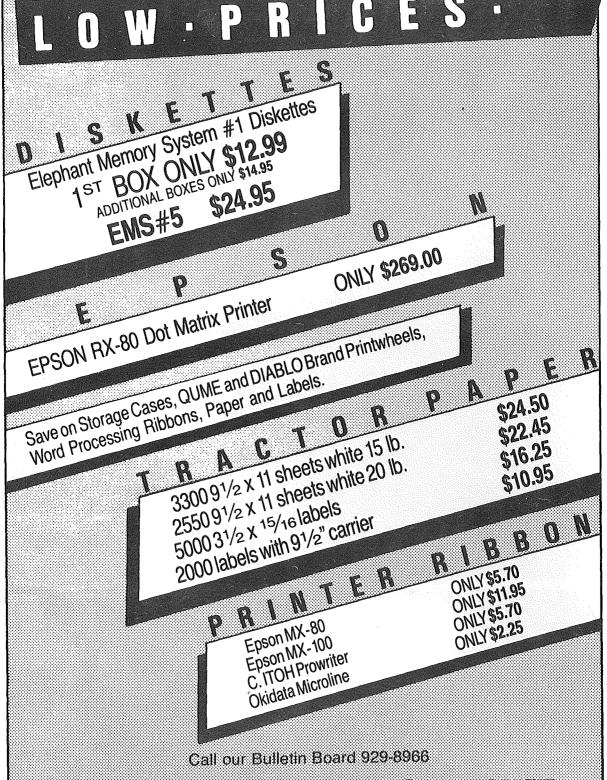


apple computer user group newsletter

| | | ě V | OLUME VIII No 4 APRIL 1985 |
|---|---|---|---|
| WHICH | WHEN | WHERE | WHAT |
| St. Paul Branch Note 3 | Tue Apr 2 7pm-10pm | Mahtomedi Fire House Hallam & Stillwater | |
| MacSIG Non Tech Users New Group! | Mon Apr 8 6:30pm | Hennepin Cty Library, S'dale 7001 York Ave. South. | Your favorite MAC book or magazine Note 17 |
| Dakota County Branch Note 7 | Tue Apr 9 7pm-10pm | St. John Neumann Church 4030 Pilot Knob Rd, Eagan | |
| Pascai & Apple /// Note 1 | Wed Apr 10 7:30pm | Minnesota Federal 9th Ave. S., Hopkins | How to use System Library |
| Business SIG Note 10 | Thu Apr 11 7:30 pm | St Paul Central High School Lexington & Marshall | Apple for large corporations by Erik Carlson |
| St. Cloud Branch Note 15 | Thu Apr 11 7:30pm | Waite Park City Hall 5th Ave. & 3rd St N. | SCSU bulletin board by Rich Josephson |
| Geneology Club Note 11 | Sun Apr 14 2:00pm | Minnesota Historical Society Library, St. Paul | |
| REGULAR MINI 'APP' LES Note 5 Map inside | WEDNESDAY APRIL 17th 7:30 pm. | OAK GROVE JR. HIGH SCHOOL 1300 W. 106TH STREET BLOOMINGTON | Election of 1985-86 officers. Seminar format begins this meeting. See announcements |
| Education SIG | Wed Apr 17 | During Regular Mtg. | Note 12. |
| Investment SIG Note 4 | Thu Apr 18 | | MEETING CANCELLED |
| Macintosh SIG Note 9 | Mon Apr 22 6:30/7pm | PCA Bidg., Co. Rd. B2 Roseville | Scott Olson on bar codes. See announcements for map. |
| New Hope Branch Note 16 | Tue Apr 23 7:00pm | Rockford Rd. Library New Hope | AppleWorks demo |
| Minnetonka Branch Note 8 | Wed Apr 24 7:30pm | Gien Lake Community Ctr. 14300 Excelsior Bivd., Room E | Swap Night |
| Board Dinner and Meeting | Wed May 1 7:30 pm | To be determined | All members welcome. Please call Dave Laden for reservations 488-6774 |
| St. Paul Branch | Tue May 7 | Mahtomedi Fire House | Note 3 |
| Pascai & Apple /// | Wed May 8 | Minnesota Federal | Note 1 |
| Business SIG | Thu May 9 | St. Paul Central High School | Note 10 |
| St. Cloud Branch | Thu May 9 | Waite Park City Hall | Note 15 |
| Dakota County | Tue May 14 | St. John Neumann Church | Note 7 |
| REGULAR MINI'APP'LES Note 2 Map next month | WEDNESDAY May 15th 7:30 pm. | University of Minnesota- St. Paul Bldg location in May Newsletter | Don Rawitch - MECC |
| Macintosh SIG | Mon May 20 | Hennepin Co. Lib., Southdale | Note 9 |
| Minnetonka Branch | Wed May 22 | Gien Lake Community Ctr. | Note 8 |
| New Hope Branch | Tue May 28 | Rockford Rd. Library | Note 16 |
| Notes: | (See page 4 fo | r telephone numbers) | |
| 1. John Schoeppner 2. Dave Laden 3. Fred Woodward 4. Eric Holterman | Mark Abbott Dan Buchler Bob Pfaff Dick Peterso | 10. Dick Marchiafava 14. S 11. Bill DeCoursey 15. F | tewart Haight 17. Vicke Lettmann teve George (922–5659) rank M. Ringsmuth ere Kauffman |

FAST·SERVICE· LOW.PRICES·



CPTY DESK COMPUTER WAREHOUSE (612) 933-1771

164 North Blake Road, Hopkins, MN 55343

WHY PAY MORE FOR GOMPUT PRODUCTS?

MODEMS

HAYES Smartmodem 300 \$209 Smartmodem 1200 419 Smartmodem 1200Bd 399 Micromodem II E (w/rebate) . . . 215 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 MULTITECH Multimodem Ile 199 Multimodem.PC 359 Multimodem HC 359 ZOOM Networker-Netmaster combo . . 135 DISK DRIVES Teac DS/DD (IBM Comp.) . . . 139 Asuka 1/2 hgt. (Apple) 165 Drive Control Card 45 DISKETTES 10 - 51/4" Floppy Diskettes (packed with a storage box)

sentinel \$21.00

X'Int 17.00 3M 22.00

Maxell 51/4" HD for AT

CALL FOR QUANTITY PRICING ON

10 OR MORE BOXES

\$24.00

19.00

26.00

55.00

PRINTERS

OKIDATA

| ML82 \$299 |
|------------------------|
| ML83 |
| ML84 689 |
| ML92 395 |
| ML93 609 |
| PANASONIC |
| KX-P1090 239 |
| KX-P1091 (120 CPS) 319 |
| KX-P1092 (180 CPS) 459 |
| KX-P1093 (160 CPS |
| wide carriage) 689 |
| SILVER REED |
| EXP 400 299 |
| EXP 500 |
| EXP 550 449 |
| EXP 770 825 |
| GEMINI |
| New SG 10 |
| EPSON Full Selection |
| LF JOIN Full Selection |

ACCESSORIES

SOFTWARE

| | Apple* | IBM* |
|---------------------|--------|--------|
| Symphony | | \$449 |
| Lotus 1,2,3 | | 310.00 |
| Wordstar 2000 | | 289.00 |
| Wordstar 2000 + | | 349.00 |
| dBase III | | 389.00 |
| Framework | | 389.00 |
| PFS-File | 75.00 | 85.00 |
| PFS-Write | | 85.00 |
| PFS-Report | | 85.00 |
| Cross Talk XVI | | 109.00 |
| Flight Simulator | | 34.95 |
| Dollars & Sense | | 119.00 |
| Turbo Pascal | | 45.00 |
| Turbo Toolbox | | 45.00 |
| Sidekick | | 45.00 |
| 0,001,00, 1.1.1.1.1 | | |

| MEMORY |
|--------------------------------|
| 10 MB Hard Drive System \$ 699 |
| 20 MB (IBM PC AT) 1127 |
| 64K RAM Kits + 20 |
| 256K RAM Chips 120 |
| Digigraphics |
| (CLK, 64K) 149 |
| (SP,PP,GP,CLK,64K) 199 |
| Quadram (PAR, SER, |
| CLK, GAME) |
| Ast 6 Pack (w/64K) |
| Apparat Expansion Boards |
| with 512K 279 |
| with 64K 139 |

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 |

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

| Yr. | D = 1 | P.O. Box / | 96, Hopkins, MN 55343 |
|---------------------------|------------------------------|--------------|--|
| | Board Members | 400 6004 | The state of the s |
| President | David E. Laden | 488-6774 | This is the Newsletter of Mini'app'les, the Minnesota Apple Computer |
| | 1215 W. Laurie Rd, | | Users' Group, Inc., a Minnesota non-profit club. Articles may be re- |
| n .n .i . | Roseville, MN 55113 | 401 7070 | produced in other User Groups' publications except where specifically |
| Past President | Chase Allen | 431-7278 | copyrighted by author. |
| | 15718 Hayes Trail, | | Questions |
| X71 70 11 4 | Apple Valley, MN 55124 | 054.0004 | Please direct questions to appropriate board member or officer. |
| Vice-President | Mark Abbott | 854-8304 | Technical questions should be directed to the Technical Director. |
| | 1905 East 86th St, | | Membership |
| T | Bloomington, MN 55420 | | Applications for membership should be directed to the Membership |
| Treasurer | John L. Hansen | 890-3769 | Co-ordinator: Ann Bell 544-4505 |
| | 38 Birnamwood Drive, | | 8325 39th Avenue N. |
| Q | Burnsville, MN 55337 | E07/0/2 271E | New Hope, |
| Secretary | Ken Slingsby | 507/263-3715 | Minnesota, 55427 |
| | Route II, Box 182, | | \$12 buys membership for one year. New members and persons renew- |
| a | Welch, MN 55089 | 000 5051 | ing after letting membership expire, pay a \$5 administration fee. |
| Communication Di | | 890-5051 | Members receive a subscription to this newsletter and all club benefits. |
| Software Director | Pete Gilles | 475-3916 | DOMs and MSDs |
| Technical Dir. | Hugh Kurtzman | 544-7303 | DOMs (Disk of the Month) are available at meetings for \$5/disk |
| SIG Director 1 | John Schoeppner | 455-8613 | (\$8/MacDOM) or any DOM may be ordered by mail for \$6.00/disk |
| SIG Director 2 | Dick Marchiafava | 572-9305 | (\$9.00/MacDOM). MSDs are \$15/disk at meetings or \$17.50/disk by |
| Branch Director | Ron Androff | 452-5230 | mail. Send orders to Mini'app'les at above address attention DOM |
| | Coordinators | | Sales. |
| Beginners' Consul | | 869-3447 | Members may have DOMs copied to their own media. Contact Chuck |
| Shows and conven | <u> </u> | 935-5775 | Thiesfeld - details within this newsletter. |
| Membership Co'to | | 544-4505 | Dealers |
| Spcl Int Apple /// | | 941-3411 | Mini'app'les does not endorse any specific dealers but does promote |
| Spcl Int Business | | 572-9305 | distribution of information which may help club members to identify |
| Spcl Int Education | | 888-9447 | the best buys and service. Consequently, the club does participate in |
| Spcl Int FORTH | | 854-8304 | bulk purchases of media, software, hardware and publications on behalf |
| Spcl Int Handica | | 894-2991 | of its members. |
| Spcl Int Invest'n | | 822-8528 | Newsletter Contributions |
| Spcl Int Macinto | sh Mike Carlson | 866-3441 | Please send contributions on Mac 3 1/2" disks or via telecommun- |
| Spcl Int Pascal | John Schoeppner | 455-8613 | ications directly to the Newsletter Editor. Contributions on 5 1/4" |
| Spcl Int Visicalc | | 866-3441 | disks should be sent to the club PO Box, and marked: |
| Tech. Adviser (hdv | | 771-2868 | Newsletter Contribution. |
| Bra | nch Coordinators | | Hard copy binary or text files are preferred, but any form will be |
| Dakota County | Bob Pfaff | 452-2541 | gratefully accepted. Deadline for publication is the 1st Wednesday |
| Minnetonka | Dick Peterson | 473-5846 | of the month preceding the month in which the item might be included. |
| New Hope | Jere Kauffman | 535-6745 | An article will be printed when space permits if, in the opinion of the |
| St. Cloud | Frank Ringsmuth | 253-6032 | Newsletter Editor, it constitutes suitable material for publication. |
| St. Paul/Mahtomed | li { Fred Woodward | 426-4060 | Advertising |
| | { Jim Schenz | 429-4931 | Direct Advertising inquiries to our co-ordinator Eric Holterman at: |
| Liaison (†) - CP/M | Peter Gilles | 475-3916 | PO Box 8266 |
| Liaison (†) - Genea | | 574-9062 | Minneapolis, MN 55408 612-822-8528 |
| Liaison (†) - Medic | cal Stewart Haight | 644-1838 | |
| | ct with non-Mini'app'les SIC | SS | E-Mail: Source, BBR490; CompuServe, 71445,400 |
| | are Director's Staff | | Compuserve, 71443,400 |
| DOM Sales - Meet | | 455-8613 | Normalattan Dublication Ctaff |
| | Dave Nordvall | 724-9174 | Newsletter Publication Staff |
| | Gene Kasper | 941-5490 | Director & NL Editor Daniel B.Buchler 890-5051 |
| DOM Sales - Mail | Hugh Kurtzman | 544-7303 | 13516 Grand Avenue S. |
| DOM Editors/Prod | _ | 475-3916 | Burnsville, MN 55337 |
| MAC DOM Editor | | 935-1192 | Assistant NL Editor Jo Hornung 922-7665 |
| MAY POM EUMOI | ATTOU DEVOILE, DAKEL | /JJ-1176 | Contributing Editors Arsen Damay 933-0399 |
| | | | Steve George 935-5775 |
| | | | Composition/Layout Joan Kistner |
| Chomingon and peace. 2100 | | | Advertising Eric Holterman 822-8528 |
| | | | Mailing Coordinator Hugh Kurtzman |
| | | | - |



