# mini'app'les

Apple Computer user group newsletter

Volume IX No. 11 November 1986

**Calendar of Meetings and Events** 

who	WHEN	WHERE	WHAT
Graphics S.I.G. (Mac)	Dates and location	on of meetings being determined	Note 15
Mac S.I.G. Nontechnical	Mon. Nov. 3 6:30/7 pm.	Edina Cmty Ctr, W. Cmty Rm. Hwy 100 & Benton Ave., Edina	Vertical Market Applications Note 3
Board Meeting	Wed. Nov 5 7:00 pm	1st MN Bank 8320 42nd Ave. N., New Hope	Members welcome Note 1
Dakota County Branch	Tues. Nov 11 7:00 pm.	1301 Wilderness Run Dr. Eagan	Open Topic, Note 5
The Smalltalk Group	Wed. Nov. 12 7:00 pm	New Location Call for details	Programming in Smalltalk Note 4
Languages/ Technical S.I.G.	Wed. Nov. 12 7:30 pm	1st MN Bank 31 9th Ave. S., Hopkins	Note 14
REGULAR Apple II	Wed. Nov. 19 7:30 pm.	Derham Hall High School 540 S. Warwick, St. Paul	D. Marchiafava on Sensible Software, Note 2
U. of Minn. Mac Users' Group (UMMUG)	Thur. Nov. 20 7:30 pm	UM Physics Building, Rm 210 116 Church St. S.E., Minneapolis	Charles Lukaszewski 338–8581
AppleWorks S.I.G.	Thur. Nov. 20 7:00 pm	Derham Hall High School 540 S. Warwick, St. Paul	Printers & AppleWorks© application – Note 8
Main Mac S.I.G. (Note Date Change)	Mon. Nov. 24 6:30/7:00 pm.	Edina Cmty Center, Board Rm. Hwy. 100 & Benton Av., Edina	Comdex Report – Gary Johnson Note 10
Northwest Branch	Tues. Nov. 25 7:00 pm.	Rockford Road Library 6401 42nd Av. N., Crystal	Note 9
Mac S.I.G. Nontechnical	Mon. Dec. 1 6:30/7:00 pm	Southdale Library, Edina Community Room	World Introd. Brand New Mac Software Product, Note 3
Board Meeting	Wed. Dec. 3	1st MN Bank, New Hope	Members welcome, Note 1
REGULAR Apple II	Sat. Dec. 6 10:00 am	Derham Hall High School 540 S. Warwick, St. Paul	Swap Meet Note 2
Dakota County Branch	Tues. Dec. 9	1301 Wilderness Run Dr., Eagan	Open Topic, Note 5
Languages/Technical S.I.G.	Wed. Dec. 10	1st MN Bank, Hopkins	Note 14
The Smalltalk Group	Wed. Dec. 10	New location; call for details	Note 4
Main Mac S.I.G.	Mon. Dec. 15	Southdale Library Community Room	Note 10
UMMUG	Thur. Dec. 18	UM Physics Building, Rm 210	C. Lukaszewski, 338–8581
AppleWorks S.I.G.	Thur. Dec. 18	Derham Hall High School, St. Paul	Spreadsheet Templates, Note 8
Northwest Branch	Tues. Dec. 23	Rockford Road Library	Note 9

Notes: (See page 3 for telephone numbers)

1. Ann Bell 544-4505 2. Ed Spitler 3. David Stovall

432-0103 474-8015 4. Martin McClure 227-9348

5. Bob Pfaff 7. John Gammell 8. Dick Marchiafava

9. Jere Kauffman 10. Mike Carlson 11. Dick Peterson 12. Tom Alexander 13. Mike Frazee 14. Chase Allen 15. Joy Kopp 890-3230

Coordinators - Please Call John Hansen (890-3769) by the 10th in order to have your meeting listed correctly!



#### November 1986

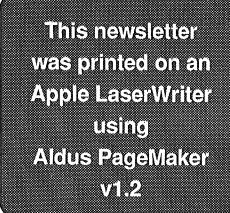
In This	Issue			Advertisers	
Annour Classifi <b>DOM</b> #44 IAC#6 PRODO format	©. 2	by Steve George	4 18 5	Arsen Darnay Assoc. City Desk Computer Hagen hi-tech Stationery House of Forms Yukon Computer Pro	19 2 11 6
Zipsc II	#31 Hing Back #30 Back #30	by MarkRichards and Curtis Juliber	5 12	Cover by Map by	Dan Buchler Tom Edwards
් AppleV	Fechnical Notes Vorks Advisor o Editor	edited by Steve George by Dick Marchiafava	10 8 7		
<ul> <li>□ MacSIC Map of Minutes</li> <li>○ Someth</li> <li>□ Mac Ve</li> </ul>	G ntu: Oct (Power Wiring) Meeting Place - Apple II s - board meetings ing for Everyone	by Tom Edwards by Janelle Tryggestad by Ed Spitler edited by D. Buchler by Tom Gates	, 11 18 16 9 14 7	Profession Service Get it done right first time! We give quality so on all Apple prod and Epson printe	<u>the</u> service lucts

Need on-site repair?

Call us- - on site and maintenance contracts available.



OFFICE EQUIPMENT, INC. 801 WEST 77 1/2 STREET RICHFIELD, MINNESOTA 55423 866-3 441



## mini'app'les

#### **Board Members**

President	Ann B 8325	e <i>ll</i> 39th Avenue N.,	544-4505
	New 3	Hope, MN 55427	
Past President		Laden	488-6774
		W. Laurie Rd,	
	Rosev	ille, MN 55113	
Vice-President	Ed Sp		432-0103
		Box 24476,	
	St Par	ul, MN 55124	
Treasurer		Benser	884-2148
		W. 107th St,,	
		nington, MN 55437	
Secretary	Janeli	le Tryggestad	925-2436
	3151	Dean Court, #703	
	Minn	eapolis, MN, 55416	
Communication Dir	ector	Dan Buchler	890-5051
Software Director		Steve George	935-5775
Technical Director		John Hook	435-6281
SIG Director 1		Mitch Bronson	920-3870
SIG Director 2		Dick Marchiafava	572-9305
Branch Director		Dick Peterson	473-5846
Coordinators	5		
Adviser - Spreadshe	eets	Mike Carlson	866-3441
Beginners' Consulta		Earl Benser	884-2148
Membership Form		Jim Ruprecht	827-3205
Membership Co'tor		Janelle Tryggestad	925-2436
🔹 SIG - Apple IIC	S	Coming!	
SIG - Apple ///		Dave Rasmussen	938-1947
🔹 SIG - Business		Dick Marchiafava	572-9305
SIG - Education	1	Jim Baker	872-6741
SIG - FORTH		Mark Abbott	854-8304
SIG - Investmen SIG - Language		Eric Holterman Chase Allen	822-8528 435-2645
SIG - Macintos		Mike Carlson	866-3441
□ SIG - Mac Non Tech Use	rs {	Curtis Juliber Dave Stovall	487-2850
SIG - Pascal	j	John Schoeppner	455-8613
🛚 SIG - Smalltalk		Martin McClure	227-9348
Shows & Convention	ons		Open
🗯 Tech. Adviser (	hdw)	Roger Flint	771-2868

#### **Branch Coordinators**

Da	akota County	Bob Pfaff	452-2541
No	orth West	Jere Kauffman	535-6745
N.	E. Branch	Mike Fraase	430-2944
St	. Cloud	John Gammell	1-253-9377
Li	aison (†) - Genealogy	Jules Goldstein	690-4447
Li	aison (†) - Medical	Stewart Haight	644-1838
Li	aison (†) - CP/M	Jim Rosenow (4	14)261-2536
10	to provide contact with non-Mir	ni'app'les SIGS	

#### Software Director's Staff

Software Director and Apple // DOM Editor	Steve George	935-5775
Assistants:		
CP/M	Open	
Eamon	Dave Nordvall	724-9174
IAC	Richard Peterson	
MacDOM Editor/Prod	Mark Richards	925-3625
Assistant MacDOM Ed.	Curtis Juliber	487-2850

Circulation this issue: 1650

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

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

#### Questions

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

#### Membership

Applications for membership should be directed to Membership Co-ordinator: Janelle Tryggestad 925-2436

3151 Dean Court, #703

Minneapolis, Minnesota, 55416

\$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 newsletter and all club benefits.

#### DOMs

DOMs (Disk of the Month) are available at meetings for \$5/disk (\$8/MacDOM) or any DOM may be ordered by mail for \$6.00/disk (\$9.00/ MacDOM). Send orders to Mini'app'les at PO Box 796, Hopkins, MN, 55343, attention DOM Sales or MacDOM Sales.

Members may have 51/4" DOMs copied to their own media. See classified Ads for details.

#### Dealers

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

#### Newsletter Contributions

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

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

#### **Meeting Dates**

Please telephone calendar announcements to

John Hansen - 890-3769.

