mini'app'les

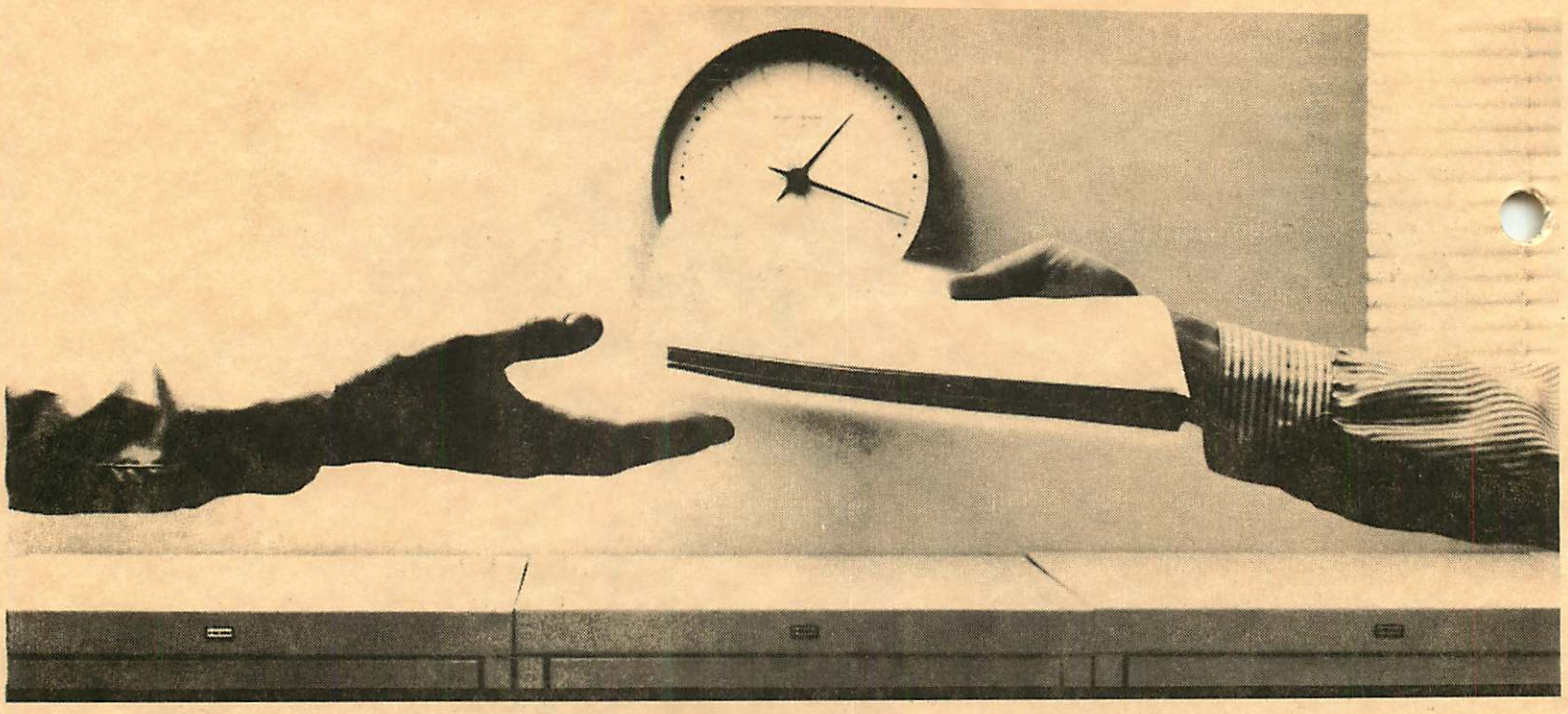
apple computer user group newsletter

Volume VIII No 6 June 1985

WHICH	WHEN	WHERE	WHAT
Board Meeting	Wed Jun 5 7:30 pm	To be determined	All members welcome. Please call Dave Laden for reservations -- 488-6774.
Geneology Club Note 11	Sun Jun 9 2-4 pm	Mn Historical Soc. Lib, St. Paul (across from the Capitol)	Meetings are each even numbered month, on the second Sunday
Pascal & Apple /// Note 1	Wed Jun 12 7:30 pm	Minnesota Federal S & L Hopkins	Q & A session; General information.
St. Cloud Branch	Thu Jun 13 7:30pm	Waite Park City Hall 5th Ave. & 3rd St N.	Note 15
MacSIG:Non Tech Users Note 16	Mon Jun 17 6:30/7 pm	Southdale Area Library 7001 York Ave. So., Edina	Bring your favorite Mac games, demo of latest DOMs.
Dakota County Branch Note 7	Tue Jun 18 7pm	St. John Neumann Church 4030 Pilot Knob Rd, Eagan	Open topic.
REGULAR MINI'APP'LES Note 5	WEDNESDAY June 19 7:30 pm.	OAK GROVE JR. HIGH SCHOOL 1300 W. 106TH STREET Cafeteria (Map inside)	First annual (?) Swap Meet!
Business SIG	Wed Jun 19	After Regular Mini'app'les mtg.	Note 10
Applesoft BASIG New Group!	Thu Jun 20 7:00 pm	Note 17	Q & A session. Bring your BASIC problems.
Main MacSIG Note 9	Mon Jun 24 6:30/7 pm	Southdale Area Library 7001 York Ave. So., Edina	Lotus will demo Jazz!
Northwest Branch Note 12	Tue Jun 25 7:00 pm	Rockford Road Library 6401 42nd Av N, Crystal	Disk drive repair by Mike Casey.
Minnetonka Branch Note 8	Wed Jun 26 7:30 pm	Glen Lake Community Center 14300 Excelsior Blvd., Rm E	
Board Meeting	Wed July 3	Call Dave Laden (488-6774)	Tentative Date, All members are welcome.
Dakota County Branch	Tue July 9	St. John Neumann Church	Note 7
Pascal & Apple ///	Wed July 10	Mn Federal, Hopkins	Note 1
MacSIG Non Tech Users	Mon July 15	Southdale Area Library	Note 16
REGULAR MINI'APP'LES	WEDNESDAY July 17, 7:30	U of M - ST. PAUL CLASSRM. OFF. BLDG. Rm B35	Computer Broadcasting Company Ray Douglas. Note 2
Business & Investment	Wed July 17	After Regular Mini'app'les mtg.	Informal discussion Note 10, 4
Minnetonka Branch & Northwest Branch	Wed July 24 7:30 pm	Ridgedale Area Library 12601 Ridgedale Dr., Minnetonka	Apple Works, Note 8, 12
Main MacSIG	Mon July 29	Southdale Area Library	Note 9

Notes: (*See page 4 for telephone numbers*)

1. John Schoeppner
2. Dave Laden
3. Fred Woodward
4. Eric Holterman
5. Mark Abbott
6. Dan Buchler
7. Bob Pfaff
8. Dick Peterson
9. Mike Carlson
10. Dick Marchiafava
11. Bill DeCoursey
12. Jere Kauffman
13. Stewart Haight
14. Steve George
15. Frank M. Ringsmuth 698-8633
16. Steve Bibus
17. Tom Alexander



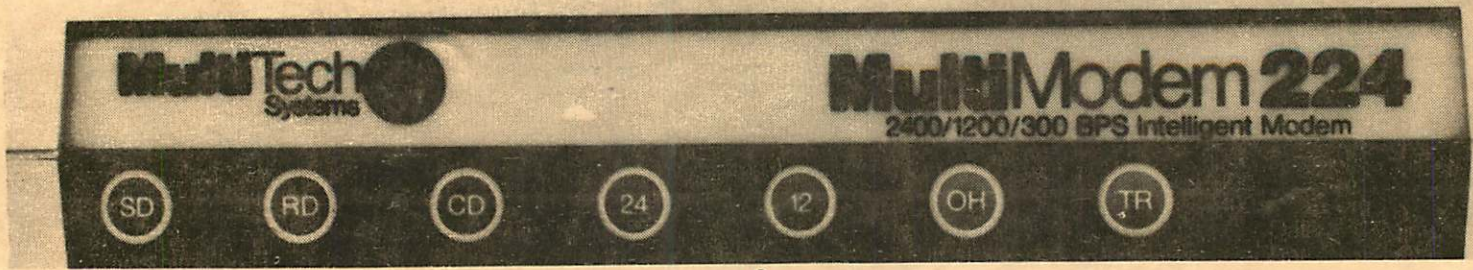
2400 bps modems: Do you Really need another speed?

- Is the shift from 300 to 1200 bps going to repeat itself at 2400 bps? The answer is both yes and no. There certainly are applications for 2400 bps asynch dial-up modems, but we shouldn't expect 1200 bps to die overnight.
- 2400 bps modems can improve throughput, thereby getting tasks done quicker and more economically. However, 1200 bps has become the virtual standard for professional dial-up communications, and most users are satisfied with it. So why consider a 2400 bps modem at all?
- One reason is flexibility. If the modem you select operates at all three speeds (300, 1200 & 2400) in accordance with accepted industry standards, it will serve virtually all dial-up applications now and in the foreseeable future.
- The modem you select should be the MultiModem224. It is Bell 212A and 103 compatible at 1200 and 300 bps, and CCITT V.22bis compatible at 2400. It is also 100% compatible with the Hayes command set, meaning that it will work with virtually all communications software packages, at all three speeds. Other features include both synchronous and asynchronous operation, full intelligence and a phone number memory.
- The MultiModem224 is available in both desktop and IBM PC™ internal card versions. (There is also a rack-mounted version for central sites.) And as a bonus, we provide free offers from ten of the most popular on-line information services, including CompuServe™, Dow Jones™ and The Source.™
- A 2400/1200/300 bps modem is just a plain good investment. Why not let the MultiModem224 provide your communications for both today and tomorrow?

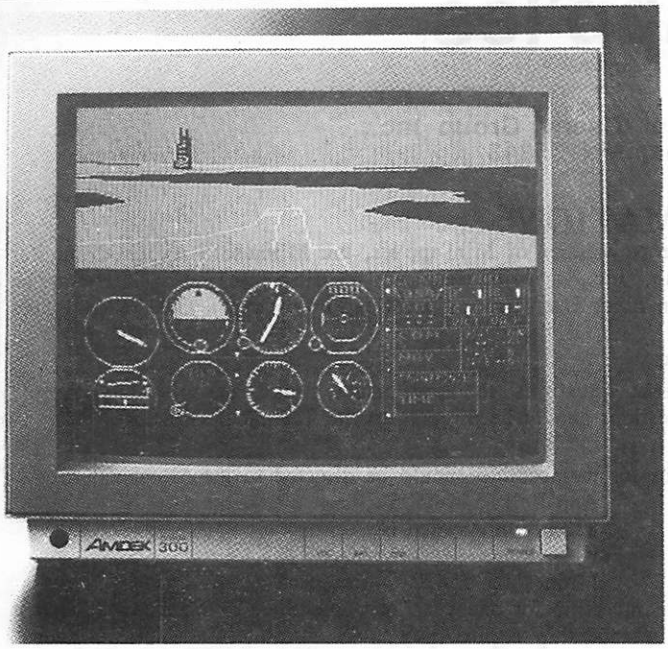
MultiTech Systems

The right answer every time.

82 Second Ave. S.E., New Brighton, MN 55112 (612) 631-3550, TWX: 910-563-3610



AMDEK



Special Purchase
AMDEK COLOR 300
$225
Reg. $349
While Supply Lasts

ASUKA

• Fully compatible with Apple II, II+, IIe & IIc • Low Profile • High Performance • Fast Head Seeking • Stable Circuit using SITL • Ic • 40 Tracks Available

SPECIAL
II+, IIe
$150.00

Two for **$295.00**
with Controller . . **325.00**

IIc
$170.00

WHY PAY MORE FOR COMPUTER PRODUCTS?

884-5009

MODEMS

HAYES
Smartmodem 300 . . . . . **$209**
Smartmodem 1200 . . . . . **419**
Smartmodem 1200Bd **399**

NOVATION
J. Cat 300Bd direct **99**
103 SmartCat 300Bd Smart . . . **159**
103/212 Smart 300/1200Bd . . . **379**
Applecat II 300 baud for Apple **225**
212 Applecat 300/1200Bd for Apple **390**

MULTITECH
Multimodem IIe **199**
Multimodem PC **359**
Multimodem HC **359**

ZOOM
Networker-Netmaster combo . . **135**

DISK DRIVES
Teac DS/DD (IBM Comp.) **139**
Drive Control Card **45**
10 MB Hard Drive System **699**
20 MB **899**

DISKETTES
10 - 5¼" Floppy Diskettes
(packed with a storage box)

	SS/DD	DS/DD
Sentinel	**$21.00**	**$24.00**
Centron	**17.00**	**19.00**
3M	**22.00**	**26.00**
Maxell 5¼" HD for AT		**55.00**

CALL FOR QUANTITY PRICING ON 10 OR MORE BOXES

PRINTERS

OKIDATA
ML 182 . . . . . **$259**
ML83 . . . . . **559**
ML84 . . . . . **689**
ML 192 . . . . . **389**
ML 193 . . . . . **559**

PANASONIC
KX-P1091 (120 CPS) **319**
KX-P1092 (180 CPS) **399**
KX-P1093 (160 CPS wide carriage) **559**

SILVER REED
EXP 400 . . . . . **299**
EXP 500 . . . . . **349**
EXP 550 . . . . . **449**
EXP 770 . . . . . **825**

GEMINI
New SG 10 . . . . . **259**
SG 15 . . . . . **405**

EPSON Full Selection

ACCESSORIES
Quadram eRAM 80 card
80 columns w/64K (IIe) **$115**
Numeric Keypad for Apple IIe . . **75**
Grappler + ... **89**
Parallel Cable for IBM **30**
25x25 RS-232 . . . . . **25**

SOFTWARE

	Apple*	IBM*
Symphony		**$449**
Lotus 1,2,3		**310.00**
Wordstar 2000		**289.00**
Wordstar 2000+		**349.00**
dBase III		**409.00**
Framework		**409.00**
PFS-File	**85.00**	**95.00**
PFS-Write	**85.00**	**95.00**
PFS-Report	**85.00**	**95.00**
Cross Talk XVI		**109.00**
Flight Simulator . . .	**39.95**	**34.95**
Dollars & Sense . . .	**69.95**	**119.00**
Turbo Pascal	**45.00**	**45.00**
Turbo Toolbox	**45.00**	**45.00**
Sidekick		**45.00**

