



mini'app'les

Apple Computer user group newsletter

Volume X No.9 September 1987

Calendar of Meetings and Events

WHO	WHEN	WHERE	WHAT
Mac Users—Special Meeting	Thur. Aug 26	Hennepin County Library — Southdale	“Guy Kawasaki”, Notes 3 & 9
Board Meeting (New date, location)	Thur. Sep. 3 7:00 pm	11900 Wayzata Boulevard Minnetonka, MN	Members welcome, Note 1. Call <i>C. Lind</i> , 545-2776 for directions
Mac Users	Thur. Sep. 3 (6:30) 7:00 pm	Hennepin County Library, Southdale Branch, 70th and Xerxes, Edina, MN	HyperCard and New Apple sftw with Curtis Juliber, Notes 3 & 9
Dakota County Branch	Tues. Sep. 8 7:00 pm	1301 Wilderness Run Dr. Eagan, MN	Note 5
Languages/Technical S.I.G.	Wed. Sep. 9 7:30 pm	1st Minnesota Bank 31 9th Ave. S., Hopkins, MN	Note 11
The Smalltalk Group	Wed. Sep. 9 7:00 pm	250 S. Milton St. St. Paul, MN	Programming in Smalltalk Note 4
Excel™ User Group (New Group)	Thur. Sep. 10	Third Meeting	Call Marilyn Nightingale, 545-9380, for Time and Location
Mac Computer Art & Design Group	Mon. Sep. 14 6:45 pm	Mpls College of Art and Design 133 East 25th Street, Rm 325	Call <i>Joy Kopp</i> , 440-5436 or <i>Colette Gaiter-Smith</i> , 224-8622
MacCAD/E User Group (New Group, 3rd meeting)	Tues. Sep. 15 7:00 pm.	Heath/Zenith Computers Shady Oak Road, Hopkins, MN	Note 6
Apple II S.I.G. (Regular Mini'app'les)	Wed. Sep. 16 7:30 pm	St. Louis Park High School 33rd & Dakota, St. Louis Park, MN	Note 2
U. of Mn. Mac User Group (UMMUG)	Thur. Sep. 17 7:30 pm	UM Physics Building, Rm 210 116 Church St. S.E., Minneapolis, MN	Charles Lukaszewski, 338-8581 <i>John N. Alegre</i> , 699-2709
Mac Novice User Group	Mon. Sep. 21 7:00 pm	Highland Branch Library 1974 Highland Parkway, St. Paul, MN	Note 12
Apple IIGS S.I.G. (New S.I.G. - 5th Meeting)	Wed. Sep. 23 7:30 pm	1st Minnesota Bank 31-9th Ave. S., Hopkins, MN	Note 10
AppleWorks© S.I.G.	Thur. Sep. 24 7:00 pm	Derham Hall High School 540 S. Warwick, St. Paul, MN	AW Word Processor, Basic through Advanced, Note 7
Northwest Branch	Tues. Sep. 29 7:00 pm.	Rockford Road Library 6401 42nd Av. N., Crystal, MN	Note 8
Board Meeting	Thur. Oct. 1	11900 Wayzata Blvd., Minnetonka	Members welcome, Note 1
Mac Users	Thur. Oct. 8	Hennepin County Library — Southdale	4th Dimension™, Notes 3 & 9
Excel™ User Group (New)	Thur. Oct. 8	Call for Time and Location	<i>Marilyn Nightingale</i> , 545-9380
Mac Computer Art & Design	Mon. Oct. 12	Mpls College of Art and Design	Call <i>Joy Kopp</i> , 440-5436
Dakota County Branch	Tues. Oct. 13	1301 Wilderness Run Dr., Eagan	Note 5
Languages/Technical S.I.G.	Wed. Oct. 14	1st MN Bank, Hopkins	Note 11
The Smalltalk Group	Wed. Oct. 14	230 S. Milton, St. Paul	Note 4
U. of Mn. Mac Users Group	Thur. Oct. 15	UM Physics Building, Rm 210	<i>Charles Lukaszewski</i> , 338-8581
MacCAD/E User Group	Tues. Oct. 19	Heath/Zenith Computers, Hopkins	Note 6
Mac Novice User Group	Mon. Oct. 19	St. Paul Highland Branch Library	Note 12
Apple II S.I.G. Regular Mini'app'les	Wed. Oct. 21 7:30 pm	St. Louis Park Senior High 33rd & Dakota, St. Louis Park, MN	Note 2
Northwest Branch	Tues. Oct. 27	Rockford Road Library	Note 8
Apple IIGS S.I.G.	Wed. Oct. 28	1st Minnesota Bank, Hopkins	Note 10
AppleWorks© S.I.G.	Thur. Oct. 29	Derham Hall High School	AW Database, Note 7

Notes:

- | | | | | | |
|-------------------------|----------|---------------------|----------|-------------------|----------|
| 1. Ann Bell, President | 544-4505 | 5. Bob Pfall | 452-2541 | 9. Mike Carlson | 866-3441 |
| 2. Chuck Lind, V. Pres. | 545-2776 | 6. Bill Langer | 937-9240 | 10. Dick Peterson | |
| 3. David Stovall | 474-8015 | 7. Dick Marchiafava | 572-9305 | 11. Chase Allen | 435-2645 |
| 4. Martin McClure | 227-9348 | 8. Jere Kauffman | 535-6745 | 12. Tom Lufkin | 698-6523 |

Coordinators - Please Call John Hansen (890-3769) by the 1st Friday in order to have your meeting listed correctly!

Board Members

President	<i>Ann Bell</i>	544-4505
	8325 39th Avenue N., New Hope, MN 55427	
Past President	<i>David Laden</i>	488-6774
	1215 W. Laurie Rd., Roseville, MN 55113	
Vice-President	<i>Chuck Lind</i>	545-2776
	11900 Wayzata Blvd #128, Minnetonka, MN 55343	
Treasurer	<i>J. Edward Wheeler</i>	881-5928
	P.O. Box 796 Hopkins, MN 55343	
Secretary	<i>Guy T. Rice</i>	545-2776
	1575 Woodbridge St. #302 St Paul, MN, 55117-3665	

Communication Director	Dan Buchler	890-5051
Software Director	Tom Gates	789-1713
Technical Director	John Hook	435-6281
SIG Director	Dave Stovall	474-8015
SIG Director	Dick Marchiafava	572-9305
Branch Director	John Jadron	893-9337

Coordinators

Beginners' Consultant	Earl Benser	884-2148
Membership Form Distr.	Bill McAndrews	645-6713
Membership Co'tor	Ed Spitler	432-0103
Shows & Conventions		<i>Open</i>
🍏 SIG - Apple IIGS	Dick Peterson	473-5846
🍏 SIG - AppleWorks	Dick Marchiafava	572-9305
🍏 SIG - Languages/Tech	Chase Allen	435-2645
🍏 SIG - Macintosh	Dave Stovall	474-8015
	Mike Carlson	866-3441
📧 SIG - Macintosh Excel	M. Nightingale	545-9380
📧 SIG - Mac MacCADD	Bill Langer	937-9240
📧 SIG - Novice	Tom Lufkin	698-6523
📧 SIG - Smalltalk	Martin McClure	227-9348
🍏 Tech. Adviser (hdw)	Roger Flint	771-2868

Branch Coordinators

Dakota County	Bob Pfaff	452-2541
North West	Jere Kauffman	535-6745
N.E. Branch	Mike Fraase	430-2944
St. Cloud	John Gammell	1-253-9377
Liaison (†) - Genealogy	Jules Goldstein	690-4447
Liaison (†) - Medical	Stewart Haight	644-1838
Liaison (†) - CP/M	Jim Rosenow	(414)261-2536

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

Software Director's Staff

Software Director and Apple // DOM Editor	Tom Gates	789-1713
Assistants:		
CP/M	<i>Open</i>	
Eamon	Dave Nordvall	724-9174
IAC	Richard Peterson	
MacDOM Editor/Prod	Joe Carroll	938-4028

Circulation this issue: 1150

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

Questions

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

Membership

Applications for membership should be directed to the Membership

Co-ordinator: Ed Spitler 432-0103
PO Box 24476
St Paul, MN, 55124

\$15 buys membership for one year (effective Dec 1, 1987—\$12 before Dec 1). New members pay a \$5 administration fee. Members receive a subscription to newsletter and all club benefits.

	eDOMs	@ Meetings	Mail Order
Members:	eDOMs	\$3.00	\$4.00
	MaceDOMs	\$5.00	\$6.00
Non-Members:	eDOMs	\$7.50	\$8.50
	MaceDOMs	\$10.00	\$11.00

Send orders to Mini'app'les at PO Box 796, Hopkins, MN, 55343, attention eDOM Sales or Mac eDOM Sales.

Dealers

Mini'app'les does not endorse any specific dealers but promotes distribution of information which may help club members to identify the best buys and service. Although the club itself does not participate in bulk purchases of media, software, hardware and publications, members themselves may organize such activities on behalf of other members.

Newsletter Contributions

Please send contributions on Mac 3 1/2" disks or via telecommunication directly to the Newsletter Editor. Contributions on 5 1/4" disks should be sent to the club PO Box, and marked: "Newsletter Submission".

Deadline for publication is the 1st day of the month preceding the month in which the item might be included. An article will be printed when space permits if, in the opinion of the Newsletter Editor, it constitutes suitable material for publication.

Meeting Dates

Please phone calendar announcements to John Hansen 890-3769.

Mini'app'les Mini'Info Exch BBS

Club members may utilize the club's BBS: Tel. No 831-6235

Advertising

Direct Advertising inquiries to our co-ordinator Eric Holterman at:

3608 Blaisdell Ave S.
Minneapolis, MN 55409

GENie: EFHolterman
TCCN: Box 431
612-822-8528

Newsletter Publication Staff

Director & Editor: Daniel B. Buchler 890-5051
13516 Grand Avenue S.
Burnsville, MN 55337


Announcements	Kent Edwards	452-4956
Calendar	John Hansen	890-3769
Contributing Editors	Steve George	935-5775
	Tom Edwards	927-6790
	Bob Woods	
Comp./Layout Advertising	Joan Kistner	
	Eric Holterman	822-8528

E-mail

AppleLink
UG0012
CompuServe
73537,463
GENie
DBuchler

In This Issue



Announcements		4
Classified		18
🍏 AppleMagic	by Larry McEwen	8
🍏 AppleWorks Advisor	by Dick Marchiafava	6
🍏 Picture Manager-a review	by Tom Alexander	7
🍏 Software News	by Tom Gates	7
📁 Jostens Overrun by Crickets (Aug MCAD/E report)	by Tom Edwards	17
📁  MacDOM34 Engineer's Helper	by Joe Carroll	10
📁 MacUsersRun the Course (Aug MacSIG report)	by Tom Edwards	16
📁 MacXL Migration Thanks	edited by Tom Edwards	17
📁 New 🍏 Mac Software products	edited by Dan Buchler	14
📁 Noisy SE Fans		7
📁 Spelling Checkers—Installm't 1a	by John Hansen	11
Mini'app'les Financial Statement	by J. Edward Wheeler	9

Advertisers



Arsen Darnay Assoc.	8
City Desk Computer the Connection.	C3
Hagen	5
Yukon Computer Products	3
	C4

Wed, Sep 16
Apple II SIG
St Louis Pk High

MacSIG
September 3rd
Southdale Library
Curtis Juliber of 🍏 presents
New 🍏 Mac "System" Software featuring
HyperCard

October
4t Dimension Demo

November
Orange Micro Ragtime

Mini'app'les BBS No— 831-6235
See also Club info page 2

**Knowledgeable
Sales**

We will work with you to set up the system that you need and provide the support required.