In This Issue

| Announcements | |
|--------------------------------|-----------------------|
| Ballot for Election | |
| Candidate Platforms | by themselves30 |
| Citrus Computer, a fantasy | by Tom Edwards11 |
| IACDOMS 40, 41, 42 & 43 | |
| | by Pete Gilles22 |
| Fontrix, a review | by Ken Slingsby27 |
| Late Breaking Mac News | by Dan Buchler12 |
| MacDOM #7 | by Steven E. Baker14 |
| MacDOM #8 | by David G. Olman14 |
| MacPaint Tricks | by Curtis Juliber and |
| | Steven E. Baker21 |
| MacSIG Meeting Report | by Tom Edwards11 |
| MacWorld Exposition | by Curtis Juliber15 |
| Map of Meeting | |
| Minutes | by Ken Slingsby29 |
| More on MagiCalc | by Barry Bayer13 |
| PreBoot for ProDOS AppleWriter | by Thomas Ostertag33 |
| Sensible Speller, a review | by Dick Marchiafava24 |
| Workhanch DOS Toolkit undate | |

Advertisers

| City Desk Computer Warehouse 2 |
|--|
| Connection, The |
| Computer Broadcasting Company 14 |
| Computer Buying Service 3 |
| Computer Supply Store 33 |
| Daytons (Repair)26 |
| Fresh Logic Coputer Service 25 |
| Computer Buying Service3 |
| Hagen Office Equipment17 |
| House of Forms |
| Mini'app'les Software 29 |
| MultiTech8 |
| POST Software5 |
| Telesoft Marketing |
| You Can Count On It 18,19 |
| Yukon Computer ProductsBC |
| - 2007 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 198 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 198 |

YEAR-ROUND PERSONAL FINANCIAL MANAGEMENT

MONEY MATTER\$

- PERSONAL INCOME, EXPENSE, AND TAX ADJUSTMENTS (ACTUAL & PROJECTED)
 - PERSONAL NET WORTH BALANCE SHEET (ACTUAL & PROJECTED)
 - INVESTMENT PORTFOLIO TRACKING & REPRICING
 - ESTATE AND RETIREMENT PLANNING
 - PERSONAL FINANCIAL UTILITIES
 - MINNESOTA TAX WORKSHEET
 - FEDERAL TAX WORKSHEET

Requires APPLE II+, Ile with 48K, 1 or 2 disk drives, 132 column printer or compatible system. Complete with two system diskettes and a user manual.

\$50.00

TEN DAY MONEY-BACK GUARANTEE

SEND YOUR ORDER TO: POST Software Inc., 1779 E. Arlington Ave., St. Paul, MN 55119 • (612) 772-2515

| □ SHIP MY ORDER C.O.D. MA U.P.S. □ ENCLOSED IS MY CHECK PLUS 6% SALES TAX AND \$2 SHIPPING. | NAMEADDRESS |
|--|-------------|
| CHECK ENCLOSED FOR \$ | TELEPHONE |

Dear Mom, Thanks for the



941-9300 get the facts

Hope you liked mine. Looks like



is

941-9300[^] get the facts

getting down to some serious



They've

941-9300 get the facts

hooked up with the



now when vou

941-9300 get the facts

call



you get complete



SPORTS

941-9300 get the facts

941-9300 get the facts

4941-9300 get the facts

OUOTES



emol



It's incredible and

The Connection The Connection

⁴941-9300

get the facts

41-9300 get the feets

get the facts

Check it out!! Gotta go it's ALL FREE!!

final Dow Jones Averages are due in at



The Connection

:45 de E 11 11

get the facts

in 5 minutes!!

Love & Kisses,

Sonny

300/1200 Baud Modem Information Service

Questions? Live Operators—922-9000



Announcements by Club Members

Mini'app'les had representation at yet another Computer Show! March 11th we introduced ourselves to the public at the Willow Lane School in White Bear Lake. We extend thanks to Hugh Kurtzman, Barb Kostial, & Steve George for their time and effort!

From The PC

April is the month elections are held for the Mini'app'les board. Enclosed in this newsletter you will find platform statements for three of the candidates along with a ballot. Actual voting will take place during the April meeting. As part of membership, you receive the right to vote for members of the board. I urge each of you to exercise that right.

I would also like to take this opportunity to thank those who have

opportunity to thank those who served on the board this past have served on the board this past year. These board members along with other "staff" and volunteers have worked very hard and deserve special recognition. The next time you see them, shake their hand and say "thank you!"

Regular Meeting Calendar

APRIL --> Election of officers will be held during the April meeting. This is also the month we will begin our new seminar format (see details elswhere).

MAY --> The May meeting will feature Don Rawitch, a representative from MECC (Minnesota Educational Computing Corporation). Don will talk on past

(Minnesota Educational Computing Corporation). Don will talk on past, present, and future happenings at MECC.

JUNE --> The month of June brings a Swap Meet where members will be able to sell or trade hardware and software that has accumulated over the years. Watch the newsletter for more details on the Swap Meet. Swap Meet.

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.

Let us know how you like the meeting content and format. We are trying to be responsive to your needs, but you have to tell us what works and what doesn'.

Next Board Meeting

The next meeting of the board will be held in conjunction with the annual board dinner (a tradition Chase Allen started last year). The dinner is tentatively planned for Wednesday May 1st at 6:00 p.m. A brief business meeting will be conducted after dinner.

At press time, the location is still unknown, however, by the time you receive the newsletter we should know where the

meeting will be held. As usual, all members are invited, but reservations would be appreciated. Please call me at 488-6774.

Thank You

I would also like to extend thanks to Minnesota Federal of Roseville and the Ramsey County Public providing meeting space meetings this past year. Library for for our board

David E. Laden, President

(P.S. In case you haven't figured it out, PC stands for President's Computer.)

Investment SIG by Eric Holterman

Due to remodeling, the Investment SIG has lost its regular meeting space until the end of summer. We had hoped to have a meeting in April, having watched the library roll back the remodeling date since last fall, however, they have stuck to the latest closing date which is just a few days before our April meeting date. We will be working on a new meeting site for some meetings before the library reopens the meeting rooms. Suggestions are welcome. are welcome.

Have you wanted to access stock quotes and business news but haven't gotten around to signing up for the Dow Jones News/Retrieval Service yet? Or another pay by the minute service? Well, take a close look at the full page ad for The Connection in this issue of Mini'app'les. While they don't offer a full line of investor services, the price is right. I believe that the stock quotes are updated shortly after noon and after the market closes. closes.

MacSIG by Dan Buchler

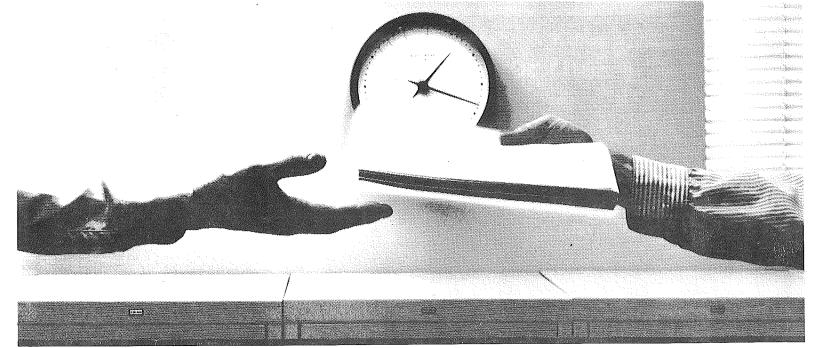
A report by Tom Edwards February MacSIG meeting is Tom Edwards on the detailed elsewhere in this newsletter.

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 is targetted "for the rest of us". The name of this subgroup is (tentatively) the MacSIG NTU (Non Technical Users.) The next meeting will be at the Southdale library on April 8* 1. The topic is "your favorite MacBook or magazine."

The main MacSIG meeting in April will

The main MacSIG meeting in April will feature Scott Olson on using Bar Codes with the Mac. We also hope to have a demo of a text scanner. Guess which one? The meeting will be back in Roseville in the PCA building.



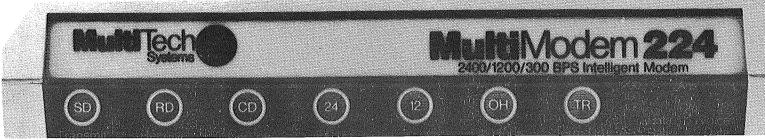
2400 bps modems: Do you Really need another speed?

- 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 rackmounted 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?

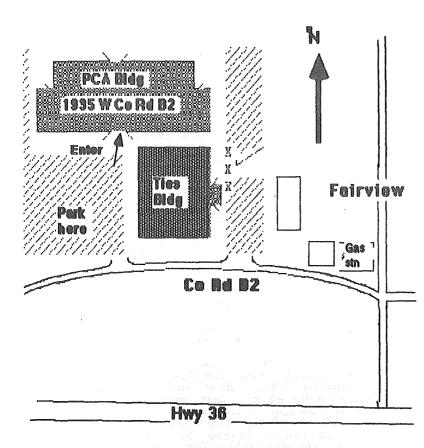


The right answer every time.

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



Announcements (page ii)



Map to April MacSIG meeting.

Business SIG by Dick Marchiafava

April 11th --> Apples for Large Corporations.
May 9th --> Manufacturing Inventory Control on a Micro.
Future --> Corporate Users, MAC/LISA - Connection to a Mainframe

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.

NorthWest Branch News by Jere Kauffman

Demos of the Koala Pad, joysticks, light pens, etc., and various data base programs will be discussed at future meetings. All friends in the Northwest suburbs are encouraged to join and participate in our Branch meetings held the fourth Tuesday of each month at 7PM. Watch the Calendar of

Events for specific topics and meeting location. Our thanks go to Mr. Chuck Johnson for his demonstration of The Home Accountant at the March meeting.

NorthWest Branch Calendar

April 23: Discussion of Legal Concerns Rockford Road Library

Minnetonka Branch Schedule

April 24: — Swap Night!! Bring your hard— and software that you'd like to swap. ORIGINALS only. Also, Branch Officers election night. To get yourself or someone whom you feel would make a good candidate onto the 'ballot', or if you have any questions, call Mtka Branch Pres Dick Peterson (473—5846).

Minnetonka Branch News By Steven E. Baker

The April 24th meeting of the Minnetonka Branch will be a swap night. Bring your hardware, software (originals), books and magazines that you'd like to wheel and deal on. Don't miss this opportunity to spring clean your computer wares.

We will also be discussing future plans and selecting new leaders of the Minnetonka Branch. In order to continue to be a benefit of area users, we need volunteers, program suggestions, and leads to potential program speakers, etc. Plan on attending.

We wish to thank Tim and Bob Pfaff for February's program on the Mockingboard and various music programs. We received an entertaining demonstration of the music card and appreciated their presenting the program on such a short notice.

Mini'app'les First Annual Swap Meet

The month of June brings the first Mini'app'les Swap Meet. Here is your chance to clean out your desk and get rid of books and software that you no longer use, but may be useful to others. (One person's junk is another person's treasure.)

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



Announcements (page iii)

newsletter with mailing label is

also acceptable).
For those bringing software, only original diskettes with associated 2)

documentation will be permitted Tables will be provided on a first 3) come first serve basis, for those bringing merchandise to display.

Each member will be responsible for

pricing their own merchandise, attending it during the meet, and collecting any money due.

The swap meet will be included Grove Junior High School Cafeteria (Bloomington, Minnesota). Doors will open at 7:00 to allow setup by those displaying merchandise. The swap meet will officially begin at 7:30 p.m.

Minitarpiles will be accepting at Doma beginning at

Mini'app'les will be accepting memberships and selling DOMs beginning at

7:00.

Vendors are also invited to participate in the swap meet provided that they make prior arrangements. Vendors who are interested in should participating contact Dick Marchiafava at 572-9305.

