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mini´app´les

newsletter

Vol. 13
No. 12

The Minnesota Apple Computer User's Group, Inc.

DECEMBER 90

Calendar of Events

M	T	W	T	F
Deadline 3 for January Newsletter articles is December 1st.	4	**Apple // Main Meeting** 5 North Regional Library, 1315 Lowrey Ave North – 7:00 p.m. Tom Ostertag 488-9979	**Mac Main Meeting** 6 Hennepin Southdale Library 6:30 / 7:00 p.m. - Mike Carlson 866-3441, David Stovall 474-8015 --- **Apple II DTP SIG** 7:00 p.m. - Bill Warner 644-0658 Murray Jr. High School, St. Paul	7
Mac Computer Art & Design SIG 10 Minneapolis College of Art & Design, 133 E 25th St., Rm 325 Subject: Understanding Postcript and Postcript Programming Speaker: Fritz Lott 6:45 p.m. - Joy Kopp 440-5436	11	**Dakota County SIG** 12 **Mac, Apple II, Apple IIGS** Burnsville High School Room C264 & 266 7:00-9:00 p.m, Frank Van Alstine will demonstrate Vision software Tom Michals 452-5667	**mini'app'les Board Meeting** 13 Lexington Branch Library University & Lexington Aves. St. Paul, MN - 7:00 p.m. David Laden 488-6774	16
Fourth Dimension™ SIG 17 Hennepin Southdale Library Ian Abel 824-8602	**MacCAD/E SIG** 18 Bill Langer 937-9240 Heath/Zenith Computer Hopkins - 7:00 p.m. --- **Microsoft® Works™ SIG** Highland Park Library Ken Edd 631-3679 --- **Mac Programmer SIG** Gervaise Kimm 379-1836 Murray Jr. High, St. Paul -7:00 p.m.	**Apple IIGS SIG** 19 First Tech, 2640 Hennepin Mark Evans 377-9000 --- **New Richmond Mac CIG** Wisc. Indianhead Technical Coll. John Hackbarth 715-246-6561	**North Shore Mac CIG** 20 Bethlehem Lutheran Church Grand Marais -7:00 p.m. Jim Ringquist 218-387-2234 --- **AppleWorks© SIG** Murray Jr. High, 2200 Buford St. Paul - 7:00 p.m. Dick Marchiafava - 572-9305	21
24	25	**Mac Desktop Publishing SIG** 26 First Tech 2640 Hennepin, 7:00 p.m. Bob Grant - 228-9637	27	28
31	**HAPPY HOLIDAYS** **HAVE A SAFE NEW YEAR'S EVE**			

Notes:

Deadline
for February Newsletter articles is January 4th.

*** Mac Novice User SIG**
Tom Lufkin 698-6523
NO DECEMBER MEETING

*** HyperCard™ SIG**
Hagen Office Equipment -7:00 pm
Mike Carlson 866-3441
NO DECEMBER MEETING

* Denotes a change in time or location.
Coordinators – Please Call Dick Aura (941-1198) by the 1st Friday in order to have your meeting listed correctly.

CIG - Community Interest Group
SIG - Special Interest Group

THE CALENDAR FOR JANUARY IS ON PAGE 4

mini'app'les

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

Board Members:

Officers		
President	*David E. Laden* 675 West Wheelock Pkwy, St. Paul, MN 55117	488-6774
Past-President	*Dick Marchiafava* 7099 N. E. Hickory Drive Fridley, MN 55432	572-9305
Vice-President	*Tom Lufkin* 2078 Highland Parkway St. Paul, MN 55116	698-6523
Secretary	*Randy Dop* 4128 Meadowlark Lane Eagan, MN 55122	452-0425
Treasurer	*J. Edward Wheeler* P.O. Box 796 Hopkins, MN 55343	881-5928

Directors		
Publications	Dave Undlin	432-0913
Software	Tom Gates	789-1713
Operations & Resource	Dick Peterson	473-5846
SIG: Macs	Jim Horswill	379-7624
SIG: Apples	Tom Michals	452-5667
Membership	*Open*	

Coordinators		
Beginners' Consultant	Earl Benser	884-2148
Shows & Conventions	*Open*	
Dakota County	Tom Michals	452-5667
Northwest Branch	Jere Kauffman	535-6745

Apple II Users	Tom Ostertag	488-9979
Apple IIGS SIG	Mark Evans	935-7251
AppleWorks SIG	Dick Marchiafava	572-9305
Apple II DTP	Bill Warner	644-0658
Beginner's Basic SIG	Tom Alexander	698-8633
Languages/Tech SIG	Wesley Johnson	636-1826
Tech. Adviser (hdwre)	Roger Flint	771-2868

Mac Users	David Stovall (eves)	474-8015
	Mike Carlson (days)	866-3441
Excel SIG	M. Nightingale	545-9380
Mac Programming SIG	Ian Abel	824-8602
HyperCard SIG	Mike Carlson	866-3441
CAD & Engin. SIG	Bill Langer	937-9240
4th Dimension SIG	Ian Abel	824-8602
Mac Novice SIG	Tom Lufkin	698-6523
Smalltalk SIG	Martin McClure	227-9348
DeskTop Pub. SIG	Bob Grant	827-6142
MicroSoft Works SIG	Ken Edd	631-3679
North Shore Mac Users	Jim Ringquist	(218) 387-2234
New Richmond Mac U.	John Hackbarth	(715) 246-6561

Software Director's Staff		
Apple // DOM Editor	Tom Gates	789-1713
MaceDOM Editor/Prod	Bob Fellows	
CP/M	*Open*	

Liaison Contacts (Contact with non-Mini'app'les SIGs)		
Genealogy	Melvyn Magree	559-1108
Medical	Stewart Haight	644-1838
CP/M	Jim Rosenow	(414) 261-2536
PACER Center	Roslie Becker	827-2966

Questions – Please direct questions to an appropriate board member. Technical questions should be directed to the Technical Director.

Membership – Mini'app'les
attn: Membership Coordinator
PO Box 796
Hopkins MN 55343

All members receive a subscription to the newsletter and all club benefits. New members receive a package of member lists and software catalogs.

eDOMs		At Meetings	Mail Order
Members:	5 1/4" eDOMs	$3.00	Add
	5 1/4" System	$1.00	$1
	3 1/2" Apple/Mac eDOMs	$5.00	per
	3 1/2" System	$3.00	disk,
Non-Members:	5 1/4" eDOMs	$6.00	Max
	3 1/2" Apple/Mac eDOMs	$10.00	$4.00

Make checks payable to: Mini'app'les

Mail to Mini'app'les: Attn: eDOM Sales
PO Box 796, Hopkins, MN 55343

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

Newsletter Contributions – Please send contributions directly to the Newsletter Editor, Linda Bryan, 1752 Gulden Place, Maplewood, MN 55109 or upload to BBS. You can also reach Linda at 777-7037 after 4:00 pm.

Deadline for publication for December newsletter is December 1st. An article will be printed when space permits and if, in the opinion of the Newsletter Editor, it constitutes suitable material for publication.

Meeting Dates – Please phone calendar announcements to: Dick Aura 941-1198.

Mini'app'les BBS – 892-3317 8 data 1 stop 0 parity 24 hours

Mini'app'les Voice Mail – 627-0956 (Receive info on upcoming meetings and leave messages) – 24 hours. Thanks to Tom Gates.

Advertising – Direct inquiries to:
Sharon Gondek
Mini'app'les Advertising Coordinator
PO Box 4023
St. Paul, MN 55104

Newsletter Publication Staff

Publications Director	Dave Undlin	432-0913
Editor	Linda Bryan	777-7037
Graphics Consultant	Nancy McClure	227-9348
Calendar	Dick Aura	941-1198
Contributing Editor	Steve George	935-5775
Contributor	Tom Gates	789-1713
Contributor	Jim Horswill	379-7624
Contributor	Dick Marchiafava	572-9305
Contributor	Jim Schields	434-9836
Contributor	Ron Hultine	432-1877
Contributor	Tom Ostertag	488-9979
Contributor	Tom Michals	452-5667
Production Manager	Cindy Reever	934-7500

Circulation this issue: 800

CONTENTS

VOL. 13, NO. 11
NOVEMBER 1990

IN THIS ISSUE

ADVERTISERS

Yes . . .

I'd like to join!

Please accept my –

mini'app'les MEMBERSHIP APPLICATION.

Please Print or Type:

1. Name _____

_____

Address _____

City _____ State_____ Zip_____

Res. phone_____ Bus. _____

Renew ID#_____ Exp. Date_____

2. Please enroll me as a mini'app'les member.

☐ Regular [1st year]	$20.00	☐ Educational	$50.00
☐ Renew [one year]	$15.00	☐ Corporate	$100.00
☐ Foreign	$30.00	☐ Donation	$_____ (tax deductable)
☐ Sustaining	$25.00		

3. Please tell us your special interests:

Which personal computer do you use?

- ☐ Apple II
- ☐ Apple II +
- ☐ Apple IIe
- ☐ Apple IIc
- ☐ Apple IIGS
- ☐ Macintosh Plus
- ☐ Macintosh SE
- ☐ Macintosh II
- ☐ Macintosh SE/30
- ☐ Macintosh IIcx/IIci
- ☐ Laser - Other

Area of Interest?

- ☐ Business Application
- ☐ Home Application
- ☐ Educational Application
- ☐ Desktop Publishing
- ☐ Other_____

Do you own or use?

- ☐ Printer
- ☐ Laser Printer
- ☐ Modem
- ☐ Other_____

☐ Sponsored by: _____

☐ Check if interested in volunteer opportunities.
Special Area_____

☐ Check if you do not wish to receive non-club promotional mailings.

You'll receive your new member's kit in 3 to 6 weeks.
Make checks payable & mail to:

mini'app'les
PO Box 796
Hopkins, MN 55343

JANUARY 1991

Apple // Main Meeting	Wed. January 2	North Regional Library: Educational Software-John Hyde	Note 11
Mac Main Meeting	Thur. January 3	Hennepin County Library, Southdale: PageMaker 4.0	Notes 4 & 14
Apple II DTP SIG	Thur. January 3	Murray Jr. High School, St. Paul	Note 19
Dakota County SIG	Wed. January 9	Metcalf Jr. High, Cedar Ave. & County Rd. 30 Burnsville	Note 16
Board Meeting	Thur. January 10	Lexington Branch Library, St. Paul	Note 1- Members welcome
Mac Computer Art & Design SIG	Mon. January 14	Mpls. College of Art & Design, Computer Lab, Rm. 325	Note 7
MacCAD/E SIG	Tues. January 15	Heath/Zenith Computers, Hopkins	Note 8
Microsoft® Works™ SIG	Tues. January 15	Highland Branch Library, St. Paul	Note 13
Apple IIGS SIG	Wed. January 16	First Tech Computer, 2640 Hennepin	Note 12
New Richmond CIG	Wed. January 16	Wisconsin Indianhead Technical College	Note 17
North Shore CIG	Thur. January 17	Bethlehem Lutheran Church, Grand Marais	Note 15
Fourth Dimension™ SIG	Mon. January 21	Hennepin Southdale Library	Note 2
Macintosh Programmer SIG	Tues. January 22	Hennepin Southdale Library	Note 18
Mac Desktop Publishing SIG	Wed. January 23	First Tech Computer, 2640 Hennepin	Note 3
AppleWorks© SIG	Thur. January 24	Murray Jr. High, 2200 Buford, St. Paul	Note 10
HyperCard™ SIG	Mon. January 28	Hagen Office Equipment	Note 4
Mac Novice SIG	Mon. January 28	Highland Park Library	Note 9

1. Dave Laden 488-6774
2. Ian Abel 824-8602
3. Bob Grant 228-9637
4. Mike Carlson 866-3441
5. Wesley Johnson 636-1826
6. Jere Kauffman 535-6745
7. Joy Kopp 440-5436
8. Bill Langer 937-9240
9. Tom Lufkin 698-6523
10. Dick Marchiafava 572-9305
11. Tom Ostertag 488-9979
12. Mark Evans 377-9000
13. Ken Edd 631-3679
14. David Stovall 474-8015
15. Jim Ringquist (218) 387-2234
16. Tom Michals 452-5667
17. John Hackbarth (715) 246-6561
18. Gervaise Kimm 379-1836
19. Bill Warner 644-0658

Coordinators — Please Call Dick Aura (941-1198) by the 1st Friday of the month preceding the issue month in order to have your meeting listed correctly.