APPLIED ENGINEERING
Ramworks w/64K **139**
Extended 80 col. w/320K . . . **203**
IIe only w/512K **263**
RGB option **99**
Memory Master IIe w/64K **99**
IIe only w/128K **119**
Viewmaster 80
80 col. 128K, II, II+ **109**
Z-80 Plus (II, II+, IIe) w/software **109**
Z-80 C (IIc only) w/software . . . **139**
Timemaster II H.O.
Clockcard (II, II+, IIe) **99**

MONITORS

AMDEK
300 12" green **$145**
300A 12" amber **155**
V310A 12" amber (for IBM) . . . **175**

ZENITH
ZVM-122 12" amber **115**
ZVM-123 12" green **115**

PRINCETON GRAPHICS
MAX-12 amber (for IBM) **189**
HX-12 (RGB) **489**

PANASONIC
CT-1300D 13" RGB & composite w/speaker **265**
TV Tuner for above **75**

MEMORY
64K RAM Kits (9) **20**
256K RAM Kits (9) **72**

COMPUTER BUYING SERVICE

8120 Penn Ave. So. Suite 116
Bloomington, MN 55431
(612) 884-5009
Member: Minneapolis Chamber of Commerce

mini'app'les

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

Board Members

President	*David E. Laden* 1215 W. Laurie Rd, Roseville, MN 55113	488-6774
Past President	*Chase Allen* 15718 Hayes Trail, Apple Valley, MN 55124	431-7278
Vice-Presiden	*Tom Edwards* 4521 Xerxes Ave. S., Minneapolis, MN 55410	927-6790
Treasurer	*Steven E. Baker* PO Box 796, Hopkins, MN 55343	935-1192
Secretary	*Ken Slingsby* Route II, Box 182, Welch, MN 55089	507/263-3715
Communication Dir	Dan Buchler	890-5051
Software Director	Steve George	935-5775
Technical Dir.	Hugh Kurtzman	544-7303
SIG Director 1	Keith Madonna	474-3876
SIG Director 2	Dick Marchiafava	572-9305
Branch Director	Ron Androff	452-5230

Coordinators

Beginners' Consultant	S.K.Johnson	869-3447
Shows and conventions	Steve George	935-5775
Membership Co'tor	Ann Bell	544-4505
Spcl Int. - Apple ///	Joe Horne	941-3411
Spcl Int. - Business	Dick Marchiafava	572-9305
Spcl Int. - Education	Dave Laden (Acting)	488-6774
Spcl Int. - FORTH	Mark Abbott	854-8304
Spcl Int. - Handicaps	Steve Lyle	894-2991
Spcl Int. - Investment	Eric Holterman	822-8528
Spcl Int. - Macintosh	Mike Carlson	866-3441
Spcl Int. - Pascal	John Schoeppner	455-8613
Spcl Int. - Visicalc	Mike Carlson	866-3441
Tech. Adviser (hdw)	Roger Flint	771-2868

Branch Coordinators

Dakota County	Bob Pfaff	452-2541
Minnetonka	Dick Peterson	473-5846
New Hope	Jere Kauffman	535-6745
St. Cloud	Frank Ringsmuth	253-6032
St. Paul/Mahtomedi	Fred Woodward	426-4060
Liaison (†) - CP/M	Peter Gilles	475-3916
Liaison (†) - Geneology	Bill Decoursey	574-9062
Liaison (†) - Medical	Stewart Haight	644-1838

† To provide contact with non-Mini'app'les SIGS

Software Director's Staff

DOM Sales - Meetings	Terry Schoeppner	455-8613
	Dave Nordvall	724-9174
	Gene Kasper	941-5490
DOM Sales - Mail	Hugh Kurtzman	544-7303
DOM Editors/Producers	Steve George	935-5775
MAC DOM Editor/Prod	Steven E. Baker	935-1192

Circulation this issue: *1900*

INFORMATION

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

Questions

Please direct questions to appropriate board member or officer. Technical questions should be directed to the Technical Director.

Membership

Applications for membership should be directed to the Membership Co-ordinator: Ann Bell 544-4505
8325 39th Avenue N.
New Hope,
Minnesota, 55427

$12 buys membership for one year. New members and persons renewing after letting membership expire, pay a $5 administration fee. Members receive a subscription to this newsletter and all club benefits.

DOMs and MSDs

DOMs (Disk of the Month) are available at meetings for $5/disk ($8/MacDOM) or any DOM may be ordered by mail for $6.00/disk ($9.00/MacDOM). MSDs are $15/disk at meetings or $17.50/disk by mail. Send orders to Mini'app'les at PO Box 796 (see above), attention DOM Sales.

Members may have DOMs copied to their own media. See classified Ads for details.

Dealers

Mini'app'les does not endorse any specific dealers but promotes 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 on Mac 3 1/2" disks or via telecommunications directly to the Newsletter Editor. Contributions on 5 1/4" disks should be sent to the club PO Box, and marked: "Newsletter Submission".

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.

Meeting Dates

Please telephone calendar announcements to Steve Bibus - 374-1612.

Advertising

Direct Advertising inquiries to our co-ordinator Eric Holterman at:
PO Box 8266
Minneapolis, MN 55408 612-822-8528
E-Mail: Source, BBR490; CompuServe, 71445,400

Newsletter Publication Staff

Director & NL Editor	Daniel B.Buchler 13516 Grand Avenue S. Burnsville, MN 55337	890-5051
Assistant NL Editor	Jo Hornung	922-7665
Contributing Editors	Arsen Darnay	933-0399
	Tom Edwards	927-6790
	Steve George	935-5775
Composition/Layout	Joan Kistner	
Advertising	Eric Holterman	822-8528
Mailing Coordinator	Hugh Kurtzman	

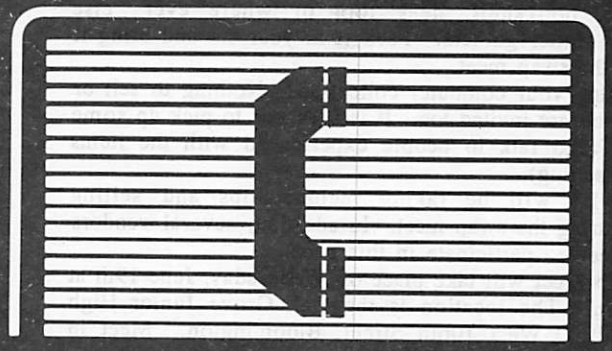
In This Issue

Announcements.....6
BPI Speed Reading.....by Gavin Clarkson of Apple Dillo...7
Cheap Ribbons.....by Dick Wigand.....19
Classified.....26
Database?][s, //es, //cs & Macs.....by Tom Edwards.....20
Fried Chips & Beer.....by Mike Adams of Apple Dillo....16
june DOMS.....by Steve George.....14
IACDOM #45 }
Blankenship DOS }
Mini'app'les DOM #36 }
Lexicom 3.0.....by Stuart Greenfield of Apple Dillo 18
Mac DOM mini'app'les
MacDOM #12 and #13.....by Curtis Juliber.....22
Mac NEWS
MacSIG Sweats It Out.....by Tom Edwards.....21
MacErrors.....by Tom Edwards.....24
MacTip: Addressing Envelopes.....by Tom Edwards.....24
Magic Office System.....by Dick Marchiafava.....9
Map of Meeting Place.....26
Newsletter Index.....by Ron Androff.....25
Ribbon Re-Inker.....by Bob Pfaff.....19
So, You Want to Communicate.....by Jan Wind.....17
Wiz Bang Pack.....by the Frito Kid of Apple Dillo....13

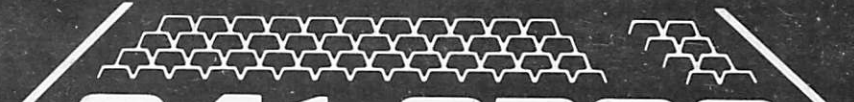
Advertisers

City Desk Computer Warehouse..27
Checkmate Technology.....8
Computer Buying Service.....3
Computer Broadcasting Co.....19
Connection, The.....5
Daytons (Repair Service).....14
Haba Systems.....23
Hagen Office Equipment.....7
House of Forms.....20
Mini'app'les Software.....12
MultiTech Systems.....2
P.C. Supplies.....13
Telesoft Marketing.....16
You Can Count On It.....18
Yukon Computer Products.....BC

FINDERS KEEPERS IS BACK!



The Connection®



941-9300

300/1200 baud Modem phone no.

get the facts

Questions? Live Operators at 922-9000

Announcements

Mac SIG mini'app'les

by Dan Buchler

A report by *Tom Edwards* on the April MacSIG meeting is detailed elsewhere in this newsletter. We are continuing our twice-a-month differently flavored monthly meetings of the MacSIG. The alternate meeting, is being organized by *Vicke Lettmann* (922-5659) and *Steve Bibus* (374-1612), and is targeted "for the rest of us". The name of this subgroup is the **MacSIG NTU** (Non- Technical Users.) See calendar for dates and topics. Please note that on June 24, Lotus have volunteered to come and demo Jazz at the main MacSIG meeting.

first annual swap meet

Regular Meeting

by Dave Laden

It may not be "regular", but it is a meeting, it's SWAP MEET!

The culmination of spring cleaning has arrived. Time for the first annual Mini'app'les swap meet. We hope all of you have been cleaning your computer corner, closet, cupboard, bookshelf, desk top, or where ever else computer clutter gathers. Pack it in your car and bring it down to the swap meet.

Just starting your computer collection? Nothing to sell or trade? You are invited too. It is a chance to pick up some bargains (and talk to people experienced with the items they are selling).

Mini'app'les will be taking memberships and selling DOMs during the swap meet. In addition, several vendors have agreed to participate in this event.

The Swap Meet will take place on Wednesday, June 19th at 7:30 p.m.. The location is the Oak Grove Junior High School, 1300 West 106th Street, Bloomington. Meet in the cafeteria.

The board has established the following guidelines for the swap meet:

1. Only members will be permitted to bring items to sell or trade. Bring your membership card for verification (NOTE: a copy of your newsletter with mailing label is also acceptable).
2. For those bringing software, only original diskettes with associated documentation will be permitted.
3. Tables will be provided on a first come first serve basis, for those bringing merchandise to display.
4. Each member will be responsible for pricing their own merchandise, attending it during the meet, and collecting any money due.

Doors will open at 7:00 to allow setup by those displaying merchandise. The swap meet will officially begin at 7:30 p.m.

Vendors who are interested in participating in the swap meet should contact Dick Marchiafava at 572-9305.

We'll see you at the Swap Meet!

Update on Regular Club Meetings

by Dave Laden

JULY ⇒ Ray Douglas will be our guest for July. Ray is president of Computer Broadcasting Company and host of CBC's Computer Line talk show.

AUGUST ⇒ August will again bring a seminar format.

SEPTEMBER ⇒ We have tentatively scheduled a representative from First Class Peripherals to be the speaker for the September meeting. As you may be aware, First Class markets the Sider, a low cost 10mb fixed disk drive for the Apple//computers.

From the BRANCH announcements NORTHWEST

by Jere Kauffman

At our June 25th meeting Mr. Mike Casey will demonstrate how to repair and maintain disk drives. THE NEWSROOM software will be demonstrated on August 27th by Member Stevie Johnson, and another demo of APPLEWORKS will be the main topic at the July 24th meeting. We will have a joint meeting with the Minnetonka Branch for this month. All friends in the Northwest suburbs are encouraged to join and participate in our Branch meetings the fourth Tuesday of each month at 7PM. Watch the Calendar of specific topics and meeting location.

NORTHWEST BRANCH CALENDAR

June 25 How to Repair Disk Drives by *Mike Casey* at the Rockford Road Library

July 24 Appleworks Demonstration (Wed.!) Combined meeting with Mtka branch at Ridgedale Library

August 27 Newsroom Demonstration by *Stevie Johnson* at Rockford Road Library

investment SIG

by Eric Holterman

Our summer schedule is a bit light, but more than last year's. Meetings will follow the regular Mini'app'les meetings on the third Wednesday of the month, except that there is no meeting in June due to first annual Swap Meet.

July will be an informal discussion group following the main speaker. August will provide an introduction for new members and hopefully a software demonstration. September should see us resume our freestanding meetings.

The response to the call for interest in a contest in last month's newsletter was nil. No contest.

Announcements (continued)

One of our fall meetings is tentatively scheduled to be on broker computer services and access. If you now use, or have used, any direct link with your broker, please contact me. We need your experiences to make this meeting meaningful.
Your input as to what you would like to see at our meetings is always welcome. Also, if you use a program you would like to demonstrate, please contact me so we can make the proper arrangements.

business SIG

by Dick Marchiafava

Summer Meeting Schedule

The Business SIG will commence the summer meeting schedule in June. We will gather after the main club meeting for an informal meeting in an adjacent room. Summer schedule dates are June 19, July 17 and August 21st.

vendor contact

Any vendors desiring to be at meetings may make arrangements for scheduling and reservations by contacting *Dick Marchiafava.* Dick may be reached at 612-572-9305.

This includes vendor reservations for the June Swap Meet to be held at Oak Grove Jr. High.

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

BPI Speed Reading

A software review

by Gavin Clarkson (Apple Dillo User Group, Texas)

Summary

Program:	Speed Reading
Purpose:	Increase Reading Ability
Equipment Required:	48k Apple][,][+, //e, Disk Drive, Monitor
Optional Equipment:	Printer, Second Drive
Suggested Retail Price:	$99.00
Rating on scale of 1 to 5:	4
Publisher	BPI Systems, Inc. 3423 Guadalupe Austin, TX 78705 (512) 454-2801

Review

Well, so you want to read faster. That's understandable. A faster reader has many advantages in this fast-paced world of ours. If you are willing to shell out the money, this program is one of the best speed-reading teachers (non-human, that is) that I've seen. All of the theory involved in the teaching and understanding of *speed reading* is told very simply and plainly, and the actual teaching is on a self-paced step-by-step program. There are basically 7 different skills taught, each one leading into the more advanced skill. This skills are: reading words in groups, eye fixation patterns, reading a line at a time, reading a page at a time, reading printed material, scanning paragraphs, and scanning pages. Each of these skills can be taught and repeated as many times as the user likes.

Speed Reading offers many different reading titles, many from local authors. After a certain file is read, a comprehension test is given (it doesn't do you any good to read at 5 million words a minute and not remember or understand anything you read, does it?) and a score is registered.

Another feature is the ability to write your own reading material. This can be done with any word processor that uses text files. This would make it especially useful for classroom use.

