



mini'app'les

apple computer user group newsletter

VOLUME VII No 3

MARCH 1984

CALENDAR

WHICH	WHEN
St. Paul Branch - Note 3	Tue Mar 6 7pm-9:30pm
Pascal & Apple /// Note 1	Wed Mar 7 7:30pm
St Cloud Branch Note 15	Thur Mar 8 7:30pm
Dakota County Branch Note 7	Tue Mar 13 7pm-10pm
Board Meeting Note 2	Wed Mar 14 7:30 pm
Medical SIG Note 13	Wed Mar 14 7.00pm
Business Note 10	Thu Mar 15 7:00pm
REGULAR MINI'APP'LES Note 2 Map next month	WEDNESDAY Mar 21st Prgm-7:30pm SIGs-8:30pm+
Educational SIG	Wed Mar 21
Investment SIG Note 4	Thur Mar 22 7-9:30pm
New Hope Branch Note 16	Tue Mar 27 7:00pm
CP/M SIG Note 5	Wed Mar 28 7:00pm
Minnetonka Branch Note 8	Wed Mar 28 7:30pm
St. Paul Branch - Note 3	Tue Apr 3 7pm-10pm
Pascal & Apple /// Note 1	Wed Apr 4 7:30pm
Dakota County Branch	Tue Apr 10 7pm-10pm
Board Meeting Note 2	Wed Apr 11 7:30 pm
Business Note 10	Thu Apr 12 7:00pm
St Cloud Branch Note 15	Thu Apr 12 7:30pm
REGULAR MINI'APP'LES Note 2 Map inside	WEDNESDAY April 18th Prgm-7:30pm SIGs-8:00pm+
Educational SIG	Wed Apr 18
Investment SIG	Wed Apr 19
New Hope Branch	Tue Apr 24
CP/M SIG	Wed Apr 25
Minnetonka Branch	Wed Apr 25

Notes:

(See page 2 for telephone numbers)

- John Schoeppner
- Chuck Thiesfeld
- Fred Woodward
- Eric Holterman

- W. Scott Ueland
- Dan Buchler
- Bob Pfaff

- Martin Thames
- Mike Carlson
- Subir Chatterjee

- Bill DeCoursey
- Jane Chatterjee
- Stewart Haight

- Steve George
- Frank M. Ringsmuth
- Jere Kauffman

CALENDAR

WHERE
Mahtomedi Fire House Hallam & Stillwater.
Minnesota Federal 9th Ave S Hopkins
Walte Park City Hall 5th Ave & 3rd St N.
St. John Neumann Church 4030 Pilot Knob Rd, Eagan
Norwest Bank S 1st St., Hopkins
Health Associates Ctr. 2221 University SE, Rm 115
Minnesota Sch of Bus's 11 S 5th, Mpls
UNIVERSITY MINNESOTA ST. PAUL Room B45 Bldg 412 Near State Fair Ground
After Regular Mtg.
Henn Cty Lib at Southdale 7001 York Ave S.
Rockford Rd Library County Road 9
Minn Fed Hopkins Hopkins MN
Glen Lake Community Ctr 14300 Excelsior Blvd room. E
Mahtomedi Fire House Hallam & Stillwater.
Minnesota Federal 9th Ave S Hopkins
St. John Neumann Church 4030 Pilot Knob Rd, Eagan
Norwest Bank S 1st St., Hopkins
Minnesota Sch of Bus's 11 S 5th, Mpls
Walte Park City Hall 1401 S. 11th Ave
NW College of Chiropractic (old PENN CENTER) 84th & Penn Bloomington
After Regular Mtg.
Henn Cty Lib at Southdale Rockford Rd Library
Minn Fed Bank
Glen Lake Community Ctr

CALENDAR

WHAT
VisiFile/DBMaster by Erik Carlson
Pascal & Apple /// Special Interest Group Meeting.
GAME NIGHT Demonstrations and Competitions
Music Synthesizer night with Chuck Boody
Nominations night. All members are welcome!
Dr Lynda Ellis Medical Education
Keith Madonna, et al, brings you Game Night. Demos of, and discussions on the best Apple Games! + Bylaws ratification vote!
Note 12- MECC software demos.
OPTIONS: an Investment tool by Dick Verner
Demo of Macintosh by Computer Professionals
Sftw and Hrdw Exchange night Bring your unwanted to trade!
CP/M by Scott Ueland
Pascal & Apple /// Special Interest Group Meeting.
Note 7
General club business. Meeting is open to all members.
Election night
Note 12 Educational Software Investment Software Demo
Election of Branch Leaders



Mini'app'les

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

MINI'APP'LES OFFICERS

President	Chase Allen	431-7278
	15718 Hayes Trail, Apple Valley, MN 55124	
Past President	Ron Androff	452-5230
	1725 Crest Ridge Lane, Eagan, MN 55122	
Vice President	Chuck Thiesfeld	831-0009
	8416 Xerxes Avenue S., Bloomington, MN 55431	
Treasurer	John L. Hansen	890-3769
	38 Birnamwood Drive, Burnsville, MN 55337	
Secretary	Hugh Kurtzman	544-7303
	11622 Live Oak Dr., Minnetonka, MN 55343	

BOARD MEMBERS

Beginners' Consultant	S.K. Johnson	869-3447
Blank Disk Bulk Purchases Co'tor	Peter Gilles	475-3916
Board members at large	Steve George	935-5775
	Jo Hornung	922-7665
Consummables Co'tor	Ken Slingsby	507/263-3715
DOM Editor	Al Peterman	721-3295
Education Co'tor	Arthur English	824-4131
MECC Disk Purchases	Dave Nordvall	724-9174
Membership Co'tor	Ann Bell	544-4505
Parliamentarian	Larry Larson	788-0728
Publications Co'tor	Daniel B. Buchler	890-5051
Publicity Co'tor	A. Michael Young	884-2841
Software Coordinator	Chuck Boody	933-5290
Spcl Int. - Apple ///	Joe Horne	941-3411
Spcl Int. - Business	Subir Chatterjee	330-7347
Spcl Int. - Communic'n	Jay Warrior	489-8694
Spcl Int. - Education	Jane Chatterjee	888-9447
Spcl Int. - FORTH	Mark Abbott	854-8304
Spcl Int. - Geneology	Bill Decoursey	574-9062
Spcl Int. - Handicaps	Steve Lyle	894-2991
Spcl Int. - Invest'nt	Eric Holterman	454-5628
Spcl Int. - Medical	Stewart Haight	644-1838
Spcl Int. - Pascal	John Schoeppner	455-8613
Spcl Int. - Visicalc	Mike Carlson	929-4120
Spcl Int. - CP/M & Hardware Coordinator	Scott Ueland	623-3749
Tech. Advisers (sftw)	Dave Laden	489-8321
(hdw)	Roger Flint	771-2868
Branch Coordinators:		
Dakota County	Bob Pfaff	452-2541
Minnetonka	Martin Thames	934-3517
Northwest	Jere Kauffman	535-6745
St. Cloud	Frank Ringsmuth	253-6032
St. Paul/Mahtomedi	Fred Woodward	426-4060
	Jim Schenz	429-4931

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INFORMATION

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

Questions

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

Membership

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

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

DOMs and MSDs

The 3 most recent DOMs (Disk of the Month) are available at meetings for \$5/disk or any DOM may be ordered by mail for \$7.50/disk. MSDs are \$15/disk at meetings or \$17.50/disk by mail. Contact Terry Schoeppner, Box 241, Inver Grove Heights MN, 55075 (455-8613)

Members may have DOMs copied to their own media. Contact Chuck Thiesfeld - details within this newsletter.

Dealers

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

Newsletter Contributions

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

Advertising

Direct Advertising inquiries to our co-ordinator Eric Holterman at: PO Box 21-425
Eagan, MN, 55121 612-454-5628



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ANNOUNCEMENTS

Minnetonka Branch
by Steven E. Baker

The next meeting of the Minnetonka Branch will be on Wednesday, March 28, at the Glen Lake Community Center, starting at 7:30 p.m. We are having a soft/hardware exchange, trade and sale night. This will be your opportunity to exchange old software you are tired of and used hardware you are no longer using, and get something "used" new. Copyright software must be originals. No copyright "copies" allowed. Public Domain programs are also welcome. **MAKE YOUR OWN TERMS AND DEALS.**

The April meeting will be the election of branch officers. Call Loren Richards, Minnetonka Branch President, for nominations.

Tax DOM

Al Peterman is busy preparing a tax DOM which will contain the spreadsheet model, prepared by Arsen Darnay, as described in the article entitled "DaisyWheeling" elsewhere in this newsletter. We hope to have that model available in VisiCalc, and Spreadsheet II (MagiCalc) formats. The disk will also contain a couple of other tax related programs and is targeted to be available at the March meeting.

GOTO 5

THE QUESTION:

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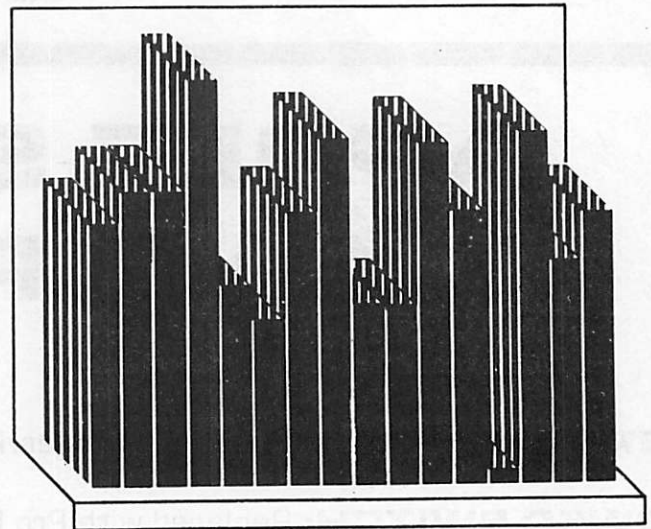
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Onyx Computers
721-1234

Computers of Woodbury
731-1499

Computer Exercise World
920-7500

Announcements Continued from page 4

Club Election

The election of a new Mini'app'les board will take place during the April general meeting. Voting rights, proxy information, etc., are described elsewhere in this newsletter by David Laden. You are the club, so exercise your right to vote.

Platform statements by candidates running for election will be published in the April edition of this newsletter.

Investment SIG
by Eric Holterman

The next meeting of the Investment SIG will be on **Thursday, March 22**, at the Hennepin County Library at Southdale. We will be in the Helen Young Room. Doors open at 7 p.m. and the meeting starts at 7:15 p.m., adjourning by 9:15 PM. The library is located at 7001 York Avenue South. It is on the east side of the street, across from Target. Plenty of free parking.

The topic for March is **Options, An Investment Tool**, and will be given by club member Dick Velner. Dick is also a broker with Smith Barney. He will present material relating to listed option contracts with emphasis on the use of options as a conservative investor's money management tool. The session should appeal to both beginners and experienced investors and computer users. While a computer is not necessary to apply the techniques discussed, references will be made to using an Apple to enhance and facilitate working with options.

The subject for the April meeting is not yet final but I am working on a program covering tax and financial planning programs (not tax preparation programs). If you use a planning program or are aware of one you would particularly like to see demonstrated, please give me a call at 454-5628.

GOTO 6

TIME FOR A TAX SEASON TUNE-UP**MONEY MATTER\$**

- 1983 FEDERAL INCOME TAX WORKSHEET
- 1983 MINNESOTA INCOME TAX WORKSHEET
- PERSONAL NET WORTH BALANCE SHEET (ACTUAL & PROJECTED)
- PERSONAL INCOME, EXPENSE AND TAX ADJUSTMENTS (ACTUAL & PROJECTED)
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CHECK ENCLOSED FOR \$ _____

NAME _____

ADDRESS _____

TELEPHONE _____



Announcements Continued from page 5

Mini'app'les Membership List

Club Bylaws

At the next club meeting (Mar. 15, U of M), the club membership will be asked to vote on ratification of the proposed bylaws as published in the February newsletter.

Chaos at February Regular meeting!

We apologize to the membership for the mix-up in meeting room arrangements which almost ended in a calamity, but turned out OK in the end. A misunderstanding between Mini'app'les and the management of the NW College of Chiropractic resulted in the auditorium being unavailable at 7:30 for our meeting. The building manager worked hard to rectify the situation and we were able to get into the auditorium before 8 p.m.

This edition of the newsletter, contains as an insert, an almost complete list of Mini'app'les members with ZIP code and phone number. A list is published as a service to the membership approximately twice per year. The list will not contain any members who have specifically requested that their name not be included. It should be noted that it is the policy of the club not to issue to anyone a membership list with full addresses. A map showing membership distribution within Minnesota is also included.

The club shall also be grateful to Dick Peterson who put in considerable effort in developing a program in BASIC and Assembly Language which reformatted the DBMaster club mailing list into the TEXT file format from which the insert was listed. Dick is also one of the unsung heroes who regularly volunteers his time to apply mailing labels to the newsletter.

GOTO 25

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Election Procedure

by David Laden

1. Nominations will be received at the March 14th Board Meeting. Two sets of nominations will be made. One set for President, Vice President, Secretary, and Treasurer. This list will be valid regardless of the outcome of the bylaw ratification.

The second set of nominations will be for Communications Director, Software Publications Director, Technical Support Director, Branch Director and two Special Interest Group Directors. This set of nominations will be used assuming the new set of bylaws is ratified.

2. After ratification of the bylaws at the March 21st regular club meeting, nominations for each board position will be received from the floor.
3. All nominees will submit "such statements they may wish to make pursuant to their candidacy" to the newsletter editor by Wednesday March 21st for inclusion in the April Newsletter.
4. In order to encourage greater participation in the election, a one page, two fold ballot will be included in the April Newsletter. This ballot will be designed to be returned to the club P.O. Box. Anyone who is not going to be in attendance for the election can mail their ballot to the P.O. Box.

To be valid, a membership number and last name will have to be written on the outside of the ballot. The flap with the membership number and name will be used for verification of membership and will be removed prior to counting the ballots.

To be eligible to vote, you must be a member of the club as of the mailing of the April Newsletter. One vote will be granted for each dues paying member.

5. Ballots will be picked up from the P.O. Box by 12:00 noon on Wednesday April 18th.

All ballots received will be checked against a master membership list. Mail-in ballots will not be counted until the election has closed.

6. Members who wish to vote at the general meeting on April 18th may pick up a ballot upon arriving. Again, members will be checked against the master membership list from ¶5 above.

7. Ballots will be accepted between 7:00 and 8:00 p.m. At 8:00 p.m. the election will close. All ballots including mail-in ballots will be counted by four election judges to be appointed.

8. Winners will be announced.



MECC DISKS

by Dave Nordvall

Special Deal for Club Members

What Is MECC?

The Minnesota Education Computing Consortium (MECC) is an organization established in 1973 to assist Minnesota schools and colleges in implementing educational computing. MECC provides a variety of services to education, including

- 1) development and distribution of microcomputer courseware;
- 2) in-service training for educators and materials for conducting training;
- 3) instructional computing assistance through newsletters and microcomputer purchase contracts; and
- 4) technical support including a timeshare system, local area networking and other technical projects.

MECC's knowledge and expertise in the educational computing field comes from nearly a decade of working with, and providing leadership for hundreds of local educators on a daily basis.

Mini'app'les members again have the opportunity to purchase MECC disks through the club. The cost will be \$5.00 per disk. (This is also the cost to the club, so we aren't making a cent on the deal!) A list of MECC's software may be had by calling the MECC distribution center: 638-0627.

To order send a list of the disks wanted to:
 Mini'app'les
 MECC Order
 P.O. Box 796
 Hopkins, Mn. 55343

Make the check payable to Mini'app'les.

Orders must be received two weeks before, and will be delivered at the regular monthly meeting. Support booklets and manuals must be ordered from MECC.

Big Letters

by Dan Buchler

The logo at top of each page was printed using D. Buchler's HIGHER PRINT program and a LOGO Font on an Epson MX-80. A new version of HIGHER PRINT called HLQP (Higher Print for Letter Quality Printer) is being used to print the article headings and paragraph lead-ins. This printing process is in fact integrated into Pie Writer so that no paste-up is required.



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DaisyWheeling

A Federal Tax Model
by Arsen Darnay

I promised you a complete tax model last month — and, boy, am I ever sorry I did!

My back hurts, my fingertips are sore, and my eyes are glazed over from proofing, and I'm still not sure that the stuff on paper actually conforms to the material on my spreadsheet.

Here is the problem. To show a spreadsheet with all the formulas displayed is quite a difficult task. You have to do it by copying the formulas on paper and then pushing them through a word processor after that — and while you are in the word processing software, you can't zip back and look at the spreadsheet, and so there is a lot of back and forth. (Just wait til my wordprocessor/spreadsheet software is finished!)

Anyway, here are the things you need to know:

- The model shown below is for federal taxes only; I ran out of steam and so did not add the state model. I'll do it if I get some positive feedback on this, otherwise not.
- The model is set up for a married couple filing a joint return.
- The formulas are those used in THE Spreadsheet, Version 2. Those of you with other models may have to modify the @IF statements and the LOOKUP routines somewhat. Call if you have problems.
- The tax table built in will work if you have income below \$1,000,000, not if the income is higher — but then you wouldn't need this model anyway.
- Inputs required of you are marked, surprisingly enough, as 'Input.' You need only enter values that pertain to your situation, disregard the others, but for the model to work, all the entries must be made or, at the least, a line must be skipped for each entry you don't use.
- Since THE Spreadsheet.2 allows variable column lengths, I've shown fairly understandable labels, but those, of course can be shortened.
- In the tables that show the models, the first set of numbers in the left-most column are the spreadsheet line numbers. The second set refer to line numbers in the federal schedules. Column values (A, B, C, etc.) refer to the spreadsheet columns.

So much for explanation. I have also submitted this model to our worthy editor in its actual, workable form for use by those who have THE Spreadsheet.2 . . . provided someone puts it on a DOM.

And, finally, the model is much easier to use than to write about, so don't be put off by my currently weary tone . . .