Members Helping Members

Need Help? Have a question the manual doesn't answer? Members Helping Members is a group of volunteers who have generously agreed to help. They are just a phone call away. Please: only call if you are a Member, own the software in question, and only within the specified days/hours listed at the bottom.

Apple II	Key
Applewriter	2
AppleWorks	1,2,9
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Beagle Buddy	9
BPI Programs	
Datalink 1200	1
Dollars & $ense	1
DB Master	7
Epson LX80	1
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Laser 3.5 drives	1
PublishIt!	
ProTERM	1
Talk Is Cheap	3
TimeOut	9,2
TO Graph	2
TO SideSpread	1
TO QuickSpell	1
TO SpreadTools	1
TO Thesaurus	1
WordPerfect	

Apple IIGS	Key
816 Paint	
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APW	20
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2. Tom Ostertag 488-9979 E
3. Tom Gates 789-1713 EW
4. Tom Edwards 478-2300 D
   " 927-6790 E
5. Earl Benser 884-2148 EW
6. Dan Buchler 435-3075 E
7. Ann Bell 544-4505 E
8. Fritz Lott 377-3032 E
9. Dick Marchiafava 572-9305 DE
10. Randy Dop 452-0425 EW
11. Ed Spitler 432-0103 D
12. open
13. John Hackbarth 715-246-6561 D
14. Jim Horswill 379-7624 DEW
15. Tom Michals 452-5667
16. Arnie Kroll 433-3517 E
17. Michael Foote 507-645-6710
18. Richard Becker 870-0659 EW
19. Timothy Kunau 737-4957 D
20. Steve Peterson 922-9219 EW
21. Bob Rosenberg 377-4300 EW
    " 340-0234 D

D-days (generally 9 a.m.-5 p.m.), E-evenings (generally 5 p.m-9 p.m.), W-weekends (generally 1 p.m.-9 p.m.).
In any case, call at reasonable hours and ask if this is a convenient time for them. We appreciate your cooperation.

Minutes of the Board Meeting

St. Paul Public Library - Lexington Branch. October 10, 1990

Board Members in attendance: David Laden, Tom Lufkin, Randy Dop, J.E. Wheeler, David Undlin, Tom Gates, Dick Peterson, Jim Horswill, Tom Michals, Dick Marchiafava.
Members in attendance: Steve George, David Kloempken.

The meeting was called to order by President Laden at 7:01 P.M. The meeting agenda was distributed and reviewed. Motion by Marchiafava to accept agenda. Second by Lufkin. Carried.

The minutes of the September 13 Board Meeting were submitted by Dop. Motion by Lufkin to approve September 13 minutes. Second by Undlin. Carried.

Agenda Item 2.1 - President's Report

David Laden distributed a packet of information to each board member concerning the formation of a Policy and Procedure Handbook for Mini'app'les. The purpose of this handbook is to be used as: a communication tool from Board to Board and from Board to committees and staff, a centralized gathering of all policies and procedures, and an operation of Mini'app'les clearly documented so that new "workers" may step into a position and have a relatively clear understanding of their responsibilities. David asked each board member to start documenting the position that each board member holds and bring this input to the next board meeting.

Agenda Item 2.2 - Vice President's Report

Tom Lufkin reported that the CDC Computer Fair will be held Thursday October 25, 1990 at the corporate headquarters form 10:30 - 5:00. Tom Lufkin and Jim Horswill will represent Mini'app'les at the fair.

Agenda Item 2.3 - Secretary's Report

Randy Dop reported that the Mini'app'les calender showed that requests for by-law changes should be published in the November and December newsletter.

Agenda Item 2.4 - Treasurer's Report

Report for August 1990 submitted by Wheeler.

INCOME		
IRS Penalty Refund [1961.39]		
Membership Dues	445.00	
TCF Inv Mgt Acct Int	17.31	
eDOM Sales	57.00	
Newsletter advertising	320.50	839.81
EXPENSES		
Office supplies	10.57	
Telephone	35.31	
Postage, shipping	102.00	
Equip Rent, Maint	30.00	
Printing, publications	1088.80	
Insurance	586.55	
Bank service charge	11.15	1864.38
MONTH LOSS		1024.57
Checking Account Balance		1189.13
TCF Inv Mgt Acct		3192.42

Agenda Item 2.5 - Membership Director's Report

Steve George reported that the total number of labels printed for the next newsletter is 764. There was a total of 10 new members and approximately 55 renewals.

Agenda Item 2.6 - Executive Committee Report

Randy Dop provided notes from the Executive Committee Meeting that was held October 9, 1990.

Agenda Item 2.7 - Publications Committee Report

David Undlin provided postage rate pamphlets concerning costs involved in sending third class mail. David reported that Mini'app'les will receive some air time on a local cable channel in the upcoming months. The deadline for the newsletter has been changed to the 17th. Linda Bryan tells us that we may need to look for a new Newsletter editor if she changes her job. The address with the PageMaker software has been changed to the attention of the Publication Director at the club's P.O. Box. David has taken the responsibility of uploading the newsletter text to the BBS.

Agenda Item 2.8 - Software Director Report

Tom Gates reported that he has created the following number of eDOMs from the CD ROM disks: 20 Mac, 15 Games, 21 Beagle Bros, and 13 GS Fonts. There will be articles in upcoming newsletters concerning these new eDOMs. Tom will be working on a center pull-out section to the Newsletter for ordering eDOMs through the mail.

Agenda Item 2.9 - Resource Director Report

Dick Peterson reported that he saw an article that said the price of AppleLink is changing. The hourly charge will be lowered but there will be a new charge for each byte transferred. The current charge is $12.50 an hour and based on usage; our cost would go to approximately $21.00 per hour. Jim Horswill and Tom Gates currently have access to AppleLink. Dick has started deleting non-users from the BBS.

Board *continued on page*

Randy Dop

Secretary Report

SPECIAL NOTICE

REQUEST FOR CHANGES TO THE BYLAWS

According to Article H, Paragraph 1 of the current bylaws, "Requests for changes in the bylaws will be made in the Mini'app'les newsletter at least four months prior to the election of officers." Any member who would like to propose a change to the bylaws should put the request in writing and send it to the president by January 4, 1991.

The board will act on these requests at its January meeting. Changes to the bylaws will become effective after publication and ratification by the membership. Ratification will be by means of written ballot as published in the April Newsletter.

***Board** continued from previous page*

Agenda Item 2.10 - Interest Group Directors' Reports

Jim Horswill reported that there has not been much interest from the Fergus Falls group in joining with Mini'app'les. There is no new information from the Oakdale group. Jim reported that the Works group is in serious problem from lack of attendance.

Tom Michals reported that there were 25 people at the Apple IIGS meeting last month. The next meeting will cover games for the GS. Fred Evans does not require any application for meeting at First Tech. Tom reported that the Apple II general meeting had a demo of two new Carmen SanDiego programs enhanced for the GS. Dick Marchiafava talked to the Community Education contact at Murray Jr. High concerning an application for meeting at the school. Dick said that there is an informal agreement with the school that lets Mini'app'les meet there. Dick felt that it was in the group's best interest not to pursue a formal agreement with the school. The Dakota County group is working on a new location for the group and setting up a schedule for upcoming meetings.

Motion by Dop to accept the Directors' reports. Second by Lufkin. Carried.

OLD BUSINESS

Agenda Item 3.1 - General Membership Meeting - February 1991

Tom Lufkin reported that Apple California has not responded to him concerning a speaker because of the Mac announcement that will be next week.

Agenda Item 3.2 - Swap Meet

Tom Gates reported that everything is set for the Swap Meet on October 13, 1990. There will be Board members available to man the Mini'app'les table.

Agenda Item 3.3 - Formation of Nominating Committee

Motion by Peterson to appoint Tom Ostertag, Bill Foreman, Cindy Reever, Ella Peplow, and Stephen Maxwell. Second by Dop. Carried. David Laden directed Dick Marchiafava to set up the first meeting and elect a char.

Agenda Item 3.4 - Applications/permits for use of Facilities

David Laden indicated that we are still in the collecting stage. Tabled until next month.

Agenda Item 3.5 - Contacting Dan Buchler concerning Mini'app'les materials

David Undlin contacted Dan Buchler and got the archived newsletter disks.

Agenda Item 3.6 - Status of LaserWriter

Dick Peterson reported that the LaserWriter was sold for $1350. The single sheet tray is missing, the output tray is broken, and the manual is missing. Motion by Peterson to replace missing manual and trays for a cost of $41.00. Second by Lufkin. Carried.

NEW BUSINESS

Agenda Item 4.1 - Brainstorming session on Membership/Promotion

Tabled.

Agenda Item 4.2 - Resignation of Tom Lufkin as Vice President

Recommendation from the Executive Committee that the Board of Directors not accept the resignation of Tom Lufkin as Vice President. Carried.

Agenda Item 4.3 - Insurance Evaluation

Motion by Undlin that an independent evaluation of our current insurance policies be performed. Second by Michals. Carried.

Agenda Item 4.4 - Volunteer Coordinator

David Laden reported that there is interest in creating a position that will help coordinate volunteers for Mini'app'les. David will contact possible candidates.

Agenda Item 4.5 - Committee Assignments

Motion by Gates to appoint Gervaise Kimm and Bill Job to the Software committee. Second by Marchiafava. Carried.

The meeting adjourned at 9:00 P.M.
Respectfully submitted by
Randy L. Dop
October 11, 1990

Letters to/from the Editor

Computing on the Hind Tit, or Where or Where has my Newsletter gone?

Today is Wednesday, October 31. I live in Lancaster, Pennsylvania. I am a Mini'app'les member.

I just got the mail and found my *August* Mini'app'les Newsletter. It has been run over several times by heavy equipment, and much folded, spindled and mutilated. There is a postmark of 5 Sep 1990 with a location of BRACKNELL (top of postmark) and BERKS (bottom of postmark). I can't find Bracknell on a Pennsylvania map, and I don't know if BERKS means Berks County, but at least, finally, I've gotten my newsletter.

—Connie Babcock

The discussion on the BBS about late newsletters pales compared to your experience. Have you considered moving to North St. Paul? My Newsletter arrives here only three or four days after the Twin Cities' western suburbs receive theirs.—ED

From the Editor re: eDOMs

Please note that in this issue *Tom Gates* has given us information about the size of the Apple eDOM collection now available for purchase by members and nonmembers. I am sorry I could not run the GEM article last month when I received a revised version of the file after deadline.

A bit of background: Earlier this year the Board authorized the purchase of CD ROM public domain material and CD ROM hardware through a user group discount plan. The hope was to serve the membership by providing access to a significant collection of public domain material and to use this resource for fund-raising. Unfortunately, the hardware and software did not arrive immediately. Now, we need to process and publicize this incredible fund of material while it is still timely and desirable.

If you think our Software Director is busy, you're right. Please note that Apple has also hit him with new System software to distribute as well.

There has been quite a discussion on the bulletin board regarding the need for writeups of eDOMs. Without publicity, these materials go undiscovered by the membership and the public. Tom has plans for on-disk catalogs of material. If you have other ideas about how to publicize the collection, please contact him or join the conversation on the Mini'Info'Net.

If we are to get more specific information about the eDOMs into the Newsletter, members must help. Someone needs to start writing.—*Editor*

Special $15 ProTERM Apple Telecom Rebate Offer...

to Apple User Group Members

from a press release

Apple II Software

ProTERM, the benchmark Apple // telecommunications software, has just been released as version 2.2, and InSync Software has a special $15 rebate offer to Apple user group members.

This offer applies to ProTERM v2.2 sold by any retail ProTERM dealer between the dates of Oct 15, and December 31, 1990.

To Apply For This Special Offer:

- Purchase ProTERM from the dealer of your choice.
- Address an envelope to InSync Software (shown below) and enclose the following three items:

Check 'em off! 1, 2 & 3

<> Your serialized ProTERM Warranty card .

<> A copy of your ProTERM sales invoice dated between 10/15/90 and 12/31/90.

<> Some identification which shows proof of membership to any Apple Inc.-recognized user group, or the National AppleWorks User Group, e.g., a photocopy of your user group membership card or of the mailing label from a recent newsletter showing your name, and the name of the "Apple-icable" user group."