Included in the manual are printed copies of the files on the library (text storage) disk as well as the accompanying comprehension tests. This way you can test your reading ability with normal printed material.

Speed Reading is written in Pascal, but uses the Graphics screen for text so that 80 column cards don't cause it to mess up. It is fully unprotected, and the manual (very well written, by the way) even takes you through the copying procedure.

The one drawback to this program was its high price (it has recently been reduced from $195 to $99), but then again, a human taught class is sometimes more than $300. So it all comes down to whether you want someone else teaching you on a one-shot basis, or do you want a computer to help you and keep helping you as long as you need it to.

How To Improve AppleWorks even on a][+!

1. *Run AppleWorks on **ANY** Apple with* MULTIVIEW™

Simply add the MultiView 80/160 Card™ and a joystick to your Apple][+ or Apple compatible and you too can run AppleWorks!

Appleworks Support At No Charge

MultiView is the ***FIRST*** video card to offer AppleWorks on the][+ and //e. Every MultiView comes with a preboot to let you see a letter quality 80×24 MultiView display with AppleWorks on a //e ***AND***][+.

Seven Easily Read Screen Sizes
(MultiView does more than just run AppleWorks)

MultiView displays 80×24, 80×32, 80×48, 96×24, 132×24, 132×30, and 160×24 screen sizes on almost any monitor along with 12 attribute sets, including bold and underlined characters. An exclusive "wide-angle" feature makes MultiView's easily-read screens even easier to read.

Super Spreadsheets With MultiView

Imagine 132 or 160 character wide spreadsheets able to show more than a year of financial figures on one screen ***WITHOUT SCROLLING!*** Try a wide screen size once and you'll never want to go back to ordinary 80-columns. The Universal Spreadsheet Preboot supports 6 popular spreadsheets in 7 screen sizes with more spreadsheets to come.

Word Processors Too

Apple Writer and other word processors can use MultiView's larger screen sizes to let you see on screen ***EXACTLY*** what your printout will look like... no matter if you are printing in elite or condensed type. And of course Apple][+ owners can use the latest //e ProDOS versions of Apple Writer on their][+ with the Apple Writer Preboot — another first!

Works In The //e And Enhanced //e

MultiView works in any slot. In slot 3 it works with any extended memory card in the //e's auxiliary slot.

Saves Your Computer

Low power design uses 25% less power than the competition's product — a must to avoid overworking your power supply.

See the difference MultiView makes... ask your dealer to demonstrate MultiView today. $349.95.

2. *Expand the Apple //e from 64K to 1.5 megabytes with* MAXIRAM™

Has AppleWorks warned "Desktop Full" or have other programs said "Out of Memory" too often? Then you know a fixed 64K extended memory card just isn't enough.

Add Memory When You Need It

MaxiRam solves memory shortages with a whopping 1.5 megabyte capacity that you can grow into.

Buy MaxiRam from your dealer with as little as 64K or as much as ¾ megabytes.

Easily add memory at any time up to ¾ of a megabyte or, with an optional extension card, up to 1.5 megabytes.

AppleWorks Support At No Charge

MaxiRam comes complete with an Appleworks desktop expansion program allowing desktop space of over a megabyte and ram fast program speed.

Megabytes Without Spending Megabucks

MaxiRam's prices are as reasonable as MaxiRam is expandable. MaxiRam 64K and 128K prices meet or beat many ordinary 64K memory card's prices.

64K $159.95	512K $599.95
128K $219.95	¾ Meg $799.95
256K $369.95	

You can even recycle your old extended card's memory and add its 64K chips to MaxiRam.

Direct Replacement For The 64K Extended Memory Card

MaxiRam fits into the auxiliary slot and is 100% compatible with all //e software, displays 80-column video, and supports double hi-res graphics.

Designed for Greater Processing Power

Exclusive to MaxiRam is a built-in CPU port permitting direct linear memory addressing, up to 1.5 megabytes, by 16 bit microprocessors from the 8086, 68000, and 65816 processor families.

RGB Plus More

An RGB ¾ Meg add-on card that attaches to MaxiRam, software for disk emulation and spreadsheet expansion, and a 16 bit co-processor card will be available later this year.

Ask your dealer for MaxiRam, *the expandable* memory card for the //e

Other Fine Products: **Zee80A Card:** Turns the Apple into a CP/M computer to run Wordstar, dBase II, Turbo Pascal, etc. Software not provided. $89.95
IIe-80RAM Card: Adds 64K of memory and 80-columns to the Apple //e. $129.95

Prices subject to change
International CIF Prices - Add 10%

Checkmate Technology, Inc.
509 South Rockford Drive •Tempe, Arizona 85281-3021
(602) 966-5802 U.S.A.
(800) 325-7347 Telex: 165-025 CEC PHX

ALL PRODUCTS MADE IN THE U.S.A. — EXCLUSIVE 5 YEAR WARRANTY

Apple is the registered trademark of Apple Computer, Inc.
Apple Writer, AppleWorks, Applesoft, and ProDOS are trademarks of Apple Computer, Inc.
dBASE II is the trademark of Ashton-Tate.
Turbo Pascal is the trademark of Borland Int, Inc.
Wordstar is the trademark of MicroPro Corporation.

Copyright ©1985 CHECKMATE TECHNOLOGY, INC.
All rights reserved

Magic Office System

Integrated Software For The Apple][,][+, //e, //c

A Software Review

by Dick Marchiafava

HARDWARE	Apple][family. 64K memory, 2 disk drives (can support 4 disk drives) and 80 column card required. Supports several popular printers. Lower case hardware desirable for][+.
OPERATING SYSTEM	DOS 3.3
COMPANY	ARTSCI
LIST PRICE	$250.00

Magic Office System is an integrated software package from Artsci in North Hollywood CA. The package has 5 elements; word processor, built-in spelling checker, spreadsheet, business graphics and the Clipboard.

I became interested in this software because it is the first integrated package which I have seen which works on the entire Apple][& // family of computers. There is (or was) another package for the Apple][which did everything using a graphics screen. Reviews of that package indicated it became painfully slow as files grew in size because of the extensive manipulations necessary to deal with text as graphics.

Magic Office System uses common office items as graphic similes for the elements of the System. File drawers represents the disk drives of the Apple Computer. Graphic icons are used extensively to represent the pads, folders, documents, and dictionaries which make up the Office System. I think they are very well done. The use of graphics does not extend to using graphic screens for text, therefore the Office System does not suffer from slow operation as file sizes grow. The Office System seems to be at normal speed for DOS 3.3 and the programming used. It does some things surprising fast, such as draw graphs and check spelling.

OfficeWrite, the word processor is a version of Artsci's Magic Window II. The built-in spelling checker is an improved and faster version of Magic Words. OfficeCalc is MagiCalc, a highly rated spreadsheet for Apple which has appeared under various names. OfficeGraph uses a spreadsheet like template to enter data to make bar and pie charts which can be displayed, stored or printed. The Clipboard is used to move information between modules.

This package does not include a database. This is fine if one does not need a database, if database needs are simple or if one needs a large and powerful database.

The Office System is supplied with 2 Program disks, a "Data Disk" which has the configuration and printer driver files, a well written manual, two reference cards and a plastic book-type storage case.

In use the System Volume (Program disk) remains mounted in Drive 1 (most of the time). Data disks are placed in the other drive(s). As supplied the Program disks will not boot. They must be "customized" to match the hardware configuration of the computer they are to run on. To get started one boots the "Data Disk" in drive 1 and answers the questions about the 80 column display and the keyboard to be used. An 80 column card in slot 3 on an Apple II+ or the Aux. slot on a //e is required. The cards supported are:

1. APPLE //e & //c 80 COLUMN
2. FRANKLIN ACE
3. ALS SMARTERM II
4. BIT 3 FULLVIEW 80
5. ELCOM SYSTEMS ESP 8024
6. NEPTUNE EXTENDED 80
7. VIDEO ULTRATERM 80 X 24
8. VIDEX VIDEOTERM
9. WESPER MICRO WIZARD 80
10. OTHER VIDEX compatible CARD

I selected the Apple //e video driver and it works with the Applied Engineering RAMWORKS card which I use as an 80 column card on my //e.

The supported Keyboard characteristics are:

1. Upper/Lower Case Apple //e, //c
2. One wire shift key Mod
3. UPPER CASE ONLY (][+)

When the choices have been entered from the two menus above, one is prompted the confirm the choices and to remove the "Data Disk" and insert the a System Volume (Program disk) in drive 1. The selected configurations are then written to the System Volume and saved.

The next step in configuration is to install a printer driver. The System Volume is booted in drive 1 and the "Data Disk" is mounted in drive 2. When the System comes up one GETs the volume in drive 2 and OPENs it. In the file drawer that one see open there are (from back to front) EMPTY FOLDERS, CALCPAD, GRAPHPAD, WRITEPAD, and three folders containing DICTIONARIES, PRINTER SELECTIONS and Sample Documents. Selecting and opening the PRINTER SELECTIONS folder shows 21 printer drivers available. This includes drivers for APPLE, EPSON, GEMINI, NEC, OKIDATA, DIABLO printers in various configurations as well as a selection of DUMB serial and parallel printer drivers. Select the suitable driver in the folder and press I (Install) and the choice is saved on the System Volume. The Office System is now ready to use.

The Program disks provided are copy protected, the "Data Disk" is copyable and should be backed-up. One should not to add any files to the System Volumes as these disks are nearly full, and the program needs some space to write status information as it runs. The "Data Disk" could hold more files, but it is probably not a good idea to use it for storage.

At this point one can pick up the tutorial and go through it to learn how to CREATE a DATA VOLUME (file storage disk), go through the various modules using the Sample Documents supplied and create some documents and folders of one's own.

The file drawer and folder simile allows easy file organization by storing named documents in folders which are also named. In operation the Office System guides one to file documents and will not allow one to leave a document open by mistake. Of course, it is always possible to turn the computer off with an open file in memory. Just like any software one will lose what was in memory (Oh, woe!). But if the folder and file drawer was

Magic Office System (Continued)

not closed and released before quitting the program, the Office System remembers where it was when it was shut off and looks for the Data Volume and Folder that was open. It attempts to bring one back to where one was before shutting down (can't do a thing about the file that was in memory though).

In other words the Office System prompts one to deal with files (store or trash) and to "back out" of the system. Some might consider "backing out" a nuisance, but it is only a few quick steps to do so. Also, it can be made to work for one by returning to where it left off if the intent is to pick up there. An ESC will cancel the prompt to insert a remembered data volume if one wants to proceed anyway.

After making a data volume for data storage one has an empty file drawer. In order to proceed it is necessary to get "NEW VOLUME STUFF" which is a folder in the System Volume. The System Volume is opened and the NEW VOLUME STUFF folder is selected to be copied. The System Volume is closed and the date volume drawer is OPENed and the NEW VOLUME STUFF folder is copied into the drawer with the PLACE command. When the copy is complete the NEW VOLUME STUFF folder will be in the drawer. EMPTY will put the contents of the folder in the data drawer and then all of the folders and pads are available.

Once a blank data volume has been made it could be copied using COPYA etc. in order to produce some data volumes which can be RENAMEd and utilized in the future. If one knows how to delete DOS from a disk an additional 2 tracks of storage can be made available on the data volumes. Also by TRASHing STUFF which will not be used in a drawer the storage space for documents is increased.

A data drawer can be customized for a specific application and need not contain the folders and pads which are not going to be used in it. For example, a drawer for a specific wordprocessing task could contain only one folder. In that folder can be stored completed documents, a user dictionary and a word processor document which has been formatted and made into a stationary pad.

To start a new folder one would TEAR OFF a folder from the Folder Pad icon, and then NAME the folder. A stationary sheet can be torn off a pad, LIFTed, the folder OPENed and the sheet icon PLACEd in the folder. Any combination of documents can be placed in a folder in this manner.

Once a folder is open and a document selected, file maintenance can be done without leaving the folder. The commands available at this point are OPEN document, LIFT to move, COPY to mark for copy to another drawer, TRASH, DUPLICATE document in the folder, RENAME document and MAKE PAD. The last command is very interesting and is also used else where. It makes a document or folder into a stationary pad which contains everything which the original document or folder did. An example of the use of MAKE PAD would be to setup a folder containing standard documents to be filled in for an employee record.

When the selection bar is on a folder or drawer icon the contents can be SORTed. This is handy to help bring order out of the chaos of file listings that develop as additional folders or documents are added. SORT places documents in front of folders, folders in front of pads, and pads in front of empty folders. Documents and folders are sorted alphabetically.

When a folder is MADE the user is prompted to name it. The same is true when a sheet of stationary is torn off a pad. Any combination of document sheets can be placed in a folder. Another folder can even placed inside a folder. By naming folders the user is making a directory, naming and placing documents in a folder is equivalent to making a sub-directory. I don't know what to call it if a folder with documents in it is placed in a folder which also has documents in it. Perhaps someone can figure out the proper nomenclature for that kind of file directory organization!

An excellent part of Office System is the way that it guides the user to deal with filing the documents created or modified. In order to proceed to another task the user is prompted to file or trash the document that is in memory. Office System will not let the user abandon a document which has been created or loaded in memory short of turning off the power.

The Magic Office System uses two types of computer files. The word processor and spelling checker use binary files which make for fast file handling. The spreadsheet, business graphics and clipboard sections use text files.

When an OfficeWrite document is complete it is time to proof for typos and spelling. A simple command to go to the main menu and select Check Document Spelling gets the speller running, fast. The main dictionary is not large, about 14,000 words. One may SET User Dictionaries in any folder and add to them. Any word processor document can be SET as a user dictionary. When SET, the notation in the right corner of the document changes from WP (wordprocessing) to SP (spelling). There can only be one user dictionary SET in a drawer at any time. However, if a new user dictionary is SET, the previous one used reverts to a WP document, but can be changed back to spelling later.

When checking spelling the Main Dictionary and a User Dictionary, if available, are automatically used by the speller. Words may be changed, marked as correct, ignored or marked for verification later. The corrected document is filed by the system. If words were indicated as correct the System will ask if it should update the user dictionary at the end of the session.

The word processor, OfficeWrite, shows its heritage but there are differences in commands and functions. It does many of the same things as Magic Window II, but it was necessary to search around to find the commands which had been changed and then learn them. Perhaps OfficeWrite is closer to Magic Window //e in features and commands.

With a new document sheet opened there is 25K of memory available for writing. This is a little over 8 pages of single spaced text. OfficeWrite does not appear to utilize additional memory on an Apple //e, //c. (This needs to be verified).

