
9. Type **800<6000.8FFFM** ← to retrieve the BASIC program.
10. Type **CTRL-C** ← to get out of the MONITOR and back into BASIC.
11. Type **POKE 175, V1:POKE 176, V2** ← V1 and V2 are the two pointers that you wrote down in step #2.

You may now continue working on the program, or save it to disk.

INTERNATIONAL APPLE CORE ™

APPLE ORCHARD SUBSCRIPTIONS

For IAC Club Members Only

908 GEORGE STREET, SANTA CLARA, CALIFORNIA 95050

☐ 9 issues for only $19.50
($29.25 at newsstands)
$17.00 for members of IAC clubs only

☐ Foreign: 9 issues
$36.00 Surface
$29.00 for members of IAC clubs only

☐ Payment enclosed
(US funds only)

Start my subscription with issue # _____

Name _____

Address _____

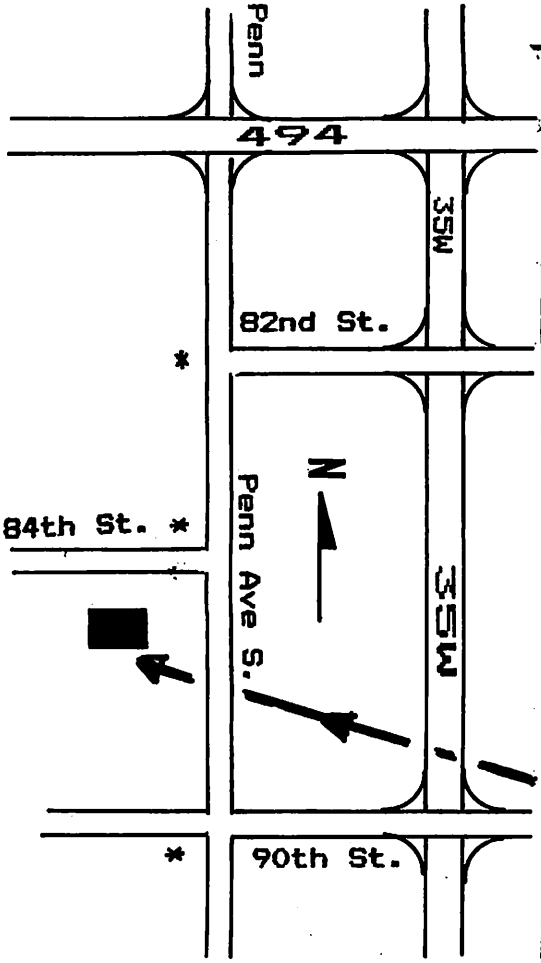
City _____ State _____ Zip _____

☐ Name of Club _____ Signature of club officer _____
Valid only with signature

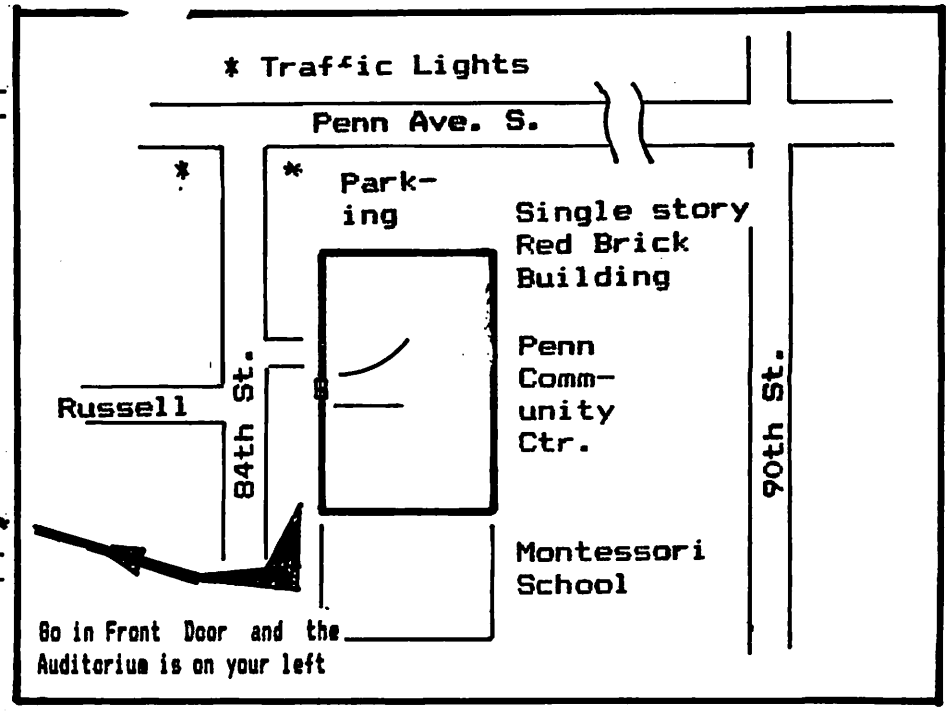
InterBank # ☐☐☐☐ 4 digit number above your name on MasterCard™ ☐ VISA

Charge Card # ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Credit Card Signature _____ Card Expires _____



PENN
COMMUNITY
CENTER
Bloomington



CLASSIFIED

These ads are provided free to members for non commercial use, and are limited to 10 lines. Commercial ads will be charged at 20 cents/word for members or 40 cents/word for non-members. Contact the Adverstising coordinator. **DEADLINE** for ads is the second Friday of the month preceding the month of publication. Ads will be repeated on request only. Also, please notify editor if item is sold. Unless otherwise noted, all items are **For Sale.**