Announcements

Submissions by SIG Directors and Participants

Apple II Main Meeting

by Tom Ostertag

Meeting Summary: 7 November 1990
What's the one thing that everyone uses their computers for? The one thing that people use to justify the purchase of the latest greatest computer system? (No Tom, its not to guess letters on Wheel of Fortune on the Club BBS...) It's word processing, yup *word processing*. In this case it wasn't just word processing it was WORD PROCESSING. *Lee Reynolds* did an excellent job of demonstrating **AppleWorks GS.** Cut, Paste, Move, Insert and all with the ease of a trackball. It looked great, and Lee made it look so easy.

A couple of other things happened at the meeting also. There were introductions, then announcements and finally Questions and Answers. There were also a few comments about the new operating system for the GS. Then when Lee was finished, *Dick Peterson* let *Tom Ostertag* play with an enhanced version of **AppleWriter** that loads *huge* text files. Great stuff!

Tom Gates then talked about the latest eDOMs that are available from the Club collection. He also mentioned the thirteen 3.5" disks of fonts that are ready for your use. Right in the middle of Tom's presentation the librarian announced that the library was closing and so the meeting was adjourned to Byerly's on Golden Valley Road.

The turkey tostada salad looked great, but wasn't nearly as interesting as the conversation. (I left early...)

Upcoming December Apple Meeting

Next month, 5 December, *Fred Evans* is going to demo some of the hottest, newest games on the market. If you've got something really great, you may want to bring it along an give it a test drive for the rest of us. See you there...

Well, that's all folks—*Tom*

Apple II Main Meeting Schedule

Date	Topic	Presentor
12/05/90	Games, Games, Games	Evans
1/02/91	Mac LC with Apple //e card	Hyde
2/06/91	PublishIt!3	Ostertag/ Warner
3/06/91	Apple][+ Night - Beagle Bros.	Gates
4/03/91	Graphics - The New Print Shop	Hyde
5/01/91	HyperMedia	Evans
6/05/91	CrossWorks—Data interchange	Ostertag
7/03/91	Go Party!	
8/07/91	Telecommunications	Gates
9/03/91	Educational Software	Hyde
10/02/91	Claris Rep/Beginners Night	Gehlen/Benser
11/06/91	ProSel/Copy II Plus	Ostertag
12/04/91	Games, Games, Games	Evans

The Apple II Main meeting is located at the North Regional Library on Lowry and Fremont at 7:00 pm.

Apple II Desktop Publishing SIG

by Tom Ostertag

Date	Topic	Presentor
12/06/90	Christmas Cards	Murray - Ostertag
1/06/91	Paint/SuperFonts	Shields
2/12/91	The New Print Shop	Anderson
3/12/91	TextTools	
4/09/91	Style/Techniques	Warner - Shields
5/14/91	Clip Art/Scanning/Graphic Conv.	Anderson
6/11/91	Fonts and Font Editors	
7/09/91	TimeOut Macros/Publishing	
8/13/91	Drawing Programs	
9/10/91	SuperForms	
10/08/91	PublishIt!4	Warner
11/12/91	Christmas Letters	Group
12/10/91	Springboard Publisher	Anderson

The Desktop Publishing Meeting is at Murray Jr. HS on 2200 Buford in St. Paul at 7:00.

See you there...Tom

Dakota County CIG

by Tom Michals

The Dakota County CIG Commissioners met November 10th to plan the upcoming meetings. *Bill Foreman, Lester Drankwalter, John Sutton* and *Mark Kaldun* will coordinate the meetings. Lester will work with Mark on Mac plans (Lester also is an assistant for *Tom Gates*). Mark will present **Disktop** desk accessory from CE Software and freeware **Workstation 3.0.** These are both Finder replacements, kinda. Bill and John will be intro-ing **AppleWorks 3.0,** new features, and overview of AppleWorks. This session will be ongoing at the Dakota CIG. Future sessions will introduce macros and add-ons.

The schedule looks like this:
December—Dealers' deals: We will review software specials being offered by dealers and any special aspects for Christmas. No dealers will be present.
January—Tax night: Macintax and some Apple II tax software
February—Home finance: Quicken and other various ways to use your computer for home finance and recordkeeping.
March—Word processors: a selection and demonstration.
April—Data bases
May—Spreadsheets
June—DTP accessories

AppleWorks classic 3.0 will have a session which will include the above topics plus more. We also have to squeeze in time for a genealogy demo, AppleWorks GS topics, Forth GS, modems, communications, networking, printers and enhancements. We hope to have commissioners for each of these topics. Plus, *Tom Gates* will have both Mac and APPLE II time for eDOM demos and sales. If we have too many topics, we'll get more rooms and more calendar dates. *Be there* and provide *input*. As in the movie "Short Circuit"—NEED INPUT!

—Tom Michals

AppleWorks SIG

December 20 (fifth Thursday) Spreadsheet Template Development
January 24: Report Writer; Using AppleWorks relationally

SIG meetings are the fourth Thursday of each month (exceptions noted) starting at 7 pm. Meetings are at Murray Jr. High School, 2200 Buford, St. Paul. Enter the school on the west side, which is on Grantham Avenue. Call Dick if you need information on meetings. 612-572-9305.

Newsletter News

Submissions to the Newsletter

Your original article, transcribed article, news item, SIG writeup, letter to editor, user tip, or labor are all welcome. ("Where have you been all my life?" says your editor.) Short items are great.

To those who plan to upload material to the Mini'Info'Net (the Newsletter section of the Transfer department) or send the material to me (see page 2):

1. We need citations of source listed *within the article.* This means that you may have to open the file and enter this information. We can't run material unless its source is absolutely clear and legal. *Don't assume that the phone conversation or BBS post you made about the article is still in the editor's mind; get the essential info into the article.*
2. List yourself as a contributor *within the article.* Contributions are recorded by *Randy Dop* who sends out freebee eDOM coupons , so you need to get your name into the article. This means that you have to open the file and enter this information before submitting it.
3. Please spell check the article. Also, if you know how to do it, nuke out any second spaces after periods and colons; we use single space after periods and colons in this publication. We have to use search and replace and spell checkers a lot if submitters don't.
4. Simple tabs and returns are the single most reliable formatting you can do. All else may need to be undone when a Newsletter layout person has to fit the text into the columns on the page. Separate columnar material in charts *by using tabs for separators.*
5. Don't bother to format the article for fonts, tab positions, hanging indents, or Microsoft Word Styles. (Tags such as <head> or <bullet> are appreciated, though.) Formatting with MSWord styles too early can screw up the PageMaker template. Forget trying to line up columns of material on screen—the typefaces and skinny columns we use in PageMaker will turn your effort into wasted effort.
6. If you can't leave MSWord styles alone, there is a template for MSWord/PageMaker styles on the BBS in the download department. Use the template to format your text—at least it will be compatible with the old Newsletter format, and I will know how to handle it. Someday I will upload the new styles list, but it won't be this month.

Notice the change?

Our new Newsletter format is the result of collaboration between *Nancy McClure* and me. Beside the design, Nancy created many EPS graphics in **FreeHand** and has given the Club permission to use them. Such a gift! If you like the graphics, say so on the BBS or write me via the club address, or phone Nancy yourself and give her some applause.

Happiness is lots of material

How wonderful it has been to have so many submissions this month! We have received a number of materials from other user groups, plus some great articles by local writers. This Newsletter has taught me a lot about Apples and Macs and computing in general. Hope it serves you well too.

Happy holidays!
—Linda Bryan 777-7037

Membership News

by Steve George, Acting Database Coordinator

Director Report

NewMembers:

Anderson	Brian	55412	612-522-6464
Andrusko	Jan	55406,	612-724-4408
Bartus	MichaelD	55447	612-475-2621
Beckman	Charles	55025	612-464-4469
Bergman	Sandy	55426	612-935-5691
Born	MarvinD	55433	612-757-6567
Bushman	EverettR	55604	218-387-1054
Cavell	Colleen	55424	612-927-4703
Dittberner	RalphD	55439	612-926-0808
Flammang	Charles	55435	612-922-7569
Galic	George	55421	612-571-7960
Geist	Gary	55434	612-755-7889
Gordon	Walt	55409	507-645-8588
Greene	DrEddieL	55437	612-832-5230
Hadden	JamesW	55429	612-561-4903
Hagen	Jeff	55124	612-423-1602
Hanson	Michael	55108	
Hatle	StevenJ	55121	612-454-9740
Jacobi	Paula	55122	612-456-9220
Kiley	Richard	55337	612-927-9200
Kirkpatrick	Amy	55102	612-641-1865
Klietz	Roger	55438	612-944-2737
Light	Rick	54022	715-425-1391
Malikowski	Steve	55108	612-641-1313
Marsolek	Jerry	55075	612-455-3750
Martin	Tammy	55345	612-938-1055
Meyer	ByronW	55436	612-935-7364
Nichols	Rick	55439	612-941-9067
Packwood	Mary	55122	612-890-4616
Parfet	JohnS	55077	612-454-7090
Patrie	Barb	55409	612-827-2782
Pehrson	Eric	55419	612-926-4620
Rettich	Judi	55419	612-827-3268
Ring	LeonandKathy	55391	612-935-8860
Roste	Jodi	55343	612-933-1698
Shapiro	Neal	55105	612-699-5681
Spira	Len	55436	612-935-9256
Stansbury	John	55409	612-926-3506
Sutten	Jon	55372	612-496-3041
Thomson	SidandDiane	55337	612-894-9384
Treadwell	LynnA	55122	
Vandruten	Jim	55416	612-591-0256
Willson	Tim	55430	612-566-6423
Wilmes	Steve	55016	612-450-7448
Zavitka	Deborah	55423	612-798-4957
Zurn	Darryl	55418	612-781-7781

Corporate Members:

Computerland
McGraw-Hill HealthCare Group

Educational Members:

Prison Program

Sustaining Members:

Randy Dop
Tom Lufkin
Steve George

Sponsoring Members:

Chuck Bjorgen
Dan Buchler
David E. Laden
Dick Aura
Dick Marchiafava
Dick Peterson
Ed Spitler
G E Kimm
Ian Abel
Jason Mooney
Jim Wheeler
Mike Carlson
Richard Perry
Steve George
Tom Edwards
Tom Gates
Tom Lufkin
Tom Ostertag

Current Apple System Software Available Through Mini'app'les

Software	Version	Date	Format
Apple II, II+, //c, //e			
DOS 3.3 System Master	n/a	09/10/85	5.25"
Apple II System Disk	3.2	07/16/90	5.25"/3.5"
ProDOS 8	1.9	07/16/90	5.25"/3.5"
Apple IIGS			
GS/OS System Disk	5.0.3	10/26/90	3.5"
GS/OS System Tools	5.0.3	10/26/90	3.5"
Macintosh			
System Tools	6.0.7	10/09/90	3.5"
Printing Tools	6.0.7	10/09/90	3.5"
Utilities 1	6.0.7	10/09/90	3.5"
Utilities 2	6.0.7	10/09/90	3.5"
HyperCard Program	2.0	08/31/90	3.5"
HyperCard Stacks	2.0	08/31/90	3.5"
HyperCard Ideas	2.0	08/31/90	3.5"
HyperCard Help	2.0	08/31/90	3.5"
Your Tour of HyperCard	2.0	08/31/90	3.5"
ImageWriter LQ Disk 1	2.0	07/18/88	3.5"
ImageWriter II/LQ AppleTalk	2.0	07/18/88	3.5"
Communications Toolbox	1.0.1	03/20/90	3.5"
32-Bit QuickDraw			3.5"
LaserWriter 6.0			3.5"

Apple System Software disk prices are as follows:
3.5" System disks $3.00 each.
5.25" System disks $1.00 each.

Notes:
- The Macintosh System Tools and Utilities disks are available only as a set of 4 disks.
- Members must present proof of ownership of HyperCard in the form of the HyperCard start-up disk or a Macintosh CPU sales receipt dated August 11, 1987 or after.
- The Hypercard upgrade is available only as a set of five disks.
- GS/OS System Disk and System Tools are available only as a set of two disks.
- ProDOS requires 64K of memory on the Apple II and II+.

Apple Toll-Free Customer Assistance

Apple press release

FYI

CUPERTINO, California, October 29, 1990

Apple Computer has created the Customer Assistance Center, a new toll-free customer relations telephone line available Monday through Friday from 6 a.m. to 5 p.m. Pacific time by dialing 1-800-776-2333. All Apple customers are eligible to use the service.