One of the features which I enjoy is the paragraph editing mode which is part of OfficeWrite. Paragraph mode works with GLUE, EXPAND and PACK commands. It is a nice touch as it will do the command and stop at the last line of the paragraph. This prevents over-running the end of a paragraph and expanding the last line or gluing paragraphs together. When repeating a line editing command it was possible to lose my place on the screen and do that.

Magic Office System (Continued)

I would describe OfficeCalc as a full implementation of Artsci's Magicalc. Many users are familiar with that spreadsheet under various names. I have used MagiCalc for some time and like it. There does not seem to be any change in the commands between the two versions. I was able to move right into OfficeCalc without learning new commands or procedures. OfficeCalc like is predecessor will utilize additional memory to increase spreadsheet size.

OfficeGraph is the business graphics module of the system. It uses what appears to be a spreadsheet template to input labels and data for graphing. Once data is in getting a graph is simple. The command /G (graph) give a prompt B or P? (bar or pie). The choice is indicated, return is pressed and the graph is drawn on the video screen, fast!

The time required to do the sample bar chart shown below was 5 seconds, the pie chart was under 10 seconds for the sample charts below. The charts were made from the tables shown.

The symmetry of the pie chart will depend on the characteristics of the printer which is used. The charts reproduced here were printed on a 3.5 year old Epson MX-80 with Graftrax+.

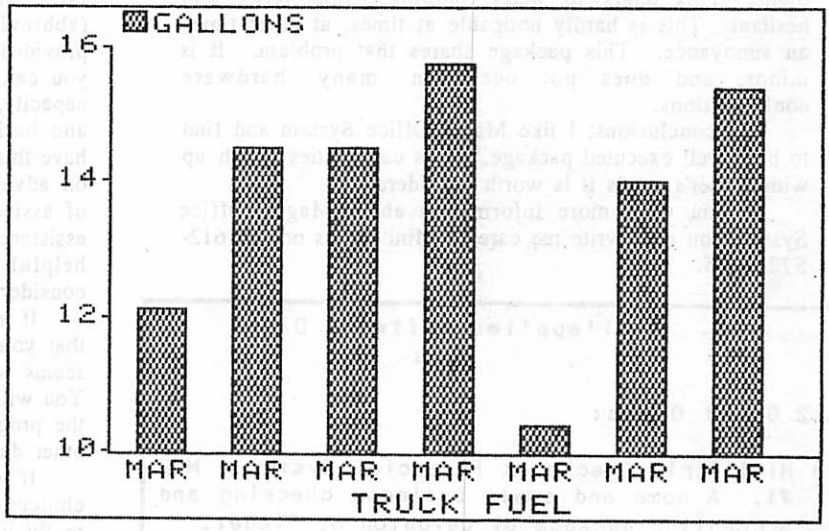
I have found that the bar chart that is made can be changed depending on which cell the cursor is placed before the graph command is given. This allows for a variety of bar graphs to be made from a set of data.

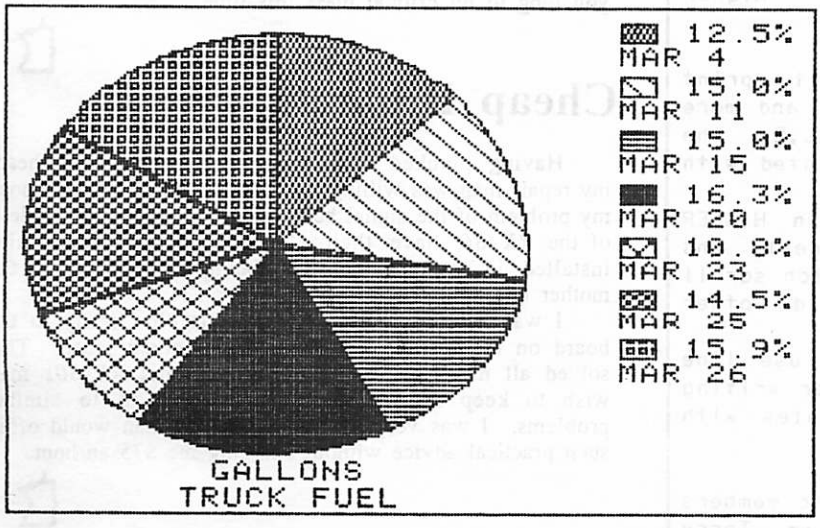
The graphic worksheet is 8 columns by 24 rows. Cell A1 is for the main graph title. Cells B1 through H1 and A2 through A24 are for bar/slice titles. A pie chart is limited to 12 slices. Scales and percentages are calculated by OfficeGraph.

The Clipboard can be used from OfficeWrite, OfficeCalc and OfficeGraph to merge information with other document. The desired data is marked with a control character to define the block to be moved and the command COPY RANGE TO CLIPBOARD will cause a text file to be written to disk under the name of THECLIPBOARD. The next step is opening the destination document and placing the cursor at the point where the data is to be placed. The command PASTE FROM CLIPBOARD completes the merge.

The data transfers that are possible are shown below:

TRUCK FUEL	GALLONS
MAR 4	12.1
MAR 11	14.5
MAR 15	14.5
MAR 20	15.75
MAR 23	10.4
MAR 25	14
MAR 25	15.1





OfficeWrite ⇔ Speller
OfficeWrite ⇔ OfficeWrite
OfficeCalc ⇒ OfficeWrite
OfficeGraph ⇒ OfficeWrite
OfficeCalc ⇔ OfficeGraph

GOTO 12

Magic Office System (Continued)

It is not possible to transfer the actual graphs to other documents because the system can not mix text and graphics on a text screen.

An interesting capability of the Office System is the ability to support 4 disk drives. This allows for some fancy file moving between data drawers. It is even possible to tell the System to GET a data volume and to specify a drive that is in use as the drawer to open. Of course, the data volume that is mounted must be remove and the new one inserted, and visa-versa.

I found that with my Apple //e and the hardware in it the Office System updates its video screen fast, at least compared to the MW II or MagiCalc on the now semi-retired Apple II+.

Any problems? Well, to some the lack of a database would reduce the utility of this integrated package. It would be nice if additional memory could be utilized by the word processor. Finally, there is the TAB RIGHT problem which I have written about previously in regards to Magic Window II and the Videx Videoterm 80 column card. Some 80 column cards intercept the TAB RIGHT command (Control-S) which is a SCROLL command to them. This tends to make tabbing Right jerky and hesitant. This is hardly noticable at times, at other times an annoyance. This package shares that problem. It is minor, and does not occur in many hardware configurations.

My conclusions; I like Magic Office System and find to be a well executed package. If its capabilities match up with a user's needs it is worth consideration.

If you want more information about Magic Office System you may write me care of Mini'app'les or call 612-572-9305.

Mini'app'les Software Disks
MSDs

2 Great Disks:

- Mini'Scrip Checkbook Financial System - MSD #1. A home and small business checking and accounting package by Leighton G. Siegel.
- Higher Text Extensions - MSD #3. Contains Higher Print by Dan Buchler, Message Maker by Charles C. Boody and Higher Word-processor by Don Hagberg.

Higher Print provides a high density print capability with a selection of fonts and more if you own Higher Text from A.P.P.L.E. The newsletter headers and logo are printed with Higher Text.
Message Maker requires that you own HIGHER TEXT. It serves as a tool to create and display, on your screen, messages which scroll up and down, left and right and do other useful things.
Higher Word Processor is a easy to use line oriented text editor suited to letter writing and everyday home use. It integrates with Higher Print.

All MSDs are available at meetings, to members only, for $15, or by mail from Terry Schoeppner for $17.50. See classified ads.

Database? (continued)

more detailed review. Just like too many cooks spoil the broth, too many products to consider bog you down with utter confusion and you will be searching forever. Don't be inflexible at this point, however. As you study deeper, you may uncover something about a new or initially bypassed program that is important enough to your needs that it should go on your active search list.

The reviews you encounter should weigh moderately well toward your critical mass point, but try to get collaboration from other reviews or actual users of the programs. I recall reading about several databases in a recent *Macworld*, a magazine respected by many MacUsers for its excellent content and high level of competence. The piece of the article dealing with **PFS:File/Report**, a program that I know and use, was generally quite correct and fair in its evaluation. Yet there was one fact that was wrong, and a feature of the program (virtually unique to PFS and extremely important for some applications), that was not even mentioned.

Your most weighty addition to critical mass comes from the final step, actually using the programs for a demo session of the two or three that have made the cuts thus far. If possible, set up a demo with your own (abbreviated) database, rather than just using a demo provided by the seller. Try as many of the functions as you can, looking for logical interfaces, ease of editing, capacity, on-screen helps, quality of instruction manual and backup policy. Don't forget that you will probably have this program for some time, and may want to get help on advanced techniques...who can you go to for that type of assistance? At this step, you might want to seek assistance from your favorite SIG or branch, looking for a helpful soul that uses the program(s) that you are considering.

If you've followed along with me thus far, you know that you are at "critical mass", or very close to it. If all seems well, go for it! Choose and reach for the wallet. You will be making a buy based on facts that should make the program very useful to you. It should do the job for other databases that you add over time, too.

If you still have that queasy feeling, you've got two choices: buy anyhow (with research to this point, you really won't be far off), or run through the cycle again, concentrating on your front runners with two or three second choices or new entries tossed in. It shouldn't take you long to hit critical mass this time.

Cheap Ribbons (continued)

Having plunked down hard cash for the print head, my repair man was willing to offer some free advice about my problem of the signal being garbled. The early models of the *RX-80* have their CPU (Main controller chip) installed in a clip rather than being soldered on to the mother board.

I was advised to try pressing this clip firmly to the board on the assumption that it had worked loose. This solved all my problems. Owners of older *RX-80s* may wish to keep this in mind if they run in to similar problems. I was very pleased my repair man would offer such practical advice without charging me $75 an hour.

The Barkovitch Wiz Bang Pack 6 in 1

by The Frito Kid
(Apple Dillo User Group, Texas)

Overview of Program

This package for the (COMPUTER NAME) is a collection of utility programs for reading and writing disk sectors, finding strings in memory and displaying memory. It is published by *Dave Barkovitch*, 2400 Whittier St., Rahway, N.J. 07065. There are two versions available: a ROM card for $39.00, or disk for $25.00.

Documentation

There are 4 type-written pages, and documentation is also on the disk. I always seem to file my documentation in a place where I can not find it again. I like documentaion on disk.

Features of The Barkovitch Wiz Bang Pack

- Display free space on disk. Who needs it?
- Change the catalog command to CX. I don't like to change any DOS command, because Murphy's Law states the next program that I run will use the changed DOS command.
- Memory Dump. Here the dump has the ASCII characters on the left instead of the right. Why??? I am so used to seeing them on the right that I would get confused with this screen display.
- Find string in memory. This is a nice feature that I do use when I am trying to find all of the verbs in an adventure program.
- Hex to Decimal Calculator. Who needs it? When I am debugging a basic program, I do not want to lose the screen that has the pokes and peeks that I want to convert. My TI Calculator is much handier for this.
- I/O Tracer. This is really not an I/O Tracer.. it is a disk sector read or write utility, and has all the features that you need. You can edit the sector in ASCII or hex mode, set the track/sector in decimal or hex mode and restore the buffer if you make a mistake in editing.
- Printer support is for the MX-80. I do not know if other printers will work.

Conclusion

The only things that are worth anything in the package is the I/O Tracer and the string search in memory. The I/O Tracer uses some keys that are not of my choice, but I think I could live with them. At a price of $25.00, I recommend this package, not because of the features, but because of the price and documentation.

Best Buy

Bulk Disks 5 1/4"
DS/DD(min.10) 1.09 ea
SS/DD " .99 ea

Disk Storage
3 1/2"(10-25)$6-$12
5 1/4"(5-60) $1-$24

Paper $19.99
Clean edge 9 1/2x11

Labels
500-5000pkgs.$4.99-$16

PC SuppLy
893-0639

june DOMS

by Steve George

This month we have a real bonanza! Three (count 'em 3) new disks with origins ranging from the IAC, Personal Domain, and Mini'app'les. 'Nuff talk, lets have at it!!

IAC #45 (DOS format)

Jumping in with both joysticks and track-balls, we 'thoroughly' tested the IAC disk contributed by Joe Holt in CA. Joe includes many machine language routines for you to view and possibly incorporate into your own programs. But, the disk's highlight is his version of DEFENDER!

DEFENDER requires a joystick (or two CLOSE friends with paddles), 64k of memory, and is run when the disk is booted. Button 0 fires your laser (holding it down gives repeating fire), and Button 1 fires a smart bomb (3 to start with). Pushing both Buttons jumps you into Hyperspace for a quick exit from peril (where you return is as unpredictable as the original arcade game!) Excellent graphics, sound on/off (Ctrl-S), game pause (Esc), and saving high scores to disk, too.

Access to the individual ml routines on the disk is easiest gained by simply booting another DOS 3.3 disk and then CATALOGing this disk.

Full instructions are on disk.

WOULD YOU BELIEVE FAST, AFFORDABLE COMPUTER REPAIR?

Why wait 2 to 3 days for repairs, when our 12 trained technicians can insure fast, professional service. We service IBM, Epson, Apple and Panasonic computers, and Epson and Okidata printers. We provide convenient service at your own location* or you can bring your computer or printer direct to us. We'll even provide regular, scheduled service at your convenience. Extended service contracts available at reasonable rates. Use your Visa,® MasterCard,® American Express® or Dayton's Flexible, Furnish-A-Home or Invoice Account. For more information, **call 623-7123.**

*Within 7-county Metro area only.

DAYTON'S

COMPUTER REPAIR SERVICE.

© 1985 Dayton Hudson

BLANKENSHIP BASIC (DOS format)

Blankenship BASIC (BB) is an advanced, structured BASIC interpreter written to run on Apple][+, //e & c (including supporting 80 columns and the Delete key) and is in the category of Personal Domain software. That means that if you continue to use it, you are requested to pay the author (usually a nominal fee) for using the program. BB is 99% upward compatible with Applesoft. It provides true IF-THEN-ELSE logic, four types of LOOP structures, and you can DEFINE and PERFORM NAMED procedures. Built-in commands include:

SORT	SEARCH	RANDOMIZE	DEL.ARRAY
SWAP	VECTOR	BOXFILL	PRINT.USING
BOX	INSTR$	COLLECT	DRAW.USING
CHAIN	MERGE	SOUND	RESTORE.HERE

and many others including several new graphics commands. (The press release that I read indicated that there are nearly 100 commands available!) And, all TAB and PRINT commands work on the Hi-Res screen.