Professional Service

We give quality service on all Apple products.

Call us for on-site service.
Maintenance contracts available

The Apple Specialists

hagen

OFFICE EQUIPMENT, INC.
801 West 77 1/2 Street
Richfield, MN. 55423
866-3441
Authorized Apple 🍏 Dealer

Announcements

eDOMs — New Name, New Prices

by Dan Buchler

The cost of media, both 3-1/2" and 5-1/4", has been dropping for some time. Mini'app'les DOM prices have remained steady for many years. To put us more in line with the rest of the User Group community, we are reducing our DOM prices. (Please see notice below on dues). At the same time, we are changing the name from Disk of the Month (DOM) to educational Disk Of the Month (eDOM). This doesn't mean that every eDOM contains K-12 courseware. Rather, it places a meaning on the disks that they support the educational purpose for which the club exists—that is to help the members more effectively use their computers. We recently received a favorable ruling from the IRS granting the club non-profit status. (More on this in a future Mini'app'les article). The FEDs identify the terminology eDOM as being more in line with the club purpose.

So, effective immediately, 5-1/4" eDOMs will sell for \$3; 3-1/2" eDOMs (both Mac eDOMs and Apple 3-1/2" eDOMs) will sell for \$5. Non-member prices remain unchanged. Mailing charge is one dollar additional (as before).

Membership Dues Going Up

by Dan Buchler

You knew it had to happen some time. On December 19, 1982, Mini'app'les dues went up from \$10 to \$12. That was five years ago. On December 1, 1987, the membership renewal cost will be \$15, up from \$12. My garbage collection rates have tripled since 1982. Now if you still think Mini'app'les is garbage, don't worry, you probably won't renew—but if you get the tiniest benefit from the club, the new membership fee of \$15 should be considered a real bargain. I have always said to prospective members that the avoidance of one incorrect hardware or software purchase will save you \$30 to \$300 or more, and surely the club can and has done this for you. As stated above, we have reduced our eDOM prices. The eDOMs have been subsidizing your membership dues for years. The new pricing structures even things up a bit.

But wait, if you renew before December 1st, you can get in at the old rate of \$12! So if you are on the fence, get off and renew now!

AppleWorks SIG Meeting Schedule & Announcements

By Dick Marchiafave

Meetings are held monthly on Thursday, in the week after the main meeting, except when there is a conflict with a major holiday. In the event of a holiday, the meeting will be the 3rd Thursday, the day after the main meeting.

Members Struggle In Storm

The brave souls who came to the St. Louis Park Senior High for the July AppleWorks SIG meeting could have used amphibious vehicles to drive home. The meeting was disrupted by an electrical failure at 8:15 pm. Some people left the meeting shortly after that, others choose to stay to see if the downpour would ease up. It did not, as we all know. My regrets to you who had difficulty getting home.

Fall Meeting Schedule

The AppleWorks SIG will be meeting at Cretin/Derham Hall High School, 540 South Warwick, St. Paul, MN.

August 27: Program Selectors, Bird's Better Bye, Squirt, ProSel, MouseDesk Presented by Tom Ostertag, and Earl Benser. This meeting will examine program selectors from various sources and show how they can be used with large storage devices and RAM drives.

In these meeting we deal with the "sticking points" which users encounter.

September 24: AppleWorks Word Processor, Basic to Advanced
October 29: AppleWorks Data Base, Basic to Advanced
November 19: AppleWorks Spreadsheet, Basic to Advanced
December 17: AppleWorks Integration
January 28: Other Activities: Sub-directories, ProDOS

Corrections to the published meeting calendar will be posted on the Mini'app'les Bulletin Board.

The meeting location, Derham Hall High School, 540 S. Warick in St. Paul, is 1 block south of Randolph, 3 blocks east of Snelling. Meetings begin at 7 pm. Call me at 572-9305 if you need information about these meetings.
 Dick

MacSIG

by Dan Buchler

If you live in Minnesota, you should have already received and perhaps attended a special meeting, convened on short notice, at which Guy Kawasaki, the Apple Evangelist, spoke. If, for some incredible reason, you read this before the meeting occurs, please be advised that this special meeting of the MacSIG will be held at 7 pm on August 26 at the Southdale Library.

The September MacSIG meeting will feature the pleasant, and well-known to most of us, face of Curtis Juliber. Now with Apple, Curtis previously was a Mini'app'les MacSIG coordinator. He will introduce us to Apple's latest major thrust—HyperCard. You will learn new buzzwords like "Stackware". (See article elsewhere in this newsletter.) This meeting will be at the Southdale Library, September 3rd, at 7:00 pm.

Future MacSIG meetings scheduled by your Mac SIG Coordinator, Dave Stovall, include:

October: 4th Dimension Demo

November: Ragtime, the integrated system by Orange Micro, to be demoed by Jeff Hack, an Orange Micro rep.

I would like to take this opportunity on behalf of the club to thank both Dave Stovall and Mike Carlson for the fantastic job being done in producing these great meetings!



AppleWorks Advisor Contd.

Using BOT2 I ran the INIT program to copy the damaged diskette to a formatted diskette. This took some time. Then I ran FIXCAT to repair the damaged directory and recover the files. It worked! It even recovered some files that probably had been deleted.

I will add another UniDisk 3.5 to my computer setup to plug into the one that I have now.

AppleWorks questions and tips from anyone are welcome.

Send to: 7099 Hickory Drive N.E., Fridley, MN 55432. Include your address and phone number. Or call 612-572-9305, no collect calls. Dick





COMPUTER RERUNS

In co-operation with Signal Hills Shopping Center in West St. Paul, are pleased to announce the Twin Cities first:

USED COMPUTER FAIR AND AUCTION

⇒ **BID/BUY/SELL/TRADE** ⇐

LABOR DAY WEEKEND,
SEPTEMBER 5TH AND 6TH,
AT SIGNAL HILLS MALL
ON SO. ROBERT STREET IN
WEST ST. PAUL

RULES:

- (1) Each owner pays a \$10 table fee to reserve space in the mall.
- (2) Each owner must provide a minimum of one CPU, or one item with a minimum bid price of \$100 or more per table to be offered for sale in the Auction.
- (3) Each owner will determine the minimum bid price for their Auction system to begin the bidding.
- (4) Owners are free to offer for sale as many non-Auction items as they can fit on their table(s) during the regular fair hours.
- (5) A fee equal to 15% of sale of AUCTION ITEMS ONLY will be paid to Computer Reruns to cover ALL costs of operating, promoting and advertising the Fair and Auction.

The Connection® 922-9000

**REGISTRATION
OR GENERAL
INFORMATION**

For more information call



The Connection®

922-9000

get the facts

The AppleWorks Advisor

A Column For Users Of AppleWorks
by Dick Marchiafava

PinPoint Compatible Compiler, Panasonic KX-P1090 Codes

Member David Vidmar says he misses having Trig functions in the AppleWorks spreadsheet. He would like to use some of his own Applesoft programs as Pinpoint ToolKit accessories.

David would like to know if there are "any compilers compatible with the Pinpoint ToolKit?" "Are there any limitations" that I know about?

I have referred David to the Pinpoint Technical Support people for an answer to this question. This is an area entirely beyond my knowledge.

David also asked for help with controlling characters per inch on a Panasonic KX-P1090 printer. I have referred him to Jim Bukowski, who has a Panasonic printer. Maybe we can get a list of the quirks of this printer together and publish the codes to setup a custom printer driver for this printer model.

Print ASCII Text File To Disk

I was converting data files from a DOS 3.3 mailing program to the AppleWorks database recently. This included loading the converted data files into the AppleWorks word processor, cleaning up the files and saving the corrected files to disk as ASCII text files. From disk, these files can be used to create database files.

After having done a dozen or more of the files, I was tired and looking forward to the end of the job. To get the ASCII file I needed, the word processor file on the desktop is printed as a text file on disk. When this choice is made the prompt "Pathname?" comes up.

Now I know the proper response is to enter the Volume name of a disk with a name for the file, like this: /DATA/NAME. Being tired, I enter just a file name, and pressed the Return. It occurred to me that I had not entered a volume name for this print to disk operation, but it appeared that the operation was proceeding. I did something else, while waiting for the file to print to disk. When the printing to disk operation was complete I dumped the file from the desktop.

When I went to retrieve that file from disk to make a database it was not there. I had to redo the work on that file. In checking what happened, I found that a Print to Disk required

a complete ProDOS pathname. If an incomplete pathname is entered, such as I used (file name only), the screen activity indicates printing is going on, but there is no activity with the disk drive. There is no error message associated with this action. The file is being printed, but only Apple knows where!

A precaution then when printing a text (ASCII) file to disk, verify that the disk drive is being accessed. A further precaution would be to catalog the disk to verify that the file appears on disk.

Ledger Template Design

Recently, I received a church finances ledger spreadsheet template to troubleshoot. The user complained that a column which is intended to hold the results of a formula and is protected to prevent data entry could be overwritten. The protected locations showed (Value, Protect-N) which is correct for the purpose. I found that it was possible to enter data in protected locations.

If you have created some spreadsheet templates, you have probably guessed what the problem was here. A quick look showed the someone had turned off the

Protect mode, probably when creating or editing the template. The user can easily restore the intended function with the OA-V command.

This template is interesting and does many things. One thing struck me immediately as being odd about the layout. The first part of the worksheet is a checkbook register. The odd part was that the line sub-totals are located in the leftmost column. All the line entries must be made across the balance column. This is at variance with common bookkeeping practices.

In setting up a bookkeeping ledger sheet the usual practice is to have the data entry flow from left to right, top to bottom. One can have a template look any way that one needs, or wants (if you can get it to work). Unless there is a compelling reason, it would seem best to follow the usual layout practices.

Another factor which can complicate things with a template with an unusual layout is the way the spreadsheet Recalculates. The AppleWorks default recalculation mode is by Rows, left to right. This can be change to by Columns. If a cell to hold the product of a formula is to the left of the locations holding data used in getting the result, it may take 2 or

more recalculations to get the complete result.

Although there are budget columns to the right of the checkbook register, it would be better if layout were conventional. A spacing blank column could to make the sub-total column stand out.

3.5" Drive To Drive Disk Copying

In checking out some 3.5" drives and cards using Copy II+, I found I could not make a drive to drive disk copy if the target diskette was a blank.