The new toll-free line is not designed to be a technical support hotline, but instead is an extension to the comprehensive Apple customer relations effort. The Customer Assistance Center is a backup system to the many existing forms of customer support and service already available from Apple resellers and others. In the U.S., Apple sells and provides support through a network of authorized Apple dealers, higher education sales consultants, on-campus support centers, user groups, systems integrators and consultants.

"Apple doesn't want to circumvent the reseller relationship with the customer," said Jackie Whiting, Apple Assistance Center manager.

The Customer Assistance Center can answer questions about Apple sales programs and policies. Owners of Apple products should call the Customer Assistance Center when they believe their problems or concerns are not being adequately addressed by Apple resellers or by regularly designated support or service providers.

When customers call the toll-free number to discuss a sales or support concern, they should be prepared to provide basic information including a description of the problem, a list of products being used, support sources previously contacted and the outcome of the contact.

"The Customer Assistance Center will provide an important feedback loop for Apple, enabling us to enlarge our knowledge base and speed our responses to customer concerns. We also want customers to understand that Apple stands behind its sales, service and support infrastructure. We want to address all individual complaints and concerns effectively," said Morris Taradalsky, Apple Customer Support Products and Services vice president.

The Customer Assistance Center includes individuals with Apple product knowledge and diverse business and computer experience. This team is backed by a state-of-the-art call tracking system which will ultimately drive a report system designed to give Apple resellers fast, detailed feedback on customer concerns.

Apple Computer, Inc., founded in 1977 and headquartered in Cupertino, California, designed and manufactures a broad line of personal computing products. It has sold more than 7 million personal computers, more than 2 million printers and hundreds of thousands of networks.

via AppleLink via James Horswill

Holiday Public Domain Fun Pack

by Tom Gates

Holiday Fun

Apple II Software

For the holiday season and into the new year, it's the ***Holiday Fun Pack!*** Two double-sided 5. 25" disks (red and green of course) start the fun. These programs will run on *all* Apple II machines. Some of the programs require a joystick or paddles.

Disk One contains **"Where's Santa"** graphics and sound adventure. Find Santa and keep warm. The **Ace Slide Projector** comes with a starter collection of Hi-Res pictures to put together a "slide show". You can also add your own.

Disk Two contains pinball games like **Maxx's Madness, Disko Pinball** and a Christmas favorite, **Silent Night.** The calm winter scene is broken when Santa comes riding in followed by flying saucers. But don't shoot the reindeer! Also included is a **Wheel of Fortune** game, a Hi-Res **Solitaire** card game, *plus!* three more arcade shoot-em-ups: **King Tut, Revengeful Rabbit** and **Shark Bait.**

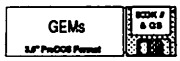
This disk pack has been a favorite at Christmas time. You can pick it up at any of the Main Apple II, IIGS, Dakota County or AppleWorks meetings this December or by sending your order ($3 + $1 S&H) to the mini'app'les PO Box.

I hope that you enjoy this special pack of programs. And have a fun holiday season.

—Tom Gates

New eDOMs Are GEMs

by Tom Gates, Software Director



Software News

Introducing a new series of GEM eDOMs.

GEM stands for *the Generous Efforts of Many.* These are the many people and companies, such as Beagle Bros, and the volunteers of the National Apple User Group, and others too countless to name. They have put together two initial volumes of Apple II and Mac software on compact disk.

MAC GEMs

There are currently ten eDOM disks in near-final form and at least another ten in the works at this time. While I don't have an exact contents list available for this Newsletter publication, please stop by the eDOM table at the Mac meeting for more information on these disks.

Apple II GEMs

October 1st marked the birthday of a company of legend in the Apple II world. Beagle Bros (Est 1980 says the logo) has turned 10! This company broke new ground in 1980 with its view of how software should be made, work, sold and enjoyed. I daresay they continue to break new ground today and into the 90s with great new software for the Apple II and Mac. Some say there was an attempt to write for the Big Blue crowd, but no one caught on to the humor in their catalogs and manuals (smile).

Keeping in step with their idea that software must be enjoyed, Beagle Bros has released a number of their older titles into the freeware arena. That is, Beagle Bros retains all copyrights to the software, but has made the software available to the public. Beag-a-holics take note.

Beagle Brothers disks are in 5.25" format. They will run on any Apple II+, Apple IIe, Apple IIc, and Apple IIGS. GEM font disks are only available on 3.5" disk format.

GEM.A2.01 - Beagle Bros: Alpha Plot

GEM.A2.02 - Beagle Bros: Beagle Bag

GEM.A2.03 - Beagle Bros: Beagle Basic

GEM.A2.04 - Beagle Bros: Tip Disk

GEM.A2.05 - Beagle Bros: Big U

GEM.A2.06 - Beagle Bros: D Code

GEM.A2.07 - Beagle Bros: DOS Boss

GEM.A2.08 - Beagle Bros: Double Take

GEM.A2.09 - Beagle Bros: Extra K

GEM.A2.10 - Beagle Bros: Fat Cat

GEM.A2.11 - Beagle Bros: Flex Type

GEM.A2.12 - Beagle Bros: Font Mechanic - DOS 3.3

GEM.A2.13 - Beagle Bros: Font Mechanic - ProDOS

GEM.A2.14 - Beagle Bros: Power Print

GEM.A2.15 - Beagle Bros: Pro Byter

GEM.A2.16 - Beagle Bros: Pronto DOS

GEM.A2.17 - Beagle Bros: Shape Mechanic

GEM.A2.18 - Beagle Bros: Silicon Salad

GEM.A2.19 - Beagle Bros: Typefaces

GEM.A2.20 - Beagle Bros: Utility City

GEM.A2.21 - Beagle Bros: Document Disk.
This two-disk set contains ProDOS text files of documentation for Beagle Bag, Beagle Basic, DOS Boss, Extra K, Fat Cat, Flex Type, Silicon Salad, Utility City and the Tip Disk. You will want to pick up this set for any of the mentioned disks.

GEM.FONTS.01-12 -
Fonts, fonts and more fonts for the IIGS. Over 1000 font files for use with AppleWorksGS or any program using GS fonts. Also can be used with Classic AppleWorks using Beagle Bros Timeout SuperFonts.

GEM.FONTS.13 -
This disk finishes off the font collection and also contains a pair of AppleWorks database files loaded with information about fonts and the font families they belong to, etc. Also included are some SHR picture files with examples of the fonts on these disks. Look for a list of the fonts on these disks elsewhere in this issue. There will also be a more detailed printed list at meetings, as well as the disks themselves.

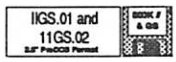
GEM.GS.01-03 -
This is the beginning of a collection of Apple SHR graphics disks each containing approximately thirty-five files converted to SHR format from sources such as MacPaint. Many of these are either scanned images or high quality drawings. You should be able to find any number of applications for these files from draw/paint programs to clip-art sources for desktop publishing programs and more.
This first set of five or so will be entirely converted to SHR. However, because of the time involved, future disks will have a combination of converted files and native mode (MacPaint or whatever format) files. Some programs

GEMs GOTO next page

eDOMs for the GS on 3.5 Format Disks, Public Domain

IIGS.01 and IIGS.02 Font Files

by Tom Gates



Apple II GS Software

My thanks go out to *Dick Peterson* who has put together two loaded font disks for the IIGS. Between the two disks, there are over 100 fonts. Each disk is broken down this way: all names under the volume name are font directories with multiple font sizes for each of the names. The exception is the directory named MISC. MISC contains "loner" fonts—fonts of various types but with only a single font size. I have listed only those fonts with multiple sizes. Each disk contains over twenty-five additional fonts in the MISC directory.

IIGS.01 fonts with multiple sizes:

LONDON
MOS.EISLEY
PALATINO
PALO.ALTO
PARIS
PHOENIX
RAVENNA
REHOVOT
ROME
RUNES
SAIGON
SCAN
SCRIPT
SEATTLE
SEATTLE.RICE
SIERRA
STARFLEET
STAR.TREK
STENCH
STELETTO
STUTTGART
SYDNEY
TIFFANY
TINY
TORONTO
VANCOUVER
VECTORS
VENICE
WARTBURG
WASHINGTONDC
WILLOWDALE

IIGS.02 fonts with multiple sizes:

ART.DECO
ASL.FINGERS
AUSTIN.ECON
BRENNERO
BUBBLES
CALLIGRA-PHY
CAMELOT
FLORENCE
FUTURE
HOLLY-WOOD
INTERNA-TIONAL
JUNEAU
KAPP.BOLD
LAS.VEGAS
LONG.ISLAND
LOS.ANGELES
LOTHL.RIEN
MANHAT-TAN
MEDICL
MILANO
MONACO
MONTREAL
NEWCENTSCHBK
OTTAWA

GEMs continued from previous page

will handle these native formats just fine; otherwise, a program such as SHR Convert is a great utility program to handle this for you.

The set of GS graphics disks is available in 3.5" format.

This is a little bit of what has been going on. I hope you will enjoy the software available on these GEM disks. Between the Apple II and Mac disks, there is the equivalent of over 800 3.5" disks of software available in just about every shape and form. As always, if there is a type of software you are looking for, please let me know so that we can keep an eye out for it.

See you next time.—*Tom Gates*

High School Newspaper Network

September/ October 1990 *Quick Connect*

Computing in the Schools

Giving high school students the thrill and opportunity of having their writing "published" electronically for a wider audience is one of the main goals of the School/Newspaper Network. Coordinated by the Dow Jones Newspaper Fund, the program currently involves thirty-nine high school English and journalism departments in states ranging from Alaska to Maine. Student "publishing" and "desktop reporting" is done online on commercial e-mail services. Teachers also use the Network to share advice, questions and lesson plans on teaching academic English courses the Fund calls Intensive Journalistic Writing. "Up to now, English writing courses have been a shallow exercise," says Fund director Tom Engleman, "since most students were only writing for their teachers." With the School/Newspaper Network, students can experience "hitting the keystroke and having their work sent out nationwide to thousands of potential readers," he adds. Participating teachers also stay in touch with the Fund through a monthly online newsletter that keeps them up to date on technology news and program ideas which encourage journalistic writing as a career.

Tom Engleman
High School Newspaper Network
% Dow Jones Newspaper Fund
P.O. Box 300
Princeton, NJ 08543-0300
609/452-2820
CONNECT: DJNEWSFUND
MCI: 2296456

The Apple User Group Connection, Apple Computer, Inc., 20525 Mariani Avenue, MS: 36/AA, Cupertino, CA 95014 via Jim Horswill via AppleLink

The AppleWorks Advisor

A Column For Users Of AppleWorks

by Dick Marchiafava

Apple II Software

Getting Spelling Suggestions

A complaint I hear about the AppleWorks spelling checker is that it does not offer spelling suggestions from the Custom Dictionary, as it does from the Main Dictionary. I have no direct solution to this situation, but a work around has occurred to me.

First, use the spelling checker to the limit of the Main dictionary. When misspelled, or unknown words will be corrected, the following message is displayed:

```
Unknown word? Replace Add
to dictionary Ignore Skip
Get suggestions
```

Get suggestions is the option usually chosen, unless you are sure of the correct spelling, in which case Replace would be the choice. When suggestions are not offered, you are returned to the option line.

The built-in speller is not very powerful. It will often be unable to unscramble our creatively misspelled words, if more than one or two characters are incorrect. It is possible to test possible corrections by using the Replace option.

If a correct spelling cannot be arrived at, replace the word with a spelling you hope is closer to correct, although it is not recognized by the spelling checker. Just be sure you do not add this trial spelling to the dictionary.

After the first run through with the spelling checker, do another check. This will give another chance at a suggestions, based on a slightly different spelling of any words in question. Note exact spelling of a questionable word, or mark it and return to check it with the Verify spelling by Word option. In this mode, you can work with a single word, returning to the word processor if necessary to try variations.

This is as close to a "look up" function as the spelling checker has.

When you are sure the main dictionary does not hold a particular word, you can add it to the Custom dictionary. If you are uncertain a word to be added to the dictionary is correctly spelled, check it against a paper dictionary.

Remember, any incorrect spellings added to a custom dictionary will perpetuate an error.

Look Up With Custom Dictionary

One idea is to use your Custom dictionary for look up. To do this, load the Custom dictionary to the desktop, by making a new file for the word processor from an (ASCII) text file.

You will find all words in the Custom dictionary listed in this word processor file, one word per line. If you have Line Sorter, from the Beagle Bros PowerPack program, you can use it to alphabetize the dictionary words.