A	B
01 INPUT VALUES	Input
02	
03 YOU	
04 _____	
05 WAGES	Input
06 ALIMONY	Input
07 BUSINESS INCOME	H44
08 TAXABLE PENSIONS	Input
09 OTHER PENSIONS	Input
10 RENTS, ROYALTIES	Input
11 FARM INCOME	Input
12 UNEMPLOYMENT	Input
13 OTHER	Input
14	
15 SPOUSE	
16 _____	
17 WAGES	Input
18 ALIMONY	Input
19 BUSINESS INCOME	Input
20 TAXABLE PENSIONS	Input
21 OTHER PENSIONS	Input
22 RENTS, ROYALTIES	Input
23 FARM INCOME	Input
24 UNEMPLOYMENT	Input
25 OTHER	Input
26	
27 JOINT	
28 _____	
29 INTEREST	Input
30 DIVIDENDS	Input
31 FILING STATUS	Input
32 NO. OF EXEMPT.	Input
33	
34 WITHHOLDINGS	
35 _____	
36 YOUR FEDERAL	Input
37 YOUR STATE	Input
38 YOUR EST. FED	Input
39 YOUR EST. STATE	Input
40	
41 SPOUSE FEDERAL	Input
42 SPOUSE STATE	Input
43 SPOUSE EST. FED	Input
44 SPOUSE EST. STATE	Input
45	
46 KEOGHS	Input
47 IRA'S	Input

DaisyWheeling Continued from page 9

C	D
01 SCHEDULE A -ITEM DED	
02	
03 01 MED/DRUGS	Input
04 02 1% ADJUSTMENT	032*.01
05 03 LN 1 - LN2 OR 0	@IF((D3-D4)>0, D3-D4,D1)
06 04 DOCTOR EXP	Input
07 TRANSPORT	Input
08 OTHER	Input
09 05 SUBTOTAL	@SUM(D6.D8)
10 06 5% ADJUSTMENT	032*.05
11 07 LN 5 - LN 6 OR 0	@IF((D9-D10)>0, D9-D10,0)
12 08 STATE/LOC TAX	Input
13 09 REAL EST TAX	Input
14 10A GENERAL SALES	Input
15 MOTOR VEH TAX	Input
16 11 PROPERTY/OTHER	Input
17 12 SUBTOTAL TAXES	@SUM(D12.D16)
18 13 MORTGAGE INTER	Input
19 14 CREDIT CARDS	Input
20 15 OTHER	Input
21 16 SUBTOT INTEREST	@SUM((D18.D20)
22 17 CASH CONTRIB	Input
23 CASH 3K TO ONE	Input
24 18 NONCASH	Input
25 19 PREV. YEARS	Input
26 20 SUBTOT CONTRIB.	@SUM(D22.D25)
27 21 CASUALTY/THEFT	Input
28 22 UNION DUES	Input
29 23 PREPARAT. FEE	Input
30 24 OTHER	Input
31 25 SUBTOT MISC.	@SUM(D28.D30)
32 26 TOTAL	D11+D17+D21+D26 +D27+D31
33 27 REDUCTIONS	@LOOKUP(B32,B50 .B53)
34 28 ITEM DEDUCTIONS	D32-D33

B	C
48 ZERO BRACKET LOOKUP	
49	
50 1	2300
51 2	3400
52 3	1700
52 4	2300
53 5	3400

Minutes Concluded

Because the contracts have now been signed, MSD'S are again being sold.

A proposal from Steve Lyle of the Handicap SIG for someone to "sign" at the meetings was tabled for further study.

Approval was given to Jay Warrior (Communications SIG coordinator) to purchase \$1003 worth of equipment and pay up to \$300 worth of monthly phone costs for a bulletin board to serve 30-60 members. Jay presented a well thought through plan including technical details on BBS performance.

E	F
01 SCHEDULE B - INT/DVD	
02	
03 01 SELLER MRTG INT	Input
04 02 OTHER INTEREST	Input
05 -	Input
06 -	Input
07 -	Input
08 -	Input
09 03 SUBTOT INTEREST	@SUM(F3.F8)
10 04 ASC'S	Input
11 -	Input
12 -	Input
13 05 SUBTOT ASC'S	@SUM(F10.F12)
14 06 ASC EXCLUSIONS	Input
15 07 SUBTOT	F13-F14
16 08 TOTAL INTEREST	F9+F15
17 09 DIVIDENDS	Input
18 -	Input
19 -	Input
20 -	Input
21 -	Input
22 10 TOTAL	@SUM(F17.F21)
23 11 CAP GAINS DISTR	Input
24 12 NONTAX DISTR	Input
25 13 EXCLUSION	Input
26 14 SUBTOTAL	@SUM(F23.F25)
27 15 TOTAL (TO 1040)	F22-F26

GOTO 11

SALE ON FONTRIX

	Retail	Sale
FONTRIX	75.00	59.99
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vol1,2,3 each	20.00	15.99
FONTRIX and all 3		
Fontpaks	135.00	99.99

Look what you can do!



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Incredible Jack	179.00	154.95

	Retail	Ours
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GPLE	49.95	39.95
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MICRO MAIL

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DaisyWheeling Continued from page 10

	G		H
01	SCHEDULE C - BUS INC		
02			
03	01 GROSS RECEIPTS	Input	
04	RETURNS/ALLOW	Input	
05	NET INCOME	H3-H4	
06	02 COST OF GOODS	Input	
07	03 GROSS PROFIT	H5-H6	
08	04 WINDFL PR/REFD	Input	
09	OTHER INCOME	Input	
10	05 GROSS INCOME	H7+H8+H9	
11	06 ADVERTISING	Input	
12	07 BAD DEBTS	Input	
13	08 BANK SVC CHARG	Input	
14	09 CAR/TRUCK EXP	Input	
15	10 COMMISSIONS	Input	
16	11 DEPLETION	Input	
17	12 DEPRECIAT.	Input	
18	13 DUES/PUBLIC.	Input	
19	14 EMPLOYEE BENEF	Input	
20	15 FREIGHT	Input	
21	16 INSURANCE	Input	
22	17 INTEREST ON B.D.	Input	
23	18 LAUNDRY/CLEANG	Input	
24	19 LEGAL/PROFFES.	Input	
25	20 OFFICE EXP.	Input	
26	21 PENSION/PR SHARE	Input	
27	22 RENT	Input	
28	23 REPAIRS	Input	
29	24 SUPPLIES	Input	
30	25 TAXES	Input	
31	26 TRAVEL/ENTRT.	Input	
32	27 UTIL./TELEPH.	Input	
33	28 WAGES	Input	
34	JOBS CREDIT	Input	
35	SUBTOTAL	H33-H34	
36	29 WINDF PROF 83	Input	
37	30 OTHER EXPENSES	Input	
38	-	Input	
39	-	Input	
40	-	Input	
41	-	Input	
42	-	Input	
43	31 TOTAL DEDUCTS	@SUM(H11.H32)+ @SUM(H35.H42)	
44	32 NET PR/LOSS	H10-H43	

	L	M
01	FEDERAL LOOKUP	
02		
03	0	0
04	3401	(036-3400)*.11
05	5501	231+((036-5500)*.13)
06	7601	504+(((036-7600)*.15)
07	11901	1149+((036-11900)*.17)
08	16001	1846+((036-16000)*.19)
09	20201	2644+((036-20200)*.23)
10	24601	3656+((036-24600)*.26)
11	29901	5034+((036-29900)*.3)
12	35201	6624+((036-35200)*.35)
13	45801	10334+((036-45800)*.4)
14	60001	16014+((036-60000)*.44)
15	85601	27278+((036-85600)*.48)
16	109401	38702+((036-109400)*.5)
17	1000000	

GOTO 13

Mini'app'les Software Disks
MSDs

3 Great Disks:

- Mini'Scrip Checkbook Financial System - MSD #1. A home and small business checking and accounting package by Leighton G. Siegel.
- Micro-mailer - MSD #2. Mail list program by Juris and Paula Ozols of Prairie Microsystems Inc. Magic Window though not required works well in conjunction with Micro-mailer.
- Higher Text Extensions - MSD #3. Contains Higher Print by Dan Buchler, Message Maker by Charles C. Boody and Higher Word-processor by Don Hagberg.

Higher Print provides a high density print capability with a selection of fonts and more if you own Higher Text from A.P.P.L.E. The newsletter headers and logo are printed with Higher Text.

Message Maker requires that you own HIGHER TEXT. It serves as a tool to create and display, on your screen, messages which scroll up and down, left and right and do other useful things.

Higher Word Processor is a easy to use line oriented text editor suited to letter writing and everyday home use. It integrates with Higher Print.

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

	I	J	K
01	SCHEDULE W		
02		YOURS	SPOUSE'S
03	01 WAGES	B5	B17
04	02 BUSINESS	B7	B19
05	03 TOTAL EARN	J3+J4	K3+K4
06	04 ADJUSTMT	Input	Input
07	05 SUBTOTAL	J5-J6	K5-K6
08	06 SMALLEST		@IF((J7> K7),K7, ,J7)
09	- PROGRAM		@IF((J7= K7),K7, K8)
10	- PROGRAM		@IF((K9< 30001), K9,30000)
11	08 EXCLUSION		K10*.1

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DaisyWheeling Concluded from page 11

	N		0
01	FEDERAL 1040		
02			
03	07 WAGES	B5+B17	
04	08 INTEREST	F16	
05	09 DIVIDENDS	F27	
06	EXCLUSION	Input	
07	SUBTOTAL	05-06	
08	10 STATE REFUNDS	Input	
09	11 ALIMONY	B6+B18	
10	12 BUSINESS	B7+B19	
11	13 CAPITAL GAINS	Input	
12	14 40% CAPITAL GNS	Input	
13	15 SUPPL. GAIN/LOSS	Input	
14	16 TAX PENSIONS	B8+B20	
15	17 OTHER TAX PENS	B9+B21	
16	18 RENTS/ROYALT	B10+B22	
17	19 FARM INCOME	B11+B23	
18	20 TAXBLE UEMPL	B12+B24	
19	21 OTHER INCOME	Input	
20	22 TOTAL INCOME	@SUM(07.019)+03	
		+04	
21	23 MOVING EXP	Input	
22	24 EMPL BUS EXP	Input	
23	25 IRA WORKSHEET	Input	
24	84 IRA FOR 83	Input	
25	26 KEOGHS	Input	
26	27 PENALTY	Input	
27	28 ALIMONY PAID	Input	
28	29 2ND INC EXCL	K11	
29	30 DISABILITY	Input	
30	31 TOTAL	@SUM(021.029)	
31	32 ADJ GROSS INC	020-030	
32	33 SECOND PAGE	031	
33	34 ITEM DEDUCTS	D34	
34	35 SUBTOTAL	032-033	

35	36 EXEMPTIONS	B32*1000
36	37 TAXABLE INC	034-035
37	38 TAX	@LOOKUP(036 ,L3. L17)
		Input
38	39 ADDITIONAL TAX	037+038
39	40 TOTAL	Input
40	41 ELDERLY CREDIT	Input
41	42 FOREIGN TAX CR	Input
42	43 INVEST CR	Input
43	44 POLIT CONTR	Input
44	45 CHILD CARE CR	Input
45	46 JOBS CREDIT	Input
46	47 RES ENERGY CR	Input
47	48 TOTAL CREDITS	@SUM(040.046)
48	49 BALANCE	039-047
		Input
49	50 SELFEMPL TAX	Input
50	51 ALT. MINIMUM	Input
51	52 RECAP ITC	Input
52	53 SS ON TIPS	Input
53	54 UNC. EMPL SS	Input
54	55 TAX ON IRA	Input
55	56 TOTAL TAX	@SUM(048.054)
56	57 FED TAX W/HELD	B36+B41
57	58 83 EST TAX PD	B38+B43
58	59 EARNED INC CR	Input
59	60 AMT PD F4868	Input
60	61 EXCESS SS	Input
61	62 FUEL CREDIT	Input
62	63 REG INV CO CR	Input
63	64 TOTAL PAYMENTS	@SUM(056.062)
64	65 AMOUNT OVERPAID	@IF((063>055), 063-055,0)
		064
65	66 AMT REFUNDED	064
66	67 AMT APPLY TO 84	Input
67	68 AMOUNT OWED	@IF((055>063), 055-063,0)

Dan Had a Dream Concluded from page 24

Since that time the membership and the number of special interest groups within the club have continued to grow. When I joined Mini'app'les, in February of 1982, there were four SIGs listed on the inside cover of the newsletter. Circulation was 900. In the intervening two years this has expanded to 12 SIGs, five branches, 28 DOMs, three Mini'app'les Software Disks, and a newsletter circulation of 2200!

Although Dan says that he in no way envisioned the present dimensions of the organization when he first foresaw the need for an Apple users' group six years ago, it was his initiative that led us to where we are today. Mini'app'les is a strong organization with a core of dedicated members who give freely of their time and talents to help Apple computer users and the club get better and better. Who knows where we will go from here — we seem to have no "outer limits"!

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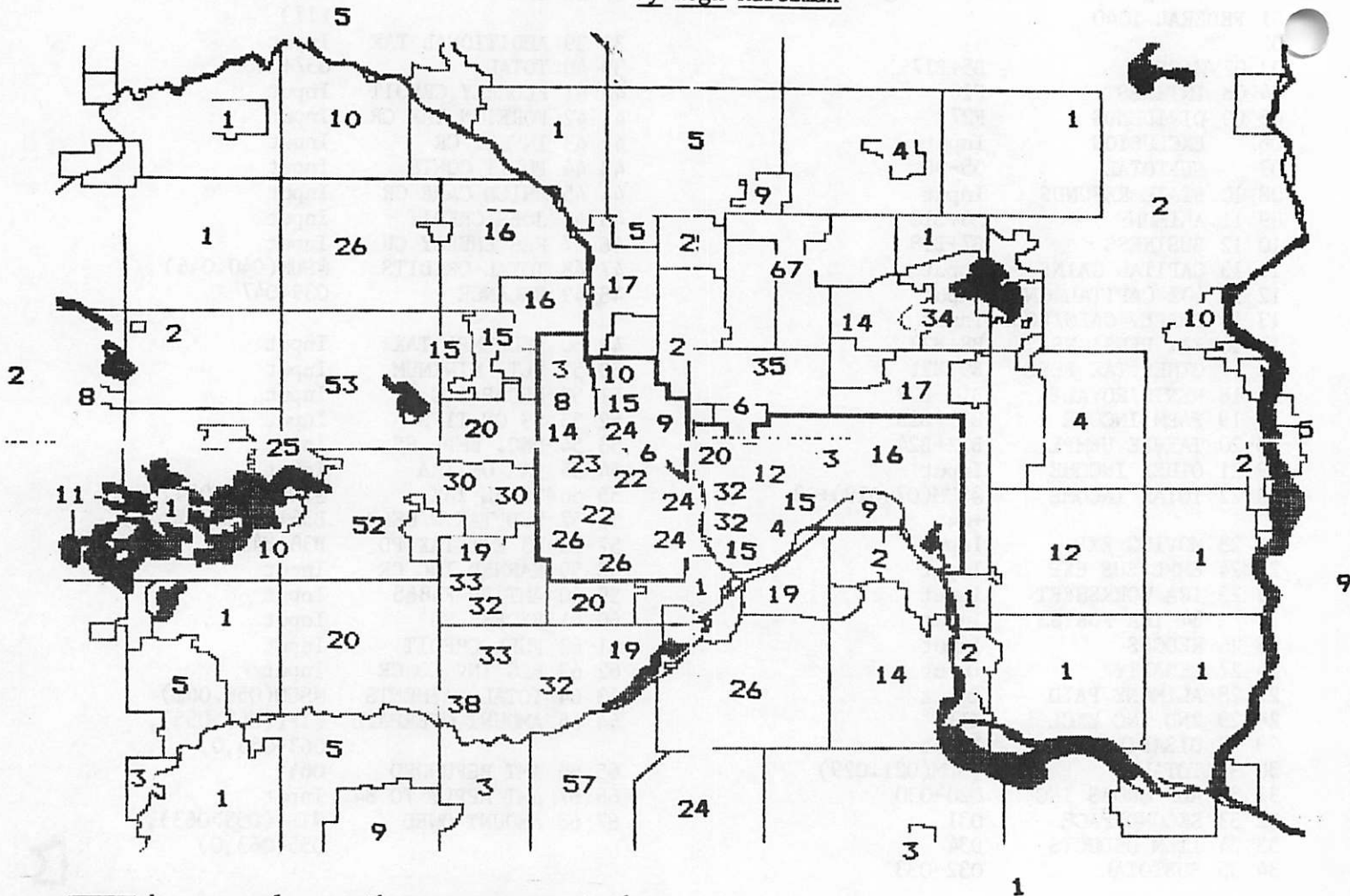
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Membership Distribution

by Hugh Kurtzman

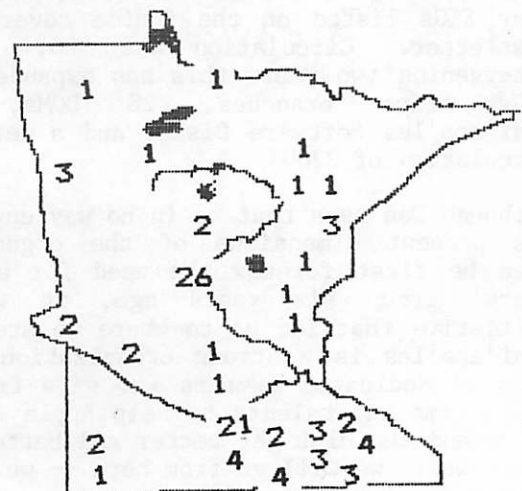


The numerals on the map represent the number of members living in a specific geographic area. These values were derived by performing a ZIP code count on data in the club maillist database. We tried to place the counts on the map as correctly as possible.

The Twin Cities map was drawn by John Schoepfner. It is actually 4 HiRes screens pasted together. The Minnesota map is from DOM 6 and is by S.K Johnson. GRprint from DOM 23 was used to print the maps. Assembly and keylining was performed by Hugh Kurtzman.