Various combinations of hardware were tried with the same result, an inability to write to the target diskette. This procedure was tried on computers with the same result.

Using Copy II+ and 5.25" drives it is unnecessary to format blank disks when making drive to drive disk copies. In my computer system I use one 3.5" drive, and copy to the RAM disk and back to a formatted diskette when making backups. I had assumed that drive to drive disk copying was the same when using two 3.5" drives as it is with 5.25" drives.

When the target diskette was ProDOS formatted before making a drive to drive disk copy it worked. My conclusion: format 3.5" diskettes with ProDOS first when making drive to drive disk copies.

3.5" Disk Recovery

With the increasing use of 3.5" disk drives the need to recover data from damaged diskettes has arrived for me.

The first step in recovery is to make a copy of the damaged diskette. Recovery attempts are made only on copies. This requires 2 drives and a utility that can copy a damaged diskette. With 5.25" diskettes, this is not a problem.

For data recovery on 3.5" disks, the hardware is one matter. Again, two drives are needed. A disk recovery utility for 3.5" is another matter. What I need is a utility that I can run. One that does not require an advanced knowledge of the ProDOS operating system, or programming.

A 3.5" diskette with a damaged directory (probably caused by the ProDOS bug) came to me for recovery. I had the necessary drives, and I thought that Bag Of Tricks 2 would work with 3.5" diskettes.

GOTO 4

Software News

by Tom Gates—Software Director

Apple eDOM Specials

{Editor's note: To satisfy IRS personnel involved with our claim for non-profit, status, we will henceforth call our disks educational Disks of the Month (eDOMs)}

That old familiar Apple eDOM suitcase is getting full! In an attempt to make adequate room for new eDOM's, public domain software and Shareware, we're starting a special on the older Apple // eDOM's #1 - 25. This will be available only to members who place an order at one of the meetings or by mail. In either case, your package of eDOM's will be sent to you after receiving your order.

Order any 5 disks (Apple // eDOM's #1 - 25) and pay only \$10.00, plus \$2.00 shipping and handling. This saves you \$5.00 on the disks (\$15 over old DOM price) and \$4.00 on the postage over the cost of buying them separately.

This will help me by saving some space for the new disks, and helps those of you who would like to fill some of those holes in your eDOM collection. At this time we plan to have this as an on-going special and may add some

older Apple // eDOM's to this list each year.

Please note that this is for disks currently listed as Mini'app'les eDOM's. Back in the old days of the DOM, some programs were originally put out as club DOM's, but were in fact Shareware or Public domain programs. An example would be Diversi-DOS.

Send your order and payment to Mini'app'les at PO Box 796, Hopkins, MN 55343, Attention eDOM Sales, or give them to the eDOM salesperson at a club meeting.

Upcoming Apple // Disks

- Been adding memory to your Apple //? Do you have RAM cards from more than one manufacturer? Have you thought it would be nice to combine their memory into one? Watch for Uni-RAM!
- Trying to do a little Stock Market guessing? Maybe P.V. Elves - A Stock Market Speculation Aide, can help you make some of those tough decisions. P.V. Elves is from Ronald Nilson of Vancouver, Washington.
- IIGS utilities and desk accessories, both classic and new DA's. This disk was some-

what lacking in documentation and will take a little time to get it acceptable. Any IIGS elves out there to lend a hand?

- All you FORTH people out there with GS's, watch for a GS version of FORTH!
- Upgraded version of Alpha-EZ BBS software. This upgrade looks to be current as of Spring, 1987.

As you can see, there are several irons in the fire. Anyone interested in helping provide reviews of these and other programs for future newsletters, please contact me at a meeting, send a note through the club's P.O. Box or send E-mail to Box 18 on the club's BBS.

Mac eDOM NEWS

Any members willing to help with the Mac eDOM's, contact me so that I can coordinate these efforts with Joe Carroll, who is currently working with the Mac eDOM's.

Note: we're working hard to prepare the Mac eDOM catalog!



Picture Manager

An Apple Software Review
by Tom Alexander

The folks at Styleware have gone themselves one better. **PICTURE MANAGER** is the latest Multiscribe enhancement program that lets you print graphics to a Multiscribe document.

Beagle Bros' Mini Pix and *Broderbund's* Dazzle Draw graphics can be used as is. However, other hi-res graphics such as those produced with *Beagle Bros'* Alpha Plot and others can be used as well after they are converted to ProDOS.

Print Shop and Newsroom fans, listen up. A utility program called **CLIPCATURE** can be used to convert PS and NR art into plain old hi-res graphics. After all conversions are accomplished, the picture file must then be converted to ProDOS. Now the graphic is ready to be used by **PICTURE MANAGER** for display in the Multiscribe document.

(The procedure for converting PS and NR graphics is quite extensive. If you want docu-

mentation, post a memo to me [#010] on the Club's BBS.)

Reminder: The font(s) and picture file (saved as a font) must be on the Multiscribe program disk when the file containing those graphics is loaded and printed.



Noisy SE Fans!

extracted from *AppleLink*

Do you live near the Minneapolis/St Paul airport. You think that's noisy. Try sitting by a Mac SE? Users around the country are becoming as noisy as the fan in stating their case. Here are a couple:

From: David Smith, Editor of MacTutor D0435
re: SE Fan Problems

"Does Apple have any plans to fix the noisy fan and the magnetic interference from the fan on the video display, or does anyone have a better designed fan that can be swapped for the junk in the SE?"

Tom Warrick, President of Washington Apple PI, replies, "I recall your excellent article on the Great Mac Power Supply Controversy of 1986, which followed Washington Apple Pi's members' experiences, as we reported in our user group publication. We've also written about the Great SE Fan Controversy of 1987. I look forward to reading the explanation (and a solution, I earnestly hope) in MacTutor.

I've heard it said that changing the resistor value on a noisy fan will eliminate the problem. This makes some sense, but not having done it, or known personally anyone who has, I'm reluctant to tell our members to do it. Thoughts?"



Membership Dues

go up to \$12

on Dec 1st

Renew Now and Save!

Apple Magic

Copyright (C) 1987

Reprinted from TPUG Magazine, publication of the Toronto PET Users' Group.
and

The Harvest, publication of the Northern Illinois Computer Society (NICS).

by

Larry McEwen, English Teacher
Hastings Sr. High, Hastings, NE

It was August, 1984. I had just completed the opening pre-school meeting of the Hastings, Nebraska, Public Schools teaching staff. Our superintendent had delivered an informative speech—a speech extolling the virtues of our new school-wide venture into the next generation of educational electronic aids—computers—and emphasizing that all would be affected by this new revolution. We were told

that our school board was committed to a district-wide program of computer purchases and computer-literacy training. It was now our responsibility, now that the computer was here to stay, to learn how to use it.

And so, fighting the natural resistance to anything “new,” I signed up for a computer class during our period of in-service training. I had no idea how that decision would change my life, my wife’s life, my children’s lives, and the lives of my students whom I have taught since that eventful week in 1984.

I had never touched a computer before. I viewed these high-priced machines with more than a little disdain because just that summer I had purchased an expensive electronic typewriter, a fabulous machine which remembered an entire line of typing, which could “lift” letters off the printed page—eliminating my past need to pour Liquid Paper over the last third of every page I prepared, and which did not sound as though it were going to take off! It had no fan—no motor!

Push a button. Presto! Automatic centering! Try another! Automatic underlining! What could computers do for me?

Magic Window. The words meant nothing to me. For some, though, it is a word processing program. From ARTSCII. That day I was to be introduced to it. Prophetic that this program should have been called “Magic” Window, for it was truly a magic day for me.

With reservations, I sat before this strange, yet “familiar,” machine—familiar because its keyboard looked something like my typewriter keyboard at home, “. . . except,” I commented to the teacher sitting next to me, “it does not have those wonderful single-button keys which allow my new machine at home to perform its underlining and centering miracles.” Although dubious, I was also curious about this screen of “magic” upon which letters could be placed which would, so they said, eventually end up in order on paper.

In the training session, I was given magic codes, operating instructions! ESCAPE. RESET. CONTROL-Q. CONTROL-Z. CONTROL-THIS, CONTROL-THAT. How in the world did anyone remember these foreign key-strokes, and what was “CONTROL” anyway?

At the conclusion of my training I printed out some totally useless prose which I took home and showed to my family with a smidg-eon of pride. I had touched a computer and had “CONTROLled” it enough to print out sentences and to arrange them into paragraphs. I explained how I had even moved entire sentences from one place to another, thereby rearranging whole paragraphs.

I tried to show them how it was possible to change a sentence just by moving words on the screen. No Liquid Paper. No miraculous lift-off key. Just a screen which scrolled.

For the next five to six weeks, I worked after school each day to learn in the computer lab. Straining to understand, in some strange way, I could see something beyond the surface of the monitor’s screen. I could look into that screen and could see windows and windows, openings and openings, light and more light about what could be done for the English teacher, by the English teacher, and for my English students. Why, even tests could be rearranged so that different rows could receive different versions! And grades could be kept so that averages would always be available for the concerned student, parent, and the conscientious teacher.

I saw an opening into the world of the computer—and beyond! I saw “Magic!”

Here, I think it is important that I tell how old I was that month of August lest someone think that I was particularly malleable because I was still young or newly out of college. Not so. When I first touched a computer, I had just turned fifty.

Now began earnest discussions at home. I tried to point out to Charlotte, my wife, how the computer worked, how its full capabilities were still hidden and still unexplainable; but, I reiterated to my skeptical mate, I had looked into the “window”—I had had a glimpse of possibility! I tried to impress her with arguments about how essential it was that we buy one so I could continue to learn at home in the evening. The school lab closed too early; and, at the age of fifty, I had no time to lose. I had to work to catch up with the revolution and to catch the revelations that I had foreseen through the computer’s “magic window.”

Well, Charlotte had not seen its magic,

CUSTOM PROGRAMMING APPLICATIONS SUPPORT

Fast efficient programs
or applications, tailor-
made for YOUR busi-
ness.

- Apple, IBM PC/XT
- Programming (Assembler, Basic, C, COBOL, FORTRAN)
- dBase, Smart, Lotus and other applications.
- Training (Wordstar, Lotus, etc.)
- Documentation/Writing
- System Consulting.

(612) 933-2540
Arsen Darnay & Associates

and besides, she was not employed on a full-time basis. Money was scarce, very scarce. There were many things we needed; and, remember, we had just purchased a very expensive electronic typewriter. But, somehow, probably because of Charlotte's faith in me, I managed to get her to go with me and to look at the computers at the Apple dealer's.

It was the year of the //c. A fabulous new machine with 128,000 (I could not use "K"!) bytes of memory in RAM, whatever that was! An "all in one" machine. I bought it. I bought an Imagewriter printer. I also bought an external drive to complement it, an excellent decision on my part because it sped up my learning. Surprisingly, the Apple dealer did not want to sell it. It was the only one the store had. I almost had to commit larceny to take it home. (Now, in looking back, I can see that it was the dealer who committed larceny. I paid an outrageous price and did not even get a box with it.)