If you do not have this desk accessory, you can do the same thing within AppleWorks. Instead of making a new file for the word processor, make a new file for the data base. From the menus select the following-

```
Make a new file for the:
4. Data Base
2. From a text (ASCII)
file
```

Now select the custom dictionary file to be used and then select #2 on the following menu:

```
Does the text (ASCII) file
have:
1. Tabs between catego-
ries, Returns between
records
2. Return after each
category
```

You will be prompted:

```
How many categories per
record? (1-30)
```

Enter 1. The next prompt is for a file name. You can accept the dictionary name for the file. Now that the custom dictionary words are in a data base file, you can Arrange them to alphabetize the list.

If you want to save the list in alphabetized order, you may do so by creating a report format for the data base and printing it as an ASCII text file to disk, to the same pathname it was loaded from and with the same name.

The Custom dictionary file on the desktop can be used to look up words you could not get suggestions for from the main dictionary.

To make this easy, you can mark words to be looked up with *, or some other distinct character. Use the Replace function to tag words with a some character, but do not Add to the dictionary.

When the spelling check is complete and you have marked words to look up, use the OA-Find command to get to the marked words in your document. Switch to the Custom dictionary file. Use the find command with the first few characters of the word to get to the place in the file where a possible correct word is, or scroll through the file.

With AppleWorks 3.0, the OA-- (Open Apple-Minus) will grab the correct word, the SA-0

(Solid Apple 0) will place the word in your document. Delete the marked word.

Many of the steps I have described can be easily be automated with macro commands.

Spreadsheet Cell Mark Macro

I found a pair of useful macros created by Mark Munz, in a recent issue of ***inCider*** magazine. These macros are the key to improving the function of a particular spreadsheet template.

When working with spreadsheets, a user can move to specific locations by using a Find Coordinate command. A macro can be written to move the cursor to a particular cell, from anywhere in a spreadsheet. In this way, it is possible to jump to specific cell locations.

In a spreadsheet that I use, I need to move from a location which is variable, to a specific place and do an operation. When this is complete, I have to return to cell I started from. I would like to do this without scrolling the cursor back to the starting cell.

I have not been able to do with spreadsheet commands, or with macro commands. The wild card in this equation that prevented a writing macro to do the job, is the variable starting point. Each time the operation is to be performed, the starting cell is a different location.

The macros developed by Mark Munz addresses this problem by reading and storing the cell coordinates to a string location. This has been compared to Setting a Marker in the word processor. The comparison is not quite acccurate. In the word processor, multiple markers can be placed, each with its own unique number. These markers are part of the document and can be used repeatedly.

The read location, or "mark position" macro, reads and stores the coordinates of a single cell. The cursor can be returned to the coordinates with the complementary macro. Only one cell location can be read and stored at a time. No tag or identifier is attached to the cell or document.

The macros created by Munz are-

```
Read (mark) position
M:<asp><Z = 1 : posn X, Y
: if X > 26 then Z = 2 :
endif : $9 = screen 1, 22,
Z: $9 = $9 + str$ Y>!
Return to position read
(marked)
R:<asp><oa-F>C<oa-Y print
$9 : rtn sa-0 : rtn>!
```

With these macros I can leave a location that is not a fixed point, move about doing thing and return to the starting point.

Well, this macro pair is just what I needed to improve the operation of my spreadsheet! I incorporated the key elements provided by Munz in two macros.

The first macro I created assumes the cursor is placed in a cell in a column labeled Deposit. The macro reads and stores the cell coordinates and then jumps the cursor to a specific work area in the spreadsheet.

Entries are made in this work area and the spreadsheet is recalculated. Now the second macro is used. It captures the Sum of the entries made, returns to the location stored by the first macro and enters the value of the Sum that was captured.

```
Find Deposit Sum Location
: Read (mark) position
first. Works with G
F:<asp><Z = 1 : posn X, Y
: if X > 26 then Z = 2 :
endif : $9 = screen 1, 22,
Z
: $9 = $9 + str$ Y : oa-
F>C<oa-Y>i96<rtn oa-up up
up up up up up up down
rtn>!
```

```
Get Deposit Total, Goto
position read by F, Enter
value of Total
G:<asp><oa-F>C<oa-
Y>i96<rtn cell : oa-
F>C<oa-Y print $9 : rtn
sa-0 : rtn>!
```

In these examples, the macros are assigned to keys to suit the user. All examples are defined as conditional macros by the <asp> token, they work only in spreadsheets.

I am delighted with the improved operation of my spreadsheet provided with the new, more powerful macros. They remove a kink in the smooth operation the spreadsheet.

AppleWorks questions and tips are welcome. Send to: 7099 Hickory Drive N.E., Fridley, MN 55432. Include address and phone number. Or call 612-572-9305, no collect calls. On GEnie I am: TIMEOUT. *Dick*

Ultimate Fonts: Extra Character Converter for TimeOut SuperFonts

by Jim Shields

Apple II Software Review

Have you ever wished that **AppleWorks** knew the difference between a circumflex and an umlaut, pounds and yen, or maybe angstroms and ohms? Well look no further folks, Ultimate Fonts is here!

Ultimate Fonts is an AppleWorks add-in, utilizing **SuperFonts** and **UltraMacros** to convert logical, normal AppleWorks text into foreign languages, legal and monetary characters or math and scientific characters. The program is a set of five UltraMacros task files managed and launched by its own menu system. It requires **AppleWorks 3.0, TimeOut Superfonts** and **TimeOut UltraMacros 3.1** or later and works with any printer supported by **SuperFonts.**

Installation of the program is straightforward and well documented in the owner's manual. There are three different methods. The simplest involves loading an "install" file to the word processor, compiling it and then running it to self-install the program on your AppleWorks startup disk.

The other two methods involve using a file copy program to copy the appropriate Ultimate Fonts files to your AppleWorks disk. There is even a "quick start" file if you do not wish to install Ultimate Fonts on your startup disk. The program is then run right off your Ultimate Fonts disk—perfect for occasional use or if your disk space is limited.

To prepare your AppleWorks word processor file for use with Ultimate Fonts, a few extra characters must be added. For example, A' will be converted to an acute accent; (?) will be converted to a Spanish ?; (tm) will be converted to the trademark symbol and =: will be converted to a normal mathematics division symbol. The phrase (!)Si', yo hablo E'span~ol! would be converted to the proper Spanish punctuation when printed on the page.

The owner's manual contains a four-page list of characters and their conversions. The list is easy to read and the conversions are quite sensible. With regular use, they would be very easy to remember.

When your document is ready to preview, you access Ultimate Fonts via the TimeOut menu and the MACRO OPTIONS selection. Select Launch a New Task and choose Ultimate Fonts. You are then presented with a new menu. Your choices are Format characters for language, legal and monetary, curly quotes, math and other activities or exit back to AppleWorks.

Help screens are available using the Solid-Apple plus question mark. The language choices include Spanish, Romance, and German/Scandinavian or all. The math and other activities selection on the menu includes math, scientific, and fraction formats. It also has the option to preview your file with SuperFonts.

All of these activities are performed within the Ultimate Fonts program. When you are satisfied with the results you then exit to AppleWorks and can send your file to the printer via SuperFonts for the finished product.

As many of you know, the GS fonts used by SuperFonts contain extra character sets. What Ultimate Fonts does in very simple terms is a search and replace function within your word processing file. It finds, for example, each A' and replaces it with <x3>g<x1>. This token string tells Superfonts to use the second extra character set and the letter g to create an A acute accent.

The Ultimate Fonts manual contains a list of suggested GS fonts and suggests you experiment with your own favorite fonts to see if all the characters you need are included in the extra character sets.

One of the nice features of Ultimate Fonts is the ability of the user to customize the program if they wish. The manual has a chapter on how to do this. Since the character conversions are done with macros, you may modify the appropriate file to work with, for example, only French conversions, or you could modify the math and science file to only work with fractions. The program will run faster if it has fewer characters to look for and convert.

Ultimate Fonts is a product of Kingwood Micro Software. The author, Beverly Cadieux, has done an excellent job of creating and documenting the program. The thirty-seven page manual that comes with the software is created with Ultimate Fonts and is a work of art in itself. In addition to documenting the program uses, the manual includes additional information about GS fonts, an ASCII character chart and a SuperFonts tutorial.

This review is based on a program demo disk. There have been improvements made to the program since the demo was released.

Kingwood Micro Software, 3103 Lake Stream Drive, Kingwood, Texas 77339 713-360-5013.

Publish It! 2 and RamWorks

Tips and Techniques

by Jim Pendarvis, *Washington Apple PI Journal*

Apple II Software/ Programming

I have just received **Publish It! version 2.** One of its significant features is that it is supposed to work with expanded memory cards, including **RamWorks.** And it does. However, according to the manual, it cannot recognize this type of Ramdisk, so it simply overwrites it and takes all of the memory for itself. In other words, you lose whatever was there and that is not good. This is exactly the type of situation that can and should be avoided by professional programmers.

Fortunately for RamWorks users, you can patch Publish It! 2 to work with expanded memory and keep your Ramdisk. That is the good news; the bad news is that users may have to experiment to make it work with their system. But here is an explanation of how it works and how I did it for my system.

After bloading Dtp.System at $2000, the location of the code that searches for RamWorks memory banks is at $4AB9. What it is intended to do is set up a "bank table" starting at $68A0. This first byte ($68A0) is the total number of banks. It is followed by a list of available bank numbers and will end in $FF. The $FF is the end of table marker. This is outlined in the RamWorks manual and the actual Publish It! 2 code is quite similar to that in the manual.

I know how many banks are on my card (1.5 megabytes has 24 banks). Since I use a 960k Ramdisk, there had to be 576k available for outside use. This is equal to 9 64k banks and that is the number to be put into $68A0.

The hard part is determining which banks are available for use. Applied Engineering refers to this as locking out banks. If you have used their partition program, to lock out banks, then you can bload Prodrive at $2000 and check what is in locations $2003, $2004, and $2005. The values in these locations determine how banks are locked out from the Ramdisk. They work in 512k blocks so that if your card contains 1 megabyte, then you only need to be concerned with $2003 and $2004. For larger cards, just keep going. This is also sort of explained in the RamWorks manual.

For my card, the values were $01, $00, and $FF. This means that bank 0 on the main card and all of the banks on the 512k expander card were available. The $00 means that all of those banks are in use with the Ramdisk. The RamWorks manual explains the formula for calculating these values.

All that is left is to set up your own bank table in Publish It! 2. This is how mine works:

```
4AB9- A9 09     LDA #$09    ;loads # of banks in accumulator
4ABB- 8D A0 68  STA $68A0   ;    (9) and stores it in $68A0
4ABE- A9 00     LDA #$00    ;stores bank zero
4AC0- 8D A1 68  STA $68A1   ;    in $68A1
4AC3- A9 10     LDA #$10    ;first # of banks $10 thru $17
4AC5- 8D B0 68  STA $68B0   ;store for loop
4AC8- A2 00     LDX #$00    ;determines location in table
4ACA- 9D A2 68  STA $68A2,X;store banks in table
4ACD- E8        INX         ;counter
4ACE- EE B0 68  INC $68B0   ;next bank #
4AD1- AD B0 68  LDA $68B0   ;get #
4AD4- C9 18     CMP #$18    ;last bank 1
4AD6- D0 F2     BNE $4ACA   ;loop back if not zero
4AD8- A9 FF     LDA #$FF    ;load end of table marker
4ADA- 8D B0 68  STA $68B0   ;store marker
4ADD- 60        RTS         ;all done
```

When I run Publish It! 2 the table will look like this: `09,00,10,11,12,13,14,15,16,17,FF`

Once Dtp.System has been bloaded, you can use the monitor to type your numbers in the indicated locations (addresses) and then bsave Dtp.System.

Change the $09 in $4ABA to your number of banks.

The $00 in $4ABF ensures that bank 0 is available.

What happens next is highly dependent on individual systems. As presented here, banks 16 ($10) thru 23 ($17) are stored in the table. As long as yours are contiguous, you can use this loop. The number of the first bank goes in $4AC4. But remember that you have already used bank 0, so do not start with it here.

If you have fewer or a greater number of banks, then change the $18 in $4AD5 to equal the

RamWorks continued on page 25

Educator HomeCard Free to Teachers This Month

excerpted from ***Quick Connect,***. September/ October 1990

Computers in the Schools

As part of its continuing commitment to education, Apple Computer recently announced Educator HomeCard™ software for HyperCard 2.0. Apple created this Macintosh HyperCard tool especially for educators and is providing it free of charge.