Summary of the member count

Hennepin Co.	941
Ramsey Co.	391
Dakota Co.	141
Anoka Co.	45
Washington Co	35
Carver Co.	12
St.Cloud	26
Mankato	21
Outstate Minnesota	50
Wisconsin	31
Iowa	5
Wa, Il, Mi, Ct	3 each
Az, Ma, ND	2 each
Ka, Ar, Tx, NM, Ca, NY	
Md, Fl, Tn, Oh, In	1 each
England, France,	
Canada, Australia	1 each



Membership List

Ab - Bi

Abbott, Mark	55420	612-292-1635	Backus, Peggy	55073	612-433-3235
Abramson, Nancy	55118	612-455-0559	Bader, Ed J.	55112	612-631-1370
Adams, David C. & Patricia	55428	612-533-0682	Bagley, Russell D., MD	55437	612-835-4195
Adams, Frank & Theresa	55107	612-228-1648	Baichtal, Barbara	55407	612-822-2381
Adams, Lynne E.	55343	612-933-8553	Baker, James J.	55408	612-872-6741
Adams, Robert R.	54016	715-386-6732	Baker, Steven E.	55343	612-935-1192
Adasi, Waribo	55411	612-546-6560	Bakshi, Ravi P.	55343	612-933-7604
Adkins, S. Steve	55337	N/A	Balasubramanian, Raj	55112	612-631-3394
Adomeit, Bruce L.	55113	612-483-6387	Baldus, Hector J.	55337	612-435-5013
Adornato, Louis & Laurie	55343	612-938-7442	Baller, Cheryl	55110	N/A
Adrian, Gloria	55417	612-823-2811	Banks, Darrell F.	55426	612-544-5280
Ady, Linda S. & Wendy	55016	612-458-0574	Bann, Ludwig	55432	612-571-6703
Agogino, Dr. Mercedes M.	88130	505-356-8709	Barker, Paul F.	55344	612-944-7247
Agrimson, Margaret	55340	612-478-9469	Barks, Bradley E.	55402	612-544-5154
Ahmann, Robert T.	55110	612-777-0079	Barksdale, Phil S.	38119	N/A
Ahrens, Michael T.	55441	612-559-0926	Barnaby, Sara	55447	612-473-1977
Aichinger, Cliff J.	55109	612-777-0707	Barnes, C. David	55447	612-473-4504
Ainsworth-Land, George	55403	612-377-1607	Barnes, Nancy	55437	612-835-5235
Albrecht, Dennis B.	55369	612-420-5840	Barnett, Arthur L.	30326	404-262-1963
Alexander, Robin A.	54601	608-784-7840	Barros, Thomas J.	55112	612-631-3695
Alexander, Thomas P.	55105	612-698-8633	Barry, Doris S.	55435	612-927-5833
Algeo, James M.	55426	612-546-9652	Bartholomew, Dale E.	98052	206-882-3150
Alich, Bob	55343	612-872-9622	Barton, Lane	55812	218-724-1539
Allaman, Dennis P.	54840	715-463-2365	Barton, Ray A.	55068	612-423-2956
Allen, Chase B.	55124	612-431-7278	Bateson, Robert N.	55429	612-561-2823
Allen, David	55104	612-645-1025	Bauer, John R.	55403	612-377-0515
Allen, Gale	55435	612-941-3920	Baumgartner, John	55435	612-941-6891
Allen, Harry	61032	815-232-6264	Beachy, Jeffery A.	43064	N/A
Allerson, Patricia	55112	612-633-2336	Beales, Robert A.	55120	612-454-6338
Alpaouti, Seyhoun	55414	612-623-3730	Beauchane, Ronald E.	55447	612-473-3049
Altman, Denis	55112	612-426-3974	Becker, William L.	55101	612-771-9787
Amidon, Paul C.	55116	612-698-3198	Beckman, G.	England	N/A
Andersen, Edwin D.	55423	612-866-5675	Beckman, John C.	55118	612-451-6572
Andersen, Julian L.	98155	206-362-2489	Beckman, Richard D.	55337	612-890-6464
Anderson, B. Wade	55112	612-484-2497	Bedor, Ernest J.	55402	612-934-3003
Anderson, C. Ronald	55124	612-452-3677	Beebe, Kathye	54022	715-425-2015
Anderson, Colin E. (Kelly)	55119	612-735-2956	Beihoffer, Dale E.	55447	612-473-4777
Anderson, David	56267	218-367-2566	Beil, Shirley & David L.	55123	612-452-4175
Anderson, David C.	56221	N/A	Belanger, Wm. V., Jr (Bill)	55431	612-881-4119
Anderson, David R.	55337	612-894-1088	Bell, Ann T.	55427	612-544-4505
Anderson, Dennis C.	55110	612-426-1455	Bell, Tracie R., Jr	55409	612-823-3442
Anderson, Don E.	54022	715-425-9417	Bellinghausen, William J.	55437	612-835-2554
Anderson, Earl H.	55419	612-729-0357	Benbenek, Waldyn J., Jr	55405	612-377-7909
Anderson, J. Leavitt	55411	612-473-7079	Bendel, Debbie	55417	612-866-2766
Anderson, James L.	56001	507-625-7305	Bender, David P.	55337	612-435-5644
Anderson, Lois M.	55412	612-522-7141	Bening, Robert F.	55014	612-429-3434
Anderson, Nancy C.	55412	612-521-7528	Bennett, Dale	55014	N/A
Anderson, Richard A & Toni	55344	612-941-8087	Bennin, Diann M.	55431	612-881-1232
Anderson, Richard N.	55124	612-432-2359	Benser, Earl H.	55437	612-884-2148
Anderson, Robert O.	55441	612-559-1237	Benson, Doris I.	55108	612-644-5368
Anderson, Robert O., Jr	55344	612-941-3560	Benson, Jack A.	55112	612-633-1706
Anderson, Sue	55438	612-941-8951	Benson, John M. & Lynn	55416	612-922-0971
Anderson, Willard E.	55113	612-646-8169	Benson, Stephen	55403	612-871-2776
Anderson, William A.	56002	507-388-5867	Berg, Chuck D.	55441	612-920-4226
Andre, Peter	55343	612-938-0718	Berg, Mark L.	55104	612-647-1422
Andrews, Earl R.	55406	612-721-6946	Bergan, R.W.	55404	612-874-9827
Androff, Ronald	55122	612-452-5230	Berge, Mark Alan	55112	612-784-8489
Andrys, John E.	55075	612-455-6648	Berget, Lee H.	55406	612-722-4145
Anker, John A.	55123	612-452-6084	Bergh, Jon	55110	612-483-3958
Ansari, Anhsan	55109	612-770-3353	Berglund, Wallace J.	55105	612-698-1154
Anshell, Chuck	60302	312-386-7733	Bergstad, John B.	55403	612-926-2194
Anway, Allen	54880	715-394-4061	Berke, Lanny R.	55442	612-559-1534
Aries, Richard S.	55068	612-432-3230	Berkholtz, Nicholas E.	55406	N/A
Armstrong, Timothy C.	54026	715-248-3400	Berko, Richard M.	55337	612-890-4666
Arons, Dennis J.	55417	612-827-1697	Bernache, Normand A.	20740	301-277-6935
Astolfi, Joris	France	N/A	Berosik, Tom	55407	612-823-2113
Aubin, Dennis J.	55109	612-777-2269	Beste, William L.	55410	612-926-2237
Augdahl, Duane E.	55116	612-698-0273	Betz, Charles C.	55422	612-533-4841
Austin, Curtis	55422	612-588-6767	Beverley, John W.	55420	612-881-2418
Autey, Richard A.	55025	612-464-2157	Bialke, James R.	55418	612-788-6959
Averbook, Jason	55431	612-831-0710	Birch, Gloria M.	55438	612-881-0644
Awe, Donald E.	55437	612-835-1896	Birnbaum, Michael	30062	404-977-3492
Ayers, Kirkham L.	55408	612-823-6534	Birnberg, Carl	55116	612-699-2617
Ayers, Michael B.	55407	612-823-0139	Bissonett, Bill	55372	612-447-2200

Bj - Col

Bjornberg, Peter R.	06357	203-739-2357	Burns, John M. MD	55104	612-644-5633
Black, Ralph	55418	612-789-5384	Burton, Richard H.	55438	612-546-7129
Black, Robert A., Jr	55430	612-566-1019	Busche, Jeff	49801	000-774-0803
Blackett, James C.	55124	N/A	Buscher, Dr. Charles H.	55112	612-633-6709
Blaine Senior High School	55434	N/A	Butler, William	55110	612-426-3356
Blake Middle School	55343	N/A	Butler, Zona	55107	612-291-7587
Blake Schools-A/V Media	55403	N/A	Byers, William T. (Bill)	55105	612-225-0845
Blake, Dorothy J.	55345	612-473-3232	Byhre, Otto V.	55424	612-924-1770
Blaske, Lee A.	56301	612-253-1905	Bykowski, James J.	55113	612-645-8982
Bloomington Public School	55420	N/A			
Bobb, Richard A.	55124	612-432-2978	Calin, Bruce D.	55408	612-825-8505
Bock, Edward J.	55405	612-377-5717	Campbell, Marilyn R.	55433	612-427-4490
Bogda, Gerald F.	55436	612-920-2510	Cape, Robert M.	55014	612-786-1187
Bohanon, Margaret (Peg)	55438	612-888-4746	Capes, Nelson R.	55112	612-483-0414
Bohnsack, John R.	55405	612-374-1682	Carey, Jean Northrop	55409	612-827-1074
Boll, Marie D.	55364	612-472-7383	Carlson, Cheryl	55118	612-451-1406
Bolton, Larry D.	55337	612-432-6507	Carlson, Craig B.	55125	612-731-1078
Bonde, Peter A. & Julie	55421	612-788-0317	Carlson, Duane B.	55112	612-636-1603
Bonte, John & Christine	55447	612-473-9134	Carlson, Erik V.	55431	612-831-8065
Boody, Charles G.	55343	612-933-5290	Carlson, John P.	55068	612-432-3597
Borman, Stanley N.	55124	612-452-7852	Carlson, Mike H.	55416	612-377-6553
Borowsky, W.W.	55431	612-884-6956	Carlson, Richard P.	55437	612-884-1552
Botana, Philip C.	55438	612-831-0051	Carr, James E.	55447	612-473-7432
Boucher, Michael L.	55124	612-432-8836	Carroll, Doug	55016	612-459-0477
Bourg, Gary & Ann	55407	612-722-3418	Carroll, Joseph E.	55345	612-938-4028
Bourn, Charles	55331	N/A	Carstens, Allan M.	55432	612-786-0384
Bowman, Dale E.	55419	612-830-3722	Carter, Kenneth W.	55441	612-542-8072
Bowman, Trish	55110	612-483-1460	Cartier, Duane J.	55418	612-788-6217
Boylan, Paul M.	55029	612-689-5287	Carver, Irving L.	55110	612-429-3475
Braatz, Dean R.	55436	612-925-9186	Cegla, Jim B.	55427	612-544-5626
Bracken, J.A. (Jim)	Canada	204-269-6484	Celt, James M.	55432	612-780-3745
Brainerd Sr. High School	56401	N/A	Chadwick, Barbara	55318	612-934-1852
Brandao, Jorge	55343	612-933-3491	Chan, Carrie K.	55113	612-644-2434
Brandon, Alan K.	55337	612-890-6640	Chapman, Ed	55372	612-447-5677
Brandon, Mark	55441	612-545-5350	Chapman, Paul A.	55429	612-533-0474
Brandsness, David Scott	55113	612-631-1653	Chartrand, Gerald R.	55418	612-788-3024
Break, Roger	55372	612-447-2949	Chase, Charles	55403	612-472-2758
Breck School	55422	N/A	Chase, Larry	55426	612-922-5347
Bredlow, Gregory P.	55441	612-546-6874	Chastain, Jean (Ip/360-2)	55102	612-636-6925
Briggs, Gerald A.	55110	612-429-8008	Chatras, Erwin F.	55428	612-533-1340
Brightman, Robert H.	55426	612-545-4884	Chatterjee, Jane & Subir	55437	612-888-9447
Brogmus, Brian J.	55112	612-483-1054	Cherba, Richard J.	55364	612-472-3181
Brokering, T. Mark	55407	612-823-2585	Chesin, Jack & Rosalyn	55447	612-473-3902
Bronk, Gregory J.	55116	N/A	Chiappetta, Michael A.	55106	612-774-0778
Bronner, Gerald	55106	612-776-7408	Chilberg, John A.	32963	612-739-3931
Bros, Andrew	55435	612-941-8012	Child, William C., Jr.	55057	507-645-9484
Brown, Aaron L., Jr	55427	612-544-6812	Chorn, Erwin J. (Erv)	55408	612-825-2258
Brown, Arthur R.	54011	N/A	Choy, Eric S.	Austral	002-487-1961
Brown, Charlie	55976	507-533-6510	Christensen, Dean L.	55455	612-425-1356
Brown, Jim	55443	612-560-0068	Christensen, Larry, MD	56164	507-825-2220
Browne, Diane	55343	612-938-3308	Christensen, Lowell	55378	612-447-8519
Brucker, Heinrich K.	55435	612-944-3478	Christenson, David D.	55435	612-926-8984
Bruening, Paul M.	55431	612-831-6222	Christenson, Ronald A.	55301	612-497-3217
Bruhn, Earl W.	55060	N/A	Christenson, S.V. (Van)	55436	612-933-8912
Bruland, Phillip J.	55422	612-533-5173	Christianson, Dell	56501	218-847-6740
Bryan, Gordon C.	55426	612-544-8512	Christopherson, Bill R.	55416	612-929-0866
Brynofson, Rudolf A.	55406	612-721-6115	Christopherson, James E.	55112	612-636-8329
Buchanan, Bruce F.	55420	612-884-9655	Chun, Raymond E.	55113	612-484-0510
Buchanan, John	55811	N/A	Chur, Charles D.	55303	N/A
Buchholz, Charles	55417	612-729-8653	Churchill, Tim R.	55337	612-432-4410
Buchler, Dan B.	55337	612-890-5051	Ciskey, Mark L.	55113	612-482-1794
Buckley, Kevin E.	55116	612-699-7462	Clark, Dwayne V.	55407	612-724-8318
Buech, Richard R.	55112	612-636-2743	Clark, Michael J.	55123	612-454-5189
Buehrer, Doris	55108	612-645-6457	Clark, Robert K.	55441	612-546-1754
Buell, Charles D.	55391	612-474-4916	Clasen, James L.	55116	612-698-9259
Buending, William A.	55343	612-935-7255	Claude, Frank W.	55441	612-544-8095
Bukowski, James	55107	612-227-6496	Cleveland, Ronald M.	55369	612-425-6009
Bulba, Louis	55408	612-825-6693	Coats, David K. & Kristin	55408	612-870-1820
Bundtzen, Joan	55406	612-729-7509	Cohen, Dr. Ephraim B.	55416	612-926-1800
Bunnell, Marvin	55416	612-920-0018	Cole, Carol	56013	507-526-5000
Burch, John H.	55423	612-869-8742	Colgan, Patrick D.	55372	612-447-6290
Burg, John	55369	N/A	Colin, R.-School Dist 709	55802	N/A
Burk, Janice & Verne T.	55418	612-788-8916	Collin, Elbert M.	55426	612-545-6157
Burkholder, Ann E.	55104	612-646-1164	Collins, James J.	55104	612-647-0511
Burmyn, Lynne	55408	N/A	Colosimo, Thomas C.	55114	N/A
Burns, James T.	55441	612-544-1750			



Com - Fe

Comfort Heating 55422
 Confer, Ogden P. 56002
 Conklin, David J. 55082
 Conlin, E. Joseph 55401
 Conroy, Del G. 55105
 Constans, Sherry 55337
 Cook, Al 55122
 Coop, Educ. Sev. Agcy #5 54740
 Copeland, John R. 55447
 Copeland, Julie W. 55414
 Copes, Lawrence E. 55075
 Corbero, Paul A. 55418
 Correll, Thomas D. 55438
 Corson, Wilfred A. (Will) 55410
 Cortner, J. Max 55075
 Corwin, Gregg M. 55426
 Corwin, Gregory J. 54022
 Cotter, Bernard E., Jr 55116
 Coughlin, Patrick J. 55423
 Coursen, Robert D. 55416
 Court, Arnold F. 55344
 Cowles, Russell 55405
 Crabb, Larry 51110
 Craig, William P. 55343
 Crenshaw, Donald G. 55407
 Crewe, Nancy M. 55406
 Crocker, Dan 55391
 Cross, John D., Jr 55423
 Crowe, Ronald K. 55432
 Crowley, James J. 55417
 Cucchiara, Brett 55904
 Cummings, Kimball C. 55424
 Currier, Ray G. 55433
 Curti, Peggy A. 54022
 Curtis, David B. 55092

Doughman, Donald J. 55436
 Doyle, Michael C. 55105
 Doyle, Thomas 55437
 Doyle, Thomas F. 55420
 Draeger, Gary R. 55423
 Draskovich, Emil 55775
 Driscoll, James 55123
 Drury, Alton G. 55303
 Dueck, Rodney R. 55424
 Duff, Nicholas E. 55391
 Duncan, James M. 55407
 Dunn, James P. 55110
 Duprey, James N. 55435
 Dust, James 55343
 Dwarakanath, Rajarao 55438

N/A
 N/A
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 612-434-7070

Eagle, Jon R. 55437
 Eaton, Douglas E. 55365
 Eaton, Patricia (Pat) 55418
 Ebeling, Brian T. 55438
 55418
 Eberlein, Allen 55418
 Eckblad, Steven M. 56301
 Eckstein, John M. 55113
 Edlund, Arthur J. 55082
 Edmond, Pat & Peter 55391
 Edmundson, John L. 55419
 55104
 Edwards, Bruce M. 55426
 Edwards, Richard F. 55124
 Edwards, Sandra J. 55435
 Edwards, Thomas W. 55410
 Edwards, Verlan 55421
 Egan, Thomas H. 55075
 Eggersgluess, Gene 55427
 Ehlers, Wesley W. 55418
 Eisenzinner, Leo 55440
 Ekstrom, Phyllis J. 55437
 Eldred, Douglas K. 55112
 Elias, Donovan L. 55432
 Eliason, Bob 54880
 Ellert, John K. 612-944-6339
 Ellingson, Luther J. 55344
 Elliott, C.L. 612-926-9305
 Ellison, George P. 55009
 Elmer, Tim C. 55344
 Elston, Jo Ann 55343
 Elwell, Donald F. 55436
 Emerson, Michael G. 55344
 Empanger, Daniel J. 55418
 Enberger, James L. 55427
 Engelmann, William H. 612-724-2230
 Engle, William (Bill) 55105
 Erickson, Armand D. 55426
 Erickson, Junell F. 55437
 Erickson, Linda Neuman 55117
 Erickson, Mary 55419
 Erickson, Renwood (Woody) 55124
 Essex, Dr. Louellen N. 55108
 Ester, Kenneth R. 55442
 Estipp, Tennis S. 55005
 Eubank, Eugene O. III 55419
 Evans, Steven R. 55429
 Ewing, Beverly O. 55419

612-888-2461
 612-933-7446
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 612-827-5140

Dahl, Derrolld 55337
 Dahl, Dr. Gordon J. 55417
 Dahlquist, Alfred J. 55443
 Dalal, Yogen 55343
 Dalton, John W. 55417
 DaneK, Lawrence G. 55429
 Darnay, Arsen 55343
 Darnay, Baldy M 47630
 Dave's Shoe Repair 55431
 Davern, Marilyn 55118
 David, Connie 55408
 Davidson, Douglas L. 55123
 Davidson, Jim 55121
 Davidson, Robert W. (Bob) 55441
 Davis, Harry 55802
 Davis, Ronald P. 55944
 Dawson, Erna 55102
 De Coursey, Bill L. 55421
 De Laria, Donald G. 55391
 De Mann, Ronald D. 55105
 De Mille, Doug 55356
 De Witt, Richard G. 55364
 Deeb, Robert J. 55075
 Deegan, James P. 55812
 Deitch, James C. 55438
 Denny, Ralph 55412
 Detmer, Wayne F. 55110
 Dewar, Darrell 55016
 Dewey, Tom 55426
 Dimatteo, Tom A. 55432
 Dixon, Lynn-Systems 55440
 Dock, Charles (Bud) 55125
 Dock, Peter L. 55343
 Joggett, Banks, Jr. 52001
 Dohrmann, Rich -M.S.1878 55402
 Dokka, Margaret L. 55416
 Dolney, Dennis 55407
 Dolney, Mary & Jerry 55103
 Donaldson, William H. 55407

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 319-582-2909
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 612-721-2785
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 612-724-3378