#### Advertising

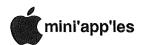
Direct Advertising inquiries to our co-ordinator Eric Holterman at: PO Box 8266 GEnie: EFHolterman Minneapolis, MN 55408 612-822-8528

#### **Newsletter Publication Staff**

Director &	Daniel B.Buchler	890-5051
Editor	13516 Grand Aven	ue S.
	Burnsville, MN 553	337

Assist. Editors Dave Johnson, Jo Hornung, Becky Gray

1100101, LAILOID 1	Dure sonnson, so s	ciomang, booky olay	
Announcements	Kent Edwards	452-4956	
Calendar	John Hansen	890-3769	E-mail
Contributing	Steve George	935-5775	AppleLink
	Curtis Juliber		UG0012
Editors	Tom Edwards	927-6790	CompuServe
Comp./Layout	Joan Kistner		73537,463
Mailing Advertising	Hugh Kurtzman, Eric Holterman	Richard Peterson 822-8528	GEnie
Auverusing	Enc notterman	022-0328	DBuchler





#### **IIGS Notes from Apple**

The Apple 5.25 Controller Kit, which is required for use with the Apple IIe, II Plus or original Apple II when using the Apple 5.25 drive, will not be available until January of 1987. A price has not been set for it at this time.

#### Apple Earnings and Net Income Double in Fiscal '86

Cupertino, California. October 14. Net income and earnings per 1986. share more than doubled during fiscal 1986 according to year-end financial results released by Apple Computer, Inc. today. During the company's fiscal year, which ended on September 26, net income increased 151% to \$154.0 million, compared to \$61.2 million a year ago and earnings per share increased 141% to \$2.39 per share compared to \$.99 per share in fiscal 1985. Sales were flat at \$1.902 billion in 1986, compared to \$1.918 billion for 1985.

Net sales for the fourth quarter were \$510.8 million, an increase of 25% over the year ago period when net sales of \$409.7 million were recorded. Net income for the fourth quarter was up 47% at \$32.9 million or \$.51 per share compared to \$22.4 million or \$.36 per share for the year ago period.

Gross margins as a percentage of net sales were 53.3% for the fourth quarter and 53.1% for the full year. For the year ago periods, gross margins were 45.9% and 41.7%, respectively.

"We are pleased with these results," commented John Sculley, chairman and chief executive officer. "Apple has made substantial progress throughout fiscal 1986 as our second-half revenue gains and significant earnings improvement indicate. During the fourth quarter we continued momentum of our saw Macintosh<sup>TM</sup> products in the business market and strong performance of our Apple® II products in the education Both our domestic market. and international sales were strong. These results have enabled us to increase our investment spending to generate additional revenue growth in fiscal 1987."

#### Access II Version 1.2 for Apple IIGS

Access II, a data communcations software program for the Apple IIe and IIc is now available in Version 1.2. This new version has serial drivers which are also compatible with Apple IIGS hardware.

A system upgrade disk was included in the October 15 dealer mailing. Customers who have earlier versions of Access II can upgrade their current disks to Version 1.2 by copying the new software to their existing disks, or on to a new 3.5-inch 800K disk.

#### **Macintosh Stuff**

## Switcher Construction Kit Update

Switcher Construction Kit, Version 5.0 (M0540) works with Macintosh products which use the Hierarchical File System (HFS). This latest version of Switcher works with:

- -- Macintosh Plus
- -- Macintosh 512K Enhanced
- -- Macintosh 512K
- -- Macintosh XL
- -- Macintosh Hard Disk 20
- -- Apple Hard Disk 20SC

Switcher Construction Kit, Version 5.0 enables Macintosh users to integrate their choice of up to eight applications and switch between them with click of a mouse. Switcher also makes moving information between different applications quick and easy. the new Switcher Construction Kit includes a revised and reorganized manual which makes Switcher easier to learn and use.

#### Big Microsoft Announcement!

For those of you who haven't read it yet, in the Oct 13th issue of InfoWorld, Microsoft Corp. announced version 1.03 of Excel which will be available the end of October. They also announced that starting with Microsoft Works, every new release of any business product will **NOT** be copy-protected! Let's hand it to Microsoft for this one. Maybe now others will follow their lead.

# LaserWriter Plus Available As Fully Configured Unit

The LaserWriter Plus (M0169) is now available as a fully configured unit. Customers no longer need to purchase a separate upgrade kit that requires installation.

The LaserWriter Plus features:

- An additional megabyte of ROM for increased power.
- Sixteen 512K ROM chips containing 11 built-in type families.
- Seven new typefaces that allow users more options and greater flexibility: ITC Avant Garde<sup>™</sup> ITC Bookman<sup>™</sup> Helvetica Narrow New Century Schoolbook

Palatino

TC Zapf Dingbats<sup>™</sup> ITC Zapf Chancery<sup>™</sup>

The LaserWriter Plus will be available in early November. The LaserWriter and LaserWriter Plus Kit are still available as separate components. AppleCare (SC70036) service is available for up to 36 months.

#### **Special Note**

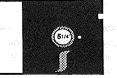
During the October, November and December Apple II meetings and Main MacSIG meetings, drawings will be held for subscriptions to Nibble and MacNibble. Even if you already subscribe to either magazine, you can renew your subscription if you win.



# **Software Library Additions**

by Steve George, Software Director

DOM #44 DOS format (Denver Apple Pi, Sept '85)



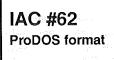
ere's another very nice disk which originated with Denver Apple Pi. Special thanks to Ed Thompson, their group's software librarian, for all his help in the past several months! Through cooperative efforts, both our groups have benefited, and I look forward to further exchanges.

The major programs on this DOM include two games (PT-6502, an arcadestyle hi-res game requiring paddles or joystick made with Broderbund's Arcade Machine [an excellent program!], and Zyphur Wars). PT-6502 requires a joystick or paddles and has supurb animation and sound (which can be turned off during those games that last into the wee hours). Zyphur Wars is another invasion/save-the-Earth type of game.

Next we have a Talking Calculator, a repeat from an earlier DOM, but interesting just the same. The 'voice' is a little scratchy, and shows us just how far we've come since this was first created! Nobody will confuse this program with a IIGS.

Last, there are two good music education programs and several utilities: both DOS and ProDOS. (Huh? ProDOS utilities on a DOS disk?) You'll have to convert ProMenu and its doc file to a ProDOS-formatted disk to be able to use them. Auto Redial Apple Pi will probably be of little use as it is received -- you guessed it, it repeatedly dials the Denver group's BBS. However, it certainly can serve as a model for when you create your own Micromodem auto-redial.

Games	Education
PT-6502 Zyphur Wars	Talking Calculator Fast Forward Music Music Wars
DOS Utilities Auto Redial Bin to Textfile RamDisk128	ProDOS Util. ProMenu ProMenu Docs



Hi-Res Picture Filer v1.3, Print Shop Graphics and Slide Show

his is another double-sided disk. Side 1 is Ken Tanaka's (Denver Apple Pi) Hi-res Picture Filer. Side 2 contains the programs which were to be part of IAC #60, but weren't.

From the info-sheet with the disk: "The purpose of the Hi-Res Picture Filer program is to make the viewing and filing of hi-res pictures on disk easily done from one program. The program allows locking, unlocking, renaming, A file can be and deleting of files. copied from one disk to another with or without deleting the original file -- useful for organizing a library of pictures. This allows you to copy picture files, or move them, without leaving duplicate files behind to be deleted. The program also has the ability to do a screen dump -- send a picture to the printer. However, this feature only accommodates Epson MX-80 and MX-100 printers with Graphtrax. This feature may also work for the FX-80, FX-100, RX-80 and RX-100 printers."

"To maximize the number of pictures which can be stored, a *Scrunch* or packing routine is included. This routine encodes a hi-res image into a compact form. When this compact information is stored to disk it takes up fewer sectors than a regular image, allowing more pictures to be stored on a disk."

"Documentation, which is included on disk, tells you how to use the Hi-res" Picture filer. Also included are programming notes and file description."

"This disk has been formatted for ProDos. HGR Filer runs on an Apple ||e, ||c, or 64k Apple || Plus."

"Please note that on the back of this disk #62 is the slide show for the DOM #60 (Printshop Graphics and Slide Show) as we promised in last months DOM."

{(

ZipScript II DOS format Personal Domain



al Carter, author of a few of our other Personal Domain software selections, has done it again: an excellent value-for-This time its a the-money program. "complete word processing system that contains all the features required to handle your text processing needs with ease." His introductory file continues saying that "the system features a full screen editor (with horizontal scrolling), complete on-line instructions and a formatting program that supports various dot (.) commands specifying the printed format."

"The system uses DOS 3.3 and does not require any additional equipment, such as an 80-column card, lower case adapter or memory, to be used on the Apple II+. It will, however, execute just fine on the Apple IIe/c in the 40 column mode."

While not offering all of the features of a commercial program, it does offer an impressive array of features not found in many lower priced packages.

Please see Mini'app'les member Tom Gates' review of this disk elsewhere in this newsletter. Tom comments: "Hal Carter has done an admirable job and offers the beginner in word processing a heck of a value for the money."