But, we took it home, put it together, and Charlotte saw the magic in the window.

Charlotte is now a school counselor and teacher. She also teaches computers. We both took a course in BASIC and progressed from there with the help of others and our wills to learn. I have written a program or two, and we have discovered that one machine could not be used full-time by two people. So, in addition to our //c, we now own a //e with 1 Meg of memory, a Transwarp (Sometime I'll have to write about what that has done for our productivity!), two 5.25" inch drives, two 3.5" drives, and last week we ordered a IIgs. Our trusty /c will probably leave the house to make room for our new GS.

The school has also recognized my need to have a complete professional system in my classroom. My students know their averages whenever they want. These are posted regularly by secret code numbers. They love it, and they know that their grades are "earned" by them, not "given" by the teacher. (What worthwhile leaps toward maturity on their parts!)

I have all my classwork on disk. I revise each unit every time I teach it to improve it and to keep it fresh. It's not hard to do simply because I do not have to retype everything since "every" thing does not usually need revision. However, I will never forget that prior to my learning to write with the computer, to revise one of my units was always an extremely laborious and unpleasant task. Everytime I faced it, I faced it with reluctance because of the considerable and necessary retyping. Retyping is not just a major undertaking; it is a pain in both the neck and back. Entire pages had to be retyped just to accom-

modate a few revisions. To complete this task always meant that I had to spend what I now view as excessive and wasted time retyping whole pages and using whole gobs of Liquid Paper.

In looking back over the path I have taken, I regret only that I can no longer use Magic Window. I will probably always have a warm-hearted affection for that program. It was so appropriately named! "Magic" was what it both worked and brought into my world as a teacher. However, my needs grew in other directions. But, for me, for Charlotte, for some of my students, for some of Charlotte's students, for my children, the computer is still the "magic window" where words fly on and off the screen, around the screen, move here, move there, and into RAM, to the DeskTop, into papers and essays, through spelling and grammar checkers, onto original crossword puzzles as clues and aids in learning every novel we study in my English classes, through grade programs, in and out of databases, into ASCII files, into DIF files, even onto spreadsheets, and lastly through our Imagewriters onto paper.

Yes, by the time you read this, we will have two. We also ordered the new Imagewriter II when we ordered the IIgs.



Club Notices !!

Membership dues will increase to \$15.00 annually, as of DECEMBER 1, 1987.

RENEW NOW AND SAVE!

CLUB DISKS

5.25" Now \$3.00 each

3.5" Now \$5.00 each

Check eDOM News for multi-disk deals

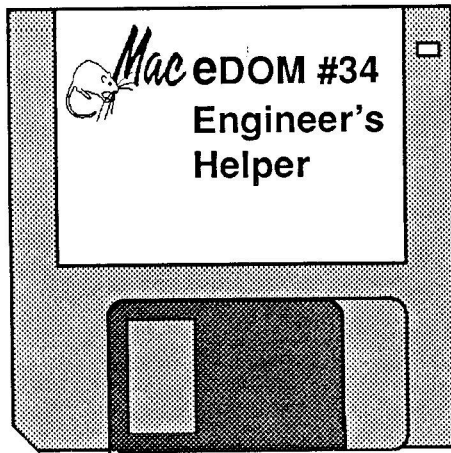
Mini'app'les Financial Statement for Mini'app'les Fiscal Year, covering period from August 1, 1986 to July 31, 1987

1986	August	—	—
	September	4,729.70	2,572.60
	October	1,366.00	2,966.55
	November	2,614.90	3,173.75
	December	5,578.00	1,194.36
1987	January	63.52	859.69
	February	1,402.03	1,075.95
	March	2,310.16	3,606.05
	April	2,327.17	1,501.65
	May	276.72	1,263.86
	June	2,739.32	2,949.20
	July	1,846.54	1,492.34
	Totals:	25,254.06	22,656.00

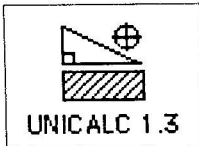
Total Income:	25,254.06
Total Expenses:	22,656.00
Profit:	2,598.06
Beginning Balance:	17,377.47
Ending Balance:	19,975.53

Note:

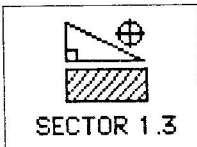
Cash reserve included in balance for tax contingencies



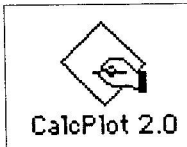
by Joe Carroll
Mac eDOM Coordinator



Universal Calculator (UNICALC 1.3) (80K) is designed for mechanical engineers. You input any two numeric quantities (x and y) followed by RETURNS, and the sum, difference, and lots of other quantities (including trig functions) are computed and displayed. You can get the real thing (this is a demo?) along with instructions for \$10. It also does triangles (pull down item) of both the right and oblique type. No documentation included.



From the same source: **SECTOR 1.3** (56K) This shareware (\$10) program computes the arc, chord, radius, angle, height, and base of a sector plus sector and segment area and volume. It also provides the surface area of the volumes. All this from entering any two of the quantities: arc, chord, radius, angle, height, or base. No documentation.



CalcPlot 2.0b (41K) is home-grown shareware (\$10) that permits the quick plotting (visual representation) of any function $[y = f(x)]$ that can be described by a series of RPN key strokes (including storage and retrieval). The calculations are constructed in a formula screen; a plot design screen allows the user to specify the range of the unknown to be plotted, the portion of the dependent variable to be displayed, and other plot features such as autoscaling, grid type, and axes labels. Minimum documentation is included.



dCAD Calculator (10K) is a desk accessory calculator of the algebraic type with lots of engineering functions (sin, cos, exp, log, pwers, roots, ...). It also works in hex, binary, and octal which changes the calculation keys into logic command keys. No documentation.



meyersProgCalc (15K) is a shareware (\$15 single, \$75 site) DA which performs operations on two registers and puts the result in a third. Unary and binary operations can be performed on each register. Base (hex, dec, oct, bin), size, and sign of each register are alterable. A manual with detailed instructions will be sent upon payment.



PrintSTR#'s — (6.3K) Most (well-written) applications store text data, such as error messages, in STR# resources. This program will pull the text of all STR# resources into a text file, readable by any text editor. It is also very useful for programmers wanting to document the STR# resources in their program. Shareware, \$7.

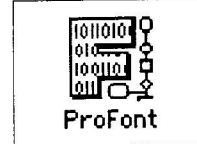


UnitConversions — (23K) This DA will make unit conversions from metric to English and back again. Includes Length, Area, Mass, Volume, Speed and Acceleration conversions. Enter a number and select the type of conversion. Quite nice.



Stack Sniffer 1.0 (3K) is for programmers. It continuously displays the stack pointer and the address of the top of the applications heap. Good for tracking recursive routines, etc. Stack Sniffer is a public domain DA contributed by Jan Eugenides, Assembly Corner.

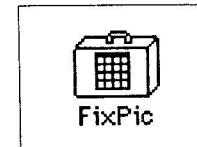
ChemIntosh™ Molecular Mass Calculator (17K) generates molecular or exact (spectroscopy) mass from an user-entered formula. It is a public domain DA by SoftShell Company (Macintosh software for chemists).



Programmers Font — (9K) This shareware (\$5) application modifies the monaco-9 font for better readability. Makes larger parenthesis, capital I, lower case l (el), crossed zeros.



Planets — A large (90K) application that computes something relative to planetary orbits. Haven't tried it enough to see how it works.



FixPic (version 2) (2.5K) is a DA that makes MacPaint images appear equally black when inserted into a MacWrite document and then printed in "Best" quality. (Usually these images appear gray and faded compared to the text.) Free from Michael A. Casteel, 1985.



Stars version 1.8 (7.5K) is a DA screen saver that produces stars coming either towards you or receding from you into a black hole. J.M. Ziegler, July 1987.

Club Notices !!

Membership dues will increase to \$15.00 annually, as of December 1, 1987.

Renew NOW and Save!

MaceDOMs
Now \$5.00 each
See Announcements

MacSIG
Southdale Lib—Sep 3rd
New Apple Mac System
Software featuring
HyperCard
and Curtis Julliber

MaceDOM Catalog should be ready to mail with Oct. Mini'app'les

Macintosh[®] Spelling Checkers

by John L. Hansen

Editorial—John Hansen has put together the most complete and thorough review of Mac spelling checkers I have seen anywhere. Because of its thoroughness, it is also rather long. So we bring it to you in 3 installments. This is the last installment. You heard that before right? You're right. Seems we goofed and accidentally deleted 3 of the reviews. This happened when we cut back the size of the first installment (April Mini'app'les) and forgot to include them in the 2nd installment (May Mini'app'les) or 3rd Installment (June Mini'app'les). So here they are: Mac Proof, Spellswell and Thunder!

Installment 1a

MacProof Version 2.0

Automated Language Processing Systems
190 West 800 North
Provo, UT 84604
List Price: \$195.50

MacProof is "more than just a spelling checker." It does contain a 93,000-word dictionary (241K) that is user-modifiable, but it does not offer suggestions of correct spellings. You must print a copy of your document with misspelled words marked and then make corrections using your word processor (See Figure 6). This dictionary was the only one that contained "emplaced."

MacProof is designed to provide the information on mechanics, usage, style, and structure needed to make you a better writer. It checks spelling, capitalization, and punctuation. It has tools for analyzing sentence and paragraph structure and looks for confusing words, sexist words, racist words, "be" verbs, and discouraged, overworked and vague words. Again, no corrections or changes can be made in MacProof. They must be done by printing necessary copies of your document from MacProof and making the corrections with your word processor.

MacProof is available in a stand-alone or networked version. The former requires a Mac Plus (or better; Ed.). The program opens files created with MacWrite 4.5 or Microsoft Word 1.0 and 1.05, but will not read Word 3.x files. Information is provided to help use other programs. The 105-page manual provides detailed information on use of the program.

Because MacProof does not provide for spelling correction in the program, I could not run my timing tests. It took MacProof 1:08 to check the spelling in most of the first test document. I could not get it to check the last paragraph of the document even by deleting the entire document except for that paragraph and by retyping the paragraph. MacProof found all of the misspelled words and, except for two proper nouns, did not show any other words as misspelled.

The second test document required 1:25 to check. All misspelled words were found and only the only correctly spelled word shown as misspelled was *precellular*. MacProof was much better than any other speller, reporting only one correctly spelled word as misspelled.

However, the MacProof dictionary contained only 88 of the 100 randomly selected words.

Comments: If you're looking for a simple spelling checker, MacProof is not the program for you. If you want to improve your writing, this program can probably help. Sample reports are included and the manual contains a chapter on the elements of good writing. Similar programs include **Tools for Writers™** (Drexel University by way of Kinko's Academic Courseware Exchange, \$16.85), which has a very rudimentary dictionary, runs much slower, permits corrections to be made in the program, but cannot read MacWrite or Word files (they must be loaded via the Clipboard and formatting is lost) and Doug Clapp's **Word Tools**. Doug's program will permit corrections to be made and will cost about half the price of MacProof (if it ever comes out). (Ah, ha! See what good things come to pass, as time passes? Doug's program has been shipping for several weeks, now; Ed.)