Falls, Robert B. 55416
 Family Counseling Clinic 55430
 Farmer, David E. III 55104
 Fasching, Alan 55364
 Fei, Linda & Jack C. 55104
 Feldshuh, David, MD 55414
 Feldsien, Lawrence F. 55112
 Fellows, William E. 55418
 Ferens, Joseph A. 55431
 Fesler, Daniel L. 55119

612-922-4681
 612-560-0384
 612-644-0204
 612-472-2744
 612-647-1103
 612-331-3027
 612-484-9055
 612-789-5631
 612-884-6028
 612-739-3295

Fi - Hal

Field, Brigham G.	55345	612-935-2017	George, Stephen T.	55343	612-935-5775
Field, John W.	55124	612-432-8915	Gerberich, Susan G.	55426	612-546-5675
Filreis, Brian	55337	612-890-2821	Gerdin, Larry J.	55118	612-457-2341
Findell, Donald H.	55432	612-571-0467	Gerhardt, Debbie	55402	N/A
Fine, S.J.	55411	612-529-6753	Germerscheid, Paul S.	55112	612-483-0764
Fink, William R.	55406	612-722-4176	Gersich, James J.	55429	612-535-7613
Finkelstein, Marsha	55426	612-546-4022	Gibbons, Michael	55125	N/A
Fisch, Richard	55105	612-699-6579	Giefer, Thomas S.	55337	612-435-6444
Fischbach, Lee	55441	612-546-3421	Gieneart, Ronald J.	55428	612-535-1645
Fischbach, Russell C.	55112	612-755-0026	Gieske, Dan	55406	612-722-6450
Fischer, James W.	55102	612-920-7740	Gilbert, Richard E.	55410	612-920-4062
Fischer, Mark S.	55416	612-925-0649	Gilgosch, Michael A.	55409	612-822-9078
Fisher, Gene	55112	612-633-8188	Gilles, Peter L.	55447	612-475-3916
Fisher, James F.	55328	612-972-2060	Gilman, Byron L.	55447	612-473-0632
Fishman, Haskel A.	55426	612-935-8742	Gilman, Lloyd, MD	56201	612-235-8283
Fisk, Newton H.	55431	612-835-4486	Gjerde, David S.	56001	507-625-3971
Fiterman, Marlys	55427	612-544-9232	Gladstone Fire Dept.	55109	612-770-4523
Fitzgerald, Catherine	55405	612-377-0020	Glaser, Jerome C.	55437	612-835-4814
Fitzgerald, William	55337	612-890-4966	Goebel, Judith K.	55423	612-869-6159
Fitzhenry, Thomas M.	55423	612-866-2127	Goering, John W.	55016	612-459-8334
Flannigan, Ronald E.	55445	612-425-1053	Gogins, Frank	55113	N/A
Fleischer, Joel	55344	612-941-5018	Goldberg, Mel	55419	612-920-1015
Flemino, Joseph	55117	612-780-1037	Golden, George M.	55345	612-474-3895
Fletcher, Alan L.	55112	612-631-2876	Goldsmith, Gary W.	55407	612-729-7189
Flewelling, Larry J.	55397	612-467-3694	Goldstein, Harris M.	55369	612-425-8757
Flint, Roger E.	55106	612-771-2868	Goldstein, Jules	55105	612-690-4447
Flister, Stephan P.	55119	612-774-5665	Condek, Sister Sharon	55104	612-644-7418
Flom, James H.	56301	612-252-3247	Goodnough, Vince	55369	612-425-1603
Flugum, Rolland D.	55364	612-472-1803	Goodrich, Philip R.	55112	612-633-5517
Flynn, Frank	55337	612-894-1020	Gordon, Gary J.	55409	612-827-7648
Foote, Michael H.	55405	612-377-4021	Gores, Linda M.	55426	612-542-8545
Ford, Paul	56098	507-485-0300	Gorres, John M.	55016	N/A
Forsman, Jay E.	55407	612-721-3465	Gottier, Richard C.	55345	612-474-7903
Foss, Ken	55119	612-774-7772	Gould, Sara S.	55417	612-722-0571
Fosse, Marvin D.	50658	515-435-4458	Graczyk, Noel J.	55421	612-574-0660
Foster, Dennis A.	55112	612-636-5677	Graffunder, Kurt	55411	612-378-4684
Foster, Nancy	55403	612-871-5316	Graham, Delbert E.	55057	507-645-6150
Fox, Greg	55404	612-825-6692	Graves, Harry C.	55447	612-473-1995
Fraase, Michael D.	55082	612-430-1629	Gray, John C. (Jack)	55406	612-729-3910
Frakes, Mike J.	55112	612-698-4042	Gray, Renee & Gregory	55411	612-377-5270
Francis, Joe	55109	612-483-1391	Gray, Todd Alan	55107	612-222-7937
Francis, John M.	55409	612-937-9624	Greder, Rod R.	61801	217-328-4857
Frank, Dennis A.	55405	612-871-0961	Greub, Barb And Louis J.	54022	715-425-5391
Frank, John E.	55418	612-789-5566	Greven, Douglas	55447	612-476-1588
Frankenfield, Raymond J.	55391	612-471-7526	Grimaldi, John E.	55420	612-888-6916
Frazier, Philip H.	55369	612-559-7620	Grimley, Charles E.	54003	715-273-3449
French, Robert L.	55112	612-633-7945	Grommes, Richard J.	55421	612-571-2075
Friesen, Roger	55343	612-546-7629	Gronvall, James R.	55044	612-469-5116
Fritz, Axel M.	55317	612-934-0866	Groppetti, Claudio	55447	612-475-2883
Froelich, John P.	55327	612-427-5705	Gross, Gregory S.	55112	612-484-6415
Fryd, David S.	55112	612-636-3878	Grove, Greg	55445	612-566-1168
Frys, Russell N.	55343	612-938-3050	Grover, Nancy J.	55423	N/A
Fuller, Michael F.	55118	612-452-3711	Grue, Alan	56082	507-931-4453
Fuller, Raymond A. II	55075	612-451-8109	Gudahl, Gladys E.	55436	612-922-8304
Fundingsland, Roger E.	55369	612-425-8722	Guettler, Mary	55318	612-448-4711
			Guettler, Michael	55387	612-442-5088
			Gunderson, Richard A.	55104	612-646-8054
			Gustafson, Gerald J.	55422	612-588-0269
			Guthart, Luanne L.	55343	612-933-0725
			Guy, Terry J.	55343	612-448-3664
Gabriel, Richard S.	55106	612-771-3786	Haben, Tom M.	55426	612-546-1646
Gage, Kelton	56001	507-345-3987	Haberle, Dave	55344	612-941-2172
Gale, David	55369	612-425-8003	Hagberg, Donald	55428	612-535-7775
Galic, George & Mary Ann	55119	612-739-9205	Hagen, Donald F.	55343	612-938-1277
Gardner, Robert L.	55042	612-770-3010	Hager, Richard	55114	612-644-4660
Garfin, Dr. Laurence A.	55416	612-374-9291	Hagerty, Cathlin J.	55421	612-788-7210
Gargarò, Nick	55433	612-427-4048	Haggerty, James J.	55420	612-854-8994
Garnett, Gregory L.	55057	507-645-8231	Hagquist, Darlene & Jim	55105	612-699-8977
Garr, Leonard J.	55413	612-378-1950	Hahn, Frank E.	55343	612-544-8300
Garrett, Joseph F.	55113	612-647-1816	Hahn, Mr. & Mrs. Jerold T.	55108	612-646-0871
Garske, Margaret A.	55328	612-955-2992	Haight, Stewart A.	55113	612-644-1838
Garthwaite, Stephen J.	55391	612-475-0599	Hald, Rodney D.	55337	612-435-2469
Gartner, Robert	55344	612-937-1595	Halden, Peter C.	55042	612-770-6624
Gates, Richard E.	55119	612-735-0373	Hale, Henry E. IV	55345	612-934-3255
Gau, Susanna J.	55372	612-447-4319			
Gavin, Gordon	56001	507-388-7269			
Geddes, Donald R.	55410	612-925-1299			
Geiger, Anson D.	55436	612-927-6851			
Gensler, Hal	55422	612-546-4404			



Hal - Jac

Hall, Orvin J.	55424	N/A	Hinds, Thomas R.	55112	612-786-7741
Hall, Rollin D.	55426	612-938-0321	Hines, Alan C.	55432	612-571-1196
Hallblade, Don W.	55433	612-427-8397	Hinrichs, Earl & Karen	55104	612-645-3918
Hallidin, Willard, Jr	55447	612-473-7971	Hintz, Lester	56013	507-526-5932
Hallock, Linda	55102	612-291-9177	Hixson, Joel D.	55447	612-475-2681
Halls, Roger D.	55112	612-631-9236	Hjelle, Roger D.	55391	612-473-0430
Halzle, Dick	55345	612-935-5900	Hoch, Gary	55424	612-929-1942
Ham, George A., Jr	55428	612-535-5632	Hochhalter, Michael R.	55085	612-437-2506
Hamelink, William B.	55438	612-835-4880	Hocker, G. Ben	55345	612-934-3025
Hammer, Rollie M.	54022	N/A	Hoefler, Fred D.	55112	612-631-3161
Hammond, Daryl	55117	612-487-1002	Hoel, Jeffery W.	55102	612-690-5922
Hancock, Allan B.	55369	612-420-5959	Hoffman, Charles E., Jr	55337	612-432-6144
Hand, Elizabeth R. (Beth)	55435	612-944-9562	Hoffman, Frederic C.	56358	612-556-3470
Handberg, Lowell	55072	612-245-2369	Hoffman, Kenneth	55423	612-869-7107
Hannah, Mary K.	55331	612-471-9728	Hoffman, Shirley A.	55395	612-485-4233
Hannibal, Wayne R.	55438	612-941-8257	Hoffman, Terry J.	55421	612-781-2515
Hansen, Donald V.	55110	612-777-7709	Hogie, Kevin A.	55412	612-529-1471
Hansen, Gregory L.	55444	612-566-2050	Hohmann, Michael	55410	612-922-2936
Hansen, John L.	55337	612-890-3769	Hoiby, James C.	85358	602-684-2622
Hansen, Lorna	55337	N/A	Hokans, Charles C.	55337	612-894-3556
Hanson, Donald R.	55447	612-473-8145	Hollinshead, Robert (Bert)	55105	612-228-0770
Hanson, James	55356	612-475-2346	Hollister, C. David	55112	612-631-9480
Hanson, K. Lyle	55424	612-926-7814	Holloway, Murray	55016	612-459-7742
Hanson, Margaret	55364	612-472-1423	Holm, Douglas A.	55407	612-545-2754
Hanson, Paul M.	56001	507-387-7024	Holmen, Gregory M.	55107	612-221-0352
Hanson, Warren	55108	612-646-4538	Holmen, Ted	55901	507-282-9103
Happe, Douglas O.	55112	612-633-1635	Holmquist, Michael W.	55416	612-890-5617
Harmon, Hubert N.	55112	612-636-5716	Holmstrom, David L.	55014	612-784-6788
Harms, Gordon E.	55369	612-420-2767	Holt, John	55427	612-544-5654
Harnit, Bonnie L.	55343	612-935-7743	Holt, Jon A.	55454	612-340-9734
Harrah, Robert C.	55337	612-435-3541	Holterman, Eric F.	55121	612-454-5628
Harren, Thomas	55369	612-425-8459	Hom, Edwin S.	55337	612-890-8752
Hart, Patrick V.	56097	507-388-3009	Hook, John A.	55337	612-435-6281
Hartzell Corporation	55114	612-926-9155	Hooper, Stanley B.	55055	612-459-7915
Hassett, Bob	55108	612-699-2209	Hoppe, Del	55110	612-426-2266
Hatfield, Gene	55343	612-935-3492	Horne, Harold J.	55438	612-941-3411
Hatfield, Richard D.	55122	612-452-2814	Hornung, Josephine A. (Jo)	55435	612-922-7665
Hatula, Leo	55441	612-545-8225	Hotze, John K.	55343	612-934-1281
Hauer-Lowe, Keith	55417	612-824-8026	Hou, Scott Y.	55113	612-483-9612
Haverberg, Paul & Jim	55420	612-881-8510	Houle, James H.	06489	203-621-7407
Hawkinson, Douglas	55405	N/A	Hovey, Gerald R.	55106	612-776-6588
Hawthorne, J.C.	55071	612-459-5149	Hovland, Lyle	56014	507-653-4525
Haycraft, Brad R.	55372	612-445-4387	Howe, James A.	55337	612-890-5067
Headley, Russell K.	55123	612-454-3199	Howe, Thomas L.	55422	612-533-2626
Headley, Sara H.	55408	612-822-1396	Howes, Mark W.	55105	612-698-4285
Heagle, C. Russ	55387	N/A	Hoyer, Chuck G.	55423	612-866-3706
Healy, Stephen J.	55409	612-925-4127	Hoyme, Richard	55427	612-545-4642
Hecht, Craig	55106	612-778-9314	Hsu, Sung-Peng	55123	612-454-7422
Hed, Virgil C.	55436	612-929-9771	Hubbell, Jaymes G.	55117	612-489-4713
Heichert, Richard E. (Rich)	55119	612-738-5963	Huber, S.	55431	612-888-8180
Heid, Roger S.	55337	612-890-7184	Hubert, Patricia W. (Pat)	55436	612-922-7664
Heidelberg, Kenneth E.	55419	612-822-9532	Hughes, David	55042	612-777-9303
Heider, David A.	55105	612-224-2117	Hulett, Jackie	55124	612-432-1839
Heim, Kenneth F.	55407	612-729-1690	Hull, Mark	55421	612-571-1781
Heim, Richard C.	30093	404-441-2460	Hum, Barbara A.	55422	612-521-1529
Heit, David A.	55410	612-922-0997	Humphrey, John R.	55416	612-920-9712
Helmers, John I.	55976	507-533-8265	Huna, Joan	55105	612-222-7090
Helvick, Allen K.	55337	612-890-1020	Huschle, George	55043	612-436-5471
Hendrickson, Nancy & Mark	55406	N/A	Huset, Ben J.	55436	612-938-0079
Henke, James	55122	612-452-5911	Hutchins, Donald G. & Pam	55337	612-432-2969
Henn. Tech Ctrs-No. Campus	55445	N/A	Hwang, Francis P.	55406	612-721-1131
Hennessey, Alice	55369	612-425-8981			
Hepker, Larry L.	55021	507-334-2552			
Heppelmann, Donald	55117	612-771-5887	Ibrahim, Shukry K.	55431	612-884-0608
Hermanson, Arnold N.	55443	612-561-9157	Ideson, Alison B., Vi	55105	612-699-9264
Hess, Karen M.	55437	612-831-0580	Indep. School District 363	56661	N/A
Hess, Leona F.	55110	612-484-8777	Indian Head Library Syst.	54701	N/A
Hest, John A.	56549	218-483-4507	Ingham, William S.	55421	612-571-4931
Hetterick, David R.	55410	612-922-1919	Ingvaldsen, Russell E.	55418	612-781-3847
Hett, C. Fred	55431	612-888-9032	Irish, William J.	55101	612-774-2595
Hickok, Matt	55391	612-473-3324	Isaacson, Rod	55378	612-447-2930
Higby, Porter	55369	612-420-3649			
Higson, Peter	55115	612-429-3604			
Hille, Lawrence S.	55432	612-571-5736	Jabas, Duane	55110	612-426-1244
Hilpisch, William P.	55110	612-429-4937	Jackson, Paul L.	55404	612-874-1956
Hinck, Paul E.	55443	N/A	Jacobs, R.E.-Funds Mgmt	55479	612-292-9924