Now, its up to you. As you do your cleaning, don't ignore your spring We'll see you at the computer corner. Swap Meet!

Help Wanted with Newsletter MacUsers Come Forward!

Now that the newsletter is being produced 100% on the Mac, your newsletter editor needs more "MacHelpers." being Specifically, people who will perform the following tasks:

 Receive text via MacDisk or modem.
 Edit text to prescribed "style" and "format". Editor will provide style sheets.

 Proof text and correct spelling (preferably with spelling checker.)
- Ship final copy to editor vi

to editor via MacDisk or modem.

Ideally, final Word", format ${\tt will}$ but that isn't "Microsoft Word", but that IS. It is hoped to produce the on the LaserWriter about essential. newsletter midsummer.

Vendors Come To Meetings!

Recently, the Mini'app'les board decided on a policy of opening up meetings to vendors in order to better serve the membership. This policy was implemented for the first time at the

March 20th meeting. P.C. Supply was invited to attend and offer members the opportunity to purchase products from their line of supplies which covers supplies, furniture and accessories.

Northern Battery Corporation also was at that meeting exhibiting the SAFT POWER SYSTEM which is an non-interruptable power system used to prevent the crash of computer programs that are in operation when a power failure occurs.

More vendors will be attending future

meetings, provided the site permits this.

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 Oakdale Jr. High.

Mini'app'les members who plan to sell at the Swap Meet; do not contact Dick. See details in "Announcements".

Mini'app'les Exhibits At Strictly Business Show

For the first time our club attended the Strictly Business Computer Expo as an exhibitor. The show was at the Hyatt Regency Hotel the last week of February. Since Apple Computer had pulled out

all of their local people to prepare for the rollout of the Mac Office System which was scheduled for the same time as

which was scheduled for the same time as the show, the Apple presence at the show was maintained by the many vendors with Apple products and our user group.

Interest in our user group ran very high, and all members staffing the booth were kept enjoyably busy distributing membership applications, information and chatting with the many persons who stopped to see us. I think that the show was successful!

was successful!

I wish to thank the many members who helped setup and load out the furnishings used at the booth. And an especially warm thanks to the members who took time out of their schedules to help staff the booth. I regret that I did not get to meet all of you. Thank You!

Computers Loaned For Show

I extend my thanks the people who generously agreed to loan us the computers that were used at the booth.

Eric Johnson from Apple Computer's office in Bloomington extended the loan of an Apple //c. This was my first chance to spend some time on a //c. Cute little rascal. Very portable too. Hmmm...

My special thanks to Kathy O'Rourke of Computer Professionals St. Paul store. Kathy arranged for the use of a brand new "Fat" Macintosh. Every time someone was doing something on the Mac, people



MacSIG Meeting Report Feb 25, 1985 by Tom Edwards

MacSIG MacSig MacSIG MacSIG!!!

With the hypnotic promise of more news about the Mac once again wending its monthly siren song throughout the metro area, Monday, February 25th, found the MacGROUP foraging through the murky evening weather of a winter thaw to search out the TIES Classroom location in search out the TIES Classroom location in Roseville. Undaunted by the change of locale, the addicted began edging into the darkened parking lot about 6:30. By about 7, I counted close to 140 feet shuffling on the floor beneath the chairs, with more gathered about the MacDOM table and yet more looking for a spot to settle for the meeting.

Mike Carlson, MC, strode in to get things underway just a few minutes past the hour. The first item on the agenda was a call for assistance in finding roomier accomodations for the MacGROUP.

roomier accomodations for the MacGROUP. Our excellent south location, the Hennepin County Southdale Library, will not be available during the summer months, and the TIES facility of this evening is just not large enough. Such a evening is just not large enough. Such a shame, too. Easy to get to and great A/V appointments to help with the demonstrations. But that's the price of success. We keep getting bigger, and that creates the need for larger quarters. If you scout out a likely place to hold our meetings, give Mike (337-6553{H} 866-3441{O}) or Steve Bibus (830-4929{O}) a call as soon as you can. Vicke Lettmann (922-5659) pleaded for a series of meetings oriented to the beginning Mac user, and has found herself a rallying point for others that need to

beginning Mac user, and has found herself a rallying point for others that need to start at square one (as we all do). There have been offers by the more experienced to come and be resources, even signing the pledge in blood that they will talk in "English" for the meetings, though some interpreters might yet hide in the shadows to strike quickly if someone regresses into MacTalk

if someone regresses into MacTalk.

Soon there will be another mode of communication available for the exchange of information about the Mac. Patterned on the content of the large telecommunication sources, the metro area will have a bulletin board devoted specifically to Mac, beginning March 11. Reachable 12 hours per weekday (5am-5pm), and 24 hours on Mockender there will be and 24 hours on weekends, there will be information, news, E-mail and programs. The board is free, runs with a Mac512, and can be accessed at 300/1200 baud by dialing 757-6180. We wish it

great success; use it wisely.

The intro's for the evening were limited to new MacSIGers (about 12), with interests in illustration, Fortran, development Passed and Australa development, Pascal and business. There are the stirrings for yet more spin-off subgroups to collect these people with similar interests. Vicke Lettmann's Mac'Ginners and Ramsey Smith's University MacSIG are two working examples. Might we see a Graphics/Illustration group next, with the soon-to-show LaserWriter? Those with business interests may want to attend the Business SIG; even though the machine may not match, what is and can be done will be similar.

Rolling into the Q/A session, I made note of the following exchanges:

* RAM for a 512K ungrade by the DIYer

*RAM for a 512K upgrade by the DIYer has sunk to about \$160 (from an early +\$400). If you can part with your Mac for a few days, and don't mind shipping it to the west coast, you can have it fattened by a commercial chop-shop for \$350. Certainly this represents the bulk of the anticipated drop in cost for this of the anticipated drop in cost for this operation, but from past experience, there will probably be more down-sliding

of the price.

*A blinking "Apple" in the menu bar
means that your alarm clock has been set
and "gone off". Just open the clock and shut off the alarm to stop the flashing

attraction.

*MacDraw, 'Paint and 'Write are due to be (re-)released in March. Rumor has

to be (re-)released in March. Rumor has it that changes have been made to better coordinate with the LaserWriter.

*A MacGROUPer gets a "bomb" message with his Multiplan at various times (ID=2, bad address, fatal). Suggestions included making sure that you have version 1.2 or greater, replace finder and system and/or try another copy. The problem seems to be software in this case. (Note: if you replace the system, be sure that you can re-install the Seattle font that is used by Multiplan.)

*Speaking of error messages...
MacWorld and other publications have documented the technical details of what they mean, not that it's of much use to us non-techies. The U of M has a Micro Center that retains copies of most Mac

Center that retains copies of most Mac publications, and many members have similar resources.

*Sony is reportedly the bottleneck for the Apple 800K disk drives for Mac. Haba has been experiencing problems with their Schugart supplied drive. With the size, cost, reliability and availability of hard drives getting more attractive all of the time, this might become a molehill instead of a mountain of a problem. problem.

*There are reports of MacGordo conversions coming soon... Would you believe 1.2MB RAM? This suggests RAM "disks" to answer much of the "slowzies" * There

complaints.

*Sometimes you will inadvertently wipe out the name of the disk on the active icon. If you haven't moved on too far, recovery can be as simple as erasing the graphled name and elicking on enother the garbled name and clicking on another icon. The system can often restore the original name, if it hasn't been written to disk yet.

MacSIG Meeting Report (page ii)

* A recent article in Byte about the FactFinder program suggested that a sort function was available. No one present

knew of the function.

*A MacGROUPer was experiencing problems with partial disk reads. Most thought that he should search out the MacDoctor, but might try replacing the system and finder, then try again.

*Good news for those that want to play with fonts. (See MacDOM#8, elsewhere in this newsletter.)

*Those that await The Coming of * A

*Those that await The Coming of Assembler should have their patience

rewarded in March.

*If you thirst for inner workings, the Mac Software Supplement is full of information, comes with 13 disks, and taps you out by only a C note. Inside Macintosh (tech notes) peels off another C. Many reports indicate that all will soon be published and available over-thecounter within the next month or two.

The program for the evening was a continuation of the review series on databases for the Mac. Tom Edwards reviewed the dynamic duo of pfs:FILE and REPORT, followed by a review of Helix by Curtis Juliber.

pfs:FILE and REPORT:

Here is a simple, effective and reasonably capable pair of programs that team together to resolve many common filing needs. The programs follow most filing needs. The programs follow most of the Mac conventions for editing and menus. An unusual feature of FILE is the ability to accept all of the "comments" that you want to enter... a task that often boggles many of the more "powerful" programs. Lack of mail merge, in-record math calculation and "default" data entry are the main drawbacks, but with practice, most filing and reporting needs can be answered for the home and not-toodemanding business user. demanding business user.

These programs are easy to learn, very adaptable and allow you to modify the master file or make sub-files quite effortlessly. Purchased together, they price out at less than \$150 for the duo and represent a very good value for basic filing needs, in my opinion.

When you need a "relational" database, full control over all aspects of file construction, reporting and restructure, Helix may be your answer. Requiring a FatMac, 1.5 minutes to load, and two drives, Helix gives the experienced user power to manipulate virtually any aspect of the related databases. All setup is handled by a tour d'force of the Mac icon idiom, perhaps the only sour grape on the idiom, perhaps the only sour grape on the vine, not from lack of what you can do, but with all of those icons hanging around things tend to get cluttered.

After heavy reading of the manual, you will be rewarded with the ability to do complex application design, use IF/THEN/ELSE routines, lookup tables, math functions and more. At \$395, Helix places itself in the upper crust of database programs for the Mac, but lets you cut the pie any which way you need.

Following the reviews, there were a few more items of note before the MacGROUP faded into the overcast and headed home to absorb the new information headed home to absorb the new information from the meeting. Keeping to the subject of the program, Curtis responded to a query about MacLion, stating that it seemed to rank in the same league as Helix both in ability and price (\$379) without oppressive icon overhead. Another popular database program, OverVue (reviewed at an earlier meeting), seems destined for revisions that will further enhance its utility and appeal

Returnees from the San Francisco
Macintosh show reported that they did not
see Thunderscan present. The digitizer product, MacVision, was in attendance and

getting good reviews.

Lotus exhibited JAZZ at the Strictly Business show in downtown Minneapolis. Long awaited, those that have seen what it is and what it does have been favorably impressed. Apple certainly has been awaiting this product, with the hope that it will give a push into the office and major account markets. (See late-breaking news below - Ed.)

and major account markets. (See late-breaking news, below - Ed.)

One final question was raised about latching the HP laser printer up with the Mac. Though it can be done, the output is not the same as with the LaserWriter. The LaserWriter further translates data from Mac to give a much superior end result on the paper, particularily where graphics are involved.

That brings you up-to-date on the MacSIG activity for February. I hope that the Mac'Ginners will add some of their own flavor to our next newsletter. And how about you? Contributions are needed from anyone that can share some tid-bit of knowledge, do a review or offer a report on some aspect of the Mac. Try it, it's fun.

Late Breaking Mac News by Dan Buchler

* Jazz shipments have slipped to end of May.

* Haba's "Quartet" integrated package

"According to InfoWorld, April 1,
'85, the new 'Finder' will be released in conjunction with a new ROM (QuickDraw) which is expanded from 64 to 128K.
Besides supporting more than 128 file names, it will have hierarchical



MacSIG Meeting Report (page iii)

directories and be much faster. 95% of current Mac software will be compatible? 95% of

*Besides General Computer's Hyper-Drive, there is another way of speeding-up your 512K Mac. Nevins MicroSystems Inc. have a product called TurboCharger. It lists for \$95, and claims to speed disk I/O by 200% to 500%. It works on the "Cache" memory principle.

*Saw the manual for Mac-Link.

the "Cache" memory principle.

* Saw the manual for Mac-Link.

Although I haven't had time to see it work, it claims to convert PC WordStar and MultiMate word processing files to/from MacWrite with complete format information. The work is done in the Mac. It eaither direct connects or communicates through a modem. It also claims to convert PC Lotus to MultiPlan and back, supporting formulae, functions, cell references. etc.

cell references, etc.

* MicroSoft Word comes in a special version for the LaserWriter. If you try to make the regular version work with the Laser, it is about 4 to 8 times as slow

as MacWrite in printing!

as MacWrite in printing!

*Am working on a comparison of MacPublisher, Aldus PageMaker and Manhatten's Ready-Set-Go. They all do credible jobs, but MacPublisher has several serious flaws; Ready-Set-Go is great for single page complex make-ups and Aldus has the other two licked. However, it costs \$495 compared to \$100 and \$125 respectively for the other two.

*"TurboMac" is the unofficial name being given to a new Mac expected to be

being given to a new Mac expected to be announced next January. It has a new faster version of the 68000 microprocessor and may support up to 2

megabytes!

*I just received a letter from Brady Communications, the publisher of Hogan's new book "Inside the Macintosh". They now say it will be instock in bookstores by early fall. That's somewhat later than we originally had anticipated.