ZIPSCRIPT II ©. 1986 by Hal Carter Requested fee: \$10





# **ZipScript II**

A review by Tom Gates

Program by Hal Carter, 3245 Pursell Drive, Pensacola, FL 32506

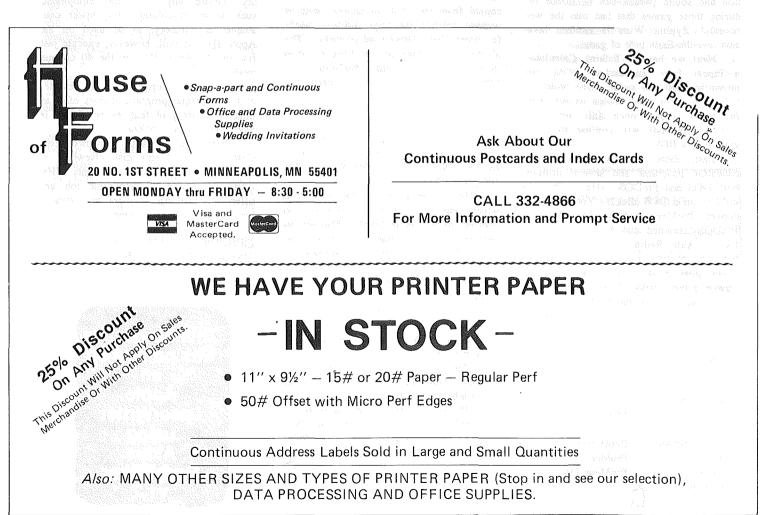
ipScript II is a freeware program, and Hal is requesting a \$10.00 fee for the program. ZipScript II runs on Apple II+ and //e or //c in 40 column mode. The program is on DOS 3.3 format disk. This program does not require any special hardware to run, such as an 80 column card, lower case adapter or extra memory.

Starting the program, you are greeted with a menu offering the standard bill-of-fare. Open document, print document, display directory (catalog), copy or rename a file, install, print instructions, etc. I jumped in with both feet and immediately printed the instructions.

At first I was a little disappointed as I read through the documentation (all 8 pages of it) and was beginning to feel the statement in the documentation "if you don't like anything else..., you will find the price to be just right." was very truthful. But me and first impressions never did get along well.

In working with the program, I began finding what I will call wonderful capabilities. These things are barely aluded to in the documentation, but are very nice features. First point is the mention of the fact that no extra hardware is required for use with an Apple II+. This leads one to believe that there may be very little power in this program, To the contrary, as I went through the motions of entering some sample letters, I found that this program gives you a what-you-see-is-what-you-get feature for any document width up to 133 columns with just a forty column display. It does this with a scrolling text screen. As you type a document past column 40, the text screen follows along to the right with you. After finding this out, I had to see what would happen typing a 133 column wide document. Voila! 132 columns on the printer (compressed print of course)! But for those with the wide carriage printers, 133 columns of normal size text!

Another feature that I found to be set up in an interesting manner is the use of printer controls. Predefined printer commands are included for bold, compressed, double strike, double wide, elite, italics, underscore, subscript and superscript. These commands can be used separately or in combinations depending on the capabilities of your printer. The feature I liked about the printer commands is that you use them in a toggle fashion. That is, enter "bold"





printer command, the text to be in bold type and end with the "bold" printer command again. I liked that command format versus using the multiple beginning and ending printer commands as is the case in Applewriter.

Some other features built into the program include automatic word wrap toggle, when on, words extending past right margin are moved to the next line, when off, bell sounds as you near the right margin. Line centering done in the document as you type versus being centered at print time. A scrolling help banner across the bottom of the screen (I had to shut this feature off after a while, it began to unnerve me more then help me). And a slick little feature to reformat a paragraph. This option allows you to type in a paragraph with the margins set at 1 and 65, then if you want the paragraph to be printed in a narrow column, just reset the margins to, say, 10 and 35 then use the reformat command and the paragraph will "flow" into the narrow column. Then set the margins back to their previous settings and continue on. (I must caution on setting the margins closer than the longest word in the paragraph, program does not handle this very well.)

Other "dot" commands include page length, line spacing, top and bottom margins, automatic page numbering and heading and footing commands.

#### Some objections and problems.

I did not find the documentation to be very thorough and the command section was not set up in an orderly manner. I always had to hunt for the ctrl-commands I wanted to use. Maybe I will get ambitious and redo the the documentation, adding some of the examples that are sorely missing.

Even though the printer commands are set up nicely, you are limited to those provided in the program as it does not appear to have the ability to use "raw" printer commands.

By no stretch of the imagination can I be called a speedy typist (I do have my moments), but someone who can clip along at a good pace may find that as the program wraps the words from the right margin and onto the next line, there seems to be a moment where the program can not keep up as it re-orients the screen to the left. Many times I would lose a letter or two from a word as it moved it to the next line.

As you move between the different components of the program (editor, print document, etc.) disk access is required as it saves the dataset you are working on and loads in the next portion of the program. I found that using one of the "fast DOS" programs like Diversi-DOS, Pronto-DOS or David-DOS to be very desirable in reducing the disk use time. The program is particularly disk intensive when working with small letters etc. where you are moving between parts of the program more frequently.

#### A summary

Zipscript II is not ready to compete with Applewriter or HomeWord or the other

#### Letters to the Editor

Congratulations to the Editor and Staff on issue Vol. X No. 10 Oct, 1986. (Editor's note, it should have been volume IX). This issue was the best ever – keep up the good work. Looking forward to more

the good work. Looking forward to more info on the new IIGS and IIe upgrade to GS capabilities.

Will IIe upgrades need a new monitor (monochrome, color composite or RGB)? Will current color monitor be compatible but with limitations? What features of the GS will not be included in the IIe upgrade?

#### D. J. Vimr

(Thanks D.J. It's nice to hear when we do things right. We also like to hear when we do things wrong!

I believe that current composite or RGB monitors will be compatible, except the Color 100 Monitor. You may in fact have a better quality monitor than that being supplied by Apple. Actually most of the current generation of composite color monitors are about the same. However, there is a large variation in quality and resolution of different types of RGB monitors. I don't have an answer to the question on features of IIGS not obtained when upgrading!—Ed.) commercial word processing programs. But this is due more to lack of polish than to bugs in the program or lack of functions. Hal Carter has done an admirable job and offers the beginner in word processing a heck of a value for the money. I was also able to use the text files created with my Applewriter and HomeWord programs, so files created by this program would not become useless if you later purchased a commercial word processing program.

The main drawback at this time is just in the usefulness of the documentation in its current form. It requires too much experimenting and lacks examples.

Hmmm..., I wonder, if I added this, and moved that over here....



Arsen Darnay & Associates 23 West St. Albans Rd. Hopkins, MN 55343

{ζ

ê

# The AppleWorks Advisor A Column For Users Of AppleWorks

by Dick Marchiafava

November 1986 **AppleWorks Version 2.0** 

s expected, (and as announced in last month's newletter) Apple Computer has announced the release of another version of AppleWorks. According to trade publications, this may be the last version of AppleWorks to come from Apple. Apple sources have been quoted that state Apple will continue to support AppleWorks, but is looking to the software publishers for new software packages for the new Apple IIGS.

The new version of AppleWorks is 2.0. At the time I am writing this (end of September), I have not seen this package. It is probably not in the hands of the computer buying public yet.

I had the occasion to speak with a software publisher who has seen AW 2.0, however. My impression after this conversation is that AW 2.0 was released to support the Apple IIGS. In some areas of the program, changes were made which increase capabilities in comparison with the existing versions. However, if you use AppleWorks 1.2 or 1.3 on a //e or //c with a memory expansion that has software which expands AppleWorks, you probably have more AppleWorks power than the new version offers. I read that an upgrade to AW version 2.0 would cost \$50.00. I do not know if that figure is correct.

An Apple //e with memory expansion and a high speed co-processor board is a real AppleWorks powerhouse. It'll run the more capable expanded versions of AppleWorks faster than the Apple IIGS. The clock rate on the speed-up boards is effectively about 1 megahertz faster than the IIGS, about 25 to 33 percent faster.

The little I have seen of the Apple IIGS, at this time, shows that its sound and graphic capabilities are "awesome." But, this does not make AppleWorks or other application software better.

If the Apple IIGS could play the Grand Canyon Suite, while reading me a Zane Gray novel and display slides of suitable western locations all the while. I might consider one now. Since my interest in computers is to enhance business and personal productivity, I will just wait and see what develops with AW 2.0 and Apple IIGS,

#### Converting An Operation To AppleWorks

For over a year, I have been doing invoice and purchase order functions on a word processor other than the one in AppleWorks. I did not convert these functions to the AppleWorks WP because the other program has a much stronger on-screen formatting capability and the ability to control a printer better.

Now I work with AppleWorks most of the time, and it was getting inconvenient to have to change programs when I needed an invoice or purchase order. So, I bit the bullet, or at least took it in my teeth, and converted the invoice to AppleWorks,

Because the invoice needs to be capable of holding vertical columns, I set up the new invoice template in AppleWorks spreadsheet instead a word processor document as it was before.

I converted another application to the AppleWorks spreadsheet earlier, so I had an idea of the problems I would encounter. This spreadsheet does not do things the way other spreadsheet programs do. In some ways it is easier, in other ways just different and in a few ways unique or idiosyncratic. I knew that the spreadsheet was the best choice to use for this invoice application, but I dreaded the prospect. This is why I delayed making the conversion.

One of the things I have problems with is the TAB command. In Apple-Works a TAB will always take the cursor to the next cell, despite its status. In other spreadsheets a TAB will take the cursor only to cells open to data entry, avoiding all protected cells. This allows a certain automation of the data entry sequence. With AppleWorks, one must "steer" the cursor to the next desired cell when entering data.