Jac - Lab

Jacobs, Thomas W.	55431	612-884-8683	Keebler, Jim S.	55391	612-476-1906
Jacobson, Charles M.	55435	612-944-8608	Keegan, Terry M.	55424	612-926-6119
Jacobson, Vincent	55343	612-933-2426	Kegel, Stanley H., Jr.	55424	612-920-1715
Jacoby, John S.	55424	612-920-0306	Kehl, Stan E.	55402	612-922-8409
Jaeger, James	54501	715-282-5398	Keim, Douglas K.	55113	612-633-9177
Jaehne, Andy	55427	612-544-0901	Keiser, Ken	55110	612-426-4668
Jankoski, Jim	55423	612-866-0788	Kelberer, J. Michael	55436	612-926-3378
Jarmuz, Michael	54016	715-386-5030	Keller, Randy	55103	N/A
Jarvis, Robert W.	55407	612-729-5513	Kelley, Christine L.	55044	612-435-7311
Jefferson Sr. High School	56308	N/A	Kelly, Naomi M.	55119	612-770-1293
Jenkins, David B.	55108	612-642-9214	Kelsey, Robert C.	55113	612-633-6102
Jensen, Barb	55303	612-753-1215	Kemp, Jane M.	55406	612-729-3427
Jensen, David P.	55410	612-922-0333	Kennedy, Charles G.	55075	612-455-3919
Jensen, Jean M.	55337	612-890-6520	Kennedy, Griff	55438	612-944-5224
Jensen, William C.	55401	612-338-0002	Kerber, Gary L.	55345	612-933-4632
Jesmer, J., Jr	55429	N/A	Kettering, John	55406	612-722-2608
Jochum, Joseph F.	55416	612-377-6479	Keyes, Charles L.	55025	612-464-6087
John, Elmer R.	55105	612-699-8352	Keyser, Earl	55110	612-429-5570
Johnson, Algernon H.	55410	612-922-9395	Kidder, Corbin S.	55102	612-227-5171
Johnson, Allan	55418	612-788-4936	Kieffer, Mark J.	55428	612-533-9744
Johnson, Bradley S.	55107	612-227-6883	Kilbane, James A., Jr	55331	612-474-6577
Johnson, Carol Linnea	55432	612-784-6969	King, Brad	55044	612-469-3812
Johnson, Darwin E.	55419	612-823-9157	King, William C.	55033	612-437-2161
Johnson, David M.	55444	612-560-1743	Kingsbury, Dale P.	55117	612-483-2100
Johnson, Duane R.	55369	612-425-4620	Kinney, Kenneth C.	55047	612-433-3954
Johnson, Earl H.	55112	612-482-9949	Kirby, Russell B., Jr	55082	612-439-4319
Johnson, Gary L.	55106	612-776-4741	Kiresuk, Alex	55337	612-435-7414
Johnson, Ken	55408	N/A	Kissick, Lake N.	55454	612-332-5648
Johnson, Kris	55419	612-920-8028	Kistner, Joan C.	55437	612-835-0641
Johnson, Mike A.	55104	612-645-1377	Kitchak, Gregory	55391	612-475-1275
Johnson, Norton R.	55438	612-944-7944	Kittell, Bonnie	55423	612-869-3826
Johnson, Reese C.	55401	612-339-5119	Kjeldaas, Per M.	55441	612-546-2037
Johnson, Robert E.	55443	612-425-4070	Kjorsvig, Sally A.	55369	612-424-2634
Johnson, Stephen K.	55419	612-869-3447	Klas, Terry C.	55436	612-920-2516
Johnson, Steven F.	55014	612-786-3028	Klausler, Thomas	55044	612-469-5120
Johnson, Steven J.	55124	612-432-2476	Kleiber, John A.	55416	612-926-0385
Johnson, Steven R.	55437	612-831-1525	Klein, Charles J.	55337	612-890-6813
Johnson, Stuart E.	55105	612-699-6781	Klein, George P.	55116	612-698-0454
Johnson, Ted	55441	612-546-2852	Klett, Gregory W.	55404	612-871-6144
Johnson, William R. (Bill)	55406	612-724-5372	Klocke, Arnold W.	55431	612-884-6631
Jondal, Frank D.	55113	612-488-9349	Klosinski, George J.	55057	507-652-2977
Jones, C.R. (Bob)	55420	612-888-5623	Knowles, Gary R.	55112	612-636-1152
Jones, Jerry	55343	612-933-3086	Knox, Charles S.	55110	612-484-9537
Jones, John H.	55406	612-721-4275	Knudson, Cal	55025	612-464-7898
Jones, Robert B.	55112	612-484-7339	Knudson, Wayne E.	55441	612-544-7322
Jordan, Lyle	55369	612-425-5350	Knutson, Don R.	56088	507-776-6226
Joseph, Irving	55104	612-645-0899	Knutson, Robert E.	56001	507-387-5197
Joseph, Richard M.	55343	612-938-7360	Kochevar, James W.	55112	612-482-8996
Jossman, James R.	55433	612-757-7482	Koenig, Hans J.	55409	612-825-4395
Joyce, Richard (Ric)	55104	612-645-3772	Koenigs, Mike	56024	507-257-3927
Judd, David A.	55123	612-452-6765	Kogel, Paul D.	55124	612-423-4344
Juettner, Gregg	55436	612-933-3451	Koktavy, Robert J.	56058	612-665-2026
Jurkovic, Samuel M.	55112	612-633-5146	Kooy, Elmer D.	55345	612-473-8153
Jurkovski, Jerry G.	55417	612-727-3309	Kos, Ronald J.	55422	612-537-3939
Jury, Kenneth E.	52001	319-588-2167	Kostial, Barbara	55391	612-473-4532
			Krahn, David	55092	612-434-4105
			Krasky, Steven A.	55117	612-488-3871
			Kratz, Don M.	55429	612-570-6791
Kaemmerer, Bill F.	55419	612-823-9003	Krause, Kathy Brown	55364	612-472-5976
Kahn, Arnold C.	55432	612-574-0846	Kraut, Billee	55408	612-822-9279
Kahney, Dean	55428	612-535-4633	Kreibich, David	55420	612-888-1953
Kaiser, Dan	55416	N/A	Kreimer, John	56001	507-388-6906
Kaldun, Gary L.	55075	612-450-0153	Kruse, Gregory J.	56058	612-665-3341
Kalmoe, Bruce I.	55401	612-425-0073	Ksander, Scott L.	55112	612-633-6414
Kalvoda, Francis J.	56201	612-235-5777	Kuehn, Robert B.	55118	612-457-8830
Kampf, Gary B.	55438	612-941-4479	Kuhlmeier, Jacki	55113	N/A
Kamps, Bill	55446	612-559-1127	Kuhns, Richard C.	55337	612-890-4341
Kannan, Raghu	55337	612-890-3046	Kuny, Jerry A.	55421	612-571-8633
Kanofsky, S. Gene	55436	612-926-1764	Kurtzman, Hugh	55343	612-544-7303
Karker, James A.	55125	612-739-0831	Kushmar, Jean	55331	612-474-5877
Karl, Thomas A. (Tom)	55103	612-644-0554			
Kasper, Eugene M.	55435	612-941-5490			
Kassel, James W. (Jim)	55105	612-224-0514			
Kaste, Ray R.	55422	612-588-2523			
Kaulfuss, Robert W.	55408	612-871-4776			
Kawalek, Dora	55408	N/A			
Kayser, Terry F.	55431	612-831-1623			
			La Croix, Nancy J.	55369	612-425-6239
			La Mott, Dennis E.	55124	612-432-8059
			La Rocque, Lee, A255	55441	612-544-4997
			Laberee, Jon E.	56301	612-253-6052

Lad - Mey

Laden, David E.	55113	612-489-8321	Lyle, Stephen P.	55337	612-894-2991
Lager, Douglas R.	55419	612-866-4279	Lynch, Joan P.	55379	612-445-5585
Lambrech, Judith J.	55113	612-645-7901			
Lampe, Fred R.	55391	612-475-1947	Mac Kenzie, Daniel E.	55391	612-476-0522
Lampland, John A.	55116	612-699-4422	Mac Lean, David E.	55405	612-337-8477
Land O'Lakes	55440	612-786-7779	Madison, James L.	55337	612-894-5344
Landas, M.F.(Jake)	56001	507-388-5986	Mages, Charles J.	55427	612-545-1859
Landgraf, Fred	55345	612-934-1906	Magill, Tom	55119	612-739-6199
Langenfeld, Fred J.	55110	612-429-2010	Mahaffey, Chuck H.	55369	612-425-8740
Langfield, William H. II	55410	612-926-2182	Mahannah, Stephen L.	55409	612-822-4918
Langsetmo, Ellen	55422	612-588-3918	Maher, Gerald E.	55438	612-944-6252
Lapakko, Nancy E.	55426	N/A	Mahoney, Thomas W.	55435	612-831-3572
Larson, Donald W.	55343	612-545-2075	Majesty, Giles R.	55016	612-459-4377
Larson, Kent C.	55391	612-473-5788	Malarkey, Denise M.	55408	612-825-3874
Larson, Mark	55331	612-474-3008	Malchow, Jim	55409	612-824-5319
Larson, Richard B.	55427	612-544-4756	Malikowski, Michael	55301	612-255-0859
Larson, Richard D.	55420	612-854-8712	Manchester, Susan J.	55364	612-472-4583
Larson, Richard O.	55407	612-724-6228	Mandy, Douglas J.	55356	612-473-0105
Larson, Virginia W.	55408	612-823-5882	Mankato State University	56001	N/A
Lauerman, Thomas M.& Mary	55409	612-822-2828	Mansfield, Susan/Larry E.	55112	612-631-1651
Laurent, Armand E.	55123	612-454-7831	Mansheim, Michael J.	55416	612-933-6152
Laverty, Linda	85254	602-996-6415	Manthei, B.Michael	55109	612-777-6343
Lavine, Gerry	55436	612-925-4544	Marcellius, Len	55423	612-869-8654
Lazer, Harold	55426	612-938-6035	Marchiafava, Richard A.	55414	612-331-2281
Lazer, M.	55422	612-545-0517	Marfield, Jock R.	55409	612-824-5608
Learned, G.Edward	55430	612-561-3844	Mariash, Cary N.,MD	55112	612-636-8286
Leck, Charles H.	55391	612-473-6348	Marker, Carolyn J.	55104	612-644-0652
Ledingham, John R.	55407	612-822-4681	Maroushek, Dale R.	55109	612-771-3174
Lee, Edward P.	55112	612-636-1695	Marrs, Orval B.	55337	612-435-6287
Lee, Elizabeth S.(Betty)	55437	612-831-5456	Marshall, William C., Jr	55421	612-574-0484
Leeman, Gordon J.	55113	612-484-1881	Marta, John	55110	612-484-0186
Leibel, Eugene J.	55440	612-636-9589	Martin, Peter	55401	612-370-0856
Leif, Charles R.	55417	612-866-2038	Martin, Rev. George H.	55409	612-822-1084
Leitgen, Barbara	55401	N/A	Marty, William S.	55119	612-738-1822
Lemke, Larry & Judy	55068	612-437-6389	Mason, Thomas R.	55408	612-824-0825
Lemke, William D.	55406	612-724-8824	Maxwell, Stephen L.	55104	612-225-5431
Lemoine, George F.	55419	612-824-8170	Mayne, Darrell A.	55427	612-537-5421
Lenz, T.R.	55120	612-454-3245	Mazoko, George A.	55432	612-784-5132
Leo, Kathleen	55104	612-227-6107	Mc Cabe, Gregg	55413	612-379-9342
Lester, Chau	55438	612-944-6056	Mc Cann, James J.	55112	612-636-2282
Lewis, Brent A.	55104	612-644-5957	Mc Connell, Dan	55417	612-721-3471
Lewis, Roy A.	55416	612-920-0456	Mc Curdy, Rudi E.	55416	612-545-2198
Lewis, Wayne	56649	218-283-4132	Mc Donnell, David G.	55105	612-699-1137
Lieske, Jody R.	56001	507-625-1844	Mc Farlane, Reid, Devel.	55105	N/A
Lin, George C.T.	55437	612-831-8615	Mc Ferran, James S.	55454	612-339-3087
Lincoln, Richard W.	55102	612-221-0300	Mc Graw, Michael	55344	612-937-1481
Lindberg, Charles	55424	612-929-7637	Mc Gree, Mark P.	55405	612-377-8340
Lindell, C. Bruce	55410	612-338-0207	Mc Intosh, J.David	55344	612-941-8692
Lindner, Bob	55409	715-623-4471	Mc Kinnes, Steve R.	85283	N/A
Lindner, Robert W.	55033	612-437-6083	Mc Kinney, James T.	55082	612-439-8228
Lindner, William E.	55344	N/A	Mc Lean, Gary N.	55124	612-432-3046
Lindskog, Eric W.	55443	612-561-7971	Mc Neff, Marie O.	55343	612-933-1040
Linney, Steven R.	55435	612-941-8041	Mc Pheeters, B.B.	55436	612-929-4742
Lippert, Lee M.	55124	612-432-4549	Mearns, Samuel J.	55343	612-933-8549
Litton, Stephen F.	55427	612-544-1554	Mease, William P.(Bill)	55405	612-377-0468
Lochner, Lawrence P.	55436	612-922-0163	Medical Graphics Corp.	55112	N/A
Loeblick, Donald	55359	612-479-2181	Medower, Robert	55344	612-937-1973
Loeffler, Ms.Jackie	55437	612-831-0521	Meehan, Jim	55413	612-379-8896
Loewen, Ken	55343	612-938-5273	Meehl, Christopher W.	55428	612-535-3611
Lombard, Thomas J.	55024	612-465-4063	Mehlhoff, Evelyn	55430	612-560-8732
Lomker, Michael H.	55422	612-535-0415	Meier, Christopher	55428	612-537-8600
Lonn, Dana R.	55417	612-824-6074	Meier, Rosemary	55042	612-777-0015
Lonto, Toni	55418	612-781-7817	Meierbachtol, Stephen C.	55057	507-645-4810
Loose, Le Mar	55117	612-488-5366	Meile, David W.	55414	612-871-1710
Lorenzen, James V.	55416	612-927-6865	Melander, Donald	55112	612-483-9048
Loushin, Al	55112	612-633-0897	Melanson, Harold	55417	612-722-7550
Ludwig, Mark	55106	612-771-1351	Melhado, Mark E.	55407	612-729-4904
Lukanen, Erland O.	55075	612-455-4970	Melony, Charles	55331	612-474-9461
Lund, Philip S.	55113	612-484-9246	Merlin, Mary T.	55422	612-545-9170
Lundby, Michael E.	55408	612-822-7490	Mersky, Paul & Marc	55118	N/A
Lundberg, Kay	55431	612-888-9586	Mersy, Dave J.	55447	N/A
Lundgren, Gail	55102	612-222-0562	Mesko, Brian	55122	N/A
Lundholm, Tom S.	55116	612-698-2848	Meyer, Alex J.	55369	612-424-2571
Lundquist, Leon L.	55417	612-721-2395	Meyer, Charles R.	55435	612-941-8769
Luthy, Kenneth W.	55125	612-738-0866	Meyer, Roger L.	55344	612-937-9855
Luxsanakoses, Dr.Sunchai	55108	612-644-5250			



Mey - Pei

Meyers, Robert R.	55447	612-475-1166	Noha, Rick B.	55441	612-546-9150
Midje, Howard C.	55118	612-457-2028	Norback, Judy	55435	612-927-5537
Mielens, Paul M.	55125	612-739-4130	Nordberg, Daniel A.	55427	612-544-3810
Miles, Daniel	55414	612-623-9850	Nordvall, David	55417	612-724-9174
Militello, Thomas E.	90274	213-541-2766	Norris, Janelle A.	55410	612-920-1430
Mille Lacs Cnty Area Dac	56353	612-983-2162	North High Sch.Media Ctr	55411	612-588-0871
Miller, Daniel F.	55406	612-722-2674	Norton, John R. III	55303	612-755-9698
Miller, Gary L.& Dace	55089	612-388-5632	Norwood, Alfred W.	55391	612-473-7808
Miller, Keith N.	55109	612-777-0109	Nowicki, Dennis	55119	612-731-1566
Miller, Robert C.	55110	612-484-7883	Nygren, Rod	55113	612-484-4587
Miller, Robert D.	55419	612-827-1988	Nys, Bob L.	55435	612-831-2911
Mills, Frank S.	55418	612-789-7656			
Minnesota Dept Of Health	55414	N/A			
Minnesota Lake Schools	56068	507-462-3348	O'Brien, David	55337	612-894-2747
Miracle, Barry	55421	612-788-0716	O'Brien, Douglas, Jr-Princ	55441	N/A
Miskowiec, Delores	55401	N/A	O'Brien, Joseph G.	55113	612-645-1227
Moeller, Cindy	55105	612-690-3046	O'Connell, Jean Maguire	55117	612-488-0434
Moline, Arlett E.	55437	612-835-3296	O'Dell, Loren H.	55345	612-933-4869
Mollerus, Michael J.	55435	612-941-2906	O'Fallon, David	55409	612-827-6971
Mon-Ray Windows, Inc.	55427	612-559-4009	O'Glasser, Lawrence	55406	612-721-5641
Montain, Patricia A.	55433	612-757-4341	O'Halloran, John	55116	612-690-1362
Moore, Richard L.	55125	612-739-7668	O'Hearn, Michael (Mike)	55410	612-920-3929
Moore, Roger	55345	612-938-1601	O'Laughlin, Tim	56011	612-873-6477
Moran, Jack	55424	612-920-0558	O'Malley, Lt.Col.James F.	54016	715-386-9438
Moran, John P.	55105	612-699-0047	Oehrle, Gary F.	55410	612-926-3257
Morris, Richard H.(Rick)	55409	612-822-0842	Oelfke, Kenneth	55339	612-467-2083
Morrison, Duncan C.	55337	612-435-2571	Oelschlager, Kurt R.	55107	612-291-2659
Morrison, Wayne	56560	218-233-0042	Oeltjenbruns, Gerhart D.	55337	612-890-4025
Morrison, John A.	55117	612-771-8008	Ogborn, Clarence E.	55303	612-753-1698
Morrisson, Norm	55441	612-544-3598	Ohno, Tom T.	55431	612-831-5869
Mortenson, Al	55369	612-425-5534	Olafson, Gerald (Jerry)	55416	612-926-3293
Mortenson, Jerald H.	55438	N/A	Olesen, Randal V.	55343	612-933-1643
Mory, Patricia W.	54011	715-273-3261	Olsen, Richard (Dick)	53531	608-764-8063
Motchenbacher, Curt D.	55345	612-938-6647	Olson, Alan	55433	612-427-7190
Motzko, Daniel T.	55416	612-922-5708	Olson, C.Kent	55359	612-479-2708
Motzko, John	55328	N/A	Olson, Gene H.	55419	612-824-9108
Moyer, Joan R.	55075	612-451-2732	Olson, Gerard L.	55437	612-831-1145
Muehlbach, James	55107	612-293-0140	Olson, Herbert E.	55416	612-926-1968
Mueller, Don L.	55447	612-473-0463	Olson, John R.	55405	612-377-2483
Mueller, Jayne L.	55437	612-831-2192	Olson, Joseph O.	55408	612-825-2237
Muenkel, Brian J.	55374	612-420-2148	Olson, Reid H.	55417	612-827-8972
Munnich, Lee W., Jr	55402	612-374-1854	Olson, Richard J.	55429	612-536-9938
Munson, Edward D.	55106	612-771-5844	Olson, Scott T.	55414	612-623-9735
Munson, Leonard L.	55113	612-488-2695	Oostendorp, Elizabeth J.	54022	715-425-5497
Murphy, Michael P.	55119	612-776-0068	Opp, Jerry R.	55068	612-432-6694
			Ostertag, Thomas	55108	612-488-9979
			Ostrov, Dr. C.S.	55427	612-544-6459
N/W Vocational Coop Ctr	56701	N/A	Oswald, James P.	55109	612-777-1830
Naples, Tom	55433	612-755-6445	Otten, Koya K.	55044	612-435-8143
Nash, Patricia	55356	612-475-1549	Otto, Gary N.	55360	612-657-2348
Nau, Richard H.	55417	612-721-3461	Ottoson, Kerry O.	55110	612-426-8116
Nedbalek, James R.	55345	612-934-3531	Ozols, Juris & Paula	55344	612-941-8299
Neigebauer, Daryl A.	55060	507-451-4865			
Neima, Cherie	55104	612-645-7593			
Neinstadt, Michael L.	55108	612-646-6443			
Nellis, Joyce	55112	N/A			
Nelson, Barbara	55423	612-861-1038	Padden, John R.	55429	612-566-6869
Nelson, Barry	55117	612-489-1175	Pallay, Sean N.	94952	N/A
Nelson, Gregory S.	55433	612-757-7469	Parkin, James W.	55337	612-890-2614
Nelson, Mike	56601	N/A	Parson, Ronald F.	55112	612-483-3917
Nelson, Robert	55117	612-488-7351	Patterson, Paul G.	55421	612-574-9424
Nelson, Robert D.	55423	612-866-3957	Patterson, Robert P.	55421	612-788-4860
Nelson, William F.	55031	612-437-7194	Paulsen, Richard (Dick)	55014	612-786-8499
Neren, Michael I.	55105	N/A	Paulson, Gerald	55420	612-888-2111
Neuenschwander, Chuck R.	55121	612-452-7474	Paulson, John	55410	612-925-0620
Newcomb, David R.	55369	612-420-6120	Paulson, John J.	56073	507-354-8504
Newmark, Richard A.	55119	612-735-4541	Paus, Glenn H.	55406	612-722-6477
Newquist, Ronald E.	55316	612-421-1067	Pavlisich, Ernest J.	55316	612-427-8123
Newstrom, Terry L.	55419	612-827-3159	Pawlik, John J.	55429	612-537-5185
Nichols, Rick	55410	612-922-2219	Payne, Christopher	55345	612-935-7105
Nichols, Robert A.	55014	612-784-0866	Payne, William B.	55402	612-374-2931
Nicometo, Michael (Mike)	49801	906-774-5532	Pearson, Allan E.	55418	612-789-79
Nielsen, David R.	55345	612-935-2588	Pearson, Dale G.	55106	612-772-228
Nielsen, Donald G.	55422	612-533-6222	Pedersen, Bjorn	56308	612-846-5135
Niskala, Bill	55440	612-944-3652	Pedersen, Gregory A.	55109	612-770-7638
Niswander, David L.	55045	612-257-4660	Pedersen, Karen S.	55414	612-379-1896
			Peitersen, Larry	55318	612-448-2058
			Peitz, Paul J.	55429	612-560-9370