Announcements (page iv)

attending the show could be seen veering over to our booth. A real attraction. Kathy, I am sorry that I didn't get to

meet you at the show. Thanks!

Now, if only I could figure out why people keep trashing files from the Magic Office System demo disks that were one of the software demos at the booth. May be they just wanted to see if the files would really go away. They did. Fortunately I was able to restore them from my program disks at home.

More on MagiCalc by Barry Bayer Chicago, Illinois

"Dick Marchiafava's piece (Page 13, February Mini'app'les) on @ problems is correct as far as it goes. But a [CTRL][L] should turn the keyboard into standard UPPER CASE ONLY for the NEXT keystroke, with a double [CTRL][L] locking into UPPER CASE. (Use a single [CTRL][L] to return to lower case.)

"Try this instead of going to the bother of reconfiguring each time you need a ${\tt @."}$

Newsletter Production Methodology

This newsletter was produced with Microsoft Word on a Fat-Mac. An Apple LQP with a Prestige-Elite print wheel was used for most of the text. column justification was acheived using fixed character spacing, and the interword spacing adjusted incrementally for constant inter-word spacing on each line. Page headers were printed ImageWriter.



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



MacDOM #7 The Seventh Mini'app'les Macintosh DOM Preview by Steven E. Baker

Music for MusicWorks April 1985

This is the first special interest MacDOM consisting of music for the program MusicWorks from Hayden Software. The disk contains over fifty music documents for your listening pleasure. Also included is an application called Jukebox which allows you to string several MusicWorks documents together to achieve a LP length music track. A MacWrite document is included on the disk describing how the program works.

It is hoped additional special interest MacDOM's will follow this "first" one. Future possibilities include templates for Filevision and Multiplan, MacPaint pictures of local interest by local artists (that is any Mini'app'le member that contributes their work), and others????. If anyone has a special interest and would like to put together a MacDOM on that subject, please contact me. As usual, please submit your contributions to your MacDOM editor and producer.

MacDOM #8
The Eighth Mini'app'les Macintosh DOM, April 1985
by David G. Olmon

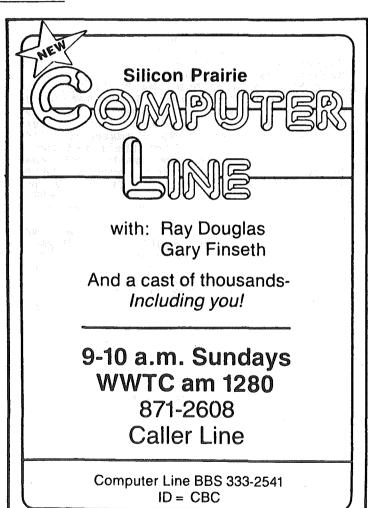
The eighth Macintosh DOM (Disk of the Month) consists entirely of font files to be loaded onto your Mac application disks. Each font has its own Font Mover file consisting only of that particular font in whatever point sizes are available. Also included are several MacPaint documents showing samples of the fonts on the disk. Print out the sample sheets, choose the fonts you want to load and run Font Mover on the files to load them into the resource file on your application disk.

application disk.

The fonts have been gathered from various user group disks, including Princeton, Stanford, and the University of Texas. These have been edited and the wheat has been separated from the chaff; all the fonts on this disk should load successfully, and once loaded, should appear on the Font menu in your application program.

appear on the font menu in your application program.
This DOM contains a variety of fonts of different types, including sans serif, script, decorative, math, music, foreign language, and some rather fanciful rune alphabets inspired by Tolkien's Lord of the Rings. Some are better than others; pick and choose what you want to use. There is even one by yours truly.

Although these fonts are ready to use, a forthcoming DOM will contain the Font Editor and a set of documents gleaned from several sources that give some hints on how to create your own fonts. Given the buggy nature of the Font Editor, this forthcoming DOM will be a challenge for those who want to expess their artistic creativity!





MacWorld Exposition A trip report by Curtis Juliber

The weather was absolutely fantastic!! Sunny and in the high 70's every day. ate at a simply wonderful Italian restaurant on Thursday nite and Steve Baker and I pigged out on Thai food Friday. It was kinda strange entering a restaurant where the first thing you had to do was remove your shoes and hand them over to the owner. I guess he was worried that two illustrious folks like Steve and me wouldn't pay or something.

Anyway, in spite of the weather, inspite of the seafood at Alioto's on the

wharf, in spite of everything else the city by the bay has to offer. I attended the MacWorld exposition at Brooks Hall on February 21st and 22nd. What follows is a brief (?) summary of what was there.

The best way to describe the event is to break it down into four areas:

- business enfirmers

- business software,

- fun & games, - hardware, and - the conferences.

- the conférences.
First, the business software. I'll only discuss the relatively new stuff.
Yes, Virginia, JAZZ lives! Lotus demonstrated JAZZ at the Apple booth and in my opinion it lives up to its advanced billing. JAZZ makes very good use of the Mac environment and should be a big success. I know that sooner or later someone will review the released version, which was still scheduled for the end of March (slipped to end of May - Ed.) So I'll just comment on one feature that I really liked. JAZZ lets you change the really liked. JAZZ lets you change the appearance of your on-screen spreadsheet through the use of a pulldown menu which lets you zoom in and out on a particular section. As a result, your cells can be as big or small as you see fit. By the way, the spreadsheet has 2,000,000 usable cells (Did you see a double MegaMac, Curtis? - Ed.) and if you really need to, you can change the font style for each

Haba Systems demonstrated QUARTET, a 4 part integrated program for the 128K Mac. It combines four simultaneous operations of spreadsheet graphics described to the combiner of spreadsheet graphics. of spreadsheet, graphics, data base, and word processing. The spreadsheet size is 62 by 999. Considering that the retail price is \$199.95, this package looked like it would be a good alternative to JAZZ for those without Fat Macs. This program does however give faster program does, however, give faster performance and will use the additional memory that a 512K Mac has to offer.

Hayden also demonstrated an integrated program for the 128K Mac which, if I remember correctly, was called ENSEMBLE. A nice looking program also in the \$200 range. What I remember most about this demo was the impressive 3D graphic capabilities.

My pick for the data base sleeper of e year goes to a package called SERBASE. This program was written in LASERBASE.

by two ex-Apple England | evangelists who got tired of preaching to others about writing software for the Mac. This package uses MacDraw-like Mac. This package uses MacDraw-like icons to set up the data base and does not limit you to a fixed number of fields record, a maximum field size, or a mum record size. (These are maximum record size. dependent on the amount of memory in your machine). There is no U.S. distributor as yet, although Electronic Arts seemed interested, and the price is roughly \$130

if you flew over to merry ol'England to pick one up. Definitely ONE TO WATCH.

Odesta had a big booth with 7-8 Macs so they could demonstrate their long-announced (but never seen) HELIX. Here you use icons to establish fields. You use icons to establish relations. You use icons to design reports. icons to design reports. You use icons when making a query. The program certainly is powerful but here is a case where you can quickly get an overdose of

Computer Software Design Inc.
demonstrated their relational data base
called MacLion. In my opinion, it made
Helix look like a pussycat. In addition
to its good use of the Mac environment, I
like the fact that MacLion lets you
modify any aspect of its standard
programs through its own programming
language aptly called Leo. I purchased a
copy of the program, so maybe in a couple
of weeks, after I've played with MacLion
bit, I'll write a review or something.
Enterset demo'd a package called
QUICKSET which provides you with a
calendar and appointment book, a note
filer and note pad with full editing
capabilities, a desk directory and phone
book, a calculator with financial and
statistical capabilities, and Software Design Computer

statistical capabilities, and an encryptor that lets you protect individual files even if you share your beloved Mac with other users.

For those of you out there who have OVERVUE, be advised that a new revision will be made available soon (for a small charge) which will allow you to add graphic and spreadsheet capabilities to your data base. And speaking of graphics and spreadsheets, T/Maker Graphics (the people who designed Click Art) have come up with a really neat desk accessory. They have added a 50X20 spreadsheet with chart-making capabilities. chart-making capabilities. A nice addition if you don't do a large amount of number crunching with your Mac.

Megahaus showed their product MEGAFORM

Megahaus showed their product MEGAFORM which requires a Fat Mac. This program is essentially a forms processor. And just what is a forms processor? Well, it appears to be a program which lets you draw, fill out, file away and retrieve forms. Once the picture of a form has been created, the boxes and lines can be filled out with text, numbers, etc., and calculations can be automatically



MacWorld Exposition (page ii)

performed similar to a spreadsheet. A MegaForm cell may be directed to open a Megaform database, search for a particular record, and then retrieve information from that record and insert MegaForm it into the form.

If you who have been searching for alternate inputs to the mouse, Koala

alternate inputs to the mouse, Koala Technologies showed their graphics tablet which will retail in the \$200 range.

Apple's booth was built around a 15 foot(?) high Mac which had a 10 foot rear projection screen. Every 15 minutes a new vendor demo'd their software for the masses. (It was interesting that only Lotus was allowed more than one demo per day.) The rest of the booth was a sort day.) The rest of the booth was a sort of vendor showcase: a space for MicroSoft, a space for Peachtree, a place MicroSoft, a space for Peachtree, a place for Lotus, and a couple of others. Apple itself had a LaserWriter up and running with MacDraw. (Personal note on the LaserWriter: I WANT ONE!!!). The Apple rep, who was showing MacDraw, said that it will see the light of day by the end of March, as will MacWrite 4.0 and MacPaint 2.0. The apparent holdup has been so Apple can add something to each program to make it perform better with the LaserWriter. I didn't get any further details, nor would I probably understand them, anyway. them, anyway.

On to fun and games. The Click Art people introduced a program called ClickArt Effects which lets you do some really neat things with MacPaint; like rotating an image 1 degree at a time (compared to the current 90 degrees), the ability to slant an image backward or forward, up or down, distort it, put things in different perspective, etc. No individual who seriously utilizes MacPaint should be without this program.

Enough said.

PBI Software showed a 3D game called Feathers & Space which gets the Curtis Juliber award for best graphics in a game program. In this game you are protecting your outpost in space from killer birds. (Remember I said the graphics were great, not necessarily the plot".) This company also demonstrated a nice utility program called ICON SWITCHER which will allow you to design your own icons and replace a program con

with one of your own choosing. The cost will be \$20. Availability in May.

Hayden showed a program called VIDEOWORKS which will make those of you who purchased Animation Toolkit wish you hadn't. This program lets you use the entire Mac screen, without the distortion you get from the Animation Toolkit, and easily create layers of animation. This package will not, however, allow for adding sound to your cartoons; it seems it can't be done without sacrificing some of the graphic capabilities.

One of the weaknesses in the program MUSICWORKS is, in my opinion, the lack of more than 8 predesigned sounds. In addition only 2 of the sounds can be changed by the user. So when I saw — and heard — the program by GreatWave Software called CONCERTWARE I was quite pleasantly surprised. Thirty four (count 'em 34) sounds, ALL of which can be modified by the user. Additionally, the program One of the weaknesses in the program the user. Additionally, the program gives nice clean printouts of musical scores and lets you design your own icons for each instrument you create. Add to this a list price of \$50 (\$30 less than MusicWorks) and you have a hell of a bargain. P.S. It sounds fabulous through my stereo system.

I also saw a graphic version of a game that closely resembled Zork. I forgot who made it, however.

On to the world of hardware,

all of which I can't afford. A lot of hard disks were shown: Tecmar, HyperDrive (the hard disk that fits inside the Mac), Micro Design, Sunol Systems, etc. Watch for a compact unit called MacBottom which fits perfectly in, of all places, underneath the Mac.

A firm called Paradise introduced the Mac 10, a 10 meg hard disk which mounts on the side of the Mac and is styled to match the Mac in appearance. I'm not a good judge of hard disk performance, but this one at least looks like it was designed with the Mac in mind.

It had to bappen sooner or later:

It had to happen sooner or later: someone would say that the Fat Mac didn't have enough memory. Well, MicroGraphic Images Corp. has introduced the MEGAMAC. What the product really is is a 512K Mac with an additional 512K Ram disk built inside the Mac. If anyone out there in Macland is interested in getting more inside the Mac. If anyone out there in MacLand is interested in getting more info, contact the firm at (818) 368-3482. MicroGraphic Images also had a product called MacSlideMaker which lets you turn any screen image into a 35mm slide or print. This doesn't come cheap; the suggested retail is \$4135, which includes the addition of a video output board to the Mac.

Frontrunner Computer Industries in Reno, Nevada, announced a product called PRINT 'N SWITCH, which allows both an Imagewriter and a letter quality printer Imagewriter and a letter quality printer to be simultaneously connected to a Mac. The product plugs into the printer port on the rear of the Mac and the printers plug directly into the Print 'N Switch. The package includes software to allow Mac to print with almost any letter-quality printer. The suggested retail is \$119.95.