Apple II+, 48K, Monitor, 1 Disk Drive, Controller, Interger Basic card and miscellaneous hardware. $1600 or best offer.
Tony 922-6260

New automatic firing paddle/joystick extension. $35.
Roger 771-2868

FREE COMPUTER TIME on project basis to Fortran/Pascal game programmers in exchange for license to use games on timesharing service.
Mainframe Games 426-3199

---

2 M & R Sup'R'Tem 80 Col cards; $145 each. 1 Numeric keypad; $95.
Scott Ueland 944-3034 (w)
623-3749 (h)

Epson MX80FT Printer, cable & parallel interface card for Apple II; $500.
Tom Correll 941-0049

LISA, $35; Bag of Tricks (Utility Programs by Quality Software), $15.
Jim 941-5753

APPLE /// 128K, 2 external drives, Epson MX80FT III Printer, UPIC card, Zenith monitor (green on black), Visicalc III, supplies. Purchased in July '82.
Joe Conlin 333-2301 (w)

DATA ENTRY: Experienced secretary will type your Apple II mailing lists, Visicalc/DB Master data, or other text and save it on Apple II diskettes. $7.50/hr, $20 minimum.
Diane 786-3028

TYMAC parallel printer card. $50 or best offer.
Steve Sullivan 920-8463

SATURN 32K RAM CARD, software included; $130 or best offer.
Thomas Raffin 457-3402 (h)
437-0769 (w)

DISK II Controller Card, new; also DOS manual, new; make offers.
Steve 474-4356 after 6PM or weekends

CCS Clock Card/Module $75
Disk II Interface card $75
Tymac Printer Interf'e $60
Easy Writer Word Proc. $30
PLE (Prog Line Editor) $3
PGE (Prog Global Ed.) $3
Big Mac TED/Assembler $35
DOS swtch w/13 sct prm $30

Steve George 935-5775

ATTENTION:

mini'app'les

WE HAVE YOUR PRINTER PAPER

– IN STOCK –

11" X 9½" – 15# or 20# Paper

SMALL QUANTITIES TOO: 250, 500 or 2000 per carton

Also: MANY OTHER SIZES AND TYPES OF PRINTER PAPER (Stop in and see our selection), DATA PROCESSING AND OFFICE SUPPLIES, SNAP-A-PART FORMS AND WEDDING INVITATIONS.

NEW!
In-Stock
Micro-Perf Printer Paper

OPEN MONDAY thru FRIDAY – 8:30 - 5:00

NOTE: New Hours

For more information call:
(612) 332-4866

House of Forms

20 NO. 1ST STREET • MINNEAPOLIS, MN 55401

Visa and MasterCard Accepted.

SAVE THIS COUPON!

THIS COUPON ENTITLES MINI'APP'LES MEMBERS TO A

10% DISCOUNT

ON ANY PURCHASE AT

House of Forms

20 North First Street
Minneapolis, MN 55401

This Discount Will Not Apply On Sale Merchandise Or With Other Discounts.

Expires June 30. 1983

NEW PRICES!

LOWER PRICES

Kraft Joystick **$49.96**
Microsoft Ramcard (16K) ... **$79.96**

NEW PRODUCTS!

MICRO-SCI A2 Disk Drive .. **$299.00**
Microsoft Softcard (Z-80) .. **$245.00**

Introducing: The flipable, flexible disk for your Apple*!

The MEMOREX Reversible Disk 10 for **$35** 40 for **$129**

Use both sides of this great new disk. Double-sided, double-density and double-punched, with a full Memorex warranty.

NEW PRODUCTS

The Bank Street Writer	$ 47.96
Tax Advantage	$ 47.96
Aztec	$ 31.96
Canyon Climber	$ 23.96
Zaxxon	$ 31.96
Miner 2049ER	$ 31.96
Mask of the Sun	$ 31.96
Old Ironsides	$ 31.96
Space Vikings	$ 39.96
Transylvania	$ 27.96
Terrapin Logo	$119.96

ALL-TIME FAVORITES

Home Accountant	$ 59.96
Magic Window II	$119.96
Choplifter	$ 27.96
Castle Wolfenstein	$ 23.96
Zork, I, II or III	$ 31.96 ea
Frogger	$ 27.96
Wizardry	$ 39.96
Mastertype	$ 31.96
Snooper Troops 1 or 2	$ 35.96 ea
Hayes Micromodem II	$269.50
Grappler +	$127.05

ELEPHANT MEMORY SYSTEMS
NEVER FORGETS

elephant floppies

MasterCard
VISA

10 — 5¼" single sided, single density **$22**
10 — 5¼" single sided, double density **$25**

buy a trunk-ful and save!
40 — 5¼" ss, sd **$79** - - - 40 — 5¼" ss, dd **$89**

call or write yukon for a free catalog and catalog update.

yukon pays shipping. Minnesota residents add 6% sales tax.

Call (612) 944-1180

*Apple is a registered trademark of Apple Computer Inc.

yukon computer products, inc.
post office box 37088
minneapolis, minnesota 55431-0088

Check expiration date on label

This is the only notification which you will receive.
Please pay your dues of $12 before that date

Mini'app'les
Box 796
Hopkins, Mn. 55343

ADDRESS
CORRECTION
REQUESTED

Bulk Rate
US Postage
PAID
Hopkins, MN
Permit 631