The next problem area concerns cells that are protected to allow only a specific type of data to be entered. If one wants numeric information in a cell to be treated as a label, one must enter a character before entering the numbers. Other spreadsheets will treat any characters entered to be treated as a label

if a cell is so defined. If the cell is left as a value, the spreadsheet may display the sum of an entry. For example, a date entered as 9-27-86 will be displayed as a value of -104. This is hardly what was intended.

Numbers in a cell can be treated as a label if the data are always a string of numbers, such as my invoice number. In the location where the customer order number is entered, I must define the cell as a label. Most order numbers are just a string of numbers, but some contain letters or dashes. I must enter a " in this location every time too.

I get the calculations made for me automatically by the spreadsheet invoice template. I even get the sales tax entered automatically where it is applicable. Near the top of my invoice, there is a location for a number, 1 through 5, which shows the taxable status of the sale. Only a code of 1 is taxable.

I used an IF function to do this. The formula used is @IF(J10=1,K38\*.06,NA). That is, if the taxable status code is equal to 1, calculate 6% of the sub-total location, if not, enter NA (not applicable?). This gets the tax calculated, entered and added to the invoice total for a taxable sale. If the sale is not taxable, NA is entered in the tax cell. The problem with this is NA also prints as the total if the sale was not taxable. I had to change the formula to @IF(J10=1,-K38\*.06,0). This prints a 0 in the tax cell if no tax is due, and does not cause problems calculating the invoice total.

A characteristic of the AppleWorks spreadsheet is that only 77 characters are usable of the 80 character screen, instead of the full 80. This means that something must be trimmed when converting an existing application, since I want the application displayed on the screen without scrolling sideways.

So, this conversion resulted in a compromise. It's a blend of advantages over the previous method, and drawbacks. I did use AutoWorks macro commands to lessen the effect of some of the awkward characteristics. With the time to hone the template, I may be able to make it a little easier to use.

The big gains I made are that I can do my invoicing without leaving AppleWorks, and calculations are



automatic. The major drawbacks are awkward data flow and data entry in some locations.

The next conversion I need to do is Purchase Orders.

#### Avoid Bugs With Expanded AppleWorks

Member Dave Olson gave me the following tip. Dave was working with a standard version of AppleWorks (not expanded). "I have found an apparent Appleworks bug recently that was a bit tricky. When working with a mailing list from the data base, I tried to print the report to the clipboard for transfer to the word processor. Since I had been making labels, I had removed the header from the report. When I printed to the clipboard one of two things happened with no apparent pattern, drive 1 would spin briefly and I would be back in my report format, or the screen would simply return directly to the report format. In neither case did the information go to the clipboard. By accident, I found that if I included the header on the report, the same procedure was successful at getting the data into the clipboard. However, when I removed the header and again printed to the clipboard, it worked properly, if I had performed no other operations in the meantime."

"This bug exists on both Appleworks 1.2 and 1.3, on my enhanced IIe. However, when I used Appleworks enhanced with Applied Engineering's Desktop Expander, version 5.2.1, the bug vanished. Filled with curiosity, I called AE and related my experience. They said they had found that bug and several others, while digging around in Appleworks and fixed them with the Desktop Expander software. As a result, I now use only the Ramworks enhanced version of Appleworks, in spite of the longer boot time required."

As Dave discovered, Applied Engineering and Checkmate Technology, two of the companies which create the Expand Utilities for AppleWorks to use with their memory boards, remove bugs in the process of expanding Apple-Works. Sometimes the bugs are fixed just because they are there, in other cases fixing the bugs may be necessary for the expand modifications to work.

Send your AppleWorks questions and tips from anywhere to me at 7099 Hickory Drive N.E., Fridley, MN 55432. Or call 612-572-9305, no collect calls.

{ (

# Something for Everyone

Pinpoint products for Apple computers by Ed Spitler

t least that was the feeling I had when I tried to take notes on the products demonstrated by PINPOINT'S president, *Brian Skiba* at our September 17th meeting. He showed us a lot and told us a lot, using Appleworks 2.0 on *Earl Benser's* supercalafragalistic IIe.

Here from headquarters in Emeryville, California, Brian demonstrated Pinpoint Desktop Accessories and other Pop-Up and/or stand alone programs for Apple II's to an interested audience, three of whom walked away with free Pinpoint software programs.

Pinpoint Desktop Accessories has an appointment calendar, 4-function calculator, communications package, envelope printing feature, telephone dialer, typewriter, word-processing notepad and I don't know what all else, is all available while in Appleworks, ProDos Basic, Manzanita's BusinessWorks or other Pro-Dos applications.

Spelling Checker can tell you when you've goofed, anytime you want . At speeds up to 85 words per second, your errors will be detected and suggestions from a 60,000 word dictionary given for correct spellings. Or, if you want to surprise yourself, turn the alternate suggestions feature off and wait until you get to the end of your document. Tired of spelling your name wrong? Add it to the dictionary and it will recognize you in the future. All this without leaving Their Document Checker AppleWorks! (not demonstrated) is better if you want to wait, however, because it can check your spelling at a rate up to 150 words per second! The disadvantage is that you have to exit AppleWorks.

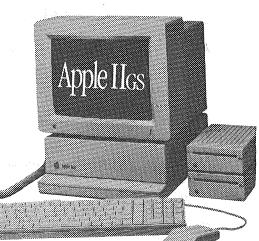
Brian also demonstrated KeyPlayer, a macro key and scripting program allowing you two-key control of important commands, words or phrases or whatever else you want to put in there. You can use conditional logic to build complex macros with ease.

There was so much to see and hear, it became difficult to take notes and comprehend all that was presented. There is no way I can do justice to the features in those programs. Fortunately, Brian had extra copies of his newsletter, "Points of Interest," 70,000 of which were sent out in September to users of their products. Next month, they anticipate sending out more than 100,000. Gives you some idea regarding Pinpoint product interest.

Their newsletter talks about the some 25 different programs available. Check it out because there is bound to be something of interest for both end users and programmers.

Three Pinpoint software programs were given away in the drawing. Pinpoint Desktop Accessories, Point to Point and Micro Cookbook for those "What's for dinner?" decisions. Congratulations to *Gladys Gudahl, Garry White* and *Ron Reich*. We eagerly await your reviews of those programs. Maybe Gary will give us a few recipes as well.

Thanks Brian, for an excellent demonstration. I'm sure you will be hearing from some of the audience soon. Wait a minute though. If you are interested in Pinpoint products, call *Mike Carlson* at Hagen Office Equipment (866-3441) or *Dick Marchiafava* of Ramco Sales (572-9305). They have a special offer on many of Pinpoint's products 30% below suggested retail.





# Apple Tech Notes

Edited by Steve George

#### **Applesoft: Internals** Introduction (Part 1 of 2)

he following six notes, first The published in Apple Orchard (March 1980) are written for experienced 6502 machine language programmers who wish to use the Applesoft ROM subroutines. The addresses given are for an Apple ][+ with an Applesoft firmware card, or Applesoft loaded into a Language Card. Consult your Applesoft Reference manual for more information.

Take special note of CHRGET, the heart of Applesoft. When Applesoft wants the next character of an instruction, it points TXTPTR at the program or input buffer, and JSRs to CHRGET. TXTPTR is temporarily set to the last used DATA statement when Applesoft READS DATA.

#### ABBREVIATIONS

- msb: most significant bit or byte
- least significant bit or byte lsb:
- end of line token (\$00) eol:
- the 6502 accumulator A:
- the 6502 X register X:
- Y: the 6502 Y register
- Z: the zero flag of the 6502 status register
- C: the carry flag of the 6502 status register
- A.X is a 16 bit number where A has the msb and X the lsb.
- (Y,A) is the number or string whose address is in Y and A, with the msb in Y and 1sb in A.
- FAC the floating point accumulator
- ARG the ARGument register

#### Applesoft: Applesoft internal program storage format

Applesoft programs are stored one line at a time starting at memory location \$801 and ascending in order by line number. Each line is stored in this format:

The first two bytes are pointers to the absolute address of the beginning of the next line. The first byte is the least significant.

The next two bytes are integers representing the line number of that line. Again, the first byte is the least significant.

The next byte, a token, stands for the first Applesoft keyword. When the lines starts with "A = 1", the variable name (in ASCII) is first. The remaining command consists of keywords and symbols reduced to one byte tokens and unmodified ASCII text.

A list of Applesoft's tokens appears on page 121 of the Applesoft Reference manual.

The subsequent bytes are either "\$00"s signifying the end of this line, or "\$3A"s, indicating multi-statement lines, followed by a "\$00.

If the link field for a line is 00 00, then Applesoft considers it the last line in the program while running or listing. The SAVE command uses a different pointer for the end of the program. \$AF,B0 normally points to the high byte in the line number of the line beyond the last line.

#### **Applesoft: Numeric** comparison problems

When two numbers print as equal, though an IF statement indicates they're not, the least significant bits in the internal binary storage format of those numbers are different. Applesoft's PRINT statement truncates a number that is extremely close to being an integer. For example, 3<sup>2</sup> and 3\*3 will both print as 9 but won't compare as equal. Printing 3^2 - 3\*3 will result in 3.7252903E09, while the expression  $3^2 = 3^3$  is false.