Line numbers are used only for entry and editing, as GOTOs/GOSUBs are un-necessary. A full, integrated Editor with Auto-Num and Renum automatically indents listings ala 'pretty-print'.

Print out the documentation and information file to learn more. John Blankenship notes that not all of the new commands are given in the demo-docs. To receive them 'all' send him $12.50 and use this version of BB (v2.6) or send him $25 and get the docs and the newest BB version. (The docs you receive are better but not quite the detail I'd like to see. Even with the full docs, plan on some time playing with this new language before you begin to feel comfortable with its usage.)

The following is an example of the style and syntax used with Blankenship BASIC direct from the demo-doc on disk.

```
1000 COMPILE
1010 WHILE A<30
1020   WHEN B=2 THEN
1030     PERFORM DOG
1040   ELSE
1050     A=B-1
1060     REPEAT
1070       A=B+1
1080       SOUND 100,50,1
1090     UNTIL I>20
1100   ENDWHEN
1110 ENDWHILE
1120 END

1130 DEFINE DOG
1140   FOR I= 1 TO 4
1150     PRINT I
1160   NEXT I
1170 FINISH
```

june DOMS (continued)

The little playing I've done with BB allowed me to come up with a short program which will print some of the commands for reference. To use it, boot BB, select menu item #1 or #2, type FP to clear memory, and then enter this program and RUN it. (My apologies to structured programmers everywhere):

```
1000  A= 3617
1010  B= 3263
1020  WHILE B < A
1030    C= PEEK (B)
1040    B= B + 1
1050    WHEN C < 128 THEN
1060      PRINT CHR$ (C);
1070    ELSE
1080      PRINT CHR$ (C)
1090    ENDWHEN
1100  ENDWHILE
```

Mini'app'les DOM #36 (DOS format)

This disk is nade up of a variety of financial and investment type programs. The majority are self-contained, individual programs to calculate a specific financial problem. About one-half of the disk is comprised of programs contributed to the group by Tom Alexander. His integrated programs are all connected through the main module DIVIDEND RECORDER. Tom's explanation is better than my own, and follows:

DIVIDEND RECORDER is a menu driven filing program which records all dividends received from securities.

The code is divided into five separate programs. These are named DIVIDEND PREFACE, DIVIDEND RECORDER, DIVIDEND RECORD, DIVIDEND REPORTS, AND DIVIDEND EDITOR. The random-access text file generated by DIVIDEND RECORDER is named DIVIDEND FILE.

The Main Menu consists of eight categories for the operator to select from. The Main Menu and the sub-menus are:

```
1. Index of Securities on File
2. Add New Securities
3. Record a Dividend
4. Review a Record
     1. Display Report on Monitor
     2. Print Report on Printer
     3. Review Another Record
     4. Return to Main Menu
5. Portfolio Reports
     1. Review Portfolio Yield
          1. Display Report on Monitor
          2. Print Report on Printer
          3. Return to Reports Menu
          4. Quit
     2. Review Total Dividends
          1. Display Report on Monitor
          2. Print Report on Printer
          3. Return to Reports Menu
          4. Quit
     3. Return to Main Menu
     4. Quit
6. Edit a Record
7. Quit
8. Initialize File
```

DIVIDEND RECORDER is begun by RUNning DIVIDEND PREFACE, the starter program. This program allows the operator to choose between a review of operating instructions or to go directly to the Main Menu on the DIVIDEND RECORD program, which is loaded and run by the DIVIDEND PREFACE program.

Because the accuracy of the yields and total dividend for each stock is dependent on the integrity of each of the items entered by the operator, a prompt will ask if the data are correct as entered in both option 2 (Add New Security), and option 3 (Record a Dividend).

As received, the DIVIDEND FILE contains some sample data which will show you how the data you enter will be displayed. The sample data for The Wrongcost Inc was purposefully entered incorrectly to show how the DIVIDEND EDITOR functions. The Wrongcost Inc's second dividend yield was recorded as 25%! There is something obviously wrong. But what? The only way to find out is to print the report on option 4 (Review a Record). This will show that the cost of the shares paid was $400, not $4000 as it should have been recorded. The situation is remedied by selecting option 6 (Edit a Record) where the error can be corrected. Try it. It works.

You are encouraged to review the instructions on the DIVIDEND PREFACE program. The correct syntax and other information is included.

Finally, I must report to you that I'm in the process of 'revamping' the DOMs, IACs, EAMONs, etc. While the Software Director is not the Software Dictator, unless I hear anguished cries of "nay", I plan on implementing the following generalization:

Pulling Eamons, IAC, and Personal Domain software from the DOM series (1-34) and placing them into their own categories. As created, the EAMONs are numbered, but we started issuing them with our numbers, then changed that so the numbering was closer to the original numbering but not the same, etc, etc....

Personal Domain will include all those favorites such as Diversi-DOS, Diversi-COPY, newly issued One-Key DOS, and this month's Blankenship BASIC, etc.

IACs will be issued in the format they are received. Where a Mini'app'les member is the originator and it has been previously issued as a DOM, if its identical, it'll probaby remain a DOM. If the info is slightly different, which ever contains more/better/current info will be used.

Therefore, it will be more inportant than ever to know which disk you'd like when requesting it (ie: 'the latest one' may not be what you really want). EACH of the categories will have its own numbers. This was decided because the DOMs are up into the 30's and the IACs are into the 40's already.

There (probably) won't be a DOM each month, but usually an IAC and a Personal Domain disk. DOMs will only be issued as material is received. I'm in the process of comparing what has been issued with the programs on the few disks I've received. Slow, but it will get done. If you have contributed and haven't seen your works published, please, give me a call. We may not have it, thought it was issued because of the name used, etc.

If you have complaints, suggestions, programs, etc, give me a call

FRIED CHIPS AND BEER

A SCIENTIFIC STUDY

by Mike Adams

(Apple Dillo User Group, Texas)

While I was wiling away my time one fine day, drinking beer and playing Sabotage, (they won), my naturally inquisitive mind inquired about the internal temperature of the Apple][e that kept letting those little burgers in their parachutes land and blow me up. "I must have a bad chip!" said I, "How else could I be missing so much after drinking so little?" So, in the true spirit of an Apple owner, I decided to conduct a scientific experiment! Fortunately there was an electronic thermometer at hand (left). Reaching out and grabbing it, I thrust the probe through one of those holes in the back of the computer. ("How nice of the people at Apple to leave those little holes for my experiment".) Discovery number one of the experiment was that, although the probe would fit through the slot, my hand would no. So, in the true scientific method, I ripped off the cover and groped about inside. After barely avoiding getting my fingers chopped off in the SYSTEM SAVER exhaust fan, I managed to stabilize the probe somewhere, scientifically, between slot 0 and the power supply. Ignoring the static arc that jumped from my finger through the modem and around the printer interface card to the power supply, I removed my hand and replaced the cover. By this time the little men in the parachutes were floating upside down and the helicopters were experiencing weird gyro-rotations that made them do loop-de-loops. Still, in the name of science, I bludgeoned on.

I had been shooting and missing for about fifteen minutes now. The thermometer read 93 degrees. Perhaps, I thought, my real problem was that it was not hot enough! I mean when "you're hot you're hot" and vice versa, right? I pulled the fan from its moorings and tossed it aside where it could cool the nose of my dog sleeping on the floor beside me. Just think, a new found market for the SYSTEM SAVER!!! Putting the dollar signs out of my mind and getting back to science (how boring...) I astutely observed the thermometer readings steadily climbing in front of my eyes. In just two minutes it had gone from 93 to 96. In another eight minutes the temperature was 98 degrees and the little parachute guys were trailing smoke as they sailed around, upside down, from right to left.

The cannon had given up firing by now and was experiencing a sub-atomic rearrangement in the third excited state of electron-photon emission. That's what we scientists say when what we really mean is that we were close to "the big one", otherwise known as a meltdown, right here, live, in Apple City. I was beginning to think that I would never live to see how scientists get going. Reaching back into my years of high school physics, not to mention cars and girls, I did what any well trained scientist would do. I pulled the plug. Unfortunately, there is an old saying in science--it is "expect the unexpected". We were still headed for meltdown. The internal temp. was 103 big degrees.

You are probably wondering just how it is that you were saved. I wish I could say that you had me to thank, but I can't. Thank my dog. She sneezed. I had forgotten all about that fan cooling her nose. (She has a very scientific nose.) Replacing the fan to its rightful spot, I powered up. The temperature scale immediately began to drop. The little guys in the parachutes reappeared and offered me candy and cigarettes, grateful to be alive. The jets passed overhead and dropped more beer. In five minutes the world was stabilizing at 95 degrees. The helicopters auto-rotated happily about the skies. In another ten minutes we were at 93 degrees and peace was declared!!

The moral of this story is if you drink, don't shoot. If you compute, get a fan. If you still miss the little burgers, try steerable shells.

This issue of Mini'app'les sets a new standard for newsletter production. All text was converted to Macintosh, formatted with *Microsoft Word* , and typeset with the Laserwriter on an AppleTalk network.

Telesoft Marketing

Specializing in quality APPLE & IBM software & hardware...

Free metro-area delivery...

24-Hour Support...

A Division of Arts & Farces Video

Stillwater, Minnesota

612-430-1629

So, You Want to Communicate With Another Computer?

by Jon Wind

You've got a computer. You've purchased a number of programs. You've invested a great deal of time and money. You're happy, but gradually you begin to feel somewhat constrained by the limitations of your current system. Not enough memory... Not enough programs... No one to ask those difficult questions... You find yourself wanting, and perhaps even needing, something more...

Have you considered using your computer to communicate with another computer system to gain access to their information? It's not difficult, but before you can do so, you will need to obtain four things:

1) A "TERMINAL EMULATING" PROGRAM –

This type of program enables your computer to "talk" to another computer.

These programs give your terminal the ability to translate messages to and from a specific language, or protocol, that the other computer can understand.

One of the most popular, and one of the oldest, protocols in use today is called asynchronous (ASYNC) or Start-Stop protocol. It is employed by so-called "dumb" terminals, e.g. Teletype-like devices. When a computer uses this teletype terminal protocol (also called TTY), a character is sent immediately whenever its key is struck. The other party sees the characters coming in one at a time, with varying amounts of time between characters. There is no elaborate synchronization needed between sender and receiver (hence the label "asynchronous").

There are many good terminal emulating programs on the market. Some of the more popular being ASCII Express Pro, Access II, MacTerminal, MacTEP, and Red Ryder. Most of today's programs have the capablity to download files to your disk, as well as upload files from your disk to another computer. Many can mimic other types of computers like DEC's (VT100) and various IBM's (3278,3270,etc..), and provide specific error detecting protocols for transmitting and receiving files cleanly. Some are very easy to use, and others, well...

Always read the manual that comes with the software **before** attempting to use it.

2) A MODEM –

Now that you've got terminal emulating program, you need something that will allow you to contact another computer remotely. You need a modem. Modem is a contraction of the words *modulator-demodulator*. It converts the digital signal coming from your computer into an acoustical tone which can be transmitted over your phone line to another modem at the other computer. That modem then converts the tone back into digital signals.

There are two main types of modems in use today: acoustical couplers, and direct connect. With acoustical couplers, you need to dial your number on a standard desk phone, wait for an answer, and then push the handset into a special set of rubber plugs on side of the modem.

With direct connect modems, you simply type in on your keyboard the number that you wish to dial, and your modem dials it. You never need to touch a telephone. Some of these modems even allow you to program into them the procedures you would use to gain access to a specific computer, so that they can automatically connect you to it. And if that were not enough, today's modems are quite small, often no larger than a small book.

All in all, most modems function pretty much the same. One big difference, however, is the speed at which they can transmit data (baud rate). Most common are 300 and 1200 baud modems, which transmit information at roughly 30 and 120 cps (characters per second), respectively.

Modem prices vary according to the data transmission speed and any special features (like programmability) which may be built into them. As a rule, the faster the modem, the greater its purchase price. It is important to note that, in the long run, it will be cheaper to use a 1200 baud modem than a 300 baud modem. Since the data is exchanged four times faster, your online connect time is shortened considerably.

Always read the manual that comes with the modem **before** attempting to use it.

3) A PHONE LINE –

Most any modem will work fine with the average home phone line, provided that it is equipped with modular jacks. If not, simply pick up a converter at your local phone center.

When your modem is in use, you will not be able to use your telephone. Your line will ring busy to all who try to call you as well. However, if you happen to have call waiting and someone calls, you will be disconnected.

4) A NUMBER TO CALL –

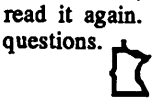
There are a number of free bulletin boards in the Twin Cities area. Many of these are listed monthly in the back of the Computer User (a free monthly magazine distributed throughout the Twin Cities).

If money is no object, there are a hundreds of informational services (sometimes referred to as databases) which can be accesssed using your computer. From these you can retrieve stock quotes, public domain software, weather forecasts, used car prices, local movie listings, case law, product catalogs, and so forth. Some services even allow you to transmit information (programs, electronic mail) to their system for the benefit of other users. Of course, all of this fun does have a price...

Prices and billing structures vary dramatically, but you can count on paying for "online connect time." The longer you're connected to their mainframe, the more you pay. There may also be a monthly "user's fee." In every case, you will need to contact the service **before** you attempt to sign onto it, in order to gain the access codes you will need to give to their computer.

More complete information on the more popular services, like CompuServe, The Source, MCI Mail, Dow Jones News Retrieval, and Dialog can usually be obtained from your local computer vendor. It's difficult to say if these, or any database will fit your needs. Ask around. The best recommendations come from current users, not brochures.

Well, that's it. Hopefully it made some sense. If not, go back to the beginning of this article and read it again. Still confused? Go to the next SIG, and ask questions.