Hayes was showing the Smartmodem 2400 for those of you into high speed data transmission. (You also have the capability to communicate at slower speeds, if necessary.) They demo'd the product with their SMARTCOM II software



MacWorld Exposition (page iii)

interactive

interesting games. Chess, anyone?

TPS Electronics showed their PC-380 bar code reader which connects between the keyboard and the Mac's CPU. Keyboard operation is not affected. The reader operation is not affected information into the enters the bar code information into the

enters the bar code information into the Mac as if the keyboard were providing the data, thus making it transparent to any program. This would be quite useful for a firm's inventory control system.

Infosphere out of Portland, Oregon, presented XL/Serve software which allows the Mac XL and other Macs to simultaneously share the XL's hard disk and printer on an AppleTalk network. The hard disk can be partitioned to allow the storage of over 2000 files. The suggested retail is \$195. (???????)

Sunol Systems displayed a mass storage network for the Mac. They're not kidding when they talk about mass storage either, up to 92 megabytes!! Up to 31 Macs could utilize the network and the cost of adding Macs to the network is simply the cost of the cable and connector since every Mac comes equipped with an AppleTalk port.

AppleTalk port.

If you have been waiting for the price of the 512K upgrade to come down to earth, be advised that upgrades, at least on the West Coast, are now available in the \$350-\$400 range. LOCAL DEALERS PLEASE TAKE NOTE.

(In all fairness to Apple, however, the price of chips has fallen dramatically lately according to INFOWORLD). If anybody out there wants the addresses of places doing the upgrade, call me during the day at 870-5391. I'll be more than happy to provide

some phone numbers, etc.
On to the conferences. Subjects included:

- Mac's ability to make it in the office.

- How to market Mac software.

- The future of Mac in Education. - How to start a business with your

- A technical discussion of Mac's a state of insides.and

- Maximizing MacPaint.
I was too cheap to pay the extra \$15 or so for the conferences but from what I overheard on the exhibition floor, the quality was good. Steve and I did, however, MacSneak into the MacPaint conference. Bill Atkinson himself, clad in blue jeans and an Hawaiian shirt, conducted the program. A summary of some of the information obtained from that presentation is printed elsewhere in this newsletter under the title "Some MacPaint Tricks.

Bill Atkinson demo'd the product from la called MacVision. This program Koala called MacVision.

This package allows for lets you take your home video camera, hook it up to the Mac, and digitize the image so you can put it in a MacPaint document. Here you can add descriptors to the picture, make modifications, etc. I see it as providing for a type of slow scan. TV between Macs. For example, you can send instant pictures of prototype models to your customers, or even send pictures of the family to Grandma!! (It takes only 5-10 seconds to generate an image). The better the camera you use, the better the resulting image.

the better the resulting image.

The next version of MacPaint, which will be a freebee to existing owners, will include a utility to allow you to transfer MacPaint drawings between two open documents and rotate them and resize them. open documents and rotate them and resize them. The example Bill showed had a page out of ClickArt on one-half of the Mac screen and a blank MacPaint page on the other. He transferred an image from ClickArt and rotated it and placed it in his MacPaint drawing without changing screens, swapping disks, etc. This will be a nice addition to MacPaint.

The show was impressive. I would have to say that 80% of the show highlighted business applications and most of the 10-15,000 people attending were there for business. Obviously, there were a lot more goodies that I didn't cover. The future for the Mac does, in my opinion, look good.

Professional

Get it done right the first time!

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

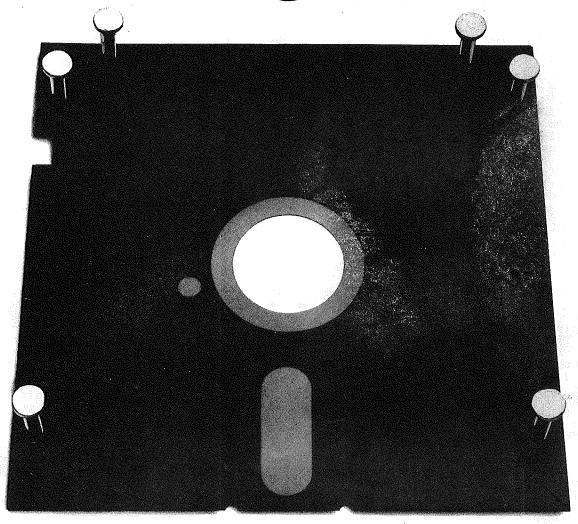
Need on-site repair?

Call us--on site and maintenance contracts available.

office equipment, inc.

801 WEST 77% STREET RICHFIELD, MINNESOTA 55423 866-3441

Them.



Why are we hammering on the other guys?

Because most floppy disks are downright sloppy. Sealed with only a spot here. A spot there. Leaving most of each edge unsealed. And unprotected.

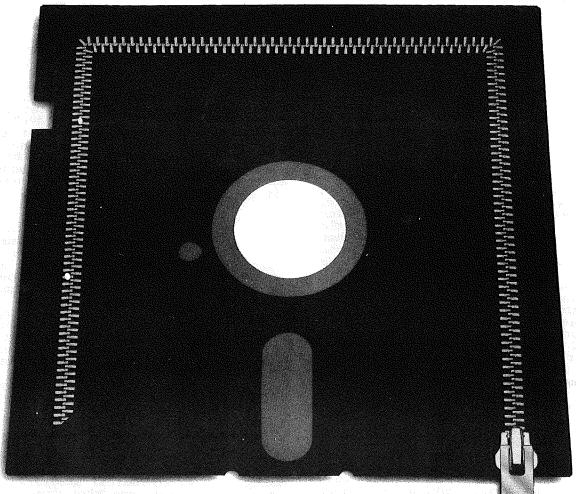


Memorex is a registered trademark of Memorex Corporation.

Memorex has the edge is a trademark of Memorex Corporation.

©1984 Memorex Corporation.

Us.



Not so with Memorex° flex disks. We seal every inch of every edge. Completely. With a remarkable process we developed just for the job. We call it Solid Seam Bonding.

And the point of all that?

A better edge for your disk. A Memorex disk resists puckering, bulging and warping. Resists all the things that can jam your computer's disk drive. Ruin its drive head. And lose the data that took you hours—or days—to enter.

Why make a disk this good? Because inside is a storage media so good that we certify it to be 100% error-free.

If you want the edge of safety, ask for Memorex. Use anything less and you'll be chewing your nails.

And that's no exaggeration.

For more information on the full line of Memorex quality computer media products, including computer tape, call.



Citrus Computer A Fantasy? by Tom Edwards

An imaginary peek into the strategy room at Citrus Computer.

For those of you that like to play games of strategy or mega-corp world of business, I pose a not-so-far-out scenario to you. You, if you accept this mission, must evaluate the plan of attack and either agree or offer your counter-proposal by authoring an article for the newsletter, and poke my plan full of boles. of holes.

THE BACKGROUND

You are CEO of Citrus Computer, a major player in the computer industry, focusing on "personal computers", big for your short life span, but still "small potatoes" to some of the mainframery that potatoes" to some of the mainframers that have been in business for many years. You have just called a strategy meeting with your top management team in early 1983. Your company has been burning rubber with an almost mystical acceptance of your products in the home and (very) small business sectors. However, competition has recently gotten very tough as Mega Rusiness Machines known competition has recently gotten very tough, as Mega Business Machines, known their utter dominance in large computers and office environments within large companies, has come out with a computer aimed directly at your small business markets, markets that Mega has seemingly ignored previously. Unfortunately, this is the market that you were targeting for a major push to further increase your company's growth.

further increase your company's growth.

Mega's computer catches on quickly, taking advantage of the pioneering that your company has done, proving that there is a substantial market for personal is a substantial market for personal computers. Big business reacts with a "if Mega made it, it's OK for us" attitude, and are hypnotized by the drone of Mega's cash register. Imitators come and go, playing shirttail tag with the Mega computer, even though the device is really rather ho-hum in many ways. Mega makes some errors with this and other additions into this new (for them) realm additions into this new (for them) realm, but sheer size, resources and image mean that nothing is fatal.

You know that your R & D wizards have a tiger in a box, with a computer that pushes technology to a new level for the commercial computer marketplace. Used on your top-of-the-line computer, you have already found some modicom of acceptance for these concepts, but the business market you are after reacts sluggishly to this attempt to make a ripple in their corporate reservoirs. You aim to be corporate reservoirs. different, not just for the sake of being different, but because you are sure that

Citrus Computer Bets on the Laserscribe are sure this new product will gain You are sure this new product will gain a lot of sales and recognition for your company, but what can you do to crack company, but what can you do to crack into small business, and departments of the national account type, to assure success and a elbow to elbow position with Mega in this market?

That's the question you must answer, if you are going to play this game with me. What product can you develop that will find almost universal acceptance in

will find almost universal acceptance in the business community? Something that will be bought in quantities for the big guys, and coveted as a "must have" by the small business. Something that can be used by all of those Mega PC's and clones cluttering desk tops, but also that will make a case for getting your innovative PC product into the office environment.

A WINNER EMERGES

As your management team goes over the possible products, one device survives the critical onslought that leaves a trail of electronic jumble out of the other contenders. Here is a machine that pushes to the edge of technology. Certainly all of the departments within big companies are going to be asking for one of their own. And it answers the smaller business' quest for a key piece of office equipment that will expand the scope of what can be accomplished inhouse.

Not just any copy

A copy machine. Not just any machine, but a laser copy machine. You call it the Laserscribe increase its market base, it communicate with other computers. But to assure your potential for penetrating into the office environment, you set-up this device to be shared by your PC's, using a super-economical hardware hook-up and embedded software that lies dormant, like a hibernating mole in your PC, until you can pop the cork on this innovation for the world to marvel at.

But it needs more. Any Tom, Dick or Harry could do most of this, and some have. The piece de resistance is the graphics software that you stuff inside. You give the business sceptics virtual typesetting capabilities. Let them create pages of letters, natch. But also let them have a machine that functions like a typesetting and page makeup typesecci cranking out for forms, page makeup good looking station, out good originals newsletters, releases, digitized technical brochures. digitized graphics and And set the hook even deeper, by creating the first front-end software that exploits these end software that exploits these additional features; you call it a "Draw" program.

You bring this out for all to see and marvel at about 2 years later. That's the start of your push into the offices



MacPaint Tricks by Curtis Juliber and Steven E. Baker

You might think that everyone out You might think that everyone out there knows everything there is to know about MacPaint. Wrongo, rabbit breath. Judging from the "ooo's" and "aaaa's" of the crowd as Bill Atkinson put on his show at one of the seminars at the MacWorld exhibition in San Francisco in February, there still is a lot to learn. In fact, Bill mentioned that the original documentation was 125+ pages, and since documentation was 125+ pages, and since he didn't want people to become intimidated, he left some things out for

intimidated, he left some things out for people to discover on their own. He did include some hints in the GOODIES menu under SHORT CUTS but I guess a lot of people, ourselves included, overlooked them. What follows is a brief description of Bill's demo.

Hidden on page 25 of the MacPaint users' manual is a discussion of the use of the SHIFT key. Bill calls this the constrain key. What it does essentially is to let you limit drawings to horizontal or vertical (and even sometimes 45 degree) lines. So what? Well, say you wanted to make a perfect Well, say you wanted to make a perfect circle when using the oval icon. You may get one after some trial and error, sure,

but try it next time when depressing the shift key as you're dragging the mouse. Perfect circles every time.

Hold down the SHIFT key when using the hand icon. Note that you'll be able to move only horizontally or vertically. Try the shift key when you're in the text mode, and you will only get capital. mode and you will only get capital letters. Use of the shift key with the rectangle icon will give you a perfect square. Use of the shift key with the line icon will help you get 45 degree lines. Experiment a while. You're bound to have fun.

Using the option key and the command key (the cloverleaf at the lower left) while dragging a selection will make multiple copies of your image. Try this while dragging at different speeds. The speed of your drag makes a noticeable difference. If you don't like the way it turned out, use the undo key. The undo key is the key on the top row of the keyboard at the extreme left. To erase a selected area, use the rectangle next to selected area, use the rectangle next to the lasso and hit the backspace key.

Holding down the command key when making a filled-in square, circle, etc.,

will eliminate the dark border and make a

circle, etc., just of the pattern.

To change font size when entering text, hit the command key (the cloverleaf) and either the > or < key. The cloverleaf and shift key when depressed will change font styles.

Pressing the ENTER key will change text. Pressing the ENTER key will change text options, i.e., underline, plain, bold, etc. (By the way, the cloverleaf is the Finnish campground symbol — your trivia for today.)

Most of this info can be found towards the back of the MacPaint manual, but much detail. without experimentation is definitely in order.



Citrus Computer (page ii)

of America. But the job doesn't end there. It will take a heap of work yet there. It will take a heap of work yet to get generalized support for what this little beast does. Programs that run on those Mega PC's and clones will have to follow shortly. That's no big trick, for software writers across the nation sniff the smell of green. And you've got to keep your R & D people at it yet, 'cause what you hit the streets with, neat as it is, is like using a dumptruck to pull a funnycar through the quarter mile. This beast is SLOW to get that first copy down the chute. You feverishly work on a spooler to mask this genetic defect, but you know that is not going to require someone to re-invent the wheel. All of the technology to accomplish it already the technology to accomplish it already exists.