Pel - Ry

Peltier, Gary	55105	612-224-3201	Raymond, Ronald G.	54016	715-386-6102
Penner, Robin	55414	612-623-3469	Reed, Alan	55441	612-559-3907
Pepin, Nannette	55419	612-861-3997	Reed, Bob G.	55428	N/A
Peploe, Ella Jean	55427	612-546-4605	Reed, Michael	55433	612-427-5249
Perendy, Dr. Frank	55427	612-545-1306	Refsell, Stephen T.	55424	612-926-9701
Perrin, Charles R. (Chuck)	55384	612-471-7707	Rehaume, Eugene	55343	612-935-7133
Persson, Curtis E.	55108	612-647-9783	Reich, Ronald R.	55420	612-888-7813
Peterman, Alan L.	55407	612-721-3295	Reinbold, Bob	56551	218-583-2162
Peters, Al A.	55428	612-533-0647	Reiner, Eric A.	55110	612-429-9605
Peters, Gordon G.	55337	612-435-6189	Reisdorfer, Ted	56110	507-483-2027
Peters, Gregory L.	55112	612-483-9015	Reiter, John G., Jr.	55431	612-888-8702
Petersen, Allan D.	55419	612-822-0774	Reitmeier, Joseph A.	55432	612-571-8573
Peterson, David A.	55434	612-636-5389	Rem, Paul	55113	612-645-3538
Peterson, John G.	55438	612-941-4670	Remde, Paul E.	55427	612-544-4685
Peterson, John S.	55424	612-920-1184	Resoft, Leroy A.	55934	507-545-2243
Peterson, La Donn	55025	612-464-3547	Rettie, Melanie J.	55102	612-224-3618
Peterson, Orin M.	55431	612-884-4447	Rettke, Allan	55337	612-432-7489
Peterson, Richard A.	55082	612-439-5108	Reusse, Tom	55337	612-435-9735
Peterson, Richard H.	55356	612-473-5846	Reyes, Paul R.	55122	612-454-3399
Peterson, Susan A.	55436	612-920-5688	Rhoade, Philip K.	56001	507-345-7142
Peterson, Ted A. & Nan	55331	612-474-1484	Rhoades, Bill	55057	507-652-2221
Peterson, Todd P.	55117	612-776-0551	Rice, Jean M.	55435	612-941-1051
Peterson, Wade	55418	612-788-2369	Rice, Stanley D.	55106	612-771-0949
Petroff, John N.	55122	612-922-5410	Rich, Kenneth L. (Ken)	55403	612-377-4682
Pettit, Robert E.	55110	612-429-6028	Richards, A.M.	55102	N/A
Pfaff, Robert J.	55123	612-452-2541	Richards, Chuck F.	55436	612-929-4814
Pharr, Matt	55416	612-922-6147	Richburg, Dottie C.	55109	612-777-7677
Philipson, Willard D.	55113	612-484-8286	Richmond, David	55112	612-784-3007
Phillips, Paul H.	55417	612-724-6273	Ries, Kurt W.	55406	612-729-6986
Pieprgras, James	55337	N/A	Riggs, Gordon L.	02144	N/A
Piepho, Dale A.	55109	612-770-6079	Ring, John W.	55108	N/A
Pihl, Leif & Harry	55406	612-729-3948	Ring, Roger A.	55409	612-827-6839
Pittner, Dave A.	55068	612-432-9251	Riplinger, Rodney F.	55047	612-433-2672
Pofahl, Earl	55021	507-332-8786	Rivard, Allen J.	55110	612-770-5463
Polkinghorn, Robert L.	55437	612-835-6529	Rivard, Duane J.	55113	612-484-8896
Pooton, Tom J.	55344	612-944-6859	Roberts, Byron H.	55410	N/A
Post, Richard E.	55427	612-533-1896	Roberts, Cathy C.	55409	612-822-8034
Posters, Henk	55440	612-473-2281	Robins, Stanford	55118	612-455-9444
Powell, Don	55410	612-922-6208	Roca, Joan	56001	507-625-8752
Pranis, Robert A.	55318	612-448-3475	Roche, Wesley A.	55303	612-427-1522
Prenosil, Joe F.	55433	612-755-4101	Roeder, Jon A. & Delores	55337	612-890-3999
Preves, David A.	55435	612-941-5989	Rogers, John B.	55426	612-544-0995
Prewitt, Rosie	55318	612-445-7475	Rohling, Melvin	55113	612-483-0162
Prickett, Sharon	55008	612-689-3617	Rohm, David A.	55021	507-334-1702
Prokop, Sharlot	55112	612-483-9523	Rohricht, Thomas E.	55108	612-645-6043
Puffett, G.F.	55343	612-546-8130	Rome Electr.Comp.Mkt.Div	12186	N/A
Pullman Elem.School	55071	N/A	Romig, E. Delaun	55124	612-432-6239
Putrich, David J.	55423	612-866-9473	Roos, Amos	55108	612-646-8217
Qualey, Terry K.	55110	612-777-6915	Roos, Cynthia E.	55110	612-292-0535
Quammen, David S.	55391	612-473-9071	Roosevelt Elementary Sch.	56001	N/A
Quan, Dennis A.	55014	612-482-7975	Rose, Robert E.	55104	612-647-9432
Quast, Randall R.	55446	612-559-2109	Rose, Thomas J., MD	55082	612-426-1555
Quimby, Charlie R.	55407	612-822-1661	Rosenberg, Robert M.	55402	612-377-4300
Quinn, Judy & Arthur A.	55374	612-445-7715	Rosenow, James F.	53094	414-261-2536
Radford, Michael J.	55418	612-789-9152	Ross, van	55426	612-546-6312
Radke, Harold Wm	55112	612-633-1992	Rossow, Mike	55414	612-378-2934
Raffin, Thomas G.	55075	612-457-3402	Roswold, Douglas R.	55418	612-789-3226
Raines, John Richard	55105	612-699-4943	Rousseau, Barbara	55417	612-824-4865
Ramler, Donald W.	55016	612-459-3481	Roux, David A.	01810	612-920-0949
Ramos, Tom P. & Mary	55112	612-786-4907	Royale, Richard D.	55438	612-830-1336
Randall, William B.	55345	612-473-6956	Rubenstein, Richard	06107	N/A
Rankin, Christine (Tina)	55124	612-432-7427	Ruble, Henry E.	55428	612-537-1267
Rannow, Jim	55426	612-937-8237	Rucker, Richard D., Jr	55105	612-698-8435
Ransom, Hal C.	55435	612-926-5786	Ruen, Reuben	55421	612-788-8276
Rantapaa, Larry A.	55108	612-646-3044	Rummler, Judith B.	55435	612-941-8789
Rapp, Stan	55119	612-738-1844	Rupp, William M., MD	55102	N/A
Rasmussen, Dave C.	55345	612-938-7348	Ruprecht, James	55409	612-827-3205
Rasmussen, Dr. Carl	55112	612-636-1235	Rusch, Steven A.	55337	612-894-2192
Rasmussen, George	55391	612-471-7550	Rusinak, Richard K.	55109	612-770-6258
Ratliff, Jerry L.	55104	612-647-0783	Ruud, Orville	55431	612-888-1961
Ray, Charles D.	55391	612-475-2000	Ruzek, Kenneth V., Jr.	55445	612-424-2003
Raymond, Carolyn E.	55117	612-483-6947	Rydell, Carol B.	55431	612-881-1905
			Rydell, Robert E., Md	55345	612-933-1019
			Ryss, Russell	55433	612-757-4381



Sa - Ste

Sabin, Billy E.	56014	507-653-4661	Severson, Terry L.	55438	612-941-1061
Sachi, David J.	55104	612-646-0216	Seymour, Richard M.	54020	715-294-279
Sachs, Samuel II	55403	612-377-9900	Shamblin, A. Kent	55001	612-221-7239
Saeks, Allen I.	55422	612-339-1200	Shamin, Ankha	55404	612-871-5824
Salo, Wayne	55330	612-263-2477	Sharp, Danny	55418	612-788-0559
Salsbury, Roger L.	55418	612-788-5076	Shea, M. Clare	55403	612-339-1007
Salter, Roger G.	55379	612-445-6324	Sheehan, Catherine K.	55424	612-927-7229
Sanderson, Wayne A.	55112	612-484-091E	Sheets, George A.	55104	612-646-7018
Sandilla, Robert A.	55435	612-941-2296	Shepherd, Beverly	54022	N/A
Sandven, Dorothy & Roger	55420	612-884-5841	Sherman, Dudley M.	55125	612-735-6088
Sanford, John E.	55112	612-482-1655	Shidla, Daniel	55337	612-831-0291
Santelli, James P.	55369	612-424-3577	Shimp, Alton C.	55105	612-890-1426
Sasse, Douglas J.	56002	N/A	Shipley, Steven A.	55343	612-227-7042
Sastry, Mudi	55104	612-644-5346	Shirley, Mary J.	55001	612-935-5604
Sauer, Janiene E.	55431	612-830-1255	Shrowsbury, Carolyn	56001	507-625-3264
Saueressig, William J.	55343	612-935-7912	Shuck, Kenneth L.	55124	612-432-2435
Savaiano, Sylvia & Carl A	55331	612-474-8862	Shuster, John	55422	612-537-9697
Savela, Robert R.	55104	612-645-4374	Shutey, Anthony R.	55016	612-458-0931
Sawyer, Thomas D.	55433	612-757-7316	Siegel, Dr. Leighton	55118	612-457-9259
Scaletta, Paul J.	55343	612-475-1043	Siegfried, Bruce R.	55443	612-566-4941
Schaak's Computer Academy	55120	612-426-1316	Sienko, Richard A.	55422	612-536-0523
Schaefer, Gregory W.	55101	612-227-2480	Silberman, Sheldon	55411	612-588-7006
Schaefer, Jack F.	55441	612-429-5431	Silvagni, Robert A.	55113	612-489-5425
Schaefer, Robert G.	49508	612-559-9518	Simek, Ginger	55120	612-454-6247
Schai, Thomas W.	55113	612-676-9071	Simon, Anthony	55117	612-488-8393
Schapiro, Dennis J.	55408	612-482-9033	Simons, Gerald A.	55431	612-881-2936
Schaub, James D.	55403	612-823-0886	Sineps, Diane	55102	612-690-3247
Schave, Ted	55437	612-874-9220	Sineps, Robert J. (Bob)	55119	612-738-3368
Scheffler, Mark D.	53012	612-835-6001	Sippel, William L.	55125	612-738-7178
Schenzer, James L.	55110	414-377-9286	Skillestad, Kenny N.	N/A	N/A
Scherer, Alma	55116	612-429-4931	Skillestad, Thomas E.	55009	507-263-4735
Scheu, James W.	55441	612-699-6165	Skoog, David J.	55435	612-929-7665
Scheuer, Clayton P.	55040	612-544-6084	Skoog, Thomas J.	55124	612-432-2365
Schiebel, Curt H.	55437	612-444-5365	Slatten, Matthew	56043	507-373-0190
Schindeldecker, Charyl	55044	612-831-0815	Slingsby, Ken	55089	507-263-3715
Schlegel, Ruthmary/Jerry	55112	612-469-3795	Smaby, John W.	55409	612-822-9507
Schlicher, David W.	55423	612-631-2967	Smedman, Roger A.	55122	612-452-5131
Schlick, Robert C.	55369	612-869-8262	Smith, Bruce R.	55441	612-559-9481
Schloff, Leonard D., Md	55116	612-224-7486	Smith, David A.	55369	612-425-6625
Schmidt, Jon J.	55437	612-831-0854	Smith, Delmer L.	55435	612-941-6996
Schmit, John E.	55410	612-927-5231	Smith, Earl D.	55429	612-561-4885
Schmitz, Peter J.	55057	612-927-5231	Smith, John G.	55420	612-866-6428
Schneider, Raymond J.	55124	507-645-8582	Smith, M. Wiley	55419	612-881-0940
Schneider, Wilfred E.	55369	612-423-1055	Smith, Phillip A.	55337	612-890-1593
Schochet, H. Laurence	55116	612-425-0186	Smith, Robert B.	55418	612-789-3698
Schoepner, John C.	55075	612-698-7725	Smith, Sheila G.	55410	612-926-9538
Schoenberg, Steven F.	55108	612-455-8613	Smith, Thomas L.	55418	612-781-0689
Schoolmeesters, James R.	55032	612-644-6090	Snethen, Mr/Mrs Phillip A	55431	612-831-5280
Schott, Owen W.	55437	612-674-7336	Snyder, Gene R. (Russ)	55433	612-757-3047
Schreifels, Joe M.	55119	612-884-4217	Solstad, John A.	55110	612-426-1316
Schroeder, Doris M.	55434	612-770-2564	Solstad, Norma	55407	612-824-9931
Schrope, Donald P. Sr.	55372	612-755-4199	Sorell, Jan	56377	612-252-2930
Schuck, Scott C.	55405	612-447-3501	Sorem, William M. (Bill)	55426	612-546-4952
Schulman, Jules	55416	612-374-5494	Sower, Gehry	55433	612-421-1524
Schulte, Ronald A.	55447	612-929-5969	Special Intermediate Sch	55110	N/A
Schultz, Clayton B.	55417	612-473-9633	Spexet, Dennis R. II	55434	612-786-2293
Schulz, Udo E. & Monica	55442	612-729-0067	Spine Care, P.A.	55416	N/A
Schurr, David	55442	612-559-1277	Stoka, Andrey	55369	N/A
Schwartz, Paul J.	55343	612-571-1113	St. Francis H. Sch-Computer	55070	N/A
Schwartz, Richard A.	55340	612-934-9717	St. John The Baptist Sch	55112	N/A
Schwartz, Robert W.	55344	612-420-2577	St. Louis Pk. Commun. Educ	55426	N/A
Schwendeman, Peg & Mike	55031	612-934-5251	St. Paul Tech. Vocat' I Inst	55102	612-925-4316
Scobey, John E.	55419	507-263-3801	Stanefski, Eugene T.	55075	N/A
Sechrist, Sharon S.	55445	612-822-5234	Stapf, Bonnie J.	55024	612-451-3062
Sechrist, Wayne K.	55038	612-429-1997	Stark, Loren	55343	612-463-8714
Sedio, Lou & Milan	55437	612-429-1997	Steck, John O.	56093	612-933-7246
Seiber, B.	55431	612-831-4630	Steele, James R.	55433	612-755-1307
Seifert, James	55438	612-888-7159	Steinbauer, John E.	56001	507-387-5892
Seland, Sandy J.	55417	612-483-3714	Steinberg, Stephen	55420	612-884-7444
Sem, Thomas R.	55409	612-941-5753	Steinberg, Donald W.	55331	612-474-1303
Semler, Don	55343	612-721-1075	Steinkamp, Glenn R.	55121	N/A
Seng, Richard C.	55401	612-822-3675	Stephey, Lawrence D.	55418	612-789-5760
Septer, Michael P.	50401	612-938-4477	Stettler, Glenn R.	55391	612-478-2909
Severson, Sandra	55923	612-333-5840	Stevens, Renee	55420	612-885-0513
		507-867-4015	Stewart, Patrick W.	55419	612-825-8226



Sti - Was

55331	Stiller, Paul F.	612-474-3109
55427	Stilley, George D.	612-544-4767
55405	Stock, Larry	612-374-2405
55124	Storlie, Leonard O.	612-432-2965
54449	Stout, James	715-384-2456
55343	Stoutenburgh, Joseph S. Jr	612-933-2461
55431	Strand, Dale	612-888-4029
55417	Strathman, Larry	612-724-2833
55434	Stratman, Phyllis A.	612-757-6574
55125	Stratmoen, Peter A.	612-739-5796
55118	Strebig, Kelly	N/A
55364	Stribling, James	612-472-2886
55337	Stripe, Harry E.	612-890-1393
55447	Struss, Steven A.	612-473-5726
55437	Stummer, John R.	612-884-5486
55435	Stuppy, B. Michael	612-941-8530
55082	Sturm, Albert	612-439-3040
55110	Suchy, Cecil M.	612-777-7821
55315	Sullivan, Robert A.	612-448-3229
55410	Sullivan, Steve B.	612-920-8463
55418	Sunde, Richard W.	612-789-3080
55356	Supel, Thomas M.	612-475-3264
55117	Surine, Susan G.	612-774-2224
55105	Sutherland, Karen A.	612-698-2284
55408	Swan, Janet & Craig F.	612-374-2496
55345	Swanda, Janet A.	612-938-0768
55412	Swanson, Bruce E.	N/A
55431	Swanson, Kenneth W.	612-884-2716
54004	Swanson, Larry R.	715-948-2846
55426	Swanson, Stephen	507-625-4956
55437	Swartz, Carl H.	612-544-9950
55441	Swenson, Arlo B.	612-830-0910
55409	Swonger, Loren H.	612-475-2537
55429	Sylvers, Jerome	612-822-3388
	Symmes, Steve	612-535-5412
55427	Tahir, Ruben I.	612-542-8954
55362	Talbott, Michael M.	612-295-4524
55104	Taurog, Joel D., MD	612-646-1684
55112	Tavernier, Paul E.	612-636-0274
55410	Taylor, Bruce L.	612-925-3991
55414	Taylor, Geoffrey M. (Geoff	612-623-9850
55421	Taylor, Terry B.	612-789-5886
55410	Teasdale, Harold	N/A
55427	Tahir, Ruben I.	612-542-8954
55362	Talbott, Michael M.	612-295-4524
55104	Taurog, Joel D., MD	612-646-1684
55112	Tavernier, Paul E.	612-636-0274
55410	Taylor, Bruce L.	612-925-3991
55414	Taylor, Geoffrey M. (Geoff	612-623-9850
55421	Taylor, Terry B.	612-789-5886
55410	Teasdale, Harold	N/A
55123	Teeling, Robert J.	612-452-4000
55343	Teeter, Brian G.	N/A
55418	Teigen, Casper A. (Cap)	612-789-3786
55433	Tennynson, Roger	612-757-8920
55337	Terrell, W.R.	612-890-7667
55408	Test, Charles	612-874-8531
55409	Tetzloff, William A.	612-822-8656
55372	Tetzloff, John	612-447-3175
55345	Thames, Martin	612-934-3517
55082	Thatcher, Walter E.	612-439-1281
55431	Thiesfeld, Chuck W.	612-830-5020
77459	Thiesfeld, Lloyd A.	713-438-6837
55423	Thom, Jonathan	612-866-6667
55435	Thomas, Kathryn A.	612-644-4468
55441	Thompson, Floyd M.	612-546-2388
55113	Thompson, Roy L.	612-636-3419
55344	Thompson, Terry A.	612-944-3880
54016	Thon, Syble	715-386-9652
56301	Thorpe, Peter L	612-259-0400
55391	Thul, Tom	N/A
55419	Tidwell, Norris W.	612-825-9607