Round Applesoft real numbers to a specific number of decimal places to avoid comparison problems. Use the formula:

X = INT(X\*P+.5)/Pwhere P=10 for 1 decimal place, P=100for 2 decimal places and P=1000 for 3 decimal places, etc.

ionii	al.							1					cranal here with		
ſ								\$8xx				uj⊴			
	00	01	02	03	04	05	06	07	80	09	0A	0B	0C	0D	0E
	00	0D 08	0A	00	97	3A	BA	22	48	49	22	00	00	00	
	Ε	LINK	LINE	船	:	Р	11	Н	Ι	n	Ε	LINK			
	0			0		R					0				
	L			М		Ι					$\mathbf{L}$				
				Ε		N									
						Т									

#### "Apple Pays Half" Rebate

Beginning November 1, 1986, Apple offers consumer rebates on all Applebrand peripherals and software purchased in conjunction with a basic Apple system, consisting of an Apple CPU, Apple monitor, and first Apple disk drive.

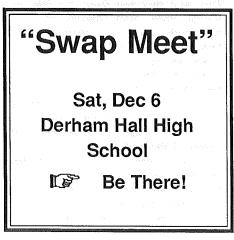
The "Apple Pays Half" rebate offer is only valid when customers purchase Apple peripherals and software at the same store, on the same day, and on the same itemized sales receipt as their Basic Apple System Purchase.

The rebate amount is based on what the customer pays for the Apple-brand peripheral or software. The rebate per product purchase price will not exceed half its Apple suggested retail price.

The Apple II and Macintosh rebates apply only to the first of any given model of any Apple add-on purchased per Basic Apple System. No rebates will be paid on any product purchase price in excess of half its Apple Suggested Retail Price.

To receive the rebate, customers fill out an Apple Pays Half rebate form, and send it, along with a dealer-endorsed sales invoice (listing products purchased, prices, and applicable UPC codes and serial numbers) to the address noted on the self-mailer. This offer ends January 10, 1987. Rebate forms must be postmarked no later than January 31, 1987.

Assessment in the second



Help your club! Volunteer!



# MacSIG:ntu tries the fast lane with **Power Wiring** by Tom Edwards



ore bytes than some of the "big kids" can hook in a row! They were all lined up on the front desk for

the October MacSIG:ntu... five Macs with sundry hard drives, all networked together. *Curtis Juliber* had to call up the calculator DA to add it all up; something in excess of 200 megabytes, all humming and ready to share.

Curtis J. and Dave Stovall, co-chairs for the ntu, had tantalized us with the prospect of seeing something else that was big at this meeting. The original plan was to get one of the "big screen" accessories to show off. Unfortunately, even though the unit that they were seeking is manufactured right here in the Metro area, it had been "borrowed" by other interested Mac users and was not available for our MacSIG. Promises, promises. Perhaps we will get a second chance, as Dave and Curtis promised to continue to try to round up a big screen, full page display monitor. Who knows, maybe by the time it's available the pixels will have aged into a rainbow of colors!

The 50 or so non-technical users at the meeting this evening sparked a host of questions to open the session. Curtis, Dave and other helpful souls replied with suggestions and answers to queries like these:

- Latest Switcher? Current "official" release is 5.0.1 from Apple, a version that Curtis had to supply to the local Apple office to keep them up-to-date.
- Will Apple have a SCSI drive available in the near future? It already has been announcedby Apple and viewed by some ntu'ers. Availability? Real soon, now!
- Suggest another spreadsheet at the lower end of the "power" and price range. Try MacCalc or SuperCrunch.

Where can one find some assistance with **Omnis** 3? Blyth Software has а directory of developers which might list someone in this area, Also, there is a fee-based BBS in the south metro area that offers help.

• Rumors about the "open Mac"? Seems to be delayed until late first quarter (or later) in 1987.

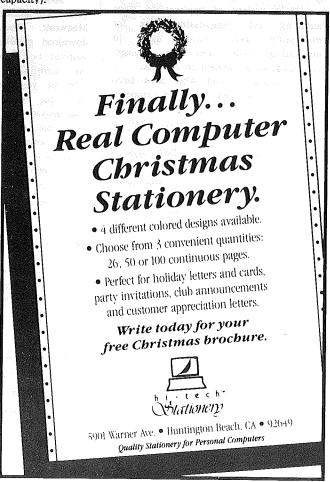
A slight change of focus brought out several announcements of interest to MacSIG'ers. There have been several Mini'app'les board level changes which were brought to our attention by Dan Buchler. Mitch Bronson recently joined the board to help reinforce the Mac ranks of representation. The Secretary position is open; the effort to combine secretary and membership processing duty into one responsibility proved too ambitious. Earl Benser has accepted the Treasurer position, and the board is looking to develop an "Expert Advisor" list. This would be persons willing to share their knowledge in specific program or hardware areas by answering questions of those "stuck" on a problem (contact Mitch if you would like to volunteer in some capacity).

Curtis called on Steve Pier and Steve Brian. of Mirror Technologies, as tonight's program "designated hitters". The former is a "nontechie", responsible for marketing of Mirror's products. The latter is a "techie" that works on hardware and software to make the products shuffle information to and from the Mac and also to backup storage units.

Steve Brian gave us a detailed look at the lineup of current products available from Mirror, a company now based in Hugo, MN. An external 400K floppy drive launched Mirror into the Mac peripheral business was Mirror has expanded the line to include an 800K floppy and several hard drives, ranging from 20MgB to a whopping 172MgB. Although the 20MgB drive is available as an internal or external unit, other hard drives are external only. Mirror has also adapted tape drives as backup units for the hard drives.

One of the more recent projects for Steve Brian has been the software to accompany the backup Mirror products. Steve took us through several of the "menus" and described how he has tried to make it all look as "Mac'ish" as possible. The impact of the network capability of the Mac, Mirror drives and backup units, is of course the "sharing" of information from one unit with any of several Mac's on the network. A single tape drive can also be used to backup all of the hard drives on the network, too, while holding equipment expenditures to one unit instead of several. Keys to this type of sharing come from software products such as "MacServe" (bundled with several of the Mirror products) and "Tops." Products such as these also

GOTO 15



mini'app'les



#### Previewed by Curtis Juliber

MacDOM #31 contains utilities for just about every occassion.

ould you like to store more files on your floppies or hard disk? Packit 3 (version 1.2) is a shareware packing utility which allows single or multiple files to be compressed. encrypted, and packed together into a single file. It can be used in a wide variety of applications from combining and compressing files for lines transmission over phone to compressing your files for storage. Documentation is included on the disk.

For those of you who have been waiting for Switcher to work properly with your Mac Plus, wait no more! A new release of Switcher (vers. 5.0) is on this disk and is HFS compatible.

The Talking Moose, which appears on MacDOM # 28, has proven to be very popular among Mini'app'les members. To help you program the moose to your own liking, we have included Moose Frazer on this disk. Be sure to read the documentation when you boot up the program.

Histogram Maker reads in a text file of numeric information and makes a chart out of it according to your specs. FastPrint will speed up printing of your MacPaint drawings. Scavenger Mac will help recover trashed HFS disks if the need ever arises.

For those of you who have the need to make mailing labels from your favorite database, Mailing Labels 1.0 will input a database formatted textonly file and print out labels.

### And then there are desk accessories.....

Set Paths 1.3 is a desk accessory which maintains a list of up to five path names. Once Set Paths has been used, that list will be searched any time a file open operation occurs. The point is that if the file is not found where the programmer told the system to look, the system will start searching your list of paths and will fail to find the file only if it is in none of them.

Hopefully this will solve a number of incompatibilites that arise with some applications running under HFS - you know, the ones that require that their working files be in the same folder as the application.

Counter counts words in а MacWrite or text document. Saviour saves files automatically as you work. Just tell it how often you want it to save the file and give it the name of the save menu item ie. "SAVE." Desk Zap will let you set file attributes, delete, rename or copy files from within another application, create HFS folders and perform numerous other goodies. Check documentation for further details.

Journal Maker will let you make your own guided tours to show off your Macwork. BackDown will let you download goodies off your favorite Mac bulletin board while you your working on something else. New Scrapbook will let you copy any segment of an item out of the scrapbook, unlike the one provided by Apple where you must copy the entire item. Timer 1.3 acts as a stopwatch for your Mac. If will let you know the elapsed time from when you turned on your Mac.....Yes, you can stop it and start it at anytime too.

Finally, what would a MacDom be without something to exercise your mind? Well, for all of you Star Trek fans we have (trumpets, please) Star Trek Trivia! I will never admit in public just how well (or how poorly) I did. Until next month...... (Curtis, you mean next month you will tell us?— Ed.]

> See "Apple Pays Half Rebate" offer on page 10!



#### by Mark Richards

ne of the problems being the Editor for MacDOM's is naming the disk. Some will suggest themselfs and others you have to stretch for. Well, to hang a name on this one, you take the new and improved Daleks 2.0 game to bring in the doctor. Have fun being chased by a rather obsessive, ever-growing number of robots. And to take care of the patient, Disk First Aid will check and fix track problems on your disks.

On the rest of the disk we start with **Earth Plot.** Select your coordinates and see the world. (Hint: The Twin Cities are at 44° North and 93° West.) And to help you pin down even further where you are or will be, there is a series of MacPaint documents covering the World, the continental United States and South America in Maps f.

Do you have a disk that you would rather people not be able to read? You can encrypt each of the files on it individually or you just password protect the whole disk with **Password f.** For the hacker there is also the source code.