Spellswell Version 1.3a

Greene, Johnson Inc.
15 Via Chualar
Monterey, CA 93940
List Price: \$74.95

Spellswell has a 187K dictionary. Words can be added to and removed from it. Spellswell checks spelling, incorrect hyphenation, and homonyms. A separate dictionary can be set up for each document to include words used in that specific document, but not wanted in the main dictionary. If you correct an error once in a document, Spellswell will automatically correct it each time it occurs again. Spellswell can read MacWrite 4.5, Microsoft Word 1.0 and 1.05, and any plain text documents. Spellswell will work on all Macintoshes, but is not recommended for 128K Macs. The manual is only 30 pages, but explains the program clearly.

A document to be checked is opened directly from Spellswell. It is recommended that a backup copy of the document be made in case of an unexpected error. Version 1.2d opened with homonym checking. The first time I tried the program, after three minutes, I had not seen a misspelled word, was only 35 words into the document, and had been asked nine times which homonym I wanted to use: no/know/nose, one/won, war/wore, in/inn, so/sow/sew, the/thee (three times), and cede/seed. Needless to say, I turned homonym checking off and never used it again. Version 1.3a makes this feature an option.

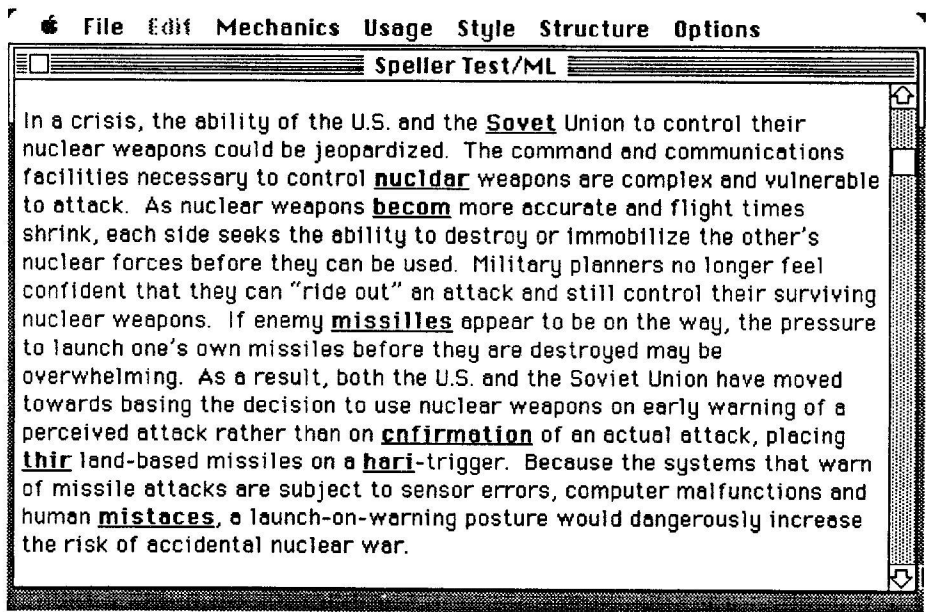


Figure 6. MacProof spelling check

Continued, next page

Macintosh Spell Checkers, contd.

When an unknown word is found, it is displayed (Figure 7) along with a suggested replacement and six lines of text. The replacement is also highlighted in the dictionary window (upper left). The entire dictionary

have 12 correctly spelled replicates of one word, however.

The correct suggestion was visible or within one dictionary screen for 17 words (22 words if two dictionary screens were allowed), but for only eight did Spellswell highlight the correct word. For eleven words, the correct

Thunder!™ The Writers Assistant Versions 1.0 and 1.01

Publisher: Batteries Included
 30 Mural St.
 Richmond Hill, Ontario L4B 1B5
 List Price: \$49.95

An item I noted when I first looked at the manual was the misspelling of the word "Tutorial" as "Tutorial" in the Table of contents. When asked to check the spelling of the latter, Thunder did list the correct spelling as the suggested replacement. I haven't found any misspelled words in Thunder yet.

Thunder's dictionary uses only 88K of disk space. Words can be added to several dictionaries or stored temporarily. The program also counts words, paragraphs, sentences, average number of words in a sentence, Gunning's Fog Index, and Flesch's Index. A Learned Words Dictionary allows you to enter words you commonly misspell and abbreviations. Using this dictionary, "recieve" can be automatically changed to "receive" and "fyi" to "for your information." I accidentally added a word to the Learned Words Dictionary and found that entry of a word followed by blank space in that dictionary will automatically delete the word when you type it.

Thunder requires at least 512K. I have tested it on a Mac Plus with no problems. However, on a 512K Mac, I was able to add words to the Supplementary Dictionary, but the program would not use that dictionary in spelling checks. A call to Batteries Included Customer Service suggested my problem would be solved with Version 1.01. Unfortunately I wasn't able to check that statement because 3M had updated my Macintosh to a Mac Plus during the month it took to get first an Atari ST version and finally the correct disk.

The 74-page manual covers the program operation in detail and contains considerable information on isolation of problems. A table summarizes compatibility with 22 Mac programs and further details are given in an eight-page discussion. MacWrite and Word are the only two word processors specifically mentioned in the compatibility table.

Unfortunately, the table indicates that formatting will be lost when a Microsoft Word™ 1.05 document is batch checked. Word can be used interactively.

Formatting is maintained with MacWrite 4.5, but there are some special situations where will be lost. Style and font changes will be maintained. Because MacWrite 4.5 will only let you paste selections less than 32K, a longer document will have to be divided into sections smaller than 32K.

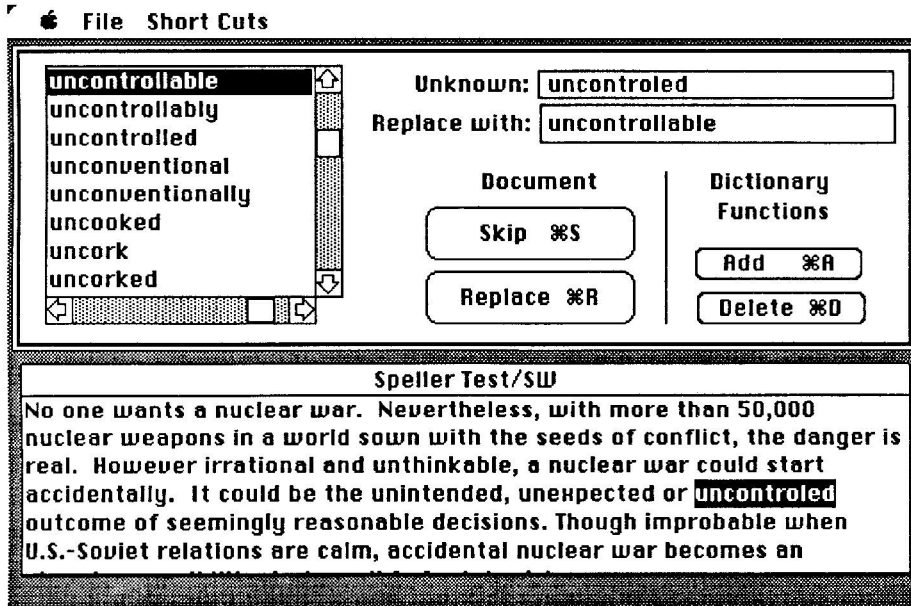


Figure 7. Spellswell spelling checker window

can be scanned in this window by using the vertical and horizontal scroll bars.

Checking the first test article, Spellswell reported 979 words, 57 of which were questioned. Spellswell highlights a suggested word in the dictionary box. Because only eight or nine words are shown, the correct word may not be shown, but is often only a short scrolling distance away. A click on the correct word will enter it in the Replace with... box. Several times the correct word was in the dictionary, but too far away to scroll conveniently. If the suggestion is not correct and you know the correct spelling, it is necessary to click on the unknown word to copy it to the Replace with... box where it can be corrected. In any case, the misspelled word is replaced by clicking Replace or using the Command-R keys. The first time through, it took me 29 minutes and 19 seconds to make the corrections because every time I replaced or skipped a word, I was delayed by a Replace All or Skip All box (some homonym checking was also involved). When I turned off homonym checking and selected the Short Cuts (Quick Add, Quick Skip, and Quick Replace), eliminating all the extra screens, I was able to correct all mistakes (mine and Spellswell's) in 5:33 (Version 1.2d) and 3:20 (Version 1.3a). The Skip All feature is very handy when you

choices were too far away to use scrolling conveniently. Spellswell, in addition to proper nouns, reported the following words to be unknown: *unintended, immobilize, malfunction, escalation, intercontinental, ballistic, and warheads.*

I corrected the second document in 3:06 using Version 1.3a, one of the fastest times I attained with these checkers. The correct guess was shown for only one word and only six additional words were within one dictionary screen away. Eight correctly spelled words were not in the dictionary.

Ninety-four of the randomly-selected words were in the Spellswell dictionary, but only 15.3% of the guesses for misspelled words in the test articles were correct and only 40.7% of the misspelled words were within reasonable scrolling distance.

Comments: The Spellswell dictionary contained the largest number of my randomly selected words, but the algorithm for spelling guesses is very inefficient. My correction times were very good without correct guesses because I knew how to spell the words and the Short Cut features make it possible to do corrections or skips quickly. I would not select Spellswell as my first choice, but experienced users like the program very much.

Interactively, you can elect to have spelling errors indicated by a flash of the menu bar or by a beep. When a misspelled word is indicated, Command-Space Bar brings up the Thunder screen shown in Figure 8. If the suggested word is correct, pressing 1 (or the number of the correct guess if more than one is shown) will enter the correction in your document. If no word is shown, clicking New allows you to enter the correct replacement. A new word can also be added to the Main or Supplementary Dictionaries. Unfortunately for Word users, Shift-Command-Space Bar, which can be used to change from bold,

italic, or underlined type back to the standard font, also activates the Thunder screen, requiring a click on Cancel to get rid of it.

A potentially serious problem occurs during interactive use. If a misspelled word is corrected using the suggested word, Thunder does not detect a misspelling in the next word. This was true with both Versions 1.0 and 1.01.

During batch checking, the window shown in Figure 9 appears and corrections are made by pressing the number key corresponding to the correct word (or by clicking Replace or Change All). A new Supplementary Dictionary can also be created. The scale on the

right shows how much of the document has been checked.

When I checked my test document, it took me 3 minutes and 59 seconds to correct and Thunder suggested the correct word in 33 of 34 misspelled words. The correctly-spelled words in the document not found in the dictionary were *salvo*, *Americans* (it's a Canadian program), and *emplaced*.

For the second test document, Thunder provided correct suggestions for 23 of 25 mistakes. The word "creationism" occurs 12 times in that article. When I added that word to the Supplementary Dictionary, I was able to correct the article in 3:07 and 2:58 in two trials.