EPILOG

The year is 1987, and you, as CEO of Citrus Computer, again are sitting at the Citrus Computer, again are sitting at the head of the company's management team meeting. As the Financial Officer enthusiastically reviews the sales and profit performance of the past year, you hide the trace of a smile behind your hand, placed to your face as though in deep concentration about what is being recited. In reality, your mind has wandered back to a similar meeting, now four years past, which is the sole reason four years past, which is the sole reason you sit here today. The decisions at that meeting set the groundwork and lead to the satisfying acceptance of Citrus Computer as a genuine alternative for corporate America.

MY SCENARIO ENDS

Possibily something like this may have happened within the daily business game of some fictional world. Suppose you were the CEO of Citrus Computer. What would you do to get your PC products sitting on the desk of corporate America?





IAC DOMs 40, 41, 42 and 43 by Pete Gilles

This month we have an abundance of DOM This month we have an abundance of DOM material in the form of new International Apple Core (IAC) disks. These DOM's are being released as received from the IAC. Because of that, they do not contain the Mini'app'les CATALOG MANAGEMENT program along with the corresponding program descriptions. They will not be numbered as Mini'app'les DOMs but will be numbered as a new series of IAC DOMs. We hope to as a new series of IAC DOMs. We hope to release some earlier IAC DOMs, the programs from which have not previously appeared on Mini'app'les DOMs.

Each of the four DOMs is described

IAC DOM 40

This disk entitled PILOT -> BASIC was released to the IAC by Dr Michael R Smith of the Department of Electrical Engineering at the University of Calgary.

PILOT (Programmed Inquiry, Learning, or Teaching) was developed in the early or Teaching) was developed in the early 1970's for computer-assisted instruction (CAI) and its implementation on Apple computers comes in several forms, including Apple's own Pascal-based SuperPILOT. PILOT is characterized by a system of commands which can prompt a student for an input, receive the student's input, match the input to acceptable answers and jump to the next step in the instruction sequence. It also uses sound and graphics to aid in the learning process.

the learning process.

This disk allows the user to develop a sequence of PILOT commands using the Editor which is on this disk and to store them in a text file. (Once you are familiar with the structure of PILOT, you can write your own ribot commands using a word processor). Because you need the PILOT language to execute these instructions, this disk another program which will contains another program which will convert the PILOT instruction sequences you have created into an equivalent Applesoft program (hence the name PILOT -BASIC)

Does that sound a little overwhelming? Don't worry! This disk was designed to teach you about PILOT not confuse you.
It contains a set of PILOT instructions which have been converted into an Applesoft program using the method Applesoft program using the method described above. All you have to do is boot this disk and follow along with the

tutorial.

This disk should be helpful not only teachers but also to any one who wishes to make their software more 'user-friendly'.

IAC DOM 41

disk contains a number AppleWriter II utilities and information files written by Mini'app'les's members Steve George and Arsen Darney. There is also a number of text file articles covering other aspects of AppleWriter II.

There are two AppleWriter II WPL files to help you learn about the use of glossaries for printer controls. You may access these WPL files by following the following procedure.

Boot your AppleWriter II disk. Strike CTRL-P to get the

 $\frac{1}{2}$

Print/Program prompt.
Type: DO EPSON HELP
Type: DO PROWRITER HELP 3a) 3b)

The steps 3a and 3b will get give you menus dealing with the Epson MX series and C Itoh Prowriter printers respectively. These articles written by Steve George have previously appeared on Mini'app'les DOM 29.

Mini'app'les DOM 29.

The three text file articles entitled AWII NOTES, MORE NOTES and WPL NOTES cover AppleWriter usage, AppleWriter footnotes and the use of AppleWriter WPL to construct a simple data base. These may be loaded as AppleWriter text files and printed on your printer. This material written by Arsen Darney has appeared in the Mini'app'les newsletter.

The files APWRITE2 PART1, APWRITE PART2 and APWRITE PART3 were written by Sandra Brockmann of the Kansas City Apple group. They are intended to provide an

group. They are intended to provide an introduction to AppleWriter and WPL for the new user. They also are standard AppleWriter text files and may be loaded and printed.

The file WPL MULTIPRINT was submitted by the Washington Apple Pi group and tells how to use a WPL file to do multiple printouts of an AppleWriter text file.

IAC DOM 42

This is a ProDOS based disk submitted to the IAC by Leith Falkner of LOGIC (the Loyal Ontario Group Interested in Computers). You do not have to have ProDOS to boot this disk but you must have at least 64k RAM (a 48k Apple][+ with a 16k expansion card or a 64k Apple with a 16k expansion card or a 64k Apple //e or 128k Apple //c). The descriptions below are taken from the STARTUP program.

This is the "HELLO" program for this ProDOS disk. It allows you to select a program to run or to read the program descriptions. It is similar to the CATALOG MANAGEMENT program found on Minitary Los DOM's Mini'App'Les DOM's.

MENU

This is a data file containing these descriptions.

IAC DOMs 40, 41, 42 and 43 (page ii)

CLEAN.LISTER

This program prints neatly formatted listings of Applesoft programs including headings. There are two formats, 'compressed' and 'indented'.

APPLESOFT.TOKEN

This program lists the BASIC tokens used by Applesoft and where in ROM memory to find the machine language routines used by BASIC to handle each word in the Applesoft syntax.

OUTER.XXXX

These four files are of interest to machine-language programmers only. They are the intermediate steps in the construction of the demo program OUTER.LIMITS.

OUTER.LIMITS

This program does three fascinating stunts and offers no hint of how it does them. At least two of the stunts are impossible on an Apple (so says Apple's documentation).

MINI.ASSEMBLER

This is the one-pass Assembler which is hiding on your DOS 3.3 System Master. It is documentated in the Apple][and Apple //e Reference Manuals. The program runs at \$6000 (24576) and is \$140 (320) bytes long.

ORGANIC.CHEM

This program asks you for the constituent atoms of an organic molecule. Then it generates the molecule and draws it on the HiRes screen.

DG.XXXX

These files demonstrate double HiRes graphics. DG.PRESENT is an EXEC file which runs DG.INIT and then each of the other demos. DG.RESET discards the machine-language routines which have been loaded during the demo. NOTE: THIS PROGRAM REQUIRES AN APPLE //c or a 128k APPLE //e.

FIN
This is a DIRectory file or inner
Catalog, containing dozens of little
Applesoft programs, each of which
performs a financial calculation. The
program 'HELLO' within this DIRectory
helps you select the routine to run.

IAC DOM 43

This is another ProDOS based disk. You can boot it on any Apple with at least 64k RAM. The disk contains a public domain word processor 'FREEWRITER' and the first 14 'PRODOS TECHNICAL NOTES' from Apple Computer Inc.

The ProDOS Technical Notes originate from the Developer Technical Support Group of the PCS Division at Apple Computer. The right to distribute these was graciously given to the IAC by Bill Grimm. The information represents enhancements and additions to the 'ProDOS Technical Reference Manual', which is available in the 'Work-Bench' toolkit series from your Apple dealer. The Technical Notes are of course copyright material and are distributed to IAC User Groups for information only.

An article on ProDOS from the Waukegan Apple Users Group (WAUG) is also included on this disk.

To read the ProDOS Technical Notes or the WAUG article, you can use your own word processor or send them to a printer using the 'PRINTER' program on this disk.

Or you can use 'FREEWRITER' ...

This public domain word processor was contributed by Paul Lutus of 'AppleWriter' fame. Because of its heritage, any user familiar with AppleWriter II will have no difficulty learning to use 'FREEWRITER'. In addition, you can access a tutorial by entering a CTRL-T command. FREEWRITER works best with an Apple //e or //c because of their special function keys. However an Apple][+ with a lower case chip and game paddle or joystick will also work. FREEWRITER uses the DELETE key to erase or rub-out unwanted characters. On an Apple][+, use the back-arrow (<-) and the game paddle #0 pushbutton. FREEWRITER also uses the up and down arrow keys on the Apple //e and //c. On an Apple][+, use CTRL-J for down arrow and CTRL-K for up-arrow.

FREEWRITER is a 'System' file and can only be run by using the special ProDOS

FREEWRITER is a 'System' file and can only be run by using the special ProDOS '-' (dash or smart-run) command. Type - FREEWARE/FREEWRITER to execute the FREEWRITER word processor.

FREEWRITER and several other programs by Paul Lutus are stored in the 'FREEWARE' subdirectory. These programs may also be selected directly from a small menu which appears after booting.

D

Tell the advertiser you saw it in the Mini'app'les newsletter.



THE SENSIBLE SPELLER ver. 4.2C A Software Review by Dick Marchiafava

COMPANY LANGUAGE **HARDWARE**

Sensible Software Assembly Language Apple][family, 48K, 2 drives recommended, 40 column display,

printer optional \$ 125.00 LIST PRICE

"POWERFUL SPELLING VERIFICATION FOR THE APPLE]["

The line in quotes above is from Sensible Software and seems to be a bold

claim for the software package being described. I have to admit that Sensible Speller lives up to the statement.

I have used Sensible Speller for several months, and I have to say that I am delighted with it! I have never used software that delivers so completely what it is purported to do

it is purported to do.

The Speller will check and verify the spelling of words in a document from numerous Apple wordprocessors such as AppleWorks, AppleWriter, Bank Street Writer, Magic Window, Wordstar, Screen Writer, PFS:Write, Super Text, Format II, Letter Perfect, Word Handler, Write Away and more. It is available in DOS 3.2/3.3, ProDos, Pascal and C/PM versions. The C/PM, Pascal, PFS:Write, and Word Handler versions of the Speller do not suggest correct spelling or provide for immediate replacement of words. replacement of words.
There are 2 copies of the program disk

There are 2 copies of the program disk (protected) provided, and 1 double sided dictionary (Main Dictionary & Supplemental Dictionary) disk which is copyable. The C/PM, Pascal, PFS:Write, and There are 80,000 words from the Random House Dictionary in the Speller's word list and room for about 10,000 additional words on each for a total capacity of 100,000 words. Medical and legal dictionaries are available too.

The Dictionaries are copyable and

The Dictionaries are copyable and should be copied to a working disk(s) before using. The original dictionary disk should be archived for the time that when it is necessary to replace a worn

dictionary.
I find that double siding a disk and flipping it over where frequent program or data swaps have to be made is more convenient than disk swapping, but the disks will wear faster and the drives should be cleaned more frequently. I use double siding where I am backed up, where the material on the disk is not important and for archiving some material where

and for archiving some material where wear will not be a factor since the archive disk will not be used much.

In operation Sensible Speller is FAST. This is a result of the assembly language programing used. The Speller opens a temporary file on the document disk where it stores information and changes until it stores information and changes until the session is ended. It is necessary to

have the document(s) to be checked on a data disk that is not full. After reading the words of a document memory and giving a word count, the document can be compared with a dictionary(s) to find words that do not match. The program reads the words from the dictionary disk at the rate of about 1 track per second for about 29 tracks. That is about 1400 words per second!

words per second!

At that point you can get a document word list, which I never do. I move on to look at the words that have not been found in the dictionary. Control characters are not displayed and are ignored if this option has been selected the configuration process. Punctuation is not displayed, numbers are displayed but ignored (depending on options selected) and single letters are ignored.

Each unrecognized word is displayed in inverted video in context. Words that are misspelled can simply be marked misspelled can simply be marked automatically for correction later with the word processor, but correcting words later is a nuisance and does not utilize

the power of this software.

When an unknown word is displayed for verification the following list options are offered;

G - GUESS AT SPELLING

L - LIST WORDS FROM DICTIONARY

A - ADD IT TO DICTIONARY
I - IGNORE IT
R - REPLACE IT WITH NEW WORD
M - MARK AS MISSPELLED

If you know the correct spelling you can select the REPLACE command and enter the select the REPLACE command and enter the necessary correction immediately. Correction can be more than one word and punctuation can be entered if needed. You will then be prompted OK? [Y], and REPLACE EVERY INSTANCE OF WORD? [Y]. A RETURN in response to both of the questions will accept the default answer YES and replace the suspect word and every occurrence of it.

At and point that you are shown a word for verification a list of CONTROL commands is available that can be used during REPLACE operations. These commands show how to INSERT or DELETE characters without retyping the entire word to be

without retyping the entire word to be corrected. It is not even necessary to move the cursor to the end of the word when the correction has been made. A RETURN accepts the correction as shown.

GUESS will cause the Speller to examine only the tracks (1 - 4 tracks) on a dictionary disk where a close match to an unknown word may be, and will display the word(s) found. At this point the unknown word can be checked against another dictionary disk if necessary.

Sensible Speller Continued

When the choice of spellings displayed the correct spelling can entered to replace the word in question.