Lexicom 3.0

A software review

by Stuart Greenfield (Apple Dillo User Group, Texas)

Summary

Program type:	File Conversion
Purpose:	Convert Dissimilar Files
Equip. Required:	48k Apple][,][+, //e Disk Drive, Monitor 2nd Drive for CP/M to DOS
Optional Equipment:	Printer, Second Drive
Suggested Retail Price:	$39.95
Rating on a scale of 1 to 5:	4 (no backup)
Publisher:	Micro-SPARC, Inc. P.O. Box 325 Lincoln, MA 01773

Review

And you thought all files created by Apple programs were equal. Well, for those of us who have had our Apples or Apple-compatible machine for more than two weeks we know that many programs create their own type file. This is especially true when dealing with word processors, the type of programs you would usually use when exchanging (either by disk or over a modem) information with another user. To our rescue has come Micro-SPARC with their *Lexicom 3.0*, "a fast, ease-to-use utility for converting word processing and text files so they can be used by other programs." *Lexicom* offers the user 13 file conversion options ranging from converting *Applewriter I* files to *Supertext* files, text to both Applewriter and *Supertext* and vice versa, random to sequential and CP/M to DOS 3.3 Text. This last feature is especially worthwhile when you need to convert a *Wordstar* file to a text file for submission to your editor. Two other features contained with this utility are converting program files created in Applesoft into text files or from Muse's *Robot War* game into standard Apple text files. Once this conversion is done the newly created text files can be modified within any word processor which utilizes standard Apple text files.

Having had to convert dissimilar files so that I could edit them for publication, I have found this utility to be most useful. For those of you who are upgrading from either older versions of *Supertext* or *Applewriter 1.1* the capabilities of Lexicom are most desirable. In my case, having the capability to convert CP/M files to standard text files is most useful. (All you *Wordstar* users can now send me your contributions and not have to worry about mine not having a CP/M oriented word processor.)

I find that *Lexicom 3.0* offers significant enhancements over version 2.0 at no additional cost. However, I do have one complaint about the program. In order for me to update (the cost was $5.00) version 2.0 to version 3.0, it was necessary to send my original disk back to Micro-SPARC. Since the disk is copy-protected this meant that I did not have use of the program while it was being updated. I mentioned this to David Szetela the author of the program and I think they will change their policy, since I do not think one should have to forego use of their program when it is being updated.

Micro-SPARC has provided users with a very useful utility for those who work with programs which create dissimilar file structures. If this is your situation I highly recommend that you include *Lexicom 3.0* in you library of disk utilities.

Tell Your Advertiser You Saw It Here

MX/FX 80 RIBBONS $3.50
MX/FX 100 RIBBONS $4.50
MAILING LABELS 5,000/$9.00

3515 Hennepin Ave. / Minneapolis, MN 55408
(612) 827-5448

Ribbon Re-Inker

What! Again?

by Bob Pfaff

Yes this is another article about ribbons. We all use them, at least I think we do if we use a printer. Looking through one of the last newsletters, I read about the E-Z INKER. I had to write this article to supplement what *Dick (Marchiafava)* told you. I think the article has a little humor, to the extent that you all might get a kick out of the situation.

I was one of the many who went to the fall computer show. There were two items which I wanted to get. One was a MOCKINGBOARD for my son *Tim*. The other was a re-inker because we are using two computers at home and two printers. I bought extra ribbons only to find out the ink appeared to have dried out, resulting in a darkness of print which was not the greatest. *Tim* and I checked all around, finding only one company selling re-inkers. We tried to use it. The salesperson was having some difficulty explaining to us why the ribbon kept falling out of place or why the crank wouldn't stay in place. To us it looked like a waste of money, especially for the electric driver that added another $100 to the price.

Being a tinker-er, I knew there had to be a better way. One weekend I had *Tim* bring out the box of Legos. Yes, the box of LEGOS. It didn't take me long and I did have a working ribbon re-inker, including the battery pack with electric motor. Now the adrenalin really got going. I had to have some ink, not just any ink, but the real stuff, DOT-MATRIX LUBRICATING INK. I called a few places including one that makes printer ribbons. I could get a mere 5 gallon can for about $140. Wow! What a price! There had to be a better way. There was. I dug through all the computer literature and there it was. I could get little 4oz bottles and they even came in different colors. I stuck with the BLACK. OFF went the letter and check to the supplier, BORG INDUSTRIES of JANESVILLE, IOWA. The wait began. Would they sell me ink even if I didn't buy a RE-INKER?????

I was scrapping some things at work and there was this little electric motor, 110 volt, with a output of 24 rpm, and very quiet. Could I build a real working RIBBON RE-INKER? Just a little board, couple 4x4 electrical boxes, toggle switch, shelf bracket, couple screws, some small pieces of plastic water pipe, and some felt from the shoe store. All assembled and ready to go.

NO INK. I checked, and it was December 10, 1984, when the order was sent. It was now January 4th, 1985. They wouldn't send the INK? Wait! The mailperson delivered a package on the 5th. Yes, there was the INK. Would it really work??? It was the night of the DAKOTA BRANCH meeting. *Tim* was demonstrating a program and someone wanted a hardcopy. They could hardly read it. Behold, the ribbon re-inker to the rescue. YES, folks, YOU CAN make a ribbon re-inker that works, not for $39.95 or even $139.95. I can't tell you the cost exactly. I did have change left from a ten dollar bill, and that included the ink, postage and all.

Cheap Ribbons

by Dick Wigand

A tale of penny pinching come home to roost

In which the writer admits to being cheap and pays for it! My *RX-80* print head had started to leave a blank line across the printout: One of the pins was not firing on to the ribbon. About the same time, the printer would, after an hour's use, suddenly start spewing out garbage. The signal was being garbled. I stopped by my local *Epson* dealer with my sample output and asked for help.

The print head on the *RX-80* can be replaced by the owner very easily, so I bought a replacement. Being a teacher, and curious, I asked if there would be any point to my opening up the old print head to see if I could find a quick (read cheap) fix I could apply myself. My repair man allowed as how the non-firing pin usually is not fixable and I had nothing to lose. "Besides", he said, "It might be educational to see what's inside." (My man is a comic). But he was right: The class loved it.

So I opened up the old print head and found it coated with cheap ink. Apparently, the no-name $3.95 re-inked ribbons I had picked up around town were the culprit.

Readers Take Heed: Trying to save a buck buying cheap ribbons cost me a bundle to replace the print head.

GOTO 12

NEW
Silicon Prairie
COMPUTER
LINE
with: Ray Douglas
Gary Finseth
And a cast of thousands-
Including you!
9-10 a.m. Sundays
WWTC am 1280
871-2608
Caller Line
Computer Line BBS 333-2541
ID = CBC

Database?][s, //es, //cs & Macs

by Tom Edwards

Considering A Database? People do a lot of shopping around. The quality of information collected during the initial research stage plays an important part in how much weight you assign to what you collect. And, of course, the item being contemplated determines a lot about what information you gather and how long you age it. There seems to be a point of "critical mass" that, when reached, triggers the "buy" program...your hand goes to your wallet (or purse), opens it up, and you tell the seller that you are ready to swap bucks for hardware/software, car, dishwasher or whatever. This point varies from individual to individual, naturally.

I'll do a lot of literature shopping when I'm looking for something. But often, even tons of literature will have but the weight of only a feather in amassing to my "critical point". I seem to give more credit to quality reviews, hands-on experiences, or recommendations of others.

One of the things often facing those of us bitten by the computer bug, is a major software purchase. Many times there are a multitude of possibilities for any particular task that we want to computerize. Compromise becomes the keyword...there may be a few real dogs that just don't stand up to what you need, but many will often do the job to a fair degree, some very adequately. It is unlikely that there will be a "perfect" candidate. There is likely to be a blister under the surface somewhere, though rarely fatal.

Our recent review of Mac databases is the reason that I have stepped up on the soapbox with the hope that I can perhaps give some assistance to those trying to weed out the field and make a choice for their own needs. No, I'm not going to name the "perfect" database...I've already said that I don't think it exists.

I do suggest that you start with a very good outline of what you want your database to do. Lay out your typical record on paper. Estimate the number of "fields", how long they will be, how many records you are likely to collect. Noodle out some imaginary reports, giving thought to sorts you may want, calculations needed, what you want to see and where you want to see it. This doesn't have to be super elaborate, but should be graphic enough that someone else can quickly get a feel for your most important requirements.

Balance your search with information from a number of sources. Get literature where you can, though this can be difficult at times, and is unlikely to answer all questions for you. Use this to cull out the stuff that lacks capacity or features that you need. Select a handful for

GOTO 12

House of Forms
• Snap-a-part and Continuous Forms
• Office and Data Processing Supplies
• Wedding Invitations
20 NO. 1ST STREET • MINNEAPOLIS, MN 55401
OPEN MONDAY thru FRIDAY – 8:30 - 5:00
Visa and MasterCard Accepted.

Mini'app'les Members Only
15% DISCOUNT On Any Purchase
This Discount Will Not Apply On Sales Merchandise Or With Other Discounts.
Ask About Our Continuous Postcards and Index Cards
CALL 332-4866
For More Information and Prompt Service

WE HAVE YOUR PRINTER PAPER
– IN STOCK –
• 11" x 9½" – 15# or 20# Paper – Regular Perf
• 50# Offset with Micro Perf Edges
Sold in quantities of 2000 per carton
Continuous Address Labels Sold in Large and Small Quantities
Also: MANY OTHER SIZES AND TYPES OF PRINTER PAPER (Stop in and see our selection), DATA PROCESSING AND OFFICE SUPPLIES.

MacSIG Sweats It Out

by Tom Edwards

Wow! April 22. But the atmosphere felt like a muggy, drizzly July evening. Especially in the Dungeon (really the lunchroom) at the PCA building, for the regular MacSIG meeting. Things got a bit on the warm side, as the meeting tore on, but all MacSIG'ers hung in there, sopping up the info, *and* the sweat.

Steve Baker and the MacDOM crew opened up sales with the newest of the new, DOM's #8, #9 and #11. There was a hush of anticipation, as the subject of #10 came up, but all of the info that we could get out of Steve was that "It ain't ready yet!".

Mike Carlson, our MacLeader, started off the meeting with announcements, the most important being that for the small effort of placing your name in a box, one might win a doorprize at the end of the meeting. Following with an admonition that those in attendance at the meeting should also be members of Mini'app'les, Mike barrelled into the meat of the evening by stating that the program consisted of two optically-related subjects, bar code and character readers for the Mac (and other systems, too).

Other announcements included:

- The University MacSIG will meet in St. Paul, on the 3rd Thursday of the month.
- MacSIG:ntu (non-technical users) meet the 3rd Monday of the month, at the Southdale Hennepin County Library.
- Gerald Gray offered MacFattening for $300. Other schemes were also proposed, in addition to the 256K chip swaparoo.
- Those having a problem with Ready-Set-Go are urged to empty the clipboard to gain access to the scrapbook.
- Bill Hutt was checking for interest in a keyboard template that would spell out some of the special key combinations.
- Modem Madness: People were looking for info on the PopCom, and Prometheus with options processor. One was experiencing mini-garbage with MacTerminal and the Xmodem setting; another was looking for info on how to upload to Compuserve.
- MacTransfer causes problems, or is confusing to some. Suggestions?
- Large documents, high quality output, and limited disk space cause problems with word processing programs. Cure is to use the "From... To" page setting to print in segments.
- Dollars and Sense has caused data fouling, especially on the 512K Macs. Check to see that you have the latest update, there have been some fixes.
- Those looking for ways to simulate the ibm keyboard should first try the "Command" key in combination with an alpha key. Might work for you.
- The squashed line on the ImageWriter came up again! Most feel the fix is to cycle the printer on-off, be very careful in aligning paper and clearing a smooth path for it, and take the "slack" out of the feed mechanism.
- The Switcher program is not yet perfect. Look for your FatMac to work like a multitasking computer when ready.
- Bill Engle warns that the HyperDrive will only be added to genuine Apple FatMacs or upgrades. Cost is about $1800 if you are Fat, $2500 if Skinny. Feeling is that prices may downslide on this unit soon, and that QC might be a bit erratic at the moment, due to heavy sales.
- Tecmar (a hard drive mfgr) is bouncing into Chapter 11. Caution is urged.
- MacCharlie does not yet live in the real world, not unusual, within this high-tech world. Some things seem to see the press of ink long before the light of day.
- Those looking to work Mac with ibm are recommended to *PC to MAC and Back*, or *MacLink*. They generally work.

Leading off the program, was *Pat Klise*, of **Impact Marketing**, representing the *Oberon Optical Character Reader*, a device made in England. It's a small light/pickup gadget that you manually track back and forth on a straightedge laid over the line of text that you want to "read". Text goes directly into your word processor, MacWrite, in this case. The keyboard is interactive, so you can be "editing" as you go, and selective about what you read. Currently, four of the common typewriter-produced fonts are recognized. More fonts will be added later, as will a "bad copy" recognition, allowing you to read off of copies that are less than perfect. The error rate is a low .5% (with good copy to work from) {.5% being low is a matter of opinion - Ed}. The unit signals with audible tones to help you keep track of status. Input can reach 150 wpm, using the text mode. Speed goes up, and errors down, if you can use a "numeral" mode that does not have to recognize as many characters. The primary guide rule works on an 8" wide page, but an accessory rule allows 13" width. The rules are really just for convenience; with a steady hand, you can freehand the entry.

Our second program portion was presented by *Scott Olson*, principle of the 3 month old **Auto Exec Company**. Scott has been working with bar code readers for some time, and now is anxious to sell their benefits to other computer users. He has put his words to the test, by using the products that he sells to help automate his sales tracking and followup with customers.

Several different "codes" are available; speed and depth of the info to be transferred usually determining what is most appropriate. A small "wand" is used to read the code, using a light source to bounce the pattern back to the wand where it is "read". Scott showed several configurations, the most intriging being a "cordless" wand that had an 8K memory to capture the characters read. You then placed this into a holder that downloaded the memory and passed the info to the computer via RS232 connection. The (hardcopy) code can be generated by simple dot matrix printers and applied to the items to be "read". As a special treat on applications, Scott demonstrated a simple "Speak and Spell" that was triggered by the wand reading the code, and then "spoke" the instructions that had been entered!

MacDOM #12
Telecommunications

June 1985

previewed by Curtis Juliber
and Steven E. Baker

Hey, Mac user.....want to reach out and touch someone? Well, with all the telecommunications goodies on this MacDOM you'll surely have the chance!!

For openers, we have the shareware program **RED RYDER** (version 5.0) complete with documentation. Please note that the documentation is for version 4.0 but you will not find any appreciable differences except the ability to receive files in the new *MacBinary* format (more on this in a minute). Remember that the author requests a license fee if you decide to use the program. Further information is on the disk.

The program entitled **PRETTY GOOD TERMINAL** is a VT100 emulator with Mac to Mac and XMODEM file transfer protocols. This is another shareware program complete with documentation.