The speed of this program was enhanced by the high proportion of correct suggestions. The ease with which that a correction can be made by pressing a number key minimizes the need to use the mouse and other keys to make corrections. However, this speed was somewhat counteracted by the fact that Thunder takes 2.4-13.8 seconds (1.8-7.5 seconds with Version 1.01) to find guesses for misspelled words or determine that none are available.

Because of the large number of correct guesses (94.9%) by Thunder for the two test articles, I was very surprised when only 38 of my 100 random words were found in the Thunder dictionary.

Comments: MacUser† lists Thunder as the best spelling checker currently available. This may be true with MacWrite, but in its present form (or, according to Batteries Included, because of Word's present form) it is not true for Word users. Batch checking is definitely out if you use any type of formatting and there are some interactions with Word that create minor annoyances in the interactive mode. It is also imperative to quit Thunder before shutting down Word. Failure to do so brings up a system error, eliminating any unsaved text. The manual does contain adequate warnings of the problems with Word, but it's tightly sealed in a shrink wrap when you buy it.

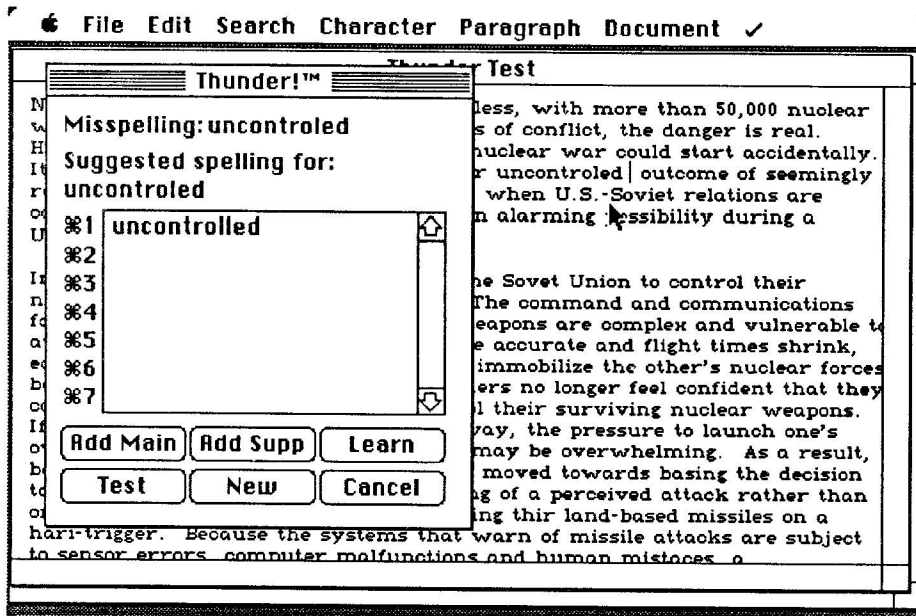


Figure 8 (above). Thunder window for interactive checking

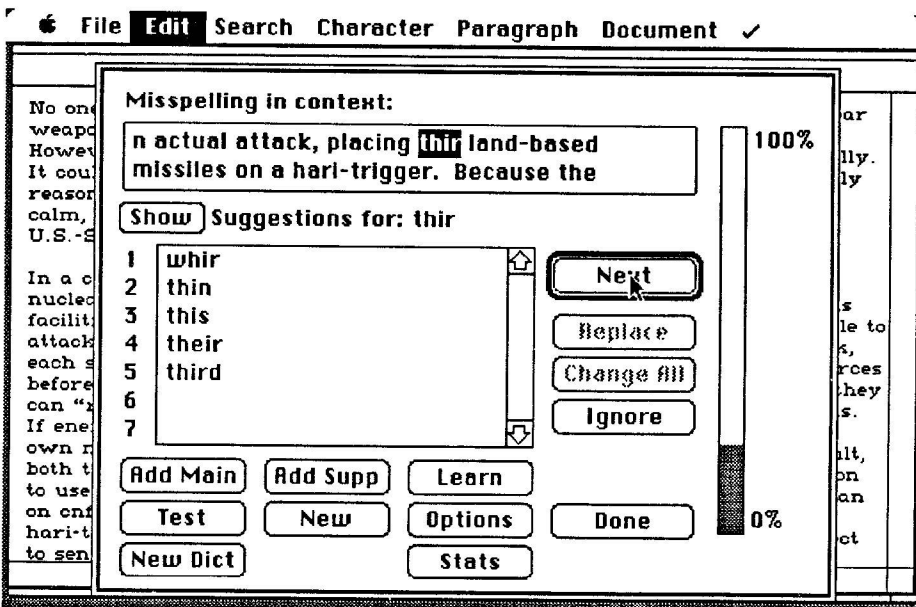


Figure 9 (above). Thunder window for batch checking

Membership Dues
go up to \$12
on Dec 1st
Renew Now and Save!

New Mac Software Products

Downloaded from AppleLink
and

Edited by Dan Buchler

On August 11 at the Mac World Expo in Boston, Apple announced a slew of new products. This month we'll talk about some of the software products. Much of this material comes directly from Apple because its too early to bring you a review. Next month we'll talk about new hardware. Note that HyperCard will be demonstrated at the September MacSIG meeting.

The three products discussed here are:

- HyperCard
- MultiFinder
- Apple File Exchange

HyperCard

HyperCard software enables Macintosh users to easily customize storage and retrieval of both text and graphics, making organization of large amounts of information easy.

HyperCard is based on a simple idea—a stack of cards, each containing information. Cards, which are the basic units of information, are organized into stacks. The number of cards, each of which is created with the familiar Macintosh point and click technique, is limited only by the storage capacity of the user's disk. Users can browse, sort, make notes, type or draw on these cards in the same way they might use paper index cards.

HyperCard—the culmination of a three year team effort led by Bill Atkinson, Apple Fellow and the developer of QuickDraw and MacPaint—is software considered by Apple to be a fundamental building block of Macintosh technology. It is not an application like a spreadsheet or database program. Rather it is a software engine on which information can be tailored to users' individual needs.

Entering text or adding graphics with HyperCard is also easy. Just use the mouse to point and click wherever text or graphics are needed. Or, if you prefer, text and graphics can easily be copied and pasted from other Macintosh applications or desk accessories.

HyperCard features the ability to organize important concepts by linking a card to any other card by the use of "buttons." These buttons let you organize facts, concepts, and

images the way they naturally are associated—just call up a single card to get all the related information. But there's more to buttons than just linking information. Buttons can be used to perform such tasks as dialing the phone, performing a lookup, or printing a report. And the number of buttons in HyperCard is unlimited.

"Stackware" is the category of applications that Apple expects to emerge from HyperCard technology. Users can purchase third-party commercial card stacks and if they like, customize them or create their own with an easy-to-learn scripting language that is included with HyperCard. A user's information base can even be linked to a commercial information data base for almost unlimited data availability. The number of stacks and cards per stack is limited only by available disk and file server storage capacity. Apple and user groups like Mini'app'les are anticipating that a whole new set of files will in the form of "stackware" will appear on CompuServe, GEnie, and in our own eDOMs!

HyperCard benefits the entire range of users from browsers to information providers. Casual users can browse through commercially published information or build their own base of information from scratch; intermediate users can link cards and customize the way information is accessed; and sophisticated users and information providers can create stackware applications with extensive use of HyperTalk. HyperTalk also allows stacks and buttons to be further tailored, offering users the ultimate control over how different types of information—text, graphics and video—are integrated and organized.

All HyperCard users will also be able to take advantage of HyperCard's ability to connect to external devices such as optical discs and on-line information services.

HyperCard can turn scholars in most subject areas into courseware developers. Professors can create or purchase Stackware on a variety of subjects and integrate it into the curriculum, taking advantage of HyperCard's customizing capabilities to fit their individual ways of interpreting and delivering the information. Similarly, HyperCard allows professors and teachers to easily integrate interactive multimedia presentations in their lessons.

In business and government, HyperCard can be used to compile data, create interactive job training or serve as a front end to large databases. For example, automobile mechanics could purchase an auto parts catalog stack for their business. They could point to a diagram of an engine and then point to a portion of the engine for information such as part number, price and suppliers who sell the part.

HyperCard Components:

HyperCard comes on three disks plus a backup:

- A main HyperCard disk
- "Desktop Stacks" for an address file, datebook, "To Do" lists, calendars, and a filing system (cabinet).
- A phone dialer for the Apple Personal Modem or any touch-tone telephone (*you have to get the speaker near to the handset!*).
- A stack of U.S. and Canadian area codes with major cities and time zones.
- Idea stacks with hundreds of stack templates, card designs, and clip art drawings.
- Complete on-line help stacks created entirely in HyperCard.
- 225 page user tutorial and reference manual.

HyperCard is available now, and is compatible with Macintosh Plus, Macintosh SE, and Macintosh II CPU's with a minimum of 1MB RAM. (*Editor's note: At this writing, HyperCard and the new MultiFinder... see below... are real memory hogs—that's why HyperCard is fast. One cannot run HyperCard with the new MultiFinder in a 1MB RAM machine. Two MB of RAM is recommended. However, this is not as bad as it seems at first glance as you will be able to install both MultiFinder and the regular Finder in your System Folder. MultiFinder has an option which allows you to disable MultiFinder following the next "Boot".*) Two 800K floppy disk drives, or one 800K floppy disk drive and hard disk are also required. (*Editor's note: HyperCard supposedly takes up 750K of disk space and the application itself, when loaded, takes up about 400K.*) HyperCard is also compatible with the AppleShare FileServer.

Price and Availability

HyperCard, Apple Model No: (M0556), will be included with all new Macintosh computers. It will begin shipping in the United States starting in August. It will also be available to current Macintosh owners for the suggested retail price of \$49 through authorized Apple dealers. It will also be available through Apple direct sales channels.

Editor's Note: I have seen this product demonstrated and I think that it will do a lot of things for many people. It is lightning fast. It looks like it will solve several applications problems for which we have been seeking a solution for 2 years! Apple is looking at this product as a new revolution in Personal Computing and I think they may have a point. Meanwhile, many 3rd party developers are real upset with Apple!

MultiFinder

You can boost the productivity, speed, and ease-of-use of your Macintosh systems with MultiFinder—the first generation multi-tasking operating system for the Macintosh.

(Editor's Note: This is the product we have heard of as Juggler. It was developed originally by Andy Hertzfeld as Servant. Andy sold the product to Apple without exclusive rights. Supposedly you will be able to obtain later versions of Servant from CompuServe and GENie that maybe don't do everything that MultiFinder does, but might be a substitute!)

With MultiFinder, you can:

- Use multiple applications at the same time
- Switch between them at the touch of a button
- Open documents while working on other applications

And new applications will allow you to do things like background telecommunications or file processing so you can do one thing, while the computer does another. It's like having multiple computers at your fingertips. MultiFinder saves time normally spent switching between applications by allowing more than one application to be open at once. There's no need to close and re-launch programs when switching between applications. With MultiFinder, cutting and pasting from one application to another is fast and easy, since both can be open at once.