IGNORE will cause the Speller to

ignore the unknown word and occurrence of it in the document. and

ADD will put the unknown word in a list to be added to a dictionary after the document in use has been completed.

MARK will mark the unknown word for

correction later with the wordprocessor. This would be used for words that require special dictionaries to verify.

the Speller GUESSES spelling of an unknown word it only checks for one or two characters as being incorrect. The operation of Guess is

faster than the next one which is LIST.

LIST is a more powerful function and will allow you to use "wildcard" characters to look up words: example SEPT= will cause the speller to list all words in the dictionary that begin with SEPT and accept anything after that. In listing words to find the correct listing words to find the corr spelling of septuagenarian the list words from the Main dictionary was SEPT, SEPTEMBER and SEPTIC. The word list from the Supplemental dictionary was SEPTA, SEPTICEMIA, SEPTUAGENAR-IANS, SEPTUAGENARIAN, SEPTUAGINT, SEPTUAGINTAL, SEPTUM, SEPTUPLING, SEPTUPLED, SEPTUPLES, and SEPTUPLE. (Now how do you think I spelled septuagenarian correctly?) As you can see the LIST command engages a "lookup function".

The = "wildcard" character matches any

The = "wildcard" character matches any number of characters and may be used in more than one place in a word to be looked up: example P=LL=ER gives a list from PAINKILLER to PULLOVER. The "?" can be used as a "wildcard" character to match exactly one character each time it is used in a word: example P?LL?T will give PULLET. The "wildcard" characters can be used in combination. For crossword can be used in combination. For crossword puzzle fans Sensible Software suggests using the LIST function to look up those

pesky words that elude one. When verification is complete option to list all corrected words is offered. When ending the session the changes are written to the document file and the temporary file is erased. If words have been selected to add to the dictionary was will be promoted to dictionary you will be prompted to "INSERT BLANK DISK FOR NEW DICTIONARY" and the new words are written to the new dictionary and the contents of the existing dictionary have to be written onto the new dictionary. This is the only place where the Speller is slow, as it is

doing a disk copy operation here.

As a spelling checker the Speller is a valuable tool to me. It verifies spelling, but as important it catches my typos also. This is a great aid in producing good documents. For some reason I find that proofreading on a monitor screen does not catch as many errors as proofreading on a printed page. But even then I may not catch all errors. If I proof my own writing I tend to get the sense of what I wrote, but I do not catch all spelling errors since I simply make them read as what I intended to write.

I think that The Sensible Speller lives up to its claims. It is fast, nowerful and flexible. Once it is

it powerful' and flexible. Once correctly configured it is easy and straightforward to use. It is very highly rated in the Addison-Wesley 1984 Book of Apple Software.

This is not intended as an in depth review which examines every feature of the package in detail. Rather it is my impressions based on my own use and situation.

situation.

Is it better to "look it up" in a paper dictionary in order to "learn" to spell correctly, or can the learning occur when using an electronic proofreading tool to verify spelling?

I think that the electronic tool can provide the opportunity to learn to spell better. First it will find errors that one does not recognize oneself. In order to verify the spelling of any word it must first must be identified as suspect.

GOTO 26

If you rely on personal computers . . .

The fact is, personal computers can and do fail. The more you rely on them, the more you need Fresh Logic. We specialize in personal computer repair and maintenance.

- We service Apple, IBM, Compaq, and other major brands of personal computers.
- We offer fast, qualified technical support.
- We provide on-site, courier, or carry-in service.

Ridge Square North 12989 Ridgedale Drive Minnetonka, MN 55343 (612) 544-0022





WORKBENCH DOS ToolKit Update By Tom Alexander

For several months the word from retailers and others was that Apple had discontinued the distribution of the DOS (Apple Computer's Kit Assembler

program). It was no longer for sale.

A letter to Apple and the reply from David Beaver of Apple Computer's Customer Relations cleared this up. True, the DOS Tool Kit is off the market, but in its place is a program called WORKBENCH, place is a program Apple part number A2W0010.

Workbench consists of two programs - (1) Applesoft/DOS Programmer's Tool Kit and (2) 6502 Assembler/DOS Tool Kit. Each program has its own manual and disk. Workbench retails for \$75.

The Applesoft Tool Kit consists of a

collection of software utilities to aid the creation, development, modification of both text and graphicsbased Applesoft programs. This kit is intended for experienced programmers who are familiar with Applesoft and DOS 3.3. Included in this program are automatic line numbering and renumbering lines, merging modules, and a full section on the 'Boston Window Tutorial' for the Apple II and the Apple IIe. The Boston Window includes routines for inserting deleting characters, two-way scrolling, cursor movement and a whole lot more. The nearest comparison would be a Global Program Line Editor.

The 6502 Assembler Tool Kit consists of tools to create and execute assembly language programs on the Apple II, II+ or IIe. The kit contains an Editor, Assembler, Debugger, and more. As I Assembler, Debugger, and more. As I understand, this is the old DOS Tool Kit.

Although Workbench has Note the PAGES of the two manuals, it does have a three-ring binder to hold pages. The pages are 9 x 7 1/2". the

Sensible Speller Continued

This requires a guess on one's another person to proofread the text and point out suspect words, or to simply look up every word one is not absolutely certain of in a paper dictionary. The last step can be extremely frustrating on occasion. "If I don't know how to spell it how can I look it up?" Right?

The electronic tool will identify all words that are unknown to it as suspect. This brings to one's attention the errors that one makes consistently and accepts as correct. "Equiptment" was one misspelling that I used for years never suspected that it was wrong.

words Once suspect been have identified a Speller can be used to GUESS or LOOK UP the possible words and the possible words that may be correct. spellings The Speller does not automatically replace misspelled words with correctly spelled words! In every case it presents the choice of a word or words and one must make a judgment as to whether the spelling of a possible replacement word is what is intended. Then the changes must be entered from the keyboard. The user is involved in the operation and has the opportunity to improve spelling by the opportunity to improve spelling by having the errors pointed out and then being required to choose and enter the corrected word.

Looking up words will be faster with speller, but still requires a the speller, but still requires a decision from the user and this must be done without the aid of a written definition of a word to determine if the

word is the correct one intended.

Please contact me if you have questions about The Sensible Speller.



We're a fully authorized Apple service center offering fast, convenient and affordable repairs for Apple II, III, II Plus and He models. We also service Epson, Okidata, NEC and Comrex printers. Extended service contracts available at reasonable rates for on-site or in-shop service. Use your Dayton's charge, MasterCard® Visa® or American Express® For information, call 623-7123.



COMPUTER REPAIR SERVICE



Fontrix A review by Ken Slingsby

I had an opportunity to borrow a friend's copy of FONTRIX, a rather specialized graphics program. It is, as Data Transforms, the publisher, calls it, "Extended-Screen Graphics Software".

By using the program, the user can create a printed graphic which is made of many hi-res screens placed next to each other in checkerboard fashion. If you can imagine using the entire hi-res screen as a window through which you can view a much larger screen a portion at a time, then you understand how the program works. According to the manual, a Graffile, as it is called, can be as small as one hi-res screen occupying 30 arranged as five horizontal sectors arranged as five horizontal sectors and 6 vertical sectors or as large as 480 sectors arranged as the user wishes. This Graffile may be made up of origional art or copies of some number of hi-res screens saved as binary files from other programs. As an example, several X-Y plots could be put on the same page using this technique.

In addition to graphics, several forts

In addition to graphics, several fonts are included with the program to create fancy text and what have you. If the included fonts and available fonts aren't enough, the program includes a nice font editor which can edit any existing font or create new fonts. The manual was published using a word processor to print the text. Then the illustrations, graphs, and fancy fonts were created and printed using Fontrix.

printed using Fontrix.

It may seem unnecessary to have such a program. In defense of the publisher, its reason for being is quite simple. If you have ever produced a hi-res graphic on the screen then printed it you will notice that less than 1/4 of the paper is filled with the graphic. The better dump programs and graphic interface cards allow variable amounts of magnification. Using enough magnification and rotation, the user can make the graphic fill the the user can make the graphic fill the printed page. Problem is there is no more detail with the expanded picture than before and any diagonal lines look like staircases. The process of magnification simply prints four or more dots for each screen dot making the fine lines look coarse. Of course, no finer detail is possible with simple Fontrix is the answer magnification. these problems.

The program supports virtually all graphic printers and interface cards. In addition graphic input devices such as joysticks, graphic tablets, paddles, mouses (mice?), and Koala Pads are supported. The choices are input by running a configuration program which

saves them to disk.

At present there are five disks of fonts and symbols. The fonts range from simple to ornate. The symbols include architectural lines, landscapes, icons,

and music staffs, for example. I did not have the chance to try them all but imagine that the different symbols are selected much the same as a new font. That is, each letter of the alphabet is a different symbol.

I did find some rough areas while using the program. Fontrix provides several fancy fonts but doesn't include even the crudest text editor. Any mistake had better be noticed immediately before the changes become painful.

Although the program will work with a one-drive system, the user would become a real disk jockey if that were attempted. Each part of the program accesses the master disk to load it. Each font is stored as a separate file. Each Graffile requires disk access. The master disk is full so all Graffiles and graphics created by the program must be stored on separate disks. Indeed, if a Graffile is larger than one screen full, the disk is the edge of the screen. This makes moving about large Graffiles somewhat time-consuming (remember, the Graffile can be up to 480 sectors stored in binary format).

one other problem (really an annoyance) is the disk access routine. It uniformly asks for the disk slot, drive and volume number. If any of these are not correct for the disk in the drive, an error message is displayed and the menu returns. I can see no reason for requiring the volume number. As far for requiring the volume number. As far as that goes, one of the drives could be set up as a graphing drive to eliminate this need for slot, drive, and volume entry.

There is no easy way to estimate the number of sectors required to hold a picture. Provision is made to copy a Graffile to another larger Graffile but not to a smaller file.

I could not find any way to get the

program to print more than six dots high per pass. This could save printing time if more of the printhead were used. I was using an Epson MX-80 with a Microtek interface card. (The bytes sent to the printer will all be six bit ASCII characters and thus probably not be trapped by peculiarities in the interface card firmware. — Ed.) card firmware. - Ed.)
The manual is well organized and can

be used without having to study the entire document. Each section has a flow chart of the commands covered in the section. Screen dumps are liberally used to illustrate the text. After a tutorial chapter, the manual gets quite detailed. The index makes finding references a

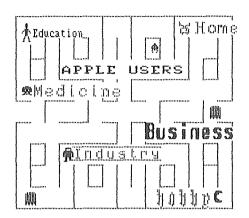
I was overall favorably impressed with the package. Its pluses easily outweigh detractions. This is one

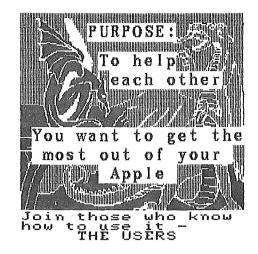
program I want to own someday.



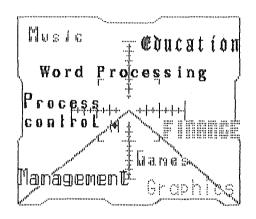
Minnesota Apple Computer Users' Group

WHO ARE WE ?



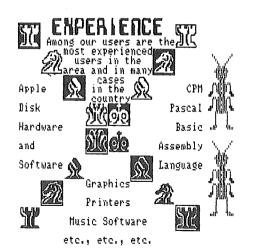


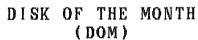
APPLICATIONS:







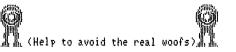






FINANCIAL BEMEFITS

- DEALER DISCOUNTS
- IDENTIFICATION OF GOOD BUYS/SERVICE
- SOFTWARE/HARDWARE EVALUATIONS



DISPLAYS FROM THE TWIN CITIES COMPUTER SHOW

October 1983 Minneapolis, Mn.

Presented by FONTRIX



MINUTES OF MEETING Board of Directors, March 13, 1985 by Ken Slingsby, Secretary

The Board of Directors met at the Minnesota Federal Building in Roseville.
The Secretary's Report was read and approved.

The Treasurer's Report was read and

approved.

The meeting agenda for several upcoming months was discussed in detail.

see the announcements column for details.

There have been additional requests to sell at the Main meetings. There is a limited amount of space for vendors to sell. In addition some of our meeting sites will not allow sales. Mr. Dick Marchiafava was appointed to coordinate with the vendors.

Mr. Dick Marchiafava reported on the Strictly Business Show held in February. The show was an apparent sucess. Several

new memberships were signed.

The Nominating Committee reported that nominees for the following Board nominees for the follow positions have been contacted:

Dave Laden President Steve Baker Treasurer Ken Slingsby Secretary Communications Dir Dan Buchler

Applications Dir. Dick Marchiafava Branch Director Ron Androff Other postions were still open at the time of the meeting.

The meeting was adjourned.