Speaking of encryption, do you like to do the Cryptogram in the morning paper? How about doing them on your Mac? CryptoSolve lets you practice your skills. There are an initial 35 puzzles for you to work on, but we have added another 50 into a Packit document. (Packit is on MacDOM's #22 and #31.)

If you are doing mailing lists you will be interested in LabelPrinter, a stand alone application that takes text documents and puts out a very nice 1inch by 3 1/2-inch label. Want to organize your scrapbooks? Use NEST to produce an indexed double scrapbook.

And to round out the disk there is a group of Font Samples, the new version of WayStation 2.6.

- 12 -

1.43 s+ Maitreya Design



# **Mac Versions Numbers**

by B. Carv

Princeton University Mac User Group (PMUG)

Downloaded and edited by Dan Buchler

DiskInfo

					/nloade		
	Ap	leLi			thank	Pl	MUG
	for	it		They	tak	e	no
	rest	onsi	bility	,	for		it's

AppleLink. We thank PMUG for it. They take no accuracy. If anyone has any new information, please update B. Cary or Tom Mackie (IDs) listed below. Credit also toSteve Bobker of MacUser magazine for doing what no other magazine wished to bother with. Note: it has been brought to B. Cary's attention that this list has been posted on other (private) BBS's. While PMUG has no objection to that, they desire that The List Be Posted Intact - plus the following ¶. "If you wish to make changes please do

so, but better yet, please note and forward any corrections/additions! It's your list, and is simply impossible to maintain without input from you."

CIS: GEnie:	70347,3517 75216,2100 TOMMACKIE PRICECOLL	I
NS	Bankar (A. 1).	

AppleLink: A0148

#### Code:

a	=	Apple	

- с commercial =
- f free (but may be CopyRighted) =
- public domain р =
- shareware (pay author directly if s you use it)
- known to be Mac+ compatable + = (but absence does NOT mean the program is incompatable) known to be Mac+ and/or HFS
- = and/or 128K ROM incompatable
- announced to be available RSN n/a =
- # not intended for use on a = Macintosh with less than 512K of RAM (only Apple Computer, Inc. apps are noted in this listing)

\$ copy-protected (not yet ---implemented in this listing...RSN)

Prog Name	Ver	С	ode	Publ
Accessory Pak 1	1	0	C+	Silicon Beach
Acta		1		
Airborne!	1.	0		
Analog Clock	1.1	1	8	Erez Anzel
Anywhere RamD	isk 1.	0	S	Larry Robinson
AppleLink	4.	0		Apple
Application Font	1.0	1	f	Loftus E. Becker
Artisto	1.	0	S	Tom Taylor
Astronomy	2.	8	c	E & M Software
Auto Dial	1.		S	Scott Zimmerman
Autolog	1.	1		Steve Fine
Aztec C	1.06	h	C+	
Back to Basics	1.0			
Balance of Power				Mindscape
Banner				John Gregory
Basic compiler	1.0	a	¢+	Softworks
BatteryPak				
BinHex	5.	0	<b>\$</b> +	Yves Lempereur
Boot Blocks				Apple
Boston Font II				Charles E. Maurer
B-Tree Helper	1.	4		(M)agreeable
	2.0			
Calendar Maker				
Captain Magneto				Al Evans
Canfield (solitaire				-
Champ. Boxing	~~ <b>F.</b>	0	¢	Sierra
Choose Printer		-		
(use Chooser)	<u> </u>	5	a	Apple
Chooser	2.	3		
ChipWits				BrainPower
Click Art:Effects				T/Maker
Click/On Wkshee				T/Maker
ClipEdit DA ColorChart	1.2	a a	S+	Mike Cohen
				Esoft Enterprises
ColorMate ColorPress				• •
ColorPrint	2.0	0		Diversions Eaoft Entermised
Comet Halley		2		Esoft Enterprises
Comic Works		0		Great Wave
Communique	2.		<b>C</b> <del>T</del>	Mindscape
Compact		0	р	Steve Brecher
ConCode		3	P S	John Stokes III
ConcertWare+		1		
Copy II Mac		4		
Copy II HD	5.		¢+	Central Point
Cricket Graph	1.0		C+	
Crunch	2.		c	Paladin
DA Key	2.0		S+	Loftus Becker
DA Sampler	1.		s	Kevin Hardman
Dark Castle	1.		с+	Silicon Beach
DataFlow	0.		p	Gustavo Fernandez
Date Key	2.		r S+	Loftus Becker
Day Keeper Cal'r	1.5		¢+	Dreams of Phoenix
dBase III Mac				
		β	C+	Ashton-Tate
dCAD Deluxe Music	2.	U	¢+	Desktop CAD
Deluxe Music Const. Set	1	^	<b>.</b>	Vientropia Arta
Desk Acc'y Move		0 1		Electronic Arts
•	r 1. 1.		s f	CE Software
Developers Tools Diatom	1. 1.		ı s	David W. Berry
Jatom	1.	v	9	Capener

Diskinio	1.43	<del>\$+</del>	Maitreya Design
Disk Librarian	1.7	<b>S+</b>	Little Bit
Disk Ranger	2.1	¢	Mainstay
DivJoin	1.0	а	Apple
Dollars & \$ense	1.4	C+	Monogram
DrawPaint	1.0	8	B. K. McGreggor
Dungeons of Doon	n 4.0	<b>S+</b>	John Raymonds
Easy3D	1.01	C+	Enabling Tech.
Edit (buggy) 2	2.0d1	a+	Apple/Consulair
EG Word	2.2	C+	Counterpoint Sys.
Enchanted Scepters	s 1.0	c	Silicon Beach
Enigma	1.0	s	Joe Sensendorf
Ensemble	1.0	c	Hayden/Spinnaker/
		-	MacroMind
Epstart	2.0	C+	SoftStyle
Excel	1.00	¢+	Microsoft
ExperLisp	1.5	c	ExperTelligence
ExperLogo	1.1	c	ExperTelligence
Extras	1.5		Bob Luce
Factfinder	1.5	S	
		C	Forethought
Fahrenheit 451	1.0	c	Telarium
Fast Finder	2.1	c	Tardis
Fast Formatter	2.1	f+	Beyond
Fedit MFS:			
("public" shareware		S+	John Mitchell
(registered owners)		<b>S</b> +	John Mitchell
Fedit Plus	1.0.7	C+	JM/MacMaster Sys
File Convert	1.0	f	Galen Babcock
File Diddler	1.0	р	Scott Watson
Filemaker	1.0	C+	Forethought
Filemaker Plus	1.0	¢+	Forethought
FileStripper	2.0	s	Jan Eugenides
Filevision	1.0	c+	Telos
Finder (MFS-128K	) 4.1	a+	Apple
Finder (MFS-HFS)			Apple
1st Base	2.6	с	Template Systems
FixHex	1.0	f	Carlos Weber
Flight Simulator	1.0	¢+	Microsoft
Fokker Tri-Plane	1.0	c	PBI Software
FolderMaker	1.0	s+	Jan Eugenides
FONTastic	2.7	¢+	Altsys
Font/DA Mover	3.2	a+	Apple
Font Display	4.0	8+	Jeffrey Shulman
Font Doubler	1.3		William Pugh
Fontographer	1.8	p	
Fontsie	1.51	C+	Altsys
_		S+	Loftus Becker
Forecast	1.1	с	Monogram
FreeTerm	1.8	p+	Dreams of the
<b>P</b>			Phoenix
Frogger	1.0	С	Sierra On-Line
Front Desk	3.0		Layered
Front End	1.0	C+	Kaz Systems
Full Paint			Ann Arbor
(non copy-protect)	1.0	c+	Softworks
Gato	1.4	с	Spectrum Holobyte
Ground Zero	2.2	с	General Computer
Habadex	2.0	C+	Haba
Haba Word	1.5b	¢+	Rosetta, Inc.
Hard Disk 20	1.1		Apple
Hard Disk Partition	1.0		FWB Software
			GOTO 14
			401014