55408	Tillman, David	612-824-4617
55408	Timmermans, Kevin P.	612-827-0641
55437	Timmons, Martin J.	612-831-2883
55387	Tisel, James M. (Jim)	612-442-4563
55104	Tittle, Patrick J.	612-778-8258
55418	Tobias, Roger	612-788-6755
55428	Tobler, H. Gareth	612-535-2391
55105	Townsend, John C.	612-699-0798
55411	Treen, Harold M. (Chip)	612-522-9101
55112	Trenee, Dace L., MD	612-646-1919
55443	Trepanier, Michael F.	612-566-3612
55303	Trettel, Ernest W.	612-434-4523
55113	Triffin, Nicholas	612-488-1182
56551	Trites, Jeffrey	218-583-2223
55104	Tromp, Marvin R.	612-644-0934
55746	Trost, Lawrence C.	218-263-4368
55404	Tucker, Mitchell J. (Mitch	612-375-1487
55356	Tufte, David	N/A
55113	Turner, Lawrence P.	612-483-1754
55118	Tweedy, Donald C.	612-452-8992
55075	Tweit, Thomas	612-455-3835
55107	Twin City Pet Supply Co.	612-771-7695
56701	Tyler, Richard W.	612-681-3789
55414	Ueland, W. Scott	612-623-3749
55416	Ulstrom, Robert A., MD	612-377-7707
55124	Undlin, David W.	612-432-0913
55812	Uttley, David	218-728-3043
55082	Van Beek, Curtis E.	612-436-5786
55303	Van De Walker, Peter	612-786-6444
55391	Van Dyne, Bruce	612-473-1086
55421	Van Havermaet, David	612-572-9266
55420	Van Nurdun, Ken J.	612-881-4637
55418	Vandermyde, John W.	612-781-9839
55345	Vathing, Robert S.	612-934-1295
55104	Vaughan Kamla Company	612-224-6496
55123	Veerkamp, Timothy P.	612-454-2095
55424	Velner, Richard E.	612-920-8645
55112	Vetter, Steven C.	612-631-3682
55710	Vidmar, David L.	218-749-2960
55421	Vietz, Evelyn M.	612-571-6980
55436	Villella, Ronald L.	612-935-1307
55118	Vitelli, Jack	612-455-3302
55416	Voet, Raymond A.	612-925-2577
55109	Vogel, Daniel F.	612-776-4294
55337	Vogt, Nancy M.	612-894-2820
55426	Voigt, Jeffries	612-545-5494
55016	Volin, Susan J.	612-459-1088
55438	Volmer, C. Luminita	612-941-5171
55402	Volstad, O. Andrew	612-429-0088
55105	Vonhof, Al - Bus. Mgr	N/A
55345	Vossler, Judy C.	612-933-7447
58102	Wachal, David E.	N/A
55112	Wachenheim, Cheryl	612-633-7497
56031	Wade, Richard G.	507-235-5487
55105	Walburn, Allen D.	612-690-4474
55113	Wald, Randy J. G.	612-487-2595
55403	Walker, Molly G.	612-377-3287
55112	Walker, Tim	612-633-2796
55419	Wallace, Bob	612-379-9620
55409	Wallace, John	N/A
55443	Wallman, Curtis	612-566-4944
55005	Walsh, Jeanne H.	612-753-3204
55121	Walsh, Thomas E.	612-452-1458
55414	Walsh, Thomas J.	612-331-7762
55108	Wark, David M.	612-644-8533
55343	Warner, Wilton	612-934-9366
55112	Warren, Judy	612-484-9485
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Werner, Ralph	55337	612-890-0627			
West, Dick W.	55303	612-753-4058	Zachariason, Kathy	56057	612-357-6310
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Westling, Ryan E.	55438	612-941-2452	Zajicek, William R.	55101	612-776-1577
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Talk About Support...

Diversi-DOS
by Eric Holterman

The degree of user support provided as a part of the price of software is often hard to ascertain when buying a software package. Yet, to me, this vital part of the software package is one of the main justifications for paying more than the price of a good book for a piece of software, and it should begin at the point of sale. After all, when I purchase a book, I usually don't expect the author, publisher or bookstore to assist me in understanding the book or in the application of the book's content to my particular need. This is not to say that I don't expect to read and study the software package's manual and instructions carefully before asking for further help if I still need it.

Diversi-DOS, written by Bill Basham of DSR, Inc., has been a pleasant surprise. First of all, its distribution system includes encouraging users to copy and distribute the disk to anyone who might be interested in it. This allows you ample opportunity to test and use before you buy. Then, if you decide to use it, you send in your \$25 license fee and \$5 for the latest version. Since the disk is not copy protected, you make your own back-ups. Licensed users are notified if the program is updated and a copy of the updated disk may be purchased for \$5.

Contrast this to buying a sealed package that you may or may not have been able to try before buying. And there can be the aggravation of having to then buy a backup disk of the copy-protected original, sometimes for a lot more than \$5. And, strange as it seems to me, some software publishers don't bother to notify their customers of updates. To top that off, some want top dollar for the update even when it does little more than correct or make alterations in the original features (as opposed to adding more features or capability) to the program you have already bought. I have purchased one \$5 update (4-C) of Diversi-DOS and was very pleased with both the improvements and new features.

Diversi-DOS is a clear winner on every point here and continues to score points later on. The documentation states that licensed users may call for support. I did, and, to my surprise, within a few minutes was talking to the program's author himself. The question concerned getting A.P.P.L.E.'s GPLE and Apple Computer's Renumber to run at the same time with Diversi-DOS moved to my RAM card. Basham didn't have any answer for me on the spot but said he would drop me a note with what he would suggest. A few days later I found a letter and disk in the mail, with a modified

DOS mover and Diversi-DOS that was a bit more compatible with GPLE.

Now this is what I call good support! Indeed, providing program modifications goes beyond what is expected. The important point is that when buying software I consider the disk and documentation I get at the point of sale to be only part of what I have purchased. The support I have received for Diversi-DOS rates an A+!

There are often several programs that will meet a particular need. For me, the way in which a program is supported may very well be the deciding factor in choosing which program to buy and I encourage you to make support part of your buying decision too.

Editor's note: Diversi DOS is available as a convenience to members on a Mini'app'les DOM. Note, however, that Mini'app'les does not collect the \$25. It's up to you to send in your \$25, if you continue to use the package.



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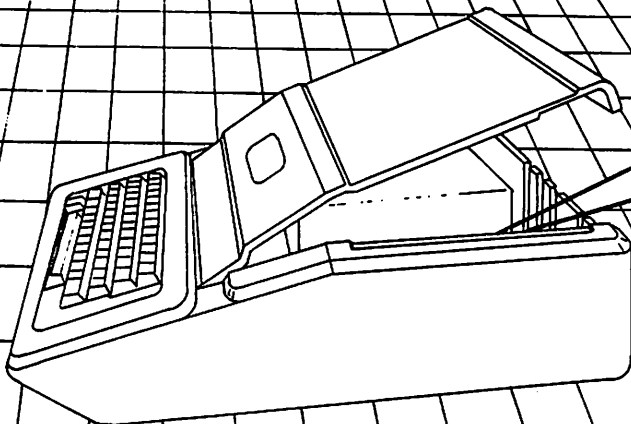
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Locksmith 5.0

A review
by John L. Hansen

Times they are a-changin'. Many of you will not remember because you weren't involved with Apples at that time, but there was once a nibble-copy program which copy protected programs (or most of them). It was written because some software programs such as "VisiCalc" were not copyable by normal techniques and the distributor would not even sell backup copies. Only after Locksmith (LS) appeared, and quite some time later at that, did Personal Software (now VisiCorp) condescend to sell a backup for \$30.00. When booted, LS 3.1 gave you a choice of drives, auto or manual error checking, copy all or some tracks or half tracks, and synchronized or nonsynchronized. It was rumored that if you ~~know the right key to press~~ (the "/" as I remember), you could even change parameters, whatever they were.

The manual did not mention them or much else.

Locksmith 4.1 came with a menu that offered the options of doing a bit copy, a quick scan of disk data (same as the bit copy, but without writing to the backup disk — slow), modifying parameters, interfacing with "The Inspector", examining the disk with a nibble editor, erasing the disk, certifying the disk surface, and checking disk speed. The manual expanded from a folded sheet of paper to 12 pages. An overview of nibble copying covered a little more than a page. During the copy process, a series of processing codes appeared on the screen followed by a block of hex data chosen by LS 4.1 to be the start of the track. Initially, no information was provided to tell you what the codes meant. Some time later, mailings from Omega began to mention algorithms, etc. Parameter updates were provided from time to time, usually on "The Source", though they could be obtained by mail. The program was useful, but the information on use was scanty. Omega recognized this and provided "The Compleat Guide to Locksmith Parameters" and "Locksmith Technical Notes".

Now, after a couple years of diligent work, Omega Microware (Chicago, Ill) has produced the latest version, Locksmith 5.0. The price is \$99.95, or \$24.95 to upgrade from Locksmith 4.X or \$34.95 to upgrade from Locksmith 3.X. There are a "few" changes. The manual is 140 pages long. It includes an eight-page history of Locksmith and copy protection and contains much interesting information. For example, prior to this version, each copy of Locksmith placed its serial number on EVERY disk it copied.

Omega offered to assist software manufacturers by means of this feature in the prosecution of software pirates, but got no takers. LS 5.0 will not encode its serial number on the copy. Protection schemes have become much more sophisticated, advancing from an erased Track 3 to moving the catalog out of Track \$11, using Track \$23, changing the checksum of the address field, changing the format of the address field, changing sector numbers, changing headers and trailers of both address and data fields, pseudo-sectors (for example, only one sector per track), synchronized tracks, nibble counting, half tracks, physically scratching the disk surface, changing sync-nibble values, use of self-sync nibbles in the middle of normal data fields (data-latched nibbles), track spiraling or arcing (writing on adjacent half-tracks by using non-overlapping track arcs), and finally, using quarter-tracks. Omega says, "Locksmith 5.0 is capable of handling all of these types of protection methods, along with many others."

The LS 5.0 menu includes Backup/Copy Disk, Parameter Changes, Text Editor, Quick Scan Disk, 16-Sector Utilities, Use Inspector/Watson, Erase Disk, Nibble Editor, Disk Speed, and Certify Disk. The program has become so large that you are often prompted to insert the LS 5.0 disk when you attempt to switch to a different menu item. The most efficient way to use LS 5.0 is probably with three drives, though two will work adequately. Most of these features, though similar in name to ones in LS 4.1, are new versions and more powerful.

Backup/Copy Disk — This is the bit- or nibble-copy routine. You are led easily through a sample copy procedure that requires no parameter changes. Unfortunately, no example is given to show you how to copy if parameter changes are needed, and even more unfortunately, no parameter changes are included with Locksmith 5.0.

Quickscan Disk — This feature gives a hi-res graphic display of the sync bytes on a disk for whole, half or quarter tracks. It can be used to locate tracks without data and even track spiraling.

Parameter Changes — Lists the parameter table and the methods of changing parameters. Unfortunately again, no examples of parameter changes are given.

GOTO 20

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AND THE LIST GOES ON & ON & ON & ON & ON



Locksmith 5.0 Continued from page 18

Certify Disk — Writes a pattern to each track and reads it back to verify that it can read what was written. Any tracks that do not verify are indicated. A bad track can be due to media damage, but may also be due to disk-drive malfunction.

Erase Disk — Destroys data on the disk. Some protection schemes require that tracks have no data in them.

Disk Speed — Used to check drive speed. Three options are available: calibrate at 300 rpm, calibrate at optimum drive speed for copying disks (slightly slower than normal), and calibrate your drive at the same speed as the drive on which the disk to be copied was written. The manual does not tell you what to do to set the speed to the desired value. I assumed the drive speed must be changed to move the hi-res plot to the zero line on the hi-res screen and confirmed this with a call to Omega. The LS 5.0 speed check indicated my drives were running fast, but an Apple Computer speed test showed them to be running slightly slow, at the speed Apple recommends.

Nibble Editor — Many more functions than LS 4.1. Tracks, full, half, and quarter, can be read and analyzed. Analysis can be with a single algorithm, the current algorithms, or with ones you specify. Parameters can be changed, nibble combinations can be found, the "track start" can be verified, location of sync nibbles in the track you have read can be determined, the buffer can be dumped to your printer, and many other operations performed. There are forty-three commands or command combinations in the Nibble Editor.

Text Editor — Used to enter Locksmith Programming Language (LPL) commands to customize the copy program for specific needs. The files created can be saved on a standard DOS disk and recalled for use when needed. The LPL commands can be used to change parameters by name and to invoke named algorithms to analyze a track loaded into the buffer. Provision is made for error handling and looping. There are numerous examples of parameter setting with LPL but none of algorithm commands. These are reasonably defined in the algorithm tables (see my comments below, however).

Using LPL, it will be possible to update the LS 5.0 disk with patches from Omega, eliminating the necessity of returning the disk to them for updating. Updates will include copying techniques for new protection schemes and correction of software bugs. Patches will be distributed as updated disks, printed material, or modem files.

16-Sector Utilities — These include Fast Disk Verify, Fast Disk Backup, Format, Compare, and Sync Signature. They work on disks with standard 16-sector DOS. "Fast Disk Verify", unlike Certify Disk, can be used on a disk containing data. "Fast Disk Backup" is very impressive. Using an Apple with a Language Card and a 32K RAM card, it will copy and verify a complete disk in 25.75 seconds. With a 128K RAM card, a disk is read in 8 seconds and copied in 8 seconds; verifying adds another 7 seconds. If your memory is large enough to hold a complete disk image, additional verified copies can be made at a rate of 15 seconds each. Any RAM cards in your computer are automatically located and used. "Format" will format a single track, range of tracks, or complete disk. "Compare" will compare two disks for differences. "Sync Signature" can be used to obtain a signature of the sync pattern on normal 16-sector disks.

Inspector/Watson — If these programs have been loaded into a RAM card or are present in ROM, you can go directly from LS 5.0 to them and back. The default buffer location has been moved from \$800 to \$4000 because \$800 is reserved for LS 5.0.

Valid parameters and their keywords and meanings are listed. Parameter numbers are not listed "because they may change in the future". Having to use parameter names will significantly expand the size of the parameter lists, assuming that Omega plans to supply them.

Using the parameter editor and parameter keywords, I checked for locations in the parameter table and made some interesting discoveries. For example, PAT1 through PAT7 are described as "7 general purpose pattern parameters", 16 bytes in length, to be used by pattern-matching algorithms. Examination shows that only PAT1 and PAT7 contain patterns; the other five are blank. Values and locations for three of the keywords were not found in the parameter table.

A 36-page description of algorithms is given. The algorithms are the functions that do all the work in the copy procedure. Having such a table is a welcome change from the previous manual. When the copy routine is run, an inverse display of algorithm numbers is shown as they are applied. After each number a "+" or "-" appears. I assume this indicates whether the algorithm functioned successfully or not. It's not discussed in the manual. In several instances, algorithm numbers displayed on the screen were not found in the table.

GOTO 21

Locksmith 5.0 Concluded from page 20

The manual also includes a 6-bit nibble-translate table, a nibble-decode table, track-number-decode table, a physical-to-logical sector-translate table, and a brief discussion of 13- and 16-sector track formats.

THE GOOD THINGS

1. I was able to back up a couple programs without parameter changes that I had not been able to do previously (no names to protect the innocent).
2. The Fast Disk Backup alone may be a good buy for people who do a lot of DOM copying. It's an excellent addition.
3. Quickscan and some of the improvements in the Nibble Editor are very useful and interesting, even though my capabilities lie far below those of the "Super Pirates".
4. I had a problem with LS 4.1 after I installed the Enhancer II because of a typeahead buffer. The problem does not seem to exist with LS 5.0.
5. A built-in screen dump (CTRL Z) and a dump of the current track from the buffer (press #) are nice additions.
6. The history of copy protection was fascinating.

AND SOME NEGATIVES

1. A 140-page manual is obviously a big improvement over 12 pages and it contains much interesting and useful information. However, it appears, as is often the case, that the manual was written by a person so familiar with the program that he doesn't realize how much help novices need. It should have been submitted to a committee of people who had never used LS before in order to eliminate some of the deficiencies:
 - a. The opening screen reads, "To load Slot 0 RAM Card, press 'L' while booting." I can find nothing in the manual that tells what this does for you. It does increase the boot time from 15.28 seconds to 23.65 seconds.
 - b. Using the Text Editor and LPL, a user is supposed to be able to develop a program to change parameters and apply the necessary algorithms to copy most programs. However, there are no examples of such programs, no default-algorithm list, no tutorials to help beginners, etc. In essence, the manual is not a lot of help if you want to learn how to modify the default copy procedure. I've always felt that if I had good instructions, I could follow them and get

acceptable results. However, in this case I think that a person who can figure out how to use the Text Editor/LPL/algorithm/- parameter combination from the manual can probably break protection schemes already and doesn't need a nibble-copy program.

- c. No program parameters or parameter-change examples are included. This means that a purchaser who is not experienced in deducing protection schemes cannot use the program to back up programs until the newsletter (see below) comes out.
 - d. Only one example of a nibble read is shown (to demonstrate a printout). Examples of the types of nibble reads to be expected from various types of protected disks would be informative. "Nibbles Away II" and "Copy II Plus" have done it.
 - e. The problem mentioned above with Disk Speed.
 - f. No information about "+" or "-" with algorithm displays.
 - g. Parameter numbers are not used. After training about 20,000 people to them, they go to a new, undefined system.
2. I used Disk Certify to check 10 disks. Upon completion of the test, the program is supposed to go back to the main menu. Following three of the tests, the system locked and I had to reboot. These were not consecutive failures.

The improvements in LS 5.0 are very impressive. I talked to the editor of the manual, briefly. He said that Omega plans to publish a newsletter for registered owners of LS 5.0 that will include additional information not covered in the manual and also parameters. That will take care of most of my complaints, but as many companies with quality programs are saying these days, it's better to "Do it right the first time".

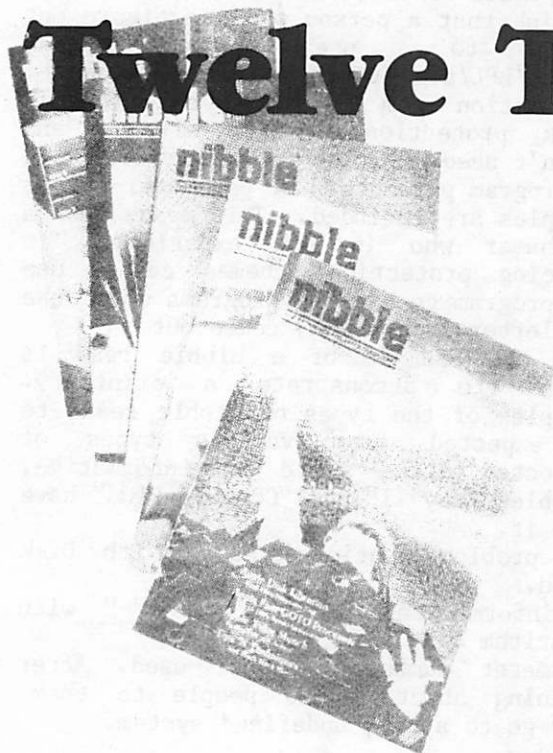
Editor's note: The President of the IAC, Dave Alpert is also the President of Omega Microware.