One gripe about MacTerminal, when used with the Apple modem, is the lack of an auto re-dial feature. Well, cancel another gripe! The desk accessory **AUTO DIAL** takes care of that problem. Documentation is included on how to install the program on your disk.

The latest version of **MacKermit** (version 2.2) is also included on this DOM as is **TOPPER** and **VERSATERM** version 1.0.

We mentioned earlier a new transfer protocol called *MacBinary*. This is a newly created standard format for Mac file transfers which allows complete Macintosh documents (MacPaint pictures, applications, desk accessories, etc.) to be transferred to or from any system that supports some form of 8-bit transparent file transfer ie. XMODEM, Kermit, CompuServe A or B. It permits direct transfer of any Mac document without the need for conversion. A finished document will appear on the desktop complete with its own ICON. Another nice feature of *MacBinary* is that programs will usually take 25% to 50% less time to transfer.....which alone should do wonders for your phone bill.

MacBinary is currently supported by Red Ryder version 5.0 and by another terminal program **FREETERM** which is also on this disk. For those of you with Macterminal, expect to see an update to this program which will allow you to use the *MacBinary* format. Until then, *MacBinary* files must be converted with **BINHEX 5.0**, included on this disk as well. You can easily recognize a *MacBinary* file as compared to a file transferred in other versions of Binhex. *MacBinary* file names have the suffix .BIN as compared to .HCX or .HQX.

One last note. There is no system file on the disk so you'll have to boot up from another. Now, reach out and call someone!!

MacDOM #13
Educational Software

June 1985

previewed by Curtis Juliber
and Steven E. Baker

This month's MACDOM contains educational software from *Stanford University's Macintosh Users Group*. It is geared to the college age crowd and those of you who wish you were.

For openers, teachers will appreciate the program **GRADES**. This program will accomodate up to 24 students and do things like calculate averages of exams, sort the results by grade or by student, and even let you apply a weighting factor when you give an exam that no one seems able to pass. Documentation is on the disk.

SOC STAT contains several programs which compute various statistics on sological data. The program originated at Dartmouth.

DRILLS is a general grammar drill. **JULIA** is a plotting program which will allow you to plot a given function. The program **CONFORMAL MAP** is another program which plots complex functions. Documentation for this program is found under the file menu.

SIMUNET demos a Valiant-Brebner network (Anybody know what this means?). **VENN** allows you to study logical syllogisms using Venn diagrams. Chemistry buffs will appreciate the program **ORBITAL MIXING** which "depicts the molecular orbitals derived from two 2P orbitals overlapping in the PI manner."

SIMUTREE, a program out of Harvard, demonstrates a binary tree, AVL tree, and a self-adjusting tree. **WORM STAT** is a really nice statistical package which will plot and calculate the standard deviation, mean, Chi Square, normal curves, binomial curves and other goodies. There is no documentation on the disk but if you had a stat course one time in this or in a prior life, you should be able to figure this one out.

That's it for this month. We would like to put out a MACDOM of educational software for the younger set sometime in the future but we need some programs!! (Hint). As always your contributions are welcome.

MacSIG (Continued)

Our thanks to Pat and Scott for a very interesting evening learning more ways that computers can be used. Special thanks are also extended to Pat, by the winners of the doorprizes from Impact Marketing, including: Jim Colby, Ed Mikkola, Dan Buchler, Ramsey Smith, Tom Edwards and Keith Peterson.

As the Mac'ers filed out the door, Ramsey Smith pointed out a handsome MacSIG sweatshirt that a friend had designed and air brushed. They are available for $20 each. Contact Ramsey to place an order.

That made history of another gathering of the MacGroup. The sky had cleared, and the air, though humid, felt good and cool, coming through the open car windows, as I cruised south on 35W, heading for home

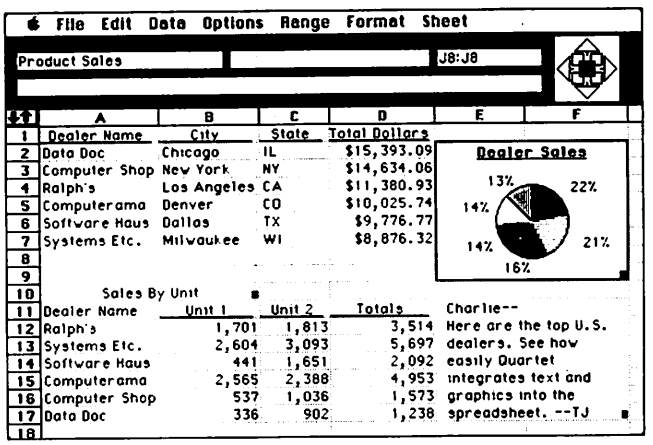
Quartet for Macintosh. The spreadsheet that foils even the best laid Multiplans®

Quartet™ from Haba Systems
The integrated spreadsheet that takes full advantage of the Macintosh's™ power.

Featuring...

- **Spreadsheet**
- **Graphics**
- **Text Editing**
- **Data Listings**
- **Runs on 128K or 512K Macintosh**
- **No External Drive Required**

...and retails for under $200!



	A	B	C	D	E	F
1	Dealer Name	City	State	Total Dollars		
2	Data Doc	Chicago	IL	$15,393.09		
3	Computer Shop	New York	NY	$14,634.06		
4	Ralph's	Los Angeles	CA	$11,380.93		
5	Computerama	Denver	CO	$10,025.74		
6	Software Haus	Dallas	TX	$9,776.77		
7	Systems Etc.	Milwaukee	WI	$8,876.32		
8						
9						
10	Sales By Unit					
11	Dealer Name	Unit 1	Unit 2	Totals		
12	Ralph's	1,701	1,813	3,514		
13	Systems Etc.	2,604	3,093	5,697		
14	Software Haus	441	1,651	2,092		
15	Computerama	2,565	2,388	4,953		
16	Computer Shop	537	1,036	1,573		
17	Data Doc	336	902	1,238		
18						

Complete. Quartet allows you to create powerful spreadsheets, dynamic pie, line, and bar graphs, arrange data with primary and secondary sorts, and insert text areas wherever they're needed.
Fast. Quartet lets you work with all four of these functions on the same screen at the same time, so you increase your productivity, while decreasing your work time.
Easy. With simple pull-down menus, on-screen help windows, and sensible user interface, Quartet helps beginners to learn quicker, and experts to finish faster.

Now there's no reason for you to be limited to just one, single spreadsheet program. Quartet from Haba Systems - the revolutionary new integrated package that will let you get the most of your 128K or 512K Macintosh.

Because we all know that even the best laid plans can suddenly go awry. Even Multiplans.

**"CALL NOW FOR SPECIAL PRICING INFORMATION ON QUARTET!
BUY QUARTET — GET QUARTET TEMPLATES FREE!
A $49.95 VALUE!"**

hsi **haba systems**
15154 Stagg Street, Van Nuys, CA 91405-1026
(818) 989-5822

Quartet is a trademark of Haba Systems, Inc. Macintosh is a trademark licensed to Apple Computer, Inc. Multiplan is a registered trademark of Microsoft Corp. © 1985 Haba Systems, Inc.

MacErrors

Mad Bomber Strikes; Leaves Cryptic Code Clue

by Tom Edwards

I'm sure we've all seen it at one time or another. If you haven't, you really aren't using your Mac enough. It's that dreaded "dialog box", with the cartoon bomb that looks like something that Captain Hook would throw. You can almost hear the fuse sputtering away, and smell the acrid odor of the blackpowder. You want to run, but you know that this nightmare won't go away until you restart... hope that you have a recent backup, 'cause you don't stand a whistle of a chance of seeing what you were working on magically return to the screen and letting you continue.

Many have asked "What do the ID numbers mean?", thinking infinite knowledge will solve all. For most of us, knowing this is just Mac trivia, of no practical assistance in solving the problem. But to boost your Mac trivia score, here is the error message list, as published in Macworld's July/August 1984 issue (with added notations by *Tom Edwards*, to reduce the obfuscation level).

ID No. Message means:

1 Bus error (MTC had a flat tire)
2 Address error (Check ZIP code)
3 Illegal instruction (Ignore Mafia)
4 Zero divide (it's in Colorado)
5 Range check error (Watch your step!)
6 Overflow (Get the plunger...)
7 Privilege violation (She said NO!)
8 Trace mode error (Pencil broke)
9 Line 1010 trap (See sink trap)
10 Line 1111 trap (breakpoint, really!)
11 Hardware exception error (AC/DC)
12 Unimplemented core routine (Lazy)
13 Uninstalled interrupt (Plug it in!)
14 I/O core error (Apple went bad)
15 Segment loader error (Dropped a bit)
16 Floating point error (It sunk)
17 Package 0 not present (See Santa)
18 Package 1 not present (" ")
19 Package 2 not present (" ")
20 Package 3 not present (" ")
21 Package 4 not present (" ")
22 Package 5 not present (" ")
23 Package 6 not present (" ")
24 Package 7 not present (" ")
25 Memory full (Dumkoff!)
26 Bad program launch (Skuttle shuttle)
27 File system map trashed (Clumsy!)
28 Stack ran into heap (DWI arrest)
29 None (Wheew! We get a break)
30 Disk insertion error (Use hammer)
31 No disk insertion (Use bigger hammer)
32-56 Memory manager errors (GIGO)

Now. Feel better? I'm sure that we all know what to do when the stack runs into the heap. Call the insurance adjuster!

MacTIP: Addressing Envelopes

by Tom Edwards

Here's a technique that I use, when I want to print the address on an envelope to complete a MacWrite letter. Seems that everyone has a trick to do this, so one more suggestion shouldn't hurt. You might find it helpful.

- Save your letter in final form (if it needs to be saved) and then print it on your letterhead stock. Insert the envelope (a No. 10 size), positioning it close to the right side of the printer case. Roll the envelope past the printhead, into print position for the first line of your address. Flip the paper bail into place, and set the feed on "friction". Trick the paper-out switch into thinking there's no problem with paper length and "select" the printer.
- For the address, use the text directly from the initial part of your letter. Eliminate **all** text and blank lines **before** and **after** the address that you want on your envelope. Do the same for the date and any preceding tab, if it's on one of the same lines as part of the address.
- Your initial ruler probably has a "Tab" setting at about "5" (where the date was set)... that will simulate the **left** margin for the address on the envelope. (The left margin of the ruler should be close to "1"... just leave it.) Place the insertion bar at the front of each remaining line (the address) and insert a "Tab" keypress.
- With a bit of practice, this all goes quite fast. As you get into it, you find that you can shorten a stroke here and there: highlight and replace the lines before the address with a "Tab" and you've done two things at once. Or, keep the "Dear Ms. Jones:" at the start of the letter and change it to "Attn: Ms. Jones", positioning it at the lower left of the envelope by **not** moving it with a tab.
- If a long address line "wraps" when you "Tab" it, move the right margin, use smaller type, abbreviate, or reset the "Tab" a bit to the left to correct it.
- Print the address on the envelope. When you are done printing, click on the "Close" box. You will be asked if you want to save the changes. **You must answer "NO" to this, otherwise you will replace your entire letter with just an address!**

This reads a lot "busier" than it is in practice. However, I think you will find it quicker than other methods, and you don't get snookered up in problems with headers, since your first page probably is a "title" page, if you are using that feature. It also avoids saving an extra page that just contains the address with each letter, something still important to those of us without a hard disk.

Newsletter Index

by Ron Androff

A

Abstracts Jane Chatterjee Jun-22
Almost All About DOS Steve George Mar-23
Apple //c - a rumor Dan Buchler Apr-15
Apple /// Notes Rob Rosenberg Apr-11
AppleWorks a review John L. Hansen Oct-31
applewriter Glossaries Steve George Apr-16
ASCII Express Tom Vanderpool Jan-21

B

Binary Capture Steve George Oct-46
Binary Files Steve George Jan-19
Bit Twiddling
Comrex CR-II A printer review Gene Hatfield Jun-11
Bulletin Boards Steve George Aug-23
Bylaws Dave Laden Feb-20

C

Communications (from Bytelines) Dave Crounse Jul-22
COMPLEAT.BIN Update Steve George Jan-17
Copy Programs Compared John L. Hansen Oct-38
Cermetek InfoMate 212A Tom Vanderpool May-12

D

Daisy Wheeling Arsen Darney Feb-26
Daisy Wheeling A Federal Tax Model Arsen Darney Mar-9
Daisy Wheeling Faithless in Europe Arsen Darney Aug-16
Daisy Wheeling fish Story Arsen Darnay Oct-28
Daisy Wheeling The Lure of Code Arsen Darnay Sep-14
Daisy Wheeling Speed Arsen Darnay Apr-13
Daisy Wheeling WPL Arsen Darnay Jun-14
Dan Had A Dream Jo Hornung Mar-24
Dan on Printers Dan Buchler Apr-25
D.A.M. MacSoftware Steven E. Baker Oct-23
DataBase Apple'cations Stephen K. Johnson Jun-19
Doing it the HARD Way Scott L. Ksander Apr-18
DOM #28 Alan Peterman Jan-9
DOM #29 - Taxes Al Peterman Apr-17
DOM #30 Steve George May-9
DOM #31 Peter Gilles Oct-14
DOM #32 diversi-COPY S. George Oct-15
DOM #33 Peter Gilles Nov-12

E

Election Ballot Apr-29
Election Platforms Apr-29
Election Procedure Dave Laden Mar-7
Executive Secretary V A review Gene Hatfield Oct-40

F

For Beginners and Softalk Readers Jo Hornung Jan-16
FlashCalc Notes Gene Hatfield Dec-25

G

Get Wise Jane Chatterjee Jan-10
Gleanings in Hardware Dick Marchiafava Dec-13

I

In the Dog House with Beagle Bros Steve George Oct-49
Increasing Disk Storage (Part 4) Steve George Feb-12
Incr Disk Storage (Part 6) S. George Apr-23
Incr Disk Storage (Part 7) S. George Apr-23
Incr Disk Storage (Part 8) S. George Apr-23
Instant Slides Dick Marchiafava Jun-21
Insurance Botched Gordon Hamachi Dec-12
It's That Time Again Steve George Jan-23