#### Mac Versions, Cont.

Prog Name	Ver C	ode	Publ
Hard Disk Utility Hard Save	1.26 1B3.2	C+	FWB Software
Hayden:Speller		c	Hayden/Spinnaker/ MacroMind
Helix	2.0r11	c+	
HFS Backup	1.1	c+	PCPC
HFS Directory	0.98	S+	Tom Shaw
HFS Locator Plus		C+	PBI
Hold the Phone	1.0		A
Home Accountant Icon Collector	1.03	C S	Arrays Softcom
Icon Exchanger	1,1	a	Solicom
(BootEdit)	2.0	s	John Holder
Icon Maker	2.0	s	Steve Fine
Index MacWrit86		f+	<b>1</b>
Info+ (Init Resc)		<b>S</b> +	0
ImageW'r (128K)		a+	Apple
ImageW'r (512K, ImageW'r AppleT			Apple
Info+ DA	2.0.1	a+ s+	Apple
Installer	2.2		Apple
Script:Ext.Drive			Apple
Script:Mac+Upd	late1.1		Apple
Interlace	1.0	¢	Singular
InterMac Bumper			
Ships (IBS) InTalk (inTouch)	2.0B4	•	Harry Chesley
Jazz	2.1 1A		Palantir Lotus Development
JClock	1.0		James Sulzen
JClock.31	3.1		Edgar Matias
	1.0A3	S	
Just Text	1.1	C+	Knowledge Eng.
Keyboard	0.1	f	Loftus Becker
Klondike	2.1	<b>S</b> +	Michael Casteel
Laser Prep	3.1		Apple
LaserWriter LAZlife	3.1 2.0c	a+ s	Apple Larry Hutchinson
Legal Billing	1.12	c	Satori
Lib. Spell-Checke			DataPak Software
Life	1.1	р	David DeMars
Lightspeed C	1.02		Think
Lightspeed Pascal			Think
Lister Localizer	1.1 2.0	р	Jarvis/Bechtel
Lode Runner		a+ c	Apple Broderbund
Logo		c	Microsoft
Mac2392 HP tern			DPEX, Inc
Mac.68K Ass'r	1.0A	S	Cyclan
MacASM	2.0		Mainstay
MacAttack	1.4		Miles Computing
MacAuthor MacBackup (disc.			FLI/Icon Tech. Practical Computer
MacBanner		6+ 6+	CE Software
MacBase	1.0		
MacBasic	1.0		Apple
MacBillboard	4.01	<b>S</b> +	CE Software
MacBooster			Mainstay
MacBottom 10 H			
MacBottom 20 H			PCPC
Mac C MacChallenger	4.52	с+ с	Consulair
Mac Dasher	2.2	c	Aegis Kaz Systems
Mac Disk	2,2	-	Land to journa
Catalog II	2.1.1	c+	New Canaan
			Microcode
MacDraw	1.9	a/c-	+ Apple

MacDraft	1.3	C+	Innovative
MacGAS	1.0		
MacGolf	2.0		·····
Mac Hangul-III	2.10	S	Kong Keyboard
MacIndex	1.0	с	Boston Soft. Publ.
MacInHebrew	2.0	S+	
Macintalk	1.1	a+	**
MacInTax	1.0	C+	SoftView, Inc.
Macintosh Pasca	1 2.0	a/c	+ Apple
MacKermit	0.8(34)		Columbia Univ.
MacLabeler	2.2	¢	Ideaform
MacLightning	2.0	C+	Target Software
MacLink	1.14	с	DataViz
MacManager	1.00	c	Harvard Associates
		-	
MacMate!	1.0	c	Devel. Assoc.
MacMeasure	1.0a		
MacModel	4.3		Synoptics
MacModula 2	4.0	с	Modula
MacMoney	2.01		
MacMusic	0.1	С	Utopian Software
MacNAPLPS	1.4	с	Electrohome
MacNosy V2	2.23	с±	Steve Jasik
Mac1Write			
-	1.0	¢+	Sierra On-Line
MacPacket:			
KANterm	1.1		Brincomm Tech.
TAPRterm	1.1		Brincomm Tech.
TNC2term	1.1A		Brincomm Tech.
MacPaint	1.5	a/c	+Apple
MacPalette	1.0	C+	Microspot
MacPlaymate	1.0	C+	Pegasus
Mac + ][	3.0	c	Meacom
MPW	1.0B2		1 1 1
MacProject	1.0	a/c	Apple
Macproof	2.0	¢+	ALP Systems
MacPublisher II	2.7	c	Bost. Softw. Publ.
		v	
MacRecorder II	2.2		Berkeley BMUG
MacroMind			
Utility Disk	1.0	¢	Hayden/Spinnaker/
-			MacroMind
37.3			
Macchila	5 1 B 2	21	
Macsbug	5.1B3		
MacServe	2.1	C+	Infosphere
-		C+	
MacServe MacSlots	2.1 1.0	c+ c	Infosphere Soft-Life
MacServe MacSlots MacSpell+	2.1 1.0 1.1	с+ с с	Infosphere Soft-Life Creighton Devel.
MacServe MacSlots MacSpell+ Macspec	2.1 1.0 1.1 1.3	C+ C C C+	Infosphere Soft-Life Creighton Devel. LM Software
MacServe MacSlots MacSpell+ Macspec MacSpin	2.1 1.0 1.1 1.3 1.1	C+ C C C+ C+	Infosphere Soft-Life Creighton Devel. LM Software D2 Software
MacServe MacSlots MacSpell+ Macspec	2.1 1.0 1.1 1.3	C+ C C C+	Infosphere Soft-Life Creighton Devel. LM Software
MacServe MacSlots MacSpell+ Macspec MacSpin	2.1 1.0 1.1 1.3 1.1	C+ C C+ C+ C+ C	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal	2.1 1.0 1.1 1.3 1.1 1.0 2.0	C+ C C C+ C+	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0	C+ C C+ C+ C+ C a/C	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4	c+ c c+ c+ c+ c a/c-	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0	C+ C C+ C+ C+ C a/C	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4	c+ c c+ c+ c+ c a/c-	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0	C+ C C+ C+ C+ C+ C a/C- C C	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1	C+ C C+ C+ C+ C+ C+ C- C C C C	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVegas MacVision MacWait	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1	c+ c c+ c+ c+ c+ c- c c c+ f+	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWait (128K	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 1.1 ) 2.2	c+ c c + + c a/c c- c c c f+ a/c	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Central Point Assimilation Videx Koala Bob Finch Apple
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVegas MacVision MacWait	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 1.1 ) 2.2	c+ c c + + c a/c c- c c c f+ a/c	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Central Point Assimilation Videx Koala Bob Finch Apple
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWrite (128K MacWrite (512K	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5	C+ C C++ C C++ C C++ C C C C C C C C C C	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple Apple
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1	$\begin{array}{c} c+\\ c\\ c\\ c+\\ c+\\ c\\ c\\ c\\ c\\ c\\ c\\ c\\ c\\ c+\\ c+$	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple Apple MicroAnalyst
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2	$\begin{array}{c} c+c\\ c+c\\ c+c\\ a/c \end{array} \\ \begin{array}{c} c-c\\ c+c\\ c+c\\ c+c\\ c \end{array} \\ \begin{array}{c} c+c\\ c+c\\ c+c\\ c \end{array} \\ \begin{array}{c} c+c\\ c+c\\ c+c\\ c+c\\ c \end{array} \\ \begin{array}{c} c+c\\ c+c\\ c+c\\ c+c\\ c+c\\ c+c\\ c+c\\ c+$	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple Apple MicroAnalyst New Image Tech.
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1	$\begin{array}{c} c+\\ c\\ c\\ c+\\ c+\\ c\\ c\\ c\\ c\\ c\\ c\\ c\\ c\\ c+\\ c+$	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2	$\begin{array}{c} c+c\\ c+c\\ c+c\\ a/c \end{array} \\ \begin{array}{c} c-c\\ c+c\\ c+c\\ c+c\\ c \end{array} \\ \begin{array}{c} c+c\\ c+c\\ c+c\\ c \end{array} \\ \begin{array}{c} c+c\\ c+c\\ c+c\\ c+c\\ c \end{array} \\ \begin{array}{c} c+c\\ c+c\\ c+c\\ c+c\\ c+c\\ c+c\\ c+c\\ c+$	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple Apple MicroAnalyst New Image Tech. SoftTech Microsystems
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer MailManager	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2	$\begin{array}{c} c+c\\ c+c\\ c+c\\ a/c \end{array} \\ \begin{array}{c} c-c\\ c+c\\ c+c\\ c+c\\ c \end{array} \\ \begin{array}{c} c+c\\ c+c\\ c+c\\ c \end{array} \\ \begin{array}{c} c+c\\ c+c\\ c+c\\ c+c\\ c \end{array} \\ \begin{array}{c} c+c\\ c+c\\ c+c\\ c+c\\ c+c\\ c+c\\ c+c\\ c+$	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVegas MacVegas MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer MailManager Mass Copier	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 1.1 2.2 ,+) 4.5 4.1 1.2 1.0 1.2	$\begin{array}{c} c+c\\ c+c+c\\ c+c+c\\ a/c\\ c+c+c+c+c\\ c+c+c+c\\ c+c+c+c+c\\ c+c+c+c+$	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVegas MacVegas MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer MailManager Mass Copier McAssembly	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2 1.0 1.2 4.4	c+ c c + + c a/c - c c c f + /c + + + + + + + + + + + + + + + + +	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software Signature Software
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer MailManager Mass Copier McAssembly McBUG	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2 1.0 1.2 4.4 1.1	ct c c ct ct c a/c c c c c ft a/c t c c t st s	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software Signature Software David McWherter
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer Magic Digitizer MailManager Mass Copier McAssembly McBUG MCS	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2 1.0 1.2 4.4 1.1 1.0 1.2 4.4 1.1	ct c c ct ct c a/c c c c c ft a/c t c c t st s	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software Signature Software David McWherter Yves Lempereur
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer Magic Digitizer Mass Copier Mass Copier McAssembly McBUG MCS MCS edit 86	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2 1.0 1.2 4.4 1.1	ct c c ct ct c a/c c c c c ft a/c t c c t st s	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Central Point Assimilation Videx Koala Bob Finch Apple Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software Signature Software David McWherter Yves Lempereur
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer Magic Digitizer Mass Copier Mass Copier McAssembly McBUG MCS MCS edit 86	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2 1.0 1.2 4.4 1.1 1.0 1.2 4.4 1.1	ct c c t t c a c c c c ft a c t c c t s s s p	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software Signature Software David McWherter Yves Lempereur Steve Bryan
MacServe MacSlots MacSpell+ Macspec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWrite (128K MacWrite (512K MacZap Copier Magic Digitizer Magic Digitizer Magic Digitizer Mass Copier McAssembly McBUG MCS MCS edit 86 MCS Editor DA	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2 1.0 1.2 4.4 1.1 1.0 5.03.15 1.0	ct c c t t c al c c c c ft al c t c c t s s s p ft	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software Signature Software David McWherter Yves Lempereur Steve Bryan Pete Helme
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer Magic Digitizer Magic Digitizer Mass Copier Mass Copier McS S MCS edit 86 MCS Editor DA MEdit	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2 1.0 1.2 4.4 1.1 1.0 1.2 4.4 1.1 1.1 1.0 1.1 1.1 1.1 1.1 1.1	ct c c t t c a c c c c ft a c t c c t s s s p	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software David McWherter Yves Lempereur Steve Bryan Pete Helme Matthias Aebi
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer Magic Digitizer Mass Copier Mass Copier Ma	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2 1.0 1.2 4.4 1.1 1.0 5.0 1.4d20 1.4d3	ct c c t t c al c c c c ft al c t c c t s s s p ft	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software David McWherter Yves Lempereur Steve Bryan Pete Helme Matthias Aebi Matthias Aebi
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer Magic Digitizer Magic Digitizer Mass Copier Mass Copier McS S MCS edit 86 MCS Editor DA MEdit	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 1.1 1.2 4.4 1.1 1.0a 5.03.15 1.0 1.4d20 1.4d3 c	ctccttca/cccctfa/ctcct st s s pft pt	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software David McWherter Yves Lempereur Steve Bryan Pete Helme Matthias Aebi
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer Magic Digitizer Magic Digitizer Mass Copier McAssembly McBUG MCS MCS edit 86 MCS Editor DA MEdit MEdit doc MegaFiler	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 1.1 1.2 4.4 1.1 1.0a 5.03.15 1.0 1.4d20 1.4d3 c	ctccttca/cccctfa/ctcct st s s pft pt	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software Signature Software David McWherter Yves Lempereur Steve Bryan Pete Helme Matthias Aebi Matthias Aebi Megahaus
MacServe MacSlots MacSpell+ MacSpec MacSpin MacSpool MacTerminal MacTest MacTools MacTracks MacVegas MacVision MacWait MacWrite (128K MacWrite (512K Mac Zap Copier Magic Digitizer Magic Digitizer Mass Copier Mass Copier Ma	2.1 1.0 1.1 1.3 1.1 1.0 2.0 7.0 5.4 2.0 1.0 1.1 1.1 ) 2.2 ,+) 4.5 4.1 1.2 1.0 1.2 4.4 1.1 1.0 5.0 1.4d20 1.4d3	ctccttca/cccctfa/ctcct st s s pft pt	Infosphere Soft-Life Creighton Devel. LM Software D2 Software Mainstay + Apple Apple Central Point Assimilation Videx Koala Bob Finch Apple MicroAnalyst New Image Tech. SoftTech Microsystems CE Software Signature Software David McWherter Yves Lempereur Steve Bryan Pete Helme Matthias Aebi Megahaus