There are three ways to switch between applications:

- Application windows can be viewed concurrently on the screen. Select an application by clicking inside that application window.
- Click on an open application list in the Apple menu.
- Double click on open application icon in the Finder.

One of the best timesaving features of MultiFinder is its ability to run background applications while simultaneously working on different applications. For example, you can print a lengthy word processing document while also entering transactions in a data base program. Or, with new telecommunications programs, retrieve and print electronic mail while working on a spreadsheet.

MultiFinder is an integral part of the Macintosh Operating System, is compatible with most current Macintosh applications, and can be turned off if it doesn't work with an application. It utilizes the standard Macintosh Finder interface, with all the features of the standard Finder, so it's easy to learn and use.

MultiFinder, available in late September,

is an integral part of the Macintosh System Software Update included in all new Macintosh computers. MultiFinder is also available to current Macintosh owners for \$49 in the new Macintosh System Software Update, sold through authorized Apple dealers and direct sales channels. The Macintosh System Software Update will include all the latest System disks, Apple File Exchange, new Macintosh utilities and documentation for all the new features, along with instructions for updating systems with the new software.

The Macintosh System Software Update package will have an overall single version number to make revisions easier to keep track of, which will be on the package as well as on each disk. For your reference, the separate version number for each System file will also be available.

As new version of Macintosh System software become available with new features, the Macintosh System Software Update will be revised to include the latest software and documentation.

MultiFinder is also available through other sources including electronic distribution services and user groups. *(Editor's note: as of this writing we do not know exactly how to interpret the last comment! However, it is understood that most of the reason for the \$49 is to pay for rather extensive documentation. There are many options available with MultiFinder which will not be evident to the casual user. However, if you want MultiFinder, and you don't feel the need for that documentation, you will probably be able to legally obtain an update consisting of the software only on your own media from Bulletin Boards like CompuServe, or, perhaps locally, from your dealer. The dealer however may prefer to sell it to you for \$49!)*

Apple File Exchange

Macintosh users can quickly and easily convert files or documents between Macintosh, MS-DOS®, and ProDOS® systems, with the introduction of Apple File Exchange utility. This software allows users to translate files created by one application into a format required by a different application, saving the time and effort of re-entering information into a new application.

Apple File Exchange is the software required to transfer data between Macintosh and MS-DOS environments using Apple's PC 5.25 Drive, and between Macintosh and ProDOS 3.5-inch disks.

With Apple File Exchange, you can easily translate large batches of files at a time—even documents from different applications.

Apple File Exchange provides text and DCA-to-MacWrite® translators, as well as the transfer of binary code. Apple File Exchange can translate MS-DOS or ProDos files transferred to Macintosh disks via a network or data communications link. And more translation opportunities will be provided in the future by third-party software developers.

Apple File Exchange software is included with the Macintosh II PC Drive Card and the Macintosh SE-Bus PC Drive Card. It will also be available on AppleLink on August 21, 1987, in the Software Updates folder under the Apple Programs icon. In addition, Apple File Exchange will begin shipping with every Macintosh CPU in Fall 1987, as well as in the Macintosh System Software.

(Editor's note: It is understood that this is a variation on software written by Tangent Technology and published by that company as part of Mac-Link and Mac-Link Plus.)



Josten's Contd.

Mac have come about within the past several months... adding to the traditional pencil-ink-marker talents of the artists. Helping to make all this look fast, easy and slick, is the **Hyper-Charged Mac SE** that Dorie brought to demo these applications. This hardware/software add-on from General Computer routes a lot of the math through a math co-processor, which augments a 68020 processor. With all of the tricks added, it works a bit faster than a Mac II. Even that needs a little getting used to... with the flick of the wrist, Dorie could find herself "lost" on some remote corner of the page, needing to search about a bit to get back to where she intended to be.

Dorie gave a good presentation, holding true to the monicker of the group. The Mac is in fact a very graphic machine!

MCAD meets once a month at the Minneapolis College of Art and Design. Look up a meeting, if this type of creative Mac use is something that you need to explore. The group seems to be getting a bit bigger, but is still small enough that you can get up close for a look at the screen during the demos.

More bytes later....

TWE



**MaceDOMs are now
\$5 each
See Announcements**

Mac Users Run the Course

by Tom Edwards

Dave, we're going to have to stop meeting like this. I've been to so many Mac meetings that I'm starting to think I see you across the breakfast table, with curlers in your hair! And yet you keep tossing out more juicy Mac meetings for me to attend. It may be the world's biggest cloning job, but it seems to be the only way I can take it all in without missing a beat.

The August Mac User group gathered 'round for a replay. We had seen an early copy of the Course of Action program... back last December... as this local authoring group was just getting some of the basic ideas down into the chips. They were back, and what a difference 263 days can make! One could still see the basic idea that was presented the first time, but now all of the bells and whistles... nay, orchestra and chorus... were along to fill in the missing parts!

Course of Action (CoA, if I may) is about to be published by Authorware, Inc. The program is a tool for the creation of instructional courseware, and written right here in good ol' Minnesota. Calling it just a tool for instruction seems like such an understatement... like saying that a '35 Buggatti Phaeton will get you from point A to point B.

Chuck Buchannan filled us in on the inside skinny about Authorware, Inc. Top mover and shaker is Dr. Michael Allen, who went through the Plato system from the historic CDC days, and brought others from CDC along as he started on this adventure. Plato, too, was a system that was oriented to education, but was limited by the need to have a programmer translate the ideas from the author into code that the computer could understand. As responsive as they tried to make the system, you always seemed to be hanging on the edge, waiting for the next heartbeat, cheering when you finally heard it go "thump", only to realize that you really wanted it to go "athumpa", so it's back to the programmer again!

Chuck had brought some muscle along... Rob Griggs, marketing, and Doug Olson, programming... just in case he needed some help in fielding some questions. Unfortunately, the help needed was of the hardware variety, as the LimeLight system Dave had scrounged so hard to borrow, took this chance to blow a diode. We all snuggled up to the "substitute", a Mac II with 13" screen.

Now comes the hard part. You know the old

saying about a picture being worth a thousand words? So how do I tell you about all of the magic coming from the graphic way that you work with this program, assembling boxes, pictures, icons and animation to create a course of action? (Dan's budget is strained enough, contending with this sops verbose chronicle of events!) This is one of those things that you have to see, folks, to get the best idea of how all of this comes together. As you rough out the course, a small map builds on the screen, depicting the events that your creative mind conjures up to teach or instruct, with little roads that show you how they link together.

Don't like an element? Cut it out, move it, change it, all with the click of a button. Want to show an illustration to reinforce a point? Move your great Paint or Draw creations and place them wherever you want. Animation? Fade things in or out, move them along a jagged or smooth track of your choice or "flip" parts to create the illusion of motion. You can make parts of the screen "hot", so that a click in that area will branch you to an appropriate question or answer. You can even create your own menus, if you want your "instructee" to use that type of interaction.

Doug Olson stepped in to show how the program can use "subroutines", programs that come from other sources, or perhaps something that you write yourself. One example included MacTalk as part of the CoA program. Another feature is something that has been showing up on a number of programs lately, the "transfer" process that lets you leave the program for another, then return to your same position within the program.

and now the bottom line...

CoA is a program designed for those who must create instruction processes for others. A classroom environment immediately comes to mind, but there are many other successful applications: trouble-shooting manuals, assembly details and sequencing, sales techniques. I'm sure you could use it to teach your child that stoves are hot, or the right way to brush teeth, but home use does appear limited. Authorware must think so too, for they intend to market the \$695 program through Value Added Retailers, who will be expected to support the program.

CoA will create "stand alone" programs, but you need a "delivery" disk for them to reside on. That's the "hook" that Authorware will use to maintain control. But a delivery disk can hold many programs, and the programs can be removed and the disk reused... at first blush, it seems reasonable, and also ap-

pears to avoid some of the old copy-protection hassles. Programs will also be portable to "another system" for those with blue fingers. If you want to try a demo, Authorware has a hobbled version available for a nominal \$25 (? , I forget...). If you've been on some of the major information services, it looks like you can download the demo, too.

I was impressed, but so what. I also like Apple Panic and Flight Simulator!

No, I didn't forget... again

I changed the sequence of this report around again, as I did last month, too. Due to the resounding approval from my follower (SOMEONE out there must read this stuff), I put the program review before the "Ask Dr. Ruth" stuff. Maybe "approval" isn't the right word... I just mean that nobody burned me in effigy yet. Of course nobody rushed to tell me what a great idea it was, either! Lest you think that I ran out of ink, here's the first part of the Mac User meeting:

Dave had a whole bunch of future meeting announcements once again. All of the Mac groups are active, and meeting on a once-a-month basis. If there's some special aspect of the Mac that you want to explore, find one more interested soul and start another SIG!

During the New Faces session, there were many of the same reasons for liking a Mac as we've heard before... word processing, graphics, games (FINALLY an honest person!), desktop publishing, telecommunication, network setups, programming and more. When one guy said that he was into DTP with a newsletter to car dealers, the weather events of the past month gave me the title for his new baby: The Soggy Car Times. Look for it at your local newsstand. Price is one 5.25" disk.

Our Q&A session got a bit of a short shift this month, for some reason. Here's the best that I can do... are we all getting so that we know it all? Nah, can't be!

- From the 'buyer beware' section, part 1: A few club members have been finding that all service is not the same from all companies. One user of MacServe (often offered along with Mirror Technologies' hard drives, but not of their authorship), had problems resulting in the loss of some important files. MacServe was unable to recover.
- From the 'buyer beware' section, part 2: Mail order has always been a chancy issue. The NorthEastern Software situation dragged through all of the MacRags for several months. Now some members have been running into split orders, delays, fast billing but slow credit and others symptoms


of troubles brewing. Icon Review got several mentions in that category tonight, and has had comments directed to it at other meetings too. Although we usually toss them together and call them "mail order", there are different rights available to you if you order by mail rather than phone. You might want to check this out before ordering.

- From the 'buyer be aware' section, part 1: Members have good service notices for MacConnection for their mail (phone) order service and attention.
- From the 'buyer be aware' section, part 2: Local retail outlets that received some positive comments for your consideration:
 - EggHead Software: New to the area. Allows 'open and look' and 14 day money-back policies.
 - Software Etc. (some outlets): Will occasionally match prices advertised by others.
 - Dan Patch: Low prices. Not an Apple dealer, but you might want to ask about hardware.
- The Apple // Forever! School systems are on the lookout for used machines that they can add into their inventory. Still the computer of choice for the K-12 educational institutions!
- Anyone seen FullWrite yet? It seems to have a terminal case of vaporware.
- Someone looking for an evaluation of MacMovies. Is there anyone with some experience on the program who can give a few comments at a future meeting?
- The recent how-to for installing 36 DA's into your system was specific to System 3.2. One of the recent MacRags has published patches for System 4.1.
- Menu changes can be made with ResEdit. Detailed program instructions are often few and far between, but experimenting on a duplicate disk can be fun... or total frustration. If you are just screwing around, you can have a ball, armed with just some bare info from magazines and the like. If you 'really need it', best to ask for help rather than go mad with crashes.