Educator HomeCard is a teacher productivity tool that runs with HyperCard 2.0. The four disks contain a collection of HyperCard stacks, loosely grouped in three categories. There are stacks which help in the day-to-day organization of a classroom, such as a seating chart, a gradebook, and a file of information about the students. The second group of stacks helps in planning and scheduling a teacher's lessons. It includes a planner, a database to create and store lesson plans, and a presentation tool to help deliver those lessons. The third category is a collection of idea stacks, which teachers can use as a start in designing their own stacks. For example, there's a stack of clip art, some database samples and a stack of ideas for using HyperCard 2.0 in teaching.

[The following are comments by project director (also Apple's multimedia specialist in K-12 marketing) Roger Knight.]

The project grew out of Apple's commitment to education in general, and specifically as a way to expand the potential of HyperCard, which has been focused primarily on business. We wanted to give teachers a product to help them in their classrooms, and introduce them to the possibilities of using HyperCard and Macintosh in their teaching.

To make sure that the project would be educationally sound, we worked closely with groups of teachers. Before any of the stacks were started, we asked them what they'd like to see in a tool such as this. Their feedback got us thinking in a lot of ways! Then, as the project developed, we asked them to review the stacks to see if we were on the right track. Even in its current stage, we see the project as open-ended, and we've heard from teachers about how they would use it and ways to modify it to suit their individual needs.

Apple remains very committed to continuing support for the Apple II family. However, we've seen a sharp increase in the number of teachers purchasing Macintosh during the past year. We believe that Macintosh is the CPU of the future and that it will continue to gain in the education market, especially with the new entry-level machines Apple will be introducing during the 1990-91 school year.

One of the goals of the project was to awaken interest in the Macintosh in the K-12 education area, and HyperCard was a natural choice. We targeted two main levels of users. At one level are educators who have little or no experience with technology. We want them to be able to use Educator HomeCard right out of the box and see how Macintosh can be a valuable tool for them throughout their classroom day. The other level are more advanced technology users. We want this group to see the possibilities of using HyperCard as a modifiable productivity and teaching tool, and to encourage them to write scripts for their own uses.

Because it's based on HyperCard 2.0, Educator HomeCard can take advantage of new features such as sizeable cards, mixed fonts in one field, scriptable text and enhanced HyperTalk scripting language. You can also make use of multiple windows and have more than one stack open at a time. Experienced users of HyperCard 1.2.5 will recognize common stack features—with the addition of many new features and improved HyperTalk commands.

In designing Educator HomeCard we tried to strike a balance between ease of use and functionality. For example, we included computational abilities in the Gradebook stack, so that teachers could calculate grade averages as well as record student marks. The Seating Chart stack can be used as a traditional seating chart, but also as a gateway to all the information a teacher keeps about each student. Clicking a student's seat gives immediate access to the student's data file or gradebook records.

It is not Apple's intention to compete with third party products, so our stacks are intentionally broad in design instead of being robust in any particular area. We expect that once teachers become more proficient on the Macintosh, they will move to third party software products which are more complete or complex. We're also working with developers so that teachers will be able to export their data easily from Educator HomeCard into third party products.

We anticipate that many teachers will use the stacks at first in a straightforward manner, especially the Seating Chart, Gradebook and Lesson Planner. We intentionally included several Ideas stacks that are working, interactive lessons using art, sound, animation and computation. Teachers can use them as they are or as models for creating their own lessons. For example, there's a stack on 15th century

HomeCard *continued on page 27*

The End of the Beginning

by Ron Hultine

Editorial

Only a year and a half has transpired since I picked up my Mac Plus and sat down for the first time to fight the fears that most of my generation have for computers. Interested, yet apprehensive, I also attended my first Mac User's group at the same time. As I stood up and introduced myself and my plight, I let out a loud cry for help. Everyone laughed, I hope not at me, but at the feeling they also had when an alien being came to live at their home. Knowing there were others to help if I became hopelessly lost, I trudged ahead, aware of no cases of computer imposed psychosis.

Many manuals have been read and more than a few bombs have occurred since that day, and with experience, my expectations have changed considerably. I remember thinking no one would ever need more than one meg of RAM memory or more than a 30 meg hard drive. How innocent and foolish I was. (Please note I have left out young from that statement.) Last week I had Microsoft Works and a Bible application open under MultiFinder and I went to save my last two paragraphs and poof, it was gone. This happened with an expanded two and a half megs of memory. Furthermore, with a recent purchase of several applications, I found myself scrambling to dump some less-used things from my hard drive. Where has all the memory gone?

I remember justifying my purchase by thinking my teenagers needed it for school and certainly I was too busy to find time to play with it. But just in case, I rationalized, I'll buy a Macintosh so it will be easier to learn if I ever get any extra time. A year and half later, my daughter keeps only a list of girl and boy friends that she updates every six months, our boy is the greatest captain in the history of PT-109, and that's the extent of their usage. And I, the fellow who was too busy, have suddenly found time to read through entire manuals and even the Macintosh Bible like they were a novel by James A. Michener.

At one point, reading those manuals meant understanding maybe 25 to 50% of their content because so much of computer language is building on previously learned material. But the difference is that on the Mac, 25% lets you use your computer and using gives power to expand to other things. It's amazing how much time you can make when something truly lets you broaden your knowledge and efficiency. And surprise, surprise, it was easy and fun.

Well, I believe I have reached the first plateau. As Winston Churchill said during WW II, we are not at the beginning of the end, but it is the end of the beginning. That's where I am now, full of basics and ready for new challenges, yet nowhere near the end. Using MultiFinder, pushing myself into new applications, using my modem, spooling and printing, all these are continually being refined. Each technique is improved by using, reading, listening, and asking questions. I am so fascinated with the Macintosh system that I couldn't resist going to the grand opening of their new product line. Being there with those big hitters made me feel like I was taking batting practice with the Oakland A's. Incidentally, if Apple is reading this, I would love to experiment with that new LC—I will own that computer someday.

In the past year and a half, I have learned a few things about computing on the Mac that are just as important as knowing the manuals. Things we probably take for granted all too often.

1. From my limited knowledge, Macintosh is the easiest to use, and Windows is still MS-DOS. My brother bought a Unisys PC and thought Windows would give him a cheap Mac. He was wrong. His PC already is sitting unused. Imitation is the sincerest form of flattery but from what I have experienced, imitations are never as good as the original. We need to spend our money on something that works even if it's higher in price. You get what you pay for.

2. Honesty is always the best policy. Don't copy someone's software to use. It's okay to try it and see if you like it but don't cheat a manufacturer or a programmer of their livelihood. It's their effort that makes a Mac fun to use. Don't cut our own throats.

3. Use it or lose it. Work your computer and don't let it sit idle. My young teenage experts now come to me for the answers, unlike the first few months, when I was the student. When we do use our computer, we grow, learn and use the power that they were intended for. No matter how easy the Macs are to use, they still will be a mystery if you don't use them hands on. My wife thinks it's too complicated, not because it is, but because she imagines it must be.

4. I will probably never stop learning on my Macintosh, whether Plus or LC, because I don't want to, but if I did I could stop any where and just use it. I have a friend that has an 512Ke that he does amazing things with, even without a hard drive. Just because it is not the newest doesn't mean it won't do lots of things we haven't even discovered.

Beginning continued on page 27

Against Software Patents

The League for Programming Freedom

Issues in Computing

[This is part one of a two-part article.]

(August 7,1990)
Software patents threaten to devastate America's computer industry. Newly-granted software patents are being used to attack companies such as the Lotus Development Corporation and Microsoft for selling programs that they have independently developed. Soon new companies may be barred from entering the software arena, because the cost of licensing the dozens of patents necessary for a major program will make such a project economically impossible. As programmers, we believe that if the United States Patent and Trademark Office continues to grant software patents, we will soon be effectively forbidden from writing programs that are useful.

The Patent System and Computer Programs

The framers of the Constitution established the patent system so that inventors would have an incentive to share their inventions with the general public. In exchange for divulging an invention, the patent grants the inventor a seventeen-year monopoly on the use of the invention. The patent holder can license others to use the invention, but may also refuse to do so. Independent reinvention of the same technique by others does not let them use it.

Patents do not cover specific programs: instead, they cover particular techniques that are used to build programs, or particular features that programs offer. Once a technique or feature is patented, it may not be used in another program without the permission of the patent-holder—even if it is implemented in a different way. Since a program typically uses many techniques and provides many features, it can infringe many patents at once.

Until recently, patents were simply not used in the field of software. Software developers would copyright individual programs, or make them trade secrets.

Copyright was traditionally understood to cover the particular details of a particular program; it did not cover the features of the program, or the general methods used. And trade secrecy, by definition, could not prohibit any development work by someone who did not know the secret.

On this basis, software development was extremely profitable, and received considerable investment, without prohibiting the development of new programs by others.

But this scheme of things is no more. Software patents became legal in the U.S. in 1981, and now enough time has elapsed for numerous patents to be approved.

Many programmers are unaware of the change and do not appreciate the magnitude of its effects. Today the lawsuits are just beginning.

Absurd Patents

The Patent Office and the courts have had a very difficult time with computer software. The Patent Office refuses to hire Computer Science graduates as examiners, and in any case does not offer competitive salaries for the field. Patent examiners are often ill-prepared to evaluate software patent applications to determine if they represent techniques which have been previously used or are obvious—both of which are grounds for rejection.

Their task is made more difficult because many commonly-used software techniques do not appear in the scientific literature of computer science. Some seemed too obvious to publish, others seemed insufficiently general. Complicated assemblages of techniques have often been kept secret.

And what is obvious to a programmer is frequently not obvious to a patent examiner, many of whom view innovations in computer science the same way as they see innovations in chemistry or biology. Computer scientists know many techniques that can be generalized to widely varying circumstances. Based on patents that have been awarded, the Patent Office seems to believe that each separate use of a technique is a candidate for a patent.

For example, Apple has been sued because the HyperCard program violates patent number 4,736,308, a patent that describes nested scrollable objects: windows that can scroll, containing tables that can individually scroll, containing items that can individually scroll. These three types of scrolling were all in use at the time that patent number 4,736,308 was applied for, but combining them is now illegal.

Many well-known and widely used techniques have been patented. Unfortunately, the granting of a patent by the Patent Office carries a presumption in law that the patent is valid. Patents for well-known techniques that were in use for more than ten years before the patent was granted have been upheld by federal courts.

For example, the technique of using exclusives, or to write a cursor onto a screen, is well known and has been used for decades. (Its advantage is that another identical exclusive or

operation can be used to erase the cursor without damaging the other data on the screen.) This technique can be used in just a few lines of program, and a clever high school student might well reinvent it. But this, as well as other important graphics techniques, is covered by patent number 4,197,590, which has been upheld twice in court.

English patents covering customary graphics techniques, including airbrushing, stenciling, and combination of two images under control of a third one, were recently upheld in court, despite the testimony of the pioneers of the field that they had developed these techniques years before. (The corresponding United States patents, including 4,633,416 and 4,602,286, have not yet been tested in court, but they probably will be soon.)

Currently all companies who have developed spreadsheet programs are being sued because of a patent 4,398,249, covering "natural order recalc"—the recalculation of all the spreadsheet entries that are affected by the changes the user makes, rather than recalculation in a fixed order. This technique is very similar to the old artificial intelligence techniques of antecedent reasoning and constraint propagation, but we cannot rely on the courts to overturn the patent on these grounds.

Nothing protects programmers from accidentally using a technique that is patented—and then being sued for it. Taking an existing program and making it run faster may also make it violate half a dozen patents that have been granted, or are about to be granted.

Even if the Patent Office learns to understand software better, the mistakes it is making now will follow us into the next century, unless Congress or the Supreme Court intervenes to declare them void.

However, this is not the extent of the problem. Computer programming is fundamentally different from the other fields that the patent system previously covered. As a result, even if the patent system were fixed to operate "as intended" for software, it would still largely wipe out the industry it is ostensibly designed to encourage.

Why Software Is Different

Software systems are much easier to design than hardware systems of the same number of components. For example, a program of a hundred thousand components might be fifty thousand lines long and could be written by two good programmers in a year. The equipment needed for this costs less than ten thousand dollars; the only other cost would be the programmers' own living expenses while doing the job. The total investment would be less than a hundred thousand dollars. If done commercially in a large company, it might cost twice that. By contrast, an automobile typically contains under a hundred thousand components; it requires a large team and costs tens of millions of dollars to design.