K

Keep that Card Dave Nordvall May-13
Keytec Steve George Oct-47

L

Locksmith 5.0 - a review John Hansen Mar-18
Locksmith Dick Marchiafava Sep-17

M

MAC DOM Plea Aug-15
MacDOM #1 Steven E. Baker Oct-17
MacDOM #2 Steven E. Baker Oct-19
MacDOM #3 Steven E. Baker Nov-13
MacPaint Bitmap Format P. Rowley Dec-24
MacPlace Dan Buchler Oct-21
MacPlace Dan Buchler Nov-14
MacPlace Dan Buchler Dec-21
MacSIG Notes Tom Edwards Oct-20
MAC Summer Software Aug-20
Magic Window & Videx Videoterm Dick Marchiafava Oct-48
Mailbag Arsen Darnay Apr-24
Mailbag Arsen Darney Aug-19
Mailbag Arsen Darnay Oct-30
Member Profile - Stephen Cabrinety Patricia Cabrinety Jun-20
Membership Distribution Hugh Kurtzman Mar-14
Merge - A tutorial Tom Alexander Aug-20
Mice - (in Apples) Dan Buchler Jan-13
Mini'Scrip Errata Leighton Siegel Jun-24
Minutes Hugh Kurtzman Jan-18
Minutes Hugh Kurtzman Feb-25
Minutes Hugh Kurtzman Mar-25
Minutes Hugh Kurtzman Apr-26
Minutes Hugh Kurtzman May-25
Minutes Ken Slingsby Jun-25
Minutes Ken Slingsby Jul-25
Minutes Ken Slingsby Aug-20
Minutes Ken Slingsby Sep-17
Minutes Ken Slingsby Nov-21
MINI'SCRIP News Leighton Siegel Feb-18
MMEC '83 Jane Chatterjee Jan-15
Money Matter$ - Part 2 of a Review Eric Holterman Jul-16
More on WPL Tom Ostertag Nov-18

N

Networker A review Steve George May-26
Networker Update Steve George Jul-21
Networker Update Fixing bad Textfiles Steve George Aug-13
A New ScreenWriter A review Ken Slingsby Oct-37
News from Afar Dan Buchler Jul-18
News from Afar Dan Buchler Aug-22
News from Afar Dan Buchler Oct-24

P

the Paragraph-I - a review Ron Androff Jun-18
PFS - For Beginners Only Sandra Brockman Feb-13
Planning Pro-Files a review Susan K. Vaughn Jun-23
Printers - a tutorial from BASUG Bob Raikes Jul-23
ProPrint Review (Mac) Dan Buchler Dec-18
Puzzles & Prizes Ron Androff May-20

R

Rana 8086/2 Preliminary Details Dan Buchler Oct-42
Renumber - A tutorial Tom Alexander Jul-13

S

Service Policies (fro SAUG) Joel Armomin Jul-14
SpeeDemon Dick Marchiafava Nov-16
Stopping the Blinking Cursor Errata Mar-21
Subscription Woes Dick Marchiafave Nov-17

T

Talk About Support - Diversi DOS Eric Holterman Mar-16
Talk about Support Sierra On-Line Eric Holterman Oct-25
ThinkJet Review Ken Slingsby Dec-16

U

Ultraplan schtt L. Ksander May-11
Userfest/Chicago Steve George Jun-9

W

Which Dealer? Dan Buchler Feb-18
Wizard Interface Julian St. Martin Oct-45

Z

Zapper Steve George Jul-25

This is an index covering 12 issues of the Mini'app'les newsletter from **March** 1984 through **February** 1985.

CLASSIFIED ADS

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 Advertising 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**

Extended 80 column cards for //e only; $104.95.
Autodial/autoanswer modems with software; $134.95.
Software Plus.....560-4077

CITIZEN MSP-10 printers. New, in the box; 225. Serial input adapter card; $55. Parallel printer interface (for Apple); $65. CITIZEN men's dress watched (gold); list $310 and $135, sell for $100 and $45. Call Mike at:
Weekday Eves:.....726-2851
or at:.....(507) 263-3801

SOURCE MEMBERSHIP: Special membership promotion until June 15 only. Full membership, including 300 page manual; $20. ACT NOW!
Eric.....822-8528

THE APPLE CRACKERS PROUDLY PRESENT:
All-new **double-sided DOMS** - $4
106 EAMONS at only $3 each
DOUBLETALK Speech Synt. - $3
For more info, send a 22 cent stamp to: T.A.C., RR2 Box 106, Lake City, MN 55041.

WANTED to buy: PKASO Card (for Prowriter); Apple][firmware card (Autostart ROM) and serial card.FOR SALE: Microtek Dumpling-64 buffered printer card, $95.
Steve.....474-4356 (eve.)

DOW JONES News/ Retrieval Kit, including 5 hours unrestricted time on service; $25 to members (list $30). Call Don Steinkamp:
Home.....927-9763
Work.....341-4336

WANTED to buy: RGB color monitor interface for Apple][+.
Eric.....822-8528

EPROM DEVELOPMENT SYSTEM - Plugs into Apple][or //e. Programs 2508, 2516, 2532, 2716 and 2732 EPROMS. Fully menu driven, auto zero-check and verify of EPROMS. Like new for $70. HELP ON APPLEWORKS/ QUICKLOADER? I have a "QUICKLOADER" and an Applied Engineering RAM-WORKS and would like to place a TOTAL LOAD version of APPLEWORKS onto EPROMS, to be mounted on the QUICKLOADER. Anyone been this route? (Want a job?). Call Mike at:
Weekday Eves:.....726-2851
or at:.....(507) 263-3801

SCREENWRITER][word processing software with manual. Latest version. NEW and UNOPENED; $65.
Call.....474-8863

Macintosh Numeric Keypad. Box never opened; $75.
Call.....636-8500

Sensible Speller, Word Handler Version, perfect condition, bought from Jane Chatterjee thinking it would work with AppleWriter.....$40
Vince.....425-1603

ORDERING DOMs or MSDs

A reminder that Disks Of the Months (DOMs) and Mini'app'les Software Disks (MSDs) are available by mail: DOMs at $6.00 each; MSDs at $17.50 each. MacDOMs at $9.00 each.
Send your order to:
MINI'APP'LES DOM's
PO Box 796
Hopkins
MN., 55343
.....Attention DOM Sales Most DOM's and all the MSDs are available at club meetings Because of the volume of disks distributed, they are not tested. Club members are asked to make every effort to get the **DOM** or **MSD** running. For example, occasionally the DOS on the disk will be bad, but it will catalog OK and one can run the programs. Master Create on your System master disk will fix-up the DOS. Of course, if you have a disk with bad programs, we will cheerfully replace it!

Continuing Service for Mini'app'les Members by Chuck Thiesfeld

Members can order DOMs (not Mini'app'les Software or MacDOMs) using their own diskettes. Here is the procedure:

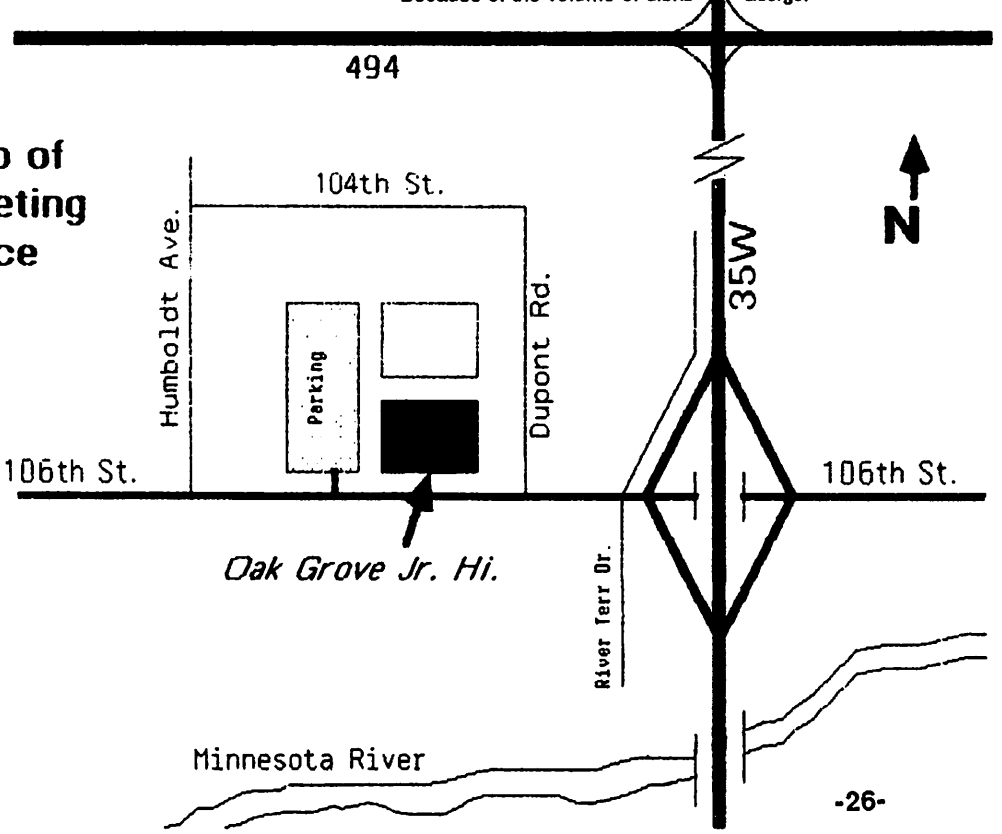
Make up a package containing the following:
1. Blank diskette (or diskettes if more than one is desired).
2. Mailer. Diskettes will be returned in same protective device used to send the diskettes, provided such will fit in the mailer.
3. Send correct postage in stamps -- do not send money in lieu of stamps.
4. Self-addressed return label.
5. $1.00 copying fee per DOM or disk.
6. A note indicating which DOMs are desired.

Send to:

C. Thiesfeld
8416 Xerxes Avenue S.
Bloomington, MN 55431

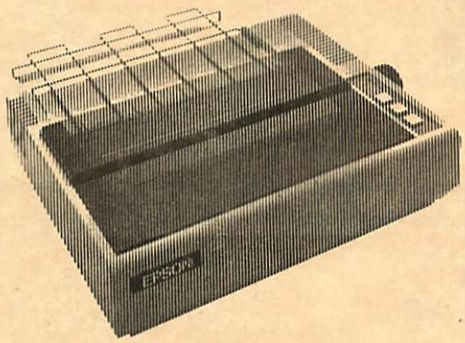
Please allow 60 days for delivery in USA. In-complete packages will not be returned. DOMs 1 thru 29, except 18, EAMON #3, and 8 Pascal disks are currently available. Mini'app'les Software disks (MSD) are not available! General questions about DOMs should be addressed to Steve George.

Map of Meeting Place



EPSON®

FREE Nutricalc Software and Chocolate Diskette with each RX Printer purchase (retail value $129).



Epson RX-80	$209
RX-80 F/T+	$239
LX-80	$285
FX-80+	$359
FX-100+	$479
JX-80	$489
LQ-1500	$899

Prices reflect cash discount.
Sale prices subject to quantities on hand.
Quantities are limited. Expires 5/31/85.

We will not be undersold on Epson Printers.

DISKETTES AS LOW AS $.79 (in quantity)

PREMIUM FEATURES:

- **Lifetime warranty**
- **Over the counter replacement**
- **Hub rings**
- **Tyvac sleeves**
- **Diskette labels**
- **Write protect tabs**

Single Side/Double Density

QTY	PER DISK
10	$.99
50	$.89
100	$.84
1000	$.79

Double side/double density also available.
Call for prices.

CITY DESK COMPUTER WAREHOUSE

164 North Blake Road, Hopkins, MN 55343 (612) 933-1771

Hours: M-F 9:30 AM–8:00 PM Sat. 9:30 AM–6:00 PM Sun. 12:00 PM–5:00 PM

Fast, low cost delivery available on all products.

yukon
computer products, inc.

EDUCATIONAL

MATH BLASTER	$39.95
WORD ATTACK	39.95
STATES & TRATES	35.95
ALGEBRA	31.95
FACEMAKER	27.95
ROCKY'S BOOTS	39.95
STORY MACHINE	27.95
METEOR MULTIPLICATION	26.95
KIDWRITER	27.95

$39.95

RECREATIONAL

FLIGHT SIMULATOR II	$39.95
SARGON III	38.95
SKYFOX	33.95
CONAN	31.95
SUSPECTS	34.95
WITNESS	38.95
CUTTHROATS	31.95
IMPERIUM GALACTICUM	31.95
SPY vs SPY	27.95

HARDWARE

1/2 HT DRIVE IIc	$233.95
1/2 HT DRIVE AP	159.95
MOCKINGBOARD C	168.95
MOCKINGBOARD D (IIc)	178.95
IIc SER. to PAR. MOD.	59.95
APPLE CAT II	222.95
64K IN LINE M'BUFFER	265.95
TWINPORT II	27.95
PANASONIC 1091 PRT.	299.95

Reminder ! Our Prices Include Shipping & Handling. Compare Our In-Store Prices With ANYONE !

BACKCHAIRS
$19.95

UTILITIES

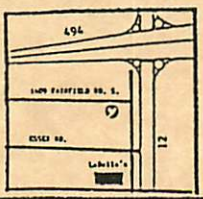
PRINT SHOP GR. #1	$19.95
MUSIC CONSTRUCTION	33.95
DOS BOSS	18.95
D-CODE	39.95
FAT CAT	27.95
TRIPLE DUMP	31.95
PRONTO DOS	23.95
PRGM. LINE EDITOR	38.95
SIDEWAYS	46.95

MILLIONAIRE	$ 46.95
MAC-PORT. MODEM	119.95
MACTOTE	89.95
MAXELL DISKS 3-1/2	39.95
MURDER BY THE DOZEN	35.95
SUSPECTS	34.95
TYPING TUTOR III	49.95
MAC-SWIVEL	27.95

M A C I N T O S H

DOLLARS & SENSE	$ 99.95
MEGAMERGE	97.95
MEGAFILER	149.95
PFS: FILE	89.95
PFS: REPORT/FILE	152.95
MICROSOFT BASIC	117.95
HAYDEN SPELLER	69.95
MAC BASIC INTERP.	117.95

COME VISIT FOR UNADVERTISED SPECIALS!!!!
1409 FAIRFIELD RD. S. - NEAR RIDGEDALE IN MINNETONKA
OPEN SAT 12 to 6 PM / SUN 12 to 5 PM
*CALL FOR FREE CATALOG WITH ITEMS FOR YOUR [APPLE & MAC]



yukon computer products, inc.
p.o. box 93 · hopkins, mn 55343

New Phone Number
612-593-1503

Mini'app'les
Box 796
Hopkins
MN 55343

Address
Correction
Requested

Bulk Rate
US Postage
Paid
Hopkins, MN
Permit 631