Errata

Stopping the Blinking Cursor

There was an error in subject article published in the February newsletter. POKE 56, 157 should read: POKE 56, 167.

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Almost All About DOS

by Steve George

Last summer I ordered Call -APPLE's set of disks for their latest publication of the In Depth series #3: All About DOS. You can imagine my surprise upon discovering that what I received is not what was promised in their ads. I should have received '...diskettes containing the programs in the...' In Depth publication. An ad said you would 'get all diskettes of programs appearing in In Depth...' Needless to say, not all programs were on disk. True, some were really short (1/4 page) while others were rather long (1 page Assembly Source code). Still not too long, but when you consider that they DID include a 2-liner... I feel they ALL should have been included.

For some reason, I had a feeling that one of the disks was not as full as it (and they) said it was. I quickly set out to see if there was any extra space lying around. First, because I've gotten spoiled by having DOS available on just about every disk (these didn't even have room for DOS), and second, because there was at least one Applesoft program which has to either BLOAD or BRUN (I forget which right now) a program that is on disk in its source code, but not even assembled!

My investigation of the disk (All About DOS Disk A) proceeded from two directions: 1) the Front door, and 2) the Back door. From the Front, I found which programs used which Track/Sector lists, and which Tracks and Sectors were used for storage — very, very time consuming but probably accurate. From the Back, I simply DELETED all programs from my backup disk — very quick, and probably more accurate. I wish I'd thought of this second way first!!

Lo and behold, the two methods produced the same results. Tracks and Sectors which hadn't been accounted for in either T/S lists or programs (Front door) were the same ones which still contained information when all programs were DELETED (Back door). [Check out your disks before proceeding with the following. They MAY be different, but I doubt it. When I last spoke with two people at -APPLE, they indicated that they were producing and would continue to produce the disk with these Tracks/Sectors of garbage in them.]

Conty-nine sectors can be freed up! All of Tracks (Hex) \$14 through \$17 are garbage, and Track \$13 Sectors \$0 through \$E are too. Again I tried two approaches to the problem.

The second is much easier, and I think that's the way to go. But, of course, let's explain the first, more difficult, approach.

To allow program storage in these areas, get into the VTOC (T\$11/S\$0) and change the information which shows them as used, to reflect that they are free. The short table below shows what I did with backup Disk A:

VTOC+ offset	Bytes to show free	Track/sector affected
\$84	7F FF	\$13/\$0-\$E
\$88	FF FF	\$14/\$0-\$F
\$8C	FF FF	\$15/\$0-\$F
\$90	FF FF	\$16/\$0-\$F
\$94	FF FF	\$17/\$0-\$F

Now you can go ahead and add the programs to your disk that were in the publication but not on disk. (Tsk, tsk.)

The second method will give you back DOS on each of the disks and still leave room for about 15 sectors of additional programs. A further advantage (?) is that you can, within the constraints of disk capacity, group the programs which YOU feel should be together in a way which better suits YOUR methods or way of thinking. You might even want to RENAME some of them so that there is some logic between the article title and program name.

INITialize a couple of disks and FID the programs from your masters. I don't recommend FIDing the Header files — when transferred they'll take up 1 sector each (7 total) and then you'll have to ZAP them to retrieve the wasted sectors. All of the programs will fit, but with only 15 sectors of extra room you may have to juggle things around a little. OR, don't transfer everything to your new backups: Who uses Atari/TRS80 formatted disks THAT often? Leaving these off will save 44 sectors.

Since only ten months have rolled by since my letters to Call -APPLE asking for an explanation about the missing programs, I guess I can still hope for an explanation about their ad claims.

From the sound of things you might think I am a little upset with Call -APPLE. Truthfully, they've been frustrating at times (I'm still waiting for my new Applesoft Carpenter II), but over all they're a great organization and the price for their club diskettes is reasonable.





Dan Had a Dream

(but it was nothing like this)

by Jo Hornung

(Some of the information for this article was taken from "The Evolution of a Computer Club" by Stephen K. Johnson, in the Nov., 1981, issue of Mini'app'les.)

Even before he bought his Apple, in May, 1978, Dan Buchler foresaw the need for a users' group in the Twin Cities area. According to Dan, the concept of users' groups had existed among commercial computer users prior to that time, but there were very few such groups for personal computer users. Fact is, there weren't many personal computer users at all in early 1978. Team Electronics was the only outlet for the Apple in the area until Bill and Tim Weldon opened Computerland, in Bloomington, in June of 1978. By the end of that year, however, three or four local stores were selling Apples.

The idea of an Apple computer users' group for this area was evidently conceived independently by both Dan Buchler and Bill Weldon, and each wrote to Apple to express such an interest. Dan's letter reached Apple first, so he became Apple's contact person for an Apple user group in this area. The name Mini'app'les was Dan's brainchild, born in June, 1978. The logo was devised by Mel Edman.

Fourteen people attended the first Mini'app'les meeting, held on August 9, 1978, at the Bloomington Computerland store. Several of those 14 are still Mini'app'les members. Dan had put out an informational bulletin prior to that meeting and volunteered to edit an official newsletter for the group. Those early newsletters were typed and Xeroxed, and about 15 to 20 copies were run off at first. This count mushroomed to about 100 within six months. (Current circulation is 2200!)

An interesting observation that Dan points out is that the type of people who bought personal computers in 1978 is quite different from most of those who buy now. Those pioneers, so to speak, were hardware hackers. There was virtually no available software. Using a personal computer meant doing your own programming. The earliest version of VisiCalc, for example, Dan says, appeared in 1978 or 1979, cost in the neighborhood of \$50-60 (which Dan then thought was exorbitant), and the potential future uses of the program were not at all obvious.

One of the major problems at that time was the lack of a reasonably priced, reliable printer. Consequently, for the first few months, the newsletter continued to be typewritten. In December, 1978, Chuck Thiesfeld, another charter Mini'app'les member, bought a Heathkit printer kit which was used in conjunction with home-brewed word processors to produce the first computerized newsletters. Then Dan and Chuck each bought a Hayes Micromodem, and began interfacing with a printer at Honeywell (Dan's place of employment), and the newsletter quality improved a shade. (Dan and Chuck each bought an Epson MX-80 early in 1981, and that made production of the newsletter much less cumbersome.)

By January of 1979 approximately 45 people were attending the monthly meetings, which had continued to be chaired by Dan Buchler. It was decided that officers should be elected and dues should be charged, primarily to finance the newsletter. By this time a users' bank of software had been established, and the group had outgrown its first meeting quarters in the Computerland Southtown store.

In April the club began meeting in Hopkins, at the Minnesota Federal Savings and Loan, and the first election of officers was held. Elected were Dan Buchler, president, Chuck Thiesfeld, treasurer and newsletter editor, and Chuck Boody, secretary. (Note that all three are still active members, holding board positions.)

By July, 1979, membership grew to 68, and by December of that year, when Mini'app'les joined the newly formed International Apple Corps, the membership count reached 100.

In October of 1980 the Disk of the Month (DOM) program was established to replace what had become an unwieldy circulating users' bank of diskettes. Membership now numbered 240, and by early 1981 the need for a larger meeting place again became urgent.

By the summer of 1981 the meetings were being alternated between the University of Minnesota St. Paul campus and the Southdale Public Library, in Edina, which was replaced in October by the Wilder school, in Minneapolis, and finally by the Penn Center (now the Northwest College of Chiropractic) in 1982. Membership in October, 1981, was close to 700.



Announcements Concluded from page 6

Minutes

February Board Meeting

by Hugh Kurtzman

Calendar Announcements

Please submit all calendar dates, changes, etc., to Ron Androff. Ron has volunteered to be the calendar maker for the newsletter. As for all newsletter items, timely submission helps us all!

DOMs by Mail

Continuing Service for Mini'app'les Members

by Chuck Thiesfeld

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

Make up a package containing the following:

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

Send to:

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

Please allow 60 days for delivery in USA. Incomplete packages will not be returned. DOMs 1 thru 26, except 18, EAMON #3, and 8 Pascal disks are currently available. Mini'app'les Software disks (MSD) are not available! General questions about DOMs should be addressed to Terry Schoepner. Questions on DOM content should be addressed to Al Peterman, our DOM editor.

Please note that DOMs may also be purchased on club-supplied media by sending \$7.50 to the software sales coordinator. See back of membership list. The first 3 Mini'app'les Software Disks (MSD): #1 - Mini'scrip, #2 - Micro Mailer, and #3 - Higher Print/Higher Word Processor/Message Maker are available by mail from Terry for \$17.50. Or, the latest DOMs are available at regular meetings, and at some Branch meetings, for sale to members at each, and the MSDs for \$15 each.



Minutes for Feb 8, 1984 Board Meeting

Treasurer John Hanson reported:
For the year 1983 _____

Income of	54062.14
Largest amounts	
Memberships	23730.50
DOM sales	14388.55
Newsletter ads	8356.00
Expenses	53611.25
Largest expenses	
Newsletter	25202.30
DOMs	10151.01

For Jan 1984	
Income	3120.50
Expenses	2378.76

A bid for the Source subscription of \$5.00 was accepted from Chase Allen. Letters from Duluth and Hibbing, asking about Branch Status, were discussed. We are encouraging these new branches.

At least 4 board members plan to attend the first branch meeting in St. Cloud on Feb 9, 1984.

Dave Laden presented his proposal for the election procedure (see Election Procedure, published elsewhere in this newsletter).

Approval was given to the St. Cloud branch to purchase a set of DOMs to have at their meetings for members to copy. It was emphasized that the club does not condone copying of copyrighted material.

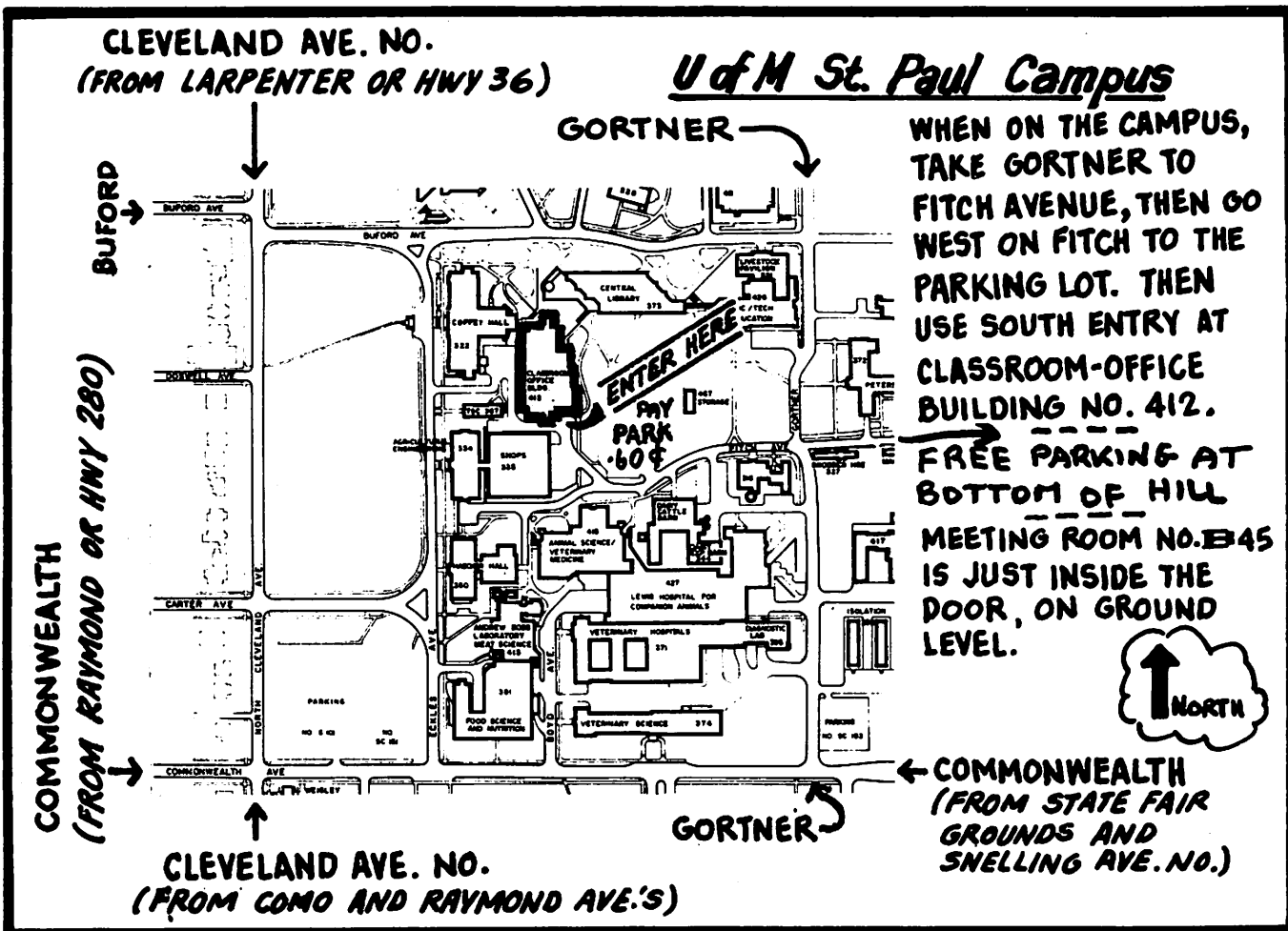
Ken Slingsby presented a report about those who responded to his request for proposals to bid on the sale of consumables during club meetings.

- Ann Bell was selected to provide sales of pin fed cards.
- Dennis Foster was selected to provide paper.
- After many votes Pete Gillis was selected to provide blank disks. Peter's proposal was to sell Syncom diskettes at \$22 per 10 including plastic library case and sales tax.

These suppliers will be revaluated in 6 months.

Dan Buchler talked about the need for a PA system and other aides at meetings. Ron Androff will make sure these are available (they have been requested).

There is a need to update the MSD's. Hugh Kurtzman will use the club's Apple to do this.



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

Classified

Want QUALITY? SSDD 3M Scotch Diskettes; \$21.00 Box 10, tax incl., shipping extra. Bob Pfaff 452-2541

SUPERSPRITE CARD - Sprite graphics, 3 channel sound, and Voice Synthesizer together \$319 (new). FLASHCARD - Ramdisk with drivers for DOS 3.3, PASCAL, CP/M. 144K - \$269 (new); 288K - \$399 (new). Larry (612) 646-3044

Tax Preparer Template (VisiCalc) Apple, IBM. \$19.95 (Includes P & H). Ray 770-5828 (eve) Denny 482-7975 (eve)

WANTED -- USED VIDEOTERM 80 column card. Why not move up to an Ultraterm and sell your old card? Vince Goodnough 425-1603

Microtec Parallel Printer card for Apple II, \$50. 16K RAM chips for Wizard BPO card, \$20. 3" fan for Apple computer, \$8. Apple RF Modulator \$30. Call 888-6629

Okigrah Proms for Okidata 82A. Half Price. Gordon Gavin, 417 River Hills Lane, Mankato, MN 56001. Gordon (507) 388-7269

WANTED DISK II CONTROLLER Card. Please call: Steve 935-5775

Apple Silentype Printer with card and 4 extra rolls of paper. An excellent first printer. \$175. Larry 374-9291 (eve)

SMUGH invites you to a meeting on using computers at home to make money (Electronic Cottage). All forms of business (secretarial, acctg, word proc, & custom programming) covered. Both those now doing this at home & those who want to start. March 20, 7 p.m. Call to register: 479-2127

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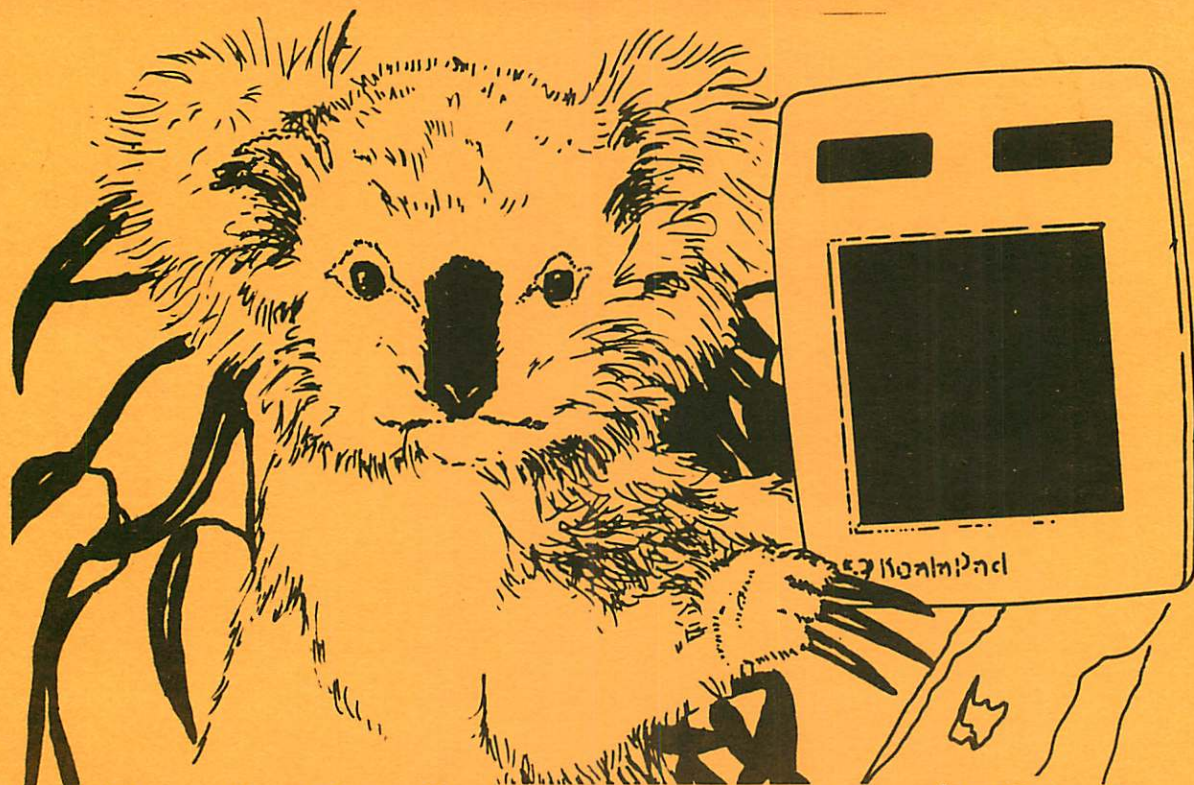
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