And software is also much cheaper to manufacture: copies can be made easily on an ordinary workstation costing under ten thousand dollars. To produce a hardware system often requires a factory costing tens of millions of dollars.

Why is this? A hardware system has to be designed using real components. They have varying costs; they have limits of operation; they may be sensitive to temperature, vibration or humidity; they may generate noise; they drain power; they may fail either momentarily or permanently. They must be physically inserted in their place in the machinery, and it must be possible to gain access to them to test or replace them.

Moreover, each of the components in a hardware design is likely to affect the behavior of many others. Therefore, is it very hard to figure out what a hardware design will do: mathematical modeling may prove wrong when the design is built.

By contrast, a computer program is built out of ideal mathematical objects whose behavior is defined, not merely modeled approximately, by abstract rules. When you write an if-statement after a while-statement, you don't have to worry that the if-statement will draw power from the while-statement and thereby distort its output, nor that it will overstress the while-statement and make it fail.

Despite the fact that they are built from simple parts, computer programs are incredibly complex. The program with fifty thousand lines probably has a hundred thousand parts, making it as complex as an automobile, though far easier to design.

While programs cost substantially less to write, market, and sell than automobiles, the cost of dealing with the patent system is not less. The same number of components will, in general, be likely to involve the same number of possibly-patented techniques.

What Is "Obvious"?

The patent system will not grant or uphold patents that are judged to be "obvious." However, the standard of obviousness that the patent system has developed in other fields is inappropriate to the software field.

Patent examiners are accustomed to considering even small, incremental changes as deserving new patents. For example, the famous *Polaroid vs. Kodak* case turned on differences in the number and order of layers of chemicals in a film—differences between the technique Kodak was using and

those described by previous, expired patents. The court ruled that these differences were unobvious.

Computer scientists solve problems far faster than people in other disciplines, because the medium of programming is more tractable. So they are trained to generalize solution principles from one problem to another. One such generalization is that a procedure can be repeated within itself, a process known as nesting. Nesting in software is obvious to computer programmers—but the Patent Office did not think that it was obvious when it granted the patent on nested scrolling, for which Apple was sued.

Cases such as this cannot be considered errors. The patent system is functioning in software just as it does in other fields—but with software, the result is outrageous.

Patenting What Is Too Obvious to Publish

Sometimes it is possible to patent a technique that is not new precisely because it is obvious—so obvious that no one saw a point in writing about it.

For example, computer companies distributing the free X Window System developed by MIT are now being threatened with lawsuits by AT&T over patent number 4,555,775, covering the use of "backing store". This technique is used when there are overlapping windows; the contents of a window that is partly hidden are saved in off-screen memory, so they can be put back quickly on the screen if the obscuring window disappears (as often happens).

In fact, the technique of backing store was used in an earlier MIT project, the Lisp Machine System, before AT&T applied for the patent. But the Lisp Machine developers did not publish anything mentioning the use of backing store until the programmers' reference manual was written some years later. They expected that any window system developer would have the same idea, given that the memory of the computer was large enough to make the idea practical. (Earlier window systems, such as those at Xerox, did not use backing store because the computers in use had insufficient memory space to spare any for this purpose.)

Without a publication, the use of backing store in the Lisp Machine System may not count as prior art to defeat the patent. So the AT&T patent may be enforceable, and MIT may be forbidden to continue using a method that MIT used before AT&T.

The result is that the dozens of companies and hundreds of thousands of users who accepted the software from MIT on the understanding that it was free are now faced with possible lawsuits. [Footnote: They are being threatened by Cadtrak as well.] The X Windows Project was intended to develop a window system that all developers could use freely. Because of software patents, this public service goal seems to have been thwarted.

The Danger of a Lawsuit

Under the current patent system, a software developer who wishes to follow the law must determine which patents his program violates and negotiate with each patent holder a license to use that patent. Licensing may be prohibitively expensive, as in the case when the patent is held by a competitor. Even "reasonable" license fees for several patents can add up to make a project unfeasible. Alternatively, the developer may wish to avoid using the patent altogether; unfortunately, there may be no way around it.

The worst danger of the patent system is that a developer might find, after releasing a product, that it infringes one or many patents. The resulting lawsuit and legal fees could force even a medium-size company out of business.

Worst of all, there is no practical way for a software developer to avoid this danger—there is no effective way to find out what patents a system will infringe. There is a way to try to find out—a patent search—but such searches are unreliable and in any case too expensive to use for software projects.

Patent Searches Are Prohibitively Expensive

In a system with a hundred thousand components, there can easily be hundreds of techniques that might already be patented. Since each patent search costs thousands of dollars, searching for all the possible points of danger could easily cost over a million. This is far more than the cost of writing the program.

But the costs don't stop there. Patent applications are written by lawyers for lawyers. A programmer reading a patent may not believe that his program violates the patent, but a federal court may rule otherwise. It is thus now necessary to involve patent attorneys at every phase of program development.

Yet such involvement only reduces the risk of being sued later—it does not eliminate the risk. So it is necessary to have a reserve of cash for the eventuality of a lawsuit.

When a company spends millions to design a hardware system, and plans to invest tens of millions to manufacture it, an extra million or two to pay for dealing with the patent system might be bearable. However, for the inexpensive programming project, the same extra cost is prohibitive.

In particular, individuals and

small companies cannot afford these costs. Software patents will put an end to software entrepreneurs.

Patent Searches Are Unreliable

Even if companies could afford the heavy cost of patent searches, they are not a reliable method of avoiding the use of patented techniques. This is because patent searches do not reveal pending patent applications (which are kept confidential by the Patent Office). Since it takes several years on the average for a patent to be granted, this is a serious problem: a company could begin designing a large program after a patent has been applied for, and release the program before the patent is approved. Only later will that company find out whether its profits will be confiscated.

For example, the implementors of the widely-used public domain program *compress* followed an algorithm obtained from the journal, ***IEEE Computer***. They and the user community were surprised to learn later that patent number 4,558,302 had been issued to one of the authors of the article. Now Unisys is demanding royalties for using this algorithm. Although the program is still in the public domain, using it means risking a lawsuit. And implementing the algorithms found in the journals is no longer safe. In addition, the Patent Office does not have a workable scheme for classifying software patents. Patents are most frequently classified by the activity they are used in, such as "converting iron to steel;" but many patents cover algorithms whose use in a program is entirely independent of the purpose of the program. For example, a program to analyze human speech might infringe the patent on a speedup in the Fast Fourier Transform; so might a program to perform symbolic algebra (in multiplying large numbers); but the category to search for such a patent would be hard to predict.

You might think it would be easy to keep a list of the patented software techniques, or even simply remember them. However, managing such a list is nearly impossible in practice. The patent office has now granted more than 2000 software patents. In 1989 alone, 700 patents were issued. We can expect the pace to accelerate.

When you think of inventions, you probably call to mind revolutionary inventions such as the telephone or magnetic core memory. This is not the standard that the patent system uses, however. What we would consider a minor cleverness or variation or combination of existing techniques, they consider patentable. This leads to a profusion of obscure patents.

Any capable software designer will "invent" several such improvements in the course of a project, and will say that they are straightforward—hardly inventions at all. However, the number of avenues for such improvement is very large, so no single project is likely to find any given one. Therefore, the Patent Office is not likely to classify them as obvious. As a result, IBM has several patents (including 4,656,583) on certain fairly straightforward, albeit complex, speedups for well-known computations performed by optimizing compilers, such as computing the available expressions and register coloring.

Patents are also granted on combinations of techniques that are already well known and in use. One example is IBM patent 4,742,450, which covers "shared copy-on-write segments." This is a technique that allows several programs to share the same piece of memory that represents information in a file; if any program writes a page in the file, that page is replaced by a copy in all of the programs, which continue to share that page with each other but no longer share with the file.

Shared segments and copy-on-write are very old techniques; this particular combination may be new as an advertised feature, but is hardly an invention. Nevertheless, the Patent Office thought that it merited a patent, which must now be taken into account by the developer of any new operating system.

These sorts of patents are like land mines: your chances of running into any one of them are small, but soon there will be thousands of them. Even today it is hard to keep track of them, and a recent list published by lawyers specializing in the field omitted some of these IBM patents. In ten years, programmers will have no choice but to march on blindly and hope they are lucky.

In ten years, programmers will have no choice but to march on blindly and hope they are lucky

Patent Licensing Has Problems, Too

Most large software companies are trying to solve the problem of patents by getting patents of their own. Then they hope to cross-license with all the other companies and be free to go on as before.

While this approach will allow companies like Microsoft, Apple and IBM to continue business, it will shut future companies out of the marketplace. A future start-up, with no patents of its own, will have no choice but to meet whatever conditions the giants choose to impose. And that price might be extremely high: companies currently in the market have an incentive to keep out future competitors. The recent Lotus lawsuits against Borland and the Santa Cruz Operation (although involving an extended idea of copyright rather than patents)

show how this can work.

Even a system of industry-wide cross-licensing will not protect the software industry from companies whose only business is to buy patents and then sue people for license fees. For example, the New York-based REFAC Technology Development Corporation recently bought the rights to the "natural order recalc" patent, solely so that REFAC could sue Lotus, Microsoft and other companies selling spread-sheet programs. Contrary to its name, REFAC does not develop anything except lawsuits. It has no financial incentive to join a cross-licensing compact. The exclusive-or patent is owned by another such litigation company, Cadtrak, which is now suing Western Digital.

REFAC is demanding five percent of sales of all major spread-sheet programs. If some future program infringes on twenty such patents—and this is not at all unlikely, given the complexity of a computer program and the specificity of patents that have been recently issued—that program will never be used.

To get a picture of the effects for yourself, imagine if each square of pavement on the sidewalk had its owner, and you had to negotiate a license to step on it. Imagine trying to walk the entire length of a block under this system. That is what writing a program will be like if software patents are allowed to proliferate.

The Fundamental Question

According to the Constitution of the United States, the purpose of patents is to "promote the progress of science and the useful arts." Thus, the basic question at issue is whether software patents, supposedly a method of encouraging software progress, will truly do so, or whether they will instead hold progress back.

So far we have explained the ways in which patents will make ordinary software development difficult. But what of the intended benefits of patents: more invention, and more public disclosure of inventions? To what extent will these actually occur in the field of software?

There will be little benefit to society from software patents because invention in software was already flourishing before software patents, and inventions were normally published in journals for everyone to use. Invention flourished so strongly, in fact, that the same inventions were often found again and again.

In Software, Independent Reinvention Is Commonplace

A patent is an absolute monopoly; anyone who uses the patented technique can be stopped, even if it was independently reinvented.

The field of software is one of constant reinvention; as some people say, programmers throw away more "inventions" each week than other people develop in a year. And the comparative ease of designing large software systems makes it easy for many people to do work in the field.

As programmers, we solve many problems each time we develop a program. In the past, we would publish the important solutions in journals, and forget the rest. All of these solutions are likely to be reinvented frequently as additional people tackle similar problems and try to do a good job.

Today, however, many of these specialized solutions are being patented. If you then rediscover it in the course of your work, you are headed for a lawsuit that you cannot anticipate.

Meanwhile, the prevalence of independent reinvention negates the usual justification for patents. Patents are intended to encourage the development of inventions and, above all, the disclosure of inventions. If a technique will be reinvented frequently, there is no need to encourage more people to invent it; since some of the developers will choose to publish it (if it merits publication), there is no point in encouraging a particular inventor to do so—and certainly not at such a high price.

Could Patents Ever Be Beneficial?

Although software patents are in general are harmful to society as a whole, we do not claim that every single software patent is necessarily harmful. It is possible, though not certain, that careful study would show that under certain specific and narrow conditions (necessarily excluding the vast majority of cases) it would be beneficial to grant software patents. Nonetheless, the right thing to do now is to eliminate all software patents as soon as possible—before more damage is done. The careful study can come afterward.

This may not be the ideal solution, but it is close, and is a great improvement. Its very simplicity helps avoid a long delay while people argue about details.

Clearly software patents are not urgently needed by anyone except patent lawyers. The pre-patent software industry had no problem that patents solved; there was no shortage of invention, and no shortage of investment.

If it is ever shown that software patents are beneficial in certain exceptional cases, the law can be changed again at that time—if it is important enough. There is no reason to continue the present catastrophic situation until that day.