MegaMerge	3.0		Megahaus
MegaTrack	2.0		Musicworks
MemTest Menu Clock	1.7 1.1		Apple Mosaic Codes
MGM Station	1.1		
MicahManager	1.55		
Micetro	1.0		Mainstay
Micro Earth Plot	2.0	p+	Peirce/Gosnell
MicroPhone	1.0		Software Ventures
Micro Planner Plu			•
MIDI Composer MidiMac CZ	1.0	с	Assimilation
Librarian	2.01	<b>C L</b>	Opcode Systems
MidiMac	2.01	VŦ	Opcode Systems
Sequencer	2.0	¢+	Opcode Systems
MidiWorks		c	
MiniAda	1.0		Andromeda
MiniWRITER	1.0		Maitreya
MITE	1.0		longer marketed)
MockChart MockPackage+	1.0 4.3.4		CE Software CE Software
MockPrinter	4.3.4		CE Software
MockTerminal	4.3.0		CE Software
MockWrite	4.3.4		CE Software
MockUtilities	1.0.2	8+	CE Software
MORE	1.0	c+#	Living Videotext
Mouse Exch. BBS	4.1	C+	Dreams of the
Mours Each Trees	1 1		Phoenix
Mouse Exch.Term	. 1.3	C+	Dreams of the Phoenix
Mouse Stampede	10	c .	Mark of the
person	1.0	<b>.</b>	Unicom
MS BASIC	2.1	C+	Microsoft
MS Chart	2.0	C+	Microsoft
MS File	1.02		Microsoft
MS Fortran	2.2		Microsoft
MS Word MS Works	1.05		Microsoft
Multiplan	1.0 1.1		Microsoft Microsoft
MultiWrite			MindWork
MusicWorks	1.1		Hayden/Spinnaker/
			MacroMind
myDiskLabeler	2.11		Williams & Macias
N'cryptor			Mainstay
Namer, The Neon	2.2		Apple
NetCheck			Kriya Apple
Omnis III Plus	3.21		Blyth
Other DA's	2.01	\$+	
OverVUE	2.0d		
PacPaint	1.0	¢	Mainstay
PackIt II	1.0	8+	Harry Chesley
PageMaker	1.2	C+	
Paint Cutter Paint Mover	1.0	C+	Silicon Beach
Paint Scroll	0.03	P f	Bill Atkinson MacPoint
ParameterRAM 2	2.0	s+	Ken Winograd
Patch Disk	1.0	p	George Cossey
PC-MacBridge	2.1	ç	Tangent Tech.
Pensate	1.1	c	Penguin
Performer	1.0	с	Mark of the
pfs: file	1 112	~	Unicorn Software Bublie
pfs: report	A.03 A.03		Software Publ'g Software Publ'g
Phoenix 3D -	11.03	v	Soliware ruorg
Level One	1.0	¢+	Dreams of the
			Phoenix
PictureBase	1.1		Symmetry
Power Cache	1.9		MacNifty
PowerMath	1.0	c	Brainpower

#### November 1986

1

----



PosterMaker Princeton Font	1.0	¢+	Strider
(math)	3.2L	<b>S</b> +	Harvey Lam Princeton U.
D - C 14			
ProCom-M			Prometheus
Profess. Composer	2.0	C+	
			Unicorn
Quartet	1.1	Ċ+	Haba Systems
QUED	15	с.	Paragon
QULD	1.5	07	-
- · ·			Courseware
Quest			Penguin
Q&D Util. 1	1.6	C	Dreams of the
			Phoenix
			Dreams of the
<b>C</b>		•••	Phoenix
Quickfile	~ 5	£	Dreams of the Phoenix Bill Steinberg EnterSet Chang Labs
Quickine	0.5	1	Bill Steinberg
Quickset	2.0	C+	EnterSet
RamDisk + RamStart	1.2	S+	Roger Bates
RamStart	1 23	f+	George Nelson
DomStart	21	<u></u>	George Nelson
Ramotant	2.1	C+	George Nelson
ReadMac Write 86.0			Reed College
ReadySetGo	2.1	¢	Manhattan
			Graphics
Record Holder	2.1	C+	Graphics Software Discoveries
	<u> </u>		Discoverias
n martine and a		11.6	Discovenes
REdit	1.2	a	Apple
Red Ryder	9.4	<b>S+</b>	Discoveries Apple FreeSoft
Red Ryder Host	1.01	8+	FreeSoft
Redit Marchaeles	1.2	a+	Apple/Europe
ResEdit 1.0d11=1	041	а <u>т</u>	Annie
Dight Norr	.oni	a-	Apple
Right-Now			geosodi, ve
(was NEX1/			
MacAuthor) n/a	C+		T/Maker
Right Word, The	3.0	C+	Rio Grande Softw.
-		4.0	사망한 것 이 것같은 다음 가지 않는다.
Pup for the Money	, "1 O		c Epyx Scarborough Hayden/ Spinnaker/ MacroMind
Cancer III	1.0	ಁಁಁಁ	
Sargon III	1.0	C	Hayden/ Spinnaker/
			MacroMind
Screen Edit	1.0	1	George Cossey
Screen Maker	1.0	f	Bill Steinberg
Scriptor	14		Screenplay
Scroll Paint	1.0	f	Roy Harvey
	1.0	r c	Ruy Harvey
Search & Destroy	10/84	Î	Daniel Stavnicky
Servant			
(128K ROM only	)0.79	C+	Andy Hertzfeld
SetFile	3.3	S+	Sam
		- 1	Roberts/BMUG
0.401	1.2	c	
SetSound	1.3		Steinberg/Brecher
	.10B		
Silicon Press	1.1	¢+	Silicon Beach
SkipFinder	6.1	S+ .	Darin Adler
Slide Show			
Magician	12	•	Maanum
	1.3		Magnum
Smartcom II	2.2B	C+	Hayes
Sony Test	4/85	?	Apple
SoundCap	1.0	С	MacNifty
Sound Level	1.3		Steinberg/Brecher
Speed Disk	2.0		Apple
SpellNow	1.0		Mainstay
Spellswell	1.2d	c+	Greene, Johnson
Star League			
Baseball	1.0	с	Gamestar
StatView 512+			
		С	Brainpower
StatWorks	1.2		Cricket
STELLA			High-Performance
Strategic Conquest			Software
Studio Session	1