Treasurer's Report for Feb. 1985

| Balance Forward Deposit (Ads) | \$6437.05 1224.00 |
|--|------------------------|
| Deposit (Ads) Membership mtrls Postage | \$302.86 600.00 |
| Collate newsletters | 495.00 |
| DOM media Misc | 616.75 64.09 |
| Advertising exp Membership renewals | 61.19 |
| NSF check | 27.00 |
| Totals | \$3584.84 |
| Closing Balance | \$5124.50 \$7976.61 |

Fontrix (page ii)

About the sheet:

The figure is a dump of a single file. This file was created by copying 9 pictures into the output file. Fontrix does this by displaying a screen "window" that can scroll in any of four can scroll directions, controlled by the arrow keys for character-sized movements, or the ESC I,J,K,M keys for single-pixel movements. Therefore, a standard picture file is copied to the output file, the output file can then be scrolled over, up, or down and the next picture file can be copied. The different fonts are selected one at a time. The completed output file is 17 sectors wide and 23 sectors high. is 17 sectors wide and 23 sectors high. Apparently, there is some overhead as the complete binary file is just over 400 sectors. The output file size can be anything up to the limit of the disk space available. Minimum output file size is 34 sectors. Fontrix provides its own output driver to print the file.

Minitappiles 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 С. Higher Charles Boody and 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 for \$15, or by mail from Terry Schoeppner for \$17.50. See classified ads.



PLATFORMS (of nominees for board positions) by themselves

David E. Laden for President

Last year at this time, I was faced with a similar task: that of writing a platform as I was running for President of Mini'app'les. The difference between last year and this year is that now I have had one year's experience as nave had one year's experience as president. Serving as your president for the past year, I feel that I have a good understanding of the club's current state of affairs. Therefore, I feel much better able to set some goals for the

coming year.

Before I get to next year, let me say

Last year. Before I get to next year, let me say a few things about last year. Last year, I spoke of change. The year has indeed been full of change. Due to passage of a new set of bylaws, the club's "business affairs" have been reorganized. The club is now operated by an eleven member board, ten of which are elected on an annual basis (with one carry over member). I am happy to report that things are functioning well.

The following then are my goals for the coming year:

the coming year:

1) To continue and improve the level of service and support for the general

membership,
To have at least three to six months 2) of programs planned for our regular meetings so that this information can be published well in advance. This should aid in planning which meetings members would like to attend. (As a side issue, I would also like to aballars attendance.) also like to challenge other groups within Mini'app'les--branches and SIGs--to follow and strive for advanced planning and publicity of meetings),

To increase membership by at least 15% through more active publicity of

the club and its active publicity of the club and its activities, and To increase the involvement of the membership in the club (through a variety of means including expansion of our "consultant network," contributions to the newsletter and DOM, opportunity to organize and/or present a program at one of the club's meetings, etc.).

To look at my list you may think that I am an optimist. Well, maybe I am; but without something to strive for, nothing will get done. I also have confidence in the board, "staff," and general membership of Mini'app'les, that we can meet these goals together for the benefit of the club as a whole. Thank you for your past and continued support. past and continued support.

Steven E. Baker for Treasurer

I am running for the office of the Treasurer. I have been a member of Mini'app'les for over four years and am currently the Macintosh DOM editor and producer, and the Treasurer/Secretary of the Minnetonka Branch. I have participated in a number of Mini'app'les shows and booths, and help with the monthly newsletter mailing. Currently I an owner of both an Apple][Plus and a Macintosh. Having been a practicing CPA for over 10 years and now the Controller for a local company, I believe I have the background to handle the duties of the treasurer's office. I will work within the framework established by the present treasurer and plan on fine tuning the system during my term. I would appreciate your vote this coming election. election.

Steve George for Software Director

First, let me say that this will be quite brief. Those of you who know me realize that one of the things I do least well is toot my own horn. The last time publicly was the CALL -198 at the beginning of a newsletter announcement.

Suffice it to say that I would encourage EACH of you to vote, no-matter whom you decide to support. (Last year 5% controlled the election).

Here goes... Please vote for me if you have benefited from any of the following 'jobs' I've held with Mini'app'les:

* Minnetonka Branch Officer

* Computer Shows/help

* Election Committee

* Board Member at-large * Newsletter Articles Mailing

Layout assist. Reprint permissions Modeming 5.25" disks

* DOM Articles Program contributions Telephone help Reprint permissions

In summary, I'd like your support. Thanks.

now for something And completely

Toot-toot

Ballot

Instructions:

| 1) | Vote for one and only one candidate per office. Please use an X. |
|-----|--|
| 2) | If you wish, use the blank space to write in another candidate. Be sure to fill in the $[__]$ with an X. |
| 3) | When you have completed your ballot, fold the bottom edge up to the line indicated and flatten the crease. Fold the top edge down and flatten the crease. |
| 4) | The Mini'app'les address should now be facing you. Fill in your membership number. No ballots will be valid without it. Fill in your name and address. Staple or tape where indicated. |
| 5a) | Place a 22-cent stamp where indicated and mail. Mail early because only ballots received before NOON on April 17, 1985 will be counted. OR |
| 5b) | Bring your ballot to the regular meeting between 7:00 and 8:00 pm on April 17, 1985. |

BALLOT April 17, 1985

| | | į. | | | |
|----------------|-------------|--------------|----------------|-----|------------------|
| President | [] | David Laden | Software | [] | Steve George |
| | [] | | Director | [] | Pete Gilles |
| | | | | [] | |
| Vice President | [] | Tom Edwards | | | • |
| | [] | | Technical | [] | Hugh Kurtzman |
| | | | Director | [] | |
| Secretary | [] | Ken Slingsby | | | |
| | [] | | SIG Director | [] | Keith Madonna |
| | | | (Technical) | [_] | |
| Treasurer | [] | Steve Baker | | | |
| | [] | 1 | SIG Director | [] | Dick Marchiafava |
| | | | (Applications) | [] | |
| Communication | [] | Dan Buchler | | | |
| Director | [] | | Branch | [] | Ron Androff |
| | | | Director | [] | |
| | | | | | |

| Membership Number Name and Address | | | | | 22 8 1 |
|------------------------------------|---------------|-------------|-----------|---------------|--------------|
| | MINI*A Box | PP'LES | | | |
| | Hopkins, | | | | |
| | | | | | |
| Outside Fold | | 2nd fold or | | essances V | === |
| | v | | • | | |
| | | | | | |
| | | , H | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Outside Fold | :========= | | this line | | |



A PreBoot for ProDOS AppleWriter by Thomas Ostertag

The ProDOS version of AppleWriter will include Date and Time information file when а is first The Date and Time saved. are not ThunderClock is not installed in the Apple. AppleWorks prompts you for a date when you first disk, boot the startup and will read the clock if there is one. Apple-Writer willnot prompt for you the Date and Time.

There was a letter in the February issue of A+ that described a procedure using the ProDOS user's disk to insert the Time disk to insert the Time and Date information so AppleWriter that would it use the file information. The process cumbersome, was so thought about setting up a preboot disk that would the same thing.

The following is a set of instructions for

disk: your own preboot

1. Copy the ProDOS user's disk to another disk and delete all the files except:

a. PRODOS b. BASIC.SYSTEM

c. STARTUP

While in BASIC, the file STARTUP. load

3. Delete the Following lines with DEL XXX, YYY. (ie DEL 110,160)

110 through 160 a. 260 420 through 2380 1600 through c. 3990 2450 through

4. Type in the following lines.

230 PRINT
"* APPLEWRITER DATE AND TIME PREBOOT

2390 VTAB 20: PRINT INSERT APPLEWRITER VER 2.0 MASTER": PRINT

: HTAB13: PRINT "PRESS <RETURN>";:

GET R\$ 2420 PRINT D\$
"PREFIX /AW2MASTER"
2430 PRINT D\$"-AW.SYSTEM"

5. Save the BASIC program as STARTUP.

all there is to That's it. When the disk is booted, you will be asked for the date and time. the information, Enter AppleWriter insert the 2.0 disk and hit return.

The advantage to a preboot in this case, is Pro-DOS looks for a file called STARTUP to begin; so does Apple-Writer 2.0. If you assign the BASIC file the name STARTUP, you will not be able to use the unique functions the Apple-Writer STARTUP program.

MPUTTE With One of the Largest Selections of:

- Tapes Maintenance Kits Cables Modems Static Protection Labels Ribbons Monitors Diskettes Tractor Feeds
- Diskette Storage Computer Paper Computer Furniture Printwheels and Storage Printers and Sound Enclosures • Interfaces and Surge Suppressors • and More...

Ribbons

for Epson LQ 1500 \$725/each for Apple DMP & CITOH 8510 (Red, Blue & Brown) 665/each for Juki 6100 (single strike) 235/each

Labels

31/2"x15/16 1 up (qty 1M) \$695 31/2"x15/16 1 up (qty 5M) Mini Floppy Disk Labels 434"x114" qty 100 340

Paper

91/2"x11" 20lb. reg. perf. (2700 sheets) \$2850/ctn 91/2"x11" 20lb. clean edge (2700 sheets) 3050/ctn 147/8"x11" 15lb., 1/2" GB (3500 sheets) 3550/ctn 147/8"x111/2 GB 3 pt. 1M/CTN 3650/ctn

Diskette Storage

\$1995 Flip n File 50 original Bates System 3000 1800 (Stores 30 51/4" Disks)

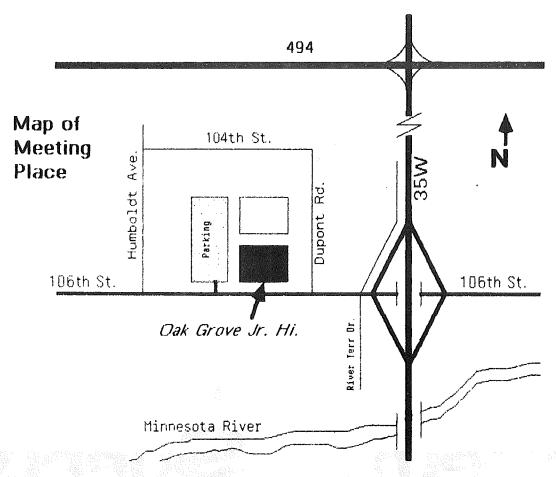
Our Name Says it All!

Call or Stop in for Our FREE 92 Page Catalog

We accept Visa or MasterCard

COMPUTER SUPPLY STORE

735 W. Snelling Avenue St. Paul, Minnesota 55104 (612) 646-9412



Classified

These ads are provided free to members for non-commercial use, and are limited to 10 lines. Commercial ads will be charged at 20 cents/word for members or 40 cents/word for non-members. Contact the 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.

Apple || Fan & Surge protection. Much better than System Saver.
Tencal Cool+Time; \$69.95.
Extended 80 column cards for //e only; \$104.95.
Software Plus 560-4077

ALF Music Cards and Software. Alos 12k expansion cards (][,][+ & //e). Other assorted products. Mark (aft. 4 pm) 338-8399 Panasonic printers, \$40. Choplifter, as new, \$12. Martin 507/285-0754

WANTED: Used (but usable) educational software for pre-school and primary, for Apple][+. For Cheap.
Grandma Jo 922-7665

PARAGRAPH - 1 Parallel Graphic Printer interface card (Techport), keyboard controlled graphics screen dump with Eproms for Okidata or Epson/ WANTED: Used Apple software. (Call after 4pm) Mark 338-8399

WANTED: ALF M16 Music Board - 3 voice system. Gregg 423-2955

FREE: Your classified ad here. As a member of Mini appiles, you may run a classified ad each month for non-commercial purposes. Remember, you read it here.

Call Eric 822-8528



ATTENTION: (mini'app'les

WE HAVE YOUR PRINTER PAPER

-IN STOCK-

11" X 9½" - 15# or 20# Paper

SMALL QUANTITIES TOO: 250, 500 or 2000 per carton

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

NEW!
In-Stock
Continuous Postcards,
Index Cards and
Index Cards Postcards
Micro-Perf Printer Paper

OPEN MONDAY thru FRIDAY - 8:30 - 5:00

NOTE: New Hours





MINI'APP'LES MEMBERS

10% DISCOUNT

ON ANY PURCHASE

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



For more information call: (612) 332-4866



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

| and the second s | |
|--|----------|
| 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 |
| | |

** C L E A R A N C E **

BACK CHAIRS \$45.95

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 |

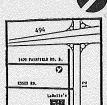
MILLIONAIRE \$ 46.95
MAC-PORT. MODEM 119.95
MACTOTE 89.95
MAXELL DISKS 3-1/2 39.95
MURDER BY THE DOZEN 35.95
SUSPECTS 34.95
TYPING TUTOR III 49.95
MAC-SWIVEL 27.95

MACINTOSH

| 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

241 4-1-86

SALO, BILL 6908 - 114TH AVE NORTH

CHAMPLIN

1N 55316-28Ø6

Bulk Rate
US Postage
PAID
Hopkins, MN
Permit 631