Inventions Are Not the Important Thing

Many observers of US and

Many observers of US and Japanese industry have noted that one of the reasons Japanese are better at producing quality products is that they assign greater importance to incremental improvements, convenient features and quality rather than to noteworthy inventions.

It is especially true in software that success depends primarily on getting the details right. And that is most of the work in developing any useful software system. Inventions are a comparatively small part of the process.

The idea of software patents is thus an example of the mistaken American preoccupation with the big invention rather than the desirable product. Patents will reinforce this misdirection of American attention. Meanwhile, by presenting obstacles to competition in the important part of software development, they will interfere with development of quality software.

Contributed by James Horswill. Reproduced with permission of the authors.

[Part II of this article will follow in a subsequent issue of this Newsletter.]

RamWorks *continued from page 17*

number of banks plus 1.

The end of table position here is $68B0. This will also change if the number of banks changes. Start with $68A1 and count the number of banks, then add 1 for your end of table location. Substitute this value for $68B0.

It may not be elegant but it works. There should be enough informtion here to adapt any RamWorks system. So not be afraid to experiment. After all, that is how I figured this out in the first place, but remember to use a disposable copy. Good Luck!

*from **Washington Apple Pi (WAP) Journal** 8/89*
via Steve George, Mini'app'les Contributing Editor

Mac Beginners: What is Key Caps?

by James Horswill
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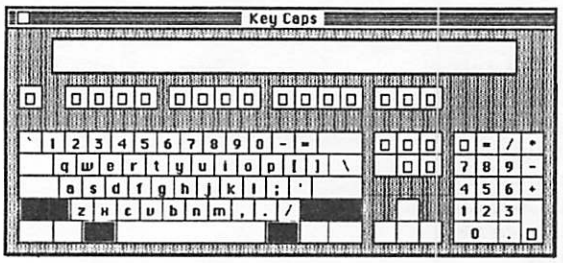
Macintosh Procedures

With Japan making a larger and larger impact on the American marketplace, the time may not be far off when you will need to use the *yen* sign in a document. How do you type it? *Can* you type it on a Macintosh? If you look at your keyboard, you won't see it anywhere. That's because the *yen* sign is one of many hidden characters included in most Macintosh fonts.

Standard Mac keyboards are like those on typewriters—they only show you the shifted and unshifted characters. Yet, most Mac fonts have a host of additional symbols. Many of them can be typed by holding down option while striking another key, and these ancillary characters aren't shown on the keyboard. You could learn what these supplementary characters are by experiment—holding down the option key, and then hitting all the other keys in succession to find out what characters they produce. This might prove a trifle enervating after about the fourth or fifth typeface, though.

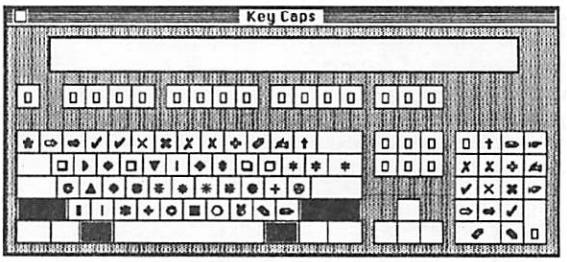
There is a much simpler solution to this problem; it's a DA called Key Caps. It allows you to see the complete character set of any installed font, and it shows you the key combination that produces a given character. It's fast, easy to use, and it's part of System Software, so it's "free." You can't use it unless it's installed, though, and I regularly scroll down a client's menu without finding it. If your Mac is similarly impoverished, you should install Key Caps at once. (If only so that you can find and use the symbol, as I did, and amaze your friends.) If you aren't using either **Suitcase II** or **MasterJuggler,** you must install Key Caps with the Font/DA Mover. (See "Mac Beginners: What is the Font/DA Mover," in the August, 1990 issue of this newsletter.) You also must have the Key Layout init installed in your system folder, if you're using a later version of the system. It comes with System Software, and you just drop it in your system folder, and reboot.

When you open Key Caps, you'll see this window:



This layout shows the unshifted characters in the Chicago character set. Key Caps defaults to Chicago when you open it, and you must select the font you're currently using from the Key Caps menu, on the menu bar. Having done so, if you hold down the option key, Key Caps will display all the characters that are produced when you hold down that key while hitting others. If you hold down both the shift and the option keys, you probably will see still more characters, although fonts vary in the number of additional characters they include. Some even have fonts associated with the control key. (You can get the character in the Chicago font by typing control-Q, for example.) If there is no character associated with a particular key combination, Key Caps will display the symbol.

Some fonts are difficult to use without a utility like Key Caps. None of the characters in Zapf Dingbats appear on the Mac keyboard, and one would be hard pressed just to remember the unshifted ones. Here they are:



By the way, "dingbat" is a printer's term connoting ornamental type, and not a reference to Edith Bunker, or the Vice President of the United States.

If you type while Key Caps is open, the character or characters you typed will appear in the rectangular display near the top of the window. You can then copy and paste them into your document. This is a handy feature if you need to type a sequence of special characters, because you don't have to remember what key combinations produce them. Just be aware that they will appear in the current font when you paste them into your document. You may not get the characters you expect until you change them to the proper font.

Copying characters from Key Caps, and pasting them into your document also can save the day if a key on your keyboard suddenly stops working. Just invoke Key Caps and click on the representation of the afflicted key in the Key Caps window. (Physically hold down modifier keys on the keyboard itself.) The desired character will appear in the key caps display, though you never actually pressed the balky key. You can then copy the character, and paste it into your document. Of

course, if you try to do this for very long, you'll soon be trying to pick the flowers on your wallpaper.

Some accent characters on the keyboard must be entered in a quirky way that is by no means obvious. If you wish to type an "e" with an acute accent, for example, you must first type option-e. It will appear that nothing has happened. If you then type "e" again, without holding down the option key, the accented "e" will appear: é. You can place the accent over other vowels by typing option-e, and then typing the desired vowel. There are many other accents in the standard Macintosh character set that act in this way. You can't place an acute accent over a consonant using this method, though. Then, again, I don't know why you would wish to do so.

Key Caps is not the only character-finding utility available. **PopChar**, a freeware init, is superb. (See "Mac Software: Sometimes There *Is* a Free Lunch," by Richard Becker, in the September, 1990 issue of this newsletter, for an excellent discussion of this utility.) **KeyFinder,** another character-finding DA, is part of **The Norton Utilities,** acquired recently by Symantec. It performs many of the same functions as Key Caps, and is supposed to show characters that the Apple utility doesn't display. It also lists ASCII numbers of all characters, and allows you to print out the complete character set of any font. The printout doesn't list the key combinations that invoke the characters though.

While I own, and use, both PopChar and KeyFinder, I still keep Key Caps on my Mac. The other two utilities display a font's entire character set at once, and I sometimes have difficulty finding the specific character I want, quickly. Key Caps only displays part of the character set at a time, making it easier for me to find the one I'm looking for.

I started this article by asking how you would type the symbol for *yen* if you had to use it. I suppose it's only fair to tell you that it's option-Y in the Times font. It looks like this: ¥. Since it looks like a Y, the key combination is option-Y. Get it? However, Japan isn't our only competitor these days. Anyone know what the symbol for the *won* looks like?—*James Horswill*

Beginning *continued from page 19*

5. Everyone I have met through the Mini'app'le user group, and for that matter every Macintosh owner, has always been friendly and wanted to share their joy as well as their knowledge. They always have a smile when they talk about their Macs. In my limited contact with MS-DOS users, I have not always had the same feeling. I have a hunch there are a lot of IBM clones sitting in closets around America.

Many thanks to you experts and friends for listening and helping when I needed help. Thanks to those software companies who are continually coming up with new ways of spending my money. You deserve your share. Finally, thanks to Apple for developing computers that idiots like me can use and still have fun. Like their commercials say, which has the most power, the one with the most megabytes or the one that gets used?

Well, from the end of the beginning, it's on to Stage Two. As a 43-year-old, each new discovery fascinates me. The kids who were brought up with computers at their beck and call don't know how far we have leaped. *They* take them for granted, *I* do not. But I am ready, willing, and mostly able. No guts, no glory! I am not quite ready for programming yet, but where is that manual on HyperCard?
—*Ronald Hultine, 612-432-1877*

HomeCard *continued from page 18*

explorers with animated routes and a quiz button that shows the student the route and requests the name of the explorer. Teachers interested in scripting can take a look at how we programmed the buttons and the animation and use it as a basis for their own work. All of the stacks are "fire starters," so that a teacher or even a whole district can design stacks for their specific educational purposes. We hope that Educator HomeCard will be a catalyst for educators to use Macintosh in creative ways in their teaching.

To Receive Your Copy

Educator HomeCard is available from Apple Computer free of charge until December 31, 1990. Teachers can obtain a copy by sending their name, title, school, address and phone number to: Intellimation, 130 Cremona Drive, P.O. Box 1922, Santa Barbara, CA 93116-9954. Please do not call Intellimation. Also include the model of the computer you currently use. The minimum configuration for Educator HomeCard is a Macintosh Plus, a hard disk drive and System 6.0.5.

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M/F. Organizational and communication skills are a necessity for this position. Duties include phone interviewing, matching skills and abilities with needs of your mini'app'les user group. You are not required to attend meetings or submit reports. Experience with volunteer organizations a definite plus. Compenstaion: Satisfaction. Expenses: paid. Ask for Dave at 432-0913.

MEMBERSHIP DIRECTOR

M/F. Planning and organizational skills a must. Must be able to motivate and direct others. Experience or a degree in marketing a definite plus as your prime responsibility will be increasing membership in mini'app'les. Compensation: knowlege that you increased our membership. Expenses: paid. Ask for David at 488-6774.

DATABASE COORDINATOR

M/F. You must be computer knowledgeable and have at least one years experience using a database. Organizational skills a must. Responsibilities include meeting deadlines, updating and maintaining a 1500+ record database, sorting by fields and printing address labels for our monthly newsletter. Compensation: satisfaction from a job well done. Expenses: paid. Ask for Steve at 935-5775.

EXPERTS NEEDED

M/F. Your user group needs wizards with expertise in the following Apple //, Apple GS and Macintosh programs for our "Members Helping Members" program:

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- WordPerfect

Members Helping Members responsibilities are to provide phone advice and assistance to members

---

MACINTOSH SOFTWARE GURU

M/F. The ideal candidate will have excellent Macintosh and telecommunication skills with access to several BBS's. Responsibilities will include downloading freeware and shareware programs for use as eDOMs by your mini'app'les user group. You will also verify these programs are free of viruses and organize them on a master disk to be used for making eDOMs. Compensation: personal growth. Ask for Tom at 789-1713 (evenings and weekends only, please).

THANKS

"Thank You" to the following contributors to the November issue of our newsletter:

Steve George
Tom Ostertag
Ken Edd
Tom Michals
Tom Gates
Wayne Marsh
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Dan Levine
Lewis Stephens
Dick Marchifava
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Your contributions of content and advertising are directly responsible for the success of our mini'app'les user group.

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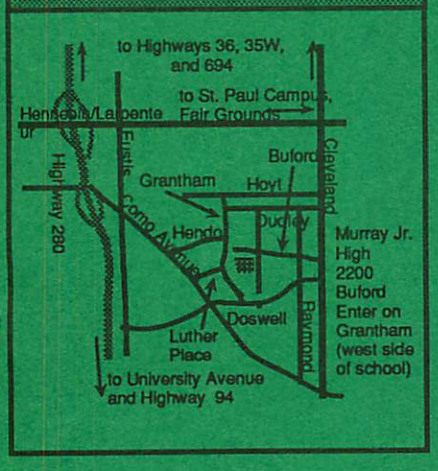

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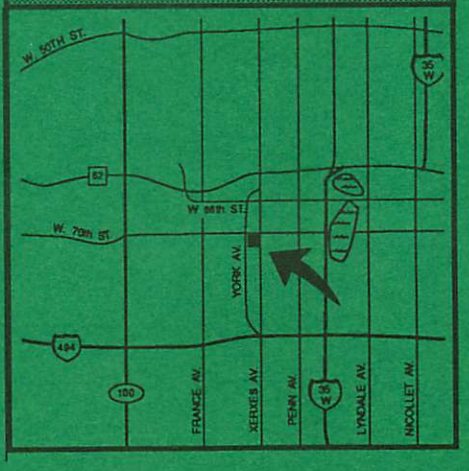

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