TTThat's all, ffolks!

I've done it again. Turned five lines of cryptic meeting notes into 10,000 nonsensical characters of MacTrivia for another month. This club must have the most MacLiterate parakeets around. Tell the darned thing to say "pretty bird" and it responds with "BEEP".

More bytes later...

TWE 

Josten's Overrun by Crickets

Unresponsive to Raid Application

by Tom Edwards

Help! was the cry from Josten's, a nationally renowned manufacturer of custom jewelry for educational institutions and businesses. And charging to the rescue is a Macintosh, riding on a white horse!

Pretty flakey intro for a very impressive demo of Mac applications at the August meeting of the Macintosh Computer Art and Design group. This group has been focusing on ways to use the Mac as another creative tool for the graphic artist. *Dorie Simon* made it all look easy as she walked through several programs used by Josten's art department. A crew of about 12 artists have quickly made good use of the Mac for proposal drawings and other tasks.

Dorie had examples of the raw fixin's that go into their presentations. Scanning and tracing, along with manual Draw and Paint details, are compiled into the Scrapbook. Precision is needed to depict stones (gems) that are incorporated into many of the finished goods... sizes, points and mountings, as well as the overall size modules of certain blanks for rings, pins, etc. C-Scan and an Abaton scanner are used to import logos of companies requesting special pieces of jewelry.

Once these basic elements are available, the artist pulls them together for the proposal. Silicon Beach's SuperPaint is a mainstay for this, with the ability to combine bit-map and vector graphics. After creating a first-try, the artist can "group" the parts, duplicate them, and paste a copy back to the sheet. After "ungrouping" this copy, it then can be adjusted to give the customer a variation on the theme. The copy-paste-manipulate process can continue until the artist has several proposals, each with subtle design changes that can be judged for overall appeal.

After presenting LaserWriter prints to the customer, the "pick of the litter" can be retrieved, modified again, and prepared as a larger, more finished rendering. Often all that is needed is to scale it up a bit, LaserWrite it again, mount it on a board and add a bit of color with Studio Markers.

CricketDraw helps the Josten's artists who create company logos. Using an existing logo, or perhaps just some suggestions from the company, the artist can come up with designs in much the same way as the jewelry. CricketDraw creates PostScript specifications for

the art, including shading and font manipulations that come out great on the LaserWriter, and even greater on higher-resolution devices such as Linotronic typesetters.

Finished designs are transferred to the production department, where digitizer pads convert the art into numeric format for dies and tooling. A 3D drafting program will add another dimension (yuk, yuk, yuk) to both the visualizing and the tooling process. Dorie's looked at several, but hasn't quite found the right program for these artistic endeavors.

And there's more...

PageMaker is also used, for brochures and newsletters to tell sales about what's new. Creating catalogs is a future project that will pull several of these elements together to extend the Mac's productive applications.

All of these creative applications for the

GOTO 15

Macintosh XL Migration Does the Job, with Thanks

by Tom Edwards

Some time back, Apple provided the Club with a copy of the Macintosh XL Migration Package, a utility to transfer files from the Lisa environment to the Mac. The club loaned the software to *Don Ramler*, a Honeywell employee, who needed to do exactly that with a number of files. Don returned the package (see TWE if you need it) and included the following note...

Dear Tom and Mini'app'les,

Thanks for the use of the Migration Package. It worked well, except the fonts got a bit screwed up. I had to **Select All** and select a Font (to change to the font I wanted).

I also notice that the Icon was different from MacDraw. (By the way, I transferred MacDraw documents.) Sometimes after using the document for a while, the Icon became a true MacDraw Icon. I didn't have time to explore more.

If you have need of any help in this area, call me at work (870-6753) or home (459-3481).

Thanks,
Don Ramler

More bytes later..... TWE



Classified Advertisements

Notice

eDOM prices reduced
See
Announcements


MACSIG

Southdale Library

Sep 3

Curtis Juliber

presents

New  system software
featuring
HyperCard

4th Dimension
in October

Each Mini'app'les member may run one FREE non-commercial classified ad per month in the newsletter. Classified ads may be submitted to Eric Holterman by phone (voice) at 822-8528, US Mail to 3608 Blaisdell Ave, Mpls., MN 55409, or on the Mini'app'les BBS, Mini'Info Exch. Use the Email feature and send to Box 21 (ERIC HOLTERMAN). Ads received by the second Wednesday of the month will appear in the next month's newsletter. Ads may be edited for length and to fit our usual format. There is a charge for commercial ads, contact Eric Holterman for details.

This newsletter
was printed on an
Apple LaserWriter
using
Aldus PageMaker
v2.0

For your Newsletter and
Brochure layout needs -
Desktop
Graphics 490-0629

Ergotron MacBuffer, 1024K; \$360.
Appletalk connector for Mac
XL; \$45.
MacAuthor (LaserAuthor); \$90.
Microsoft Chart; \$45.
Jeff 646-2478 (days)

PUBLIC DOMAIN

AppleWorks Disks

The AppleWorks User Group (TAWUG) has a library of more than 26 double sided diskettes of Public Domain templates and files for and about AppleWorks.

The cost is \$3.00 per disk. For Catalog Disk, send \$3.00 to Richard Marchiafava, 7099 Hickory Drive NE, Fridley, MN 55432. Or call 612-572-9305 for information.

New/Demo

800K Mac Drive; \$212.
Duane 937-7352 (days)
941-4751 (eves)

AppleTalk Network Cable; \$45.
AppleTalk Connector; \$45.
MacServe with documentation; \$95.
MacTerminal; \$35.
Spellswell; \$30.
Curt 490-0629

Interface Cards

Grappler+ Compatible \$55
80 Column.64K //e \$49
Disk Controller \$49
Super Serial card \$69
Printer, par/ser/64K \$100
SpeedDemon, speedup \$179

Slimline Fan W/surge \$30

3.5" 800K Drive & Card \$300

Checkmate Memory Boards

1 Meg RGB Board - //e \$239
512K MultiRam CX - //c \$189
Q-Card 256K - //e \$105

3.5" Disks, DSDD 5 pac \$8

RAMCO SALES
Dick 612-572-9305

eDOM prices
reduced
See
Announcements

Sell or Trade:

All in original boxes, original disks, original manuals. Used, but in good shape. Expunging because I have updated to other programs which replace functions provided by these. Will consider offer if you take all. Will buy or trade some/all for Mac versions of FileMaker Plus, Reflex and/or Studio Session, and IIGs versions of Deluxe Music Construction Set, MultiScribe and/or GraphicWriter.

Microsoft Word 1.05 \$30.00
Word processor includes mail merge, advanced formatting, glossary and many other professional features.

Microsoft Chart \$25.00
Create detailed graphs and charts from over 40 style-type selections.

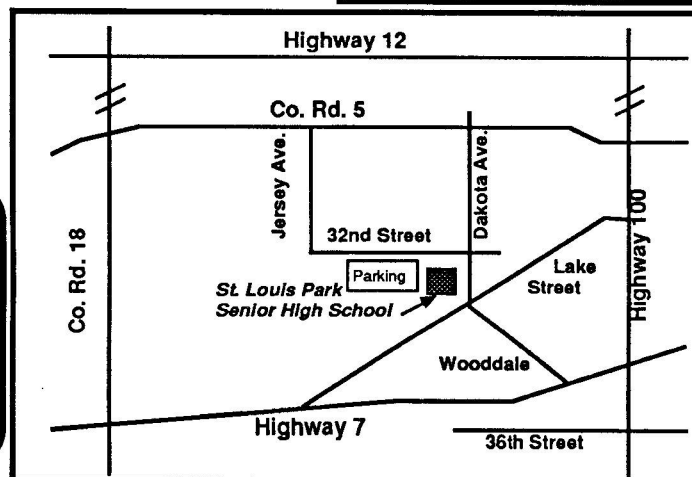
NEC ColorMate \$20.00
Utility adapts MacPaint drawings for color output on NEC PinWriter printer. Includes DB-9 cable (\$45 value alone).

MacTerminal 2.(x) \$15.00
Apple's basic communications programs. Not all bells and whistles of some others, but gets the job done.

PageMaker 1.2 \$60.00
Powerful page-makeup program for newsletters, flyers, manuals and more.

Apple IIGs Fan \$25.00

Tom Edwards 927-6790



CITY DESK COMPUTER WAREHOUSE

EPSON® SALE

**"BETTER-
THAN-EVER
RESULTS!"**

—PC MAGAZINE, November 11, 1986

EPSON®
EX-800 AND EX-1000
DOT-MATRIX PRINTERS



EX-1000

LX-86 **\$199.**

EX-800 **\$439.**

LQ-800 **\$489.**

Prices reflect cash discount. Sale prices subject to quantities on hand. Quantities are limited. Expires 7/31/87

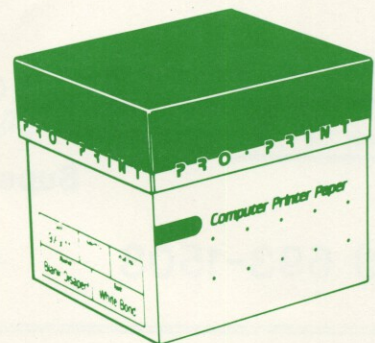
We will not be undersold on Epson Printers!

EPSON is a registered trademark of Seiko Epson Corporation.

PAPER SALE

2000 SHEETS
9½ x 11 20 lb. DISAPERF PAPER

\$15⁹⁹/CASE



Maxell MD-2 DS/DD Diskettes **\$11.99** / box of 10

Quantities Are Limited

Must Present Ad

Expires 7/31/87

CITY DESK COMPUTER WAREHOUSE

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

Hours: M-W 9:30 AM—6:00 PM Th & Fri 9:30 AM—8:00 PM Sat. 9:30 AM—5:00 PM

Fast, low cost delivery available on all products.

YUKON COMPUTER PRODUCTS

1409 FAIRFIELD RD MTKA, MN. 55343

APPLIED ENGINEERING

DATALINK is Here

Internal 1200 Baud Modem

- * Ile, II+, IIGS compatible
- * 1200 and 300 Baud
- * Works in any slot except 0
- * Autodial, Autoanswer
- * Phone cables and Connectors
- * 5 year warranty
- * Software included

\$ 199

SERIAL PRO

Powerful Multifunction Card

- * Ile, II+, GS Compatible
- * Fully Super Serial Card Compatible
- * Printer and Modem Compatible
- * Full Function Clock/Calendar
- * Time/Date Stamps AW Files
- * Does not use phantom slots

\$ 139

NEW

LASER 128 EX

Superfast Triple Speed Processor

\$ 495

(612) 593-1503

CALL AHEAD

Ridgedale Area of Minnetonka



mini'app'les
Box 796
Hopkins
MN 55343

Address
Correction
Requested

Bulk Rate
US Postage
Paid

Hopkins, MN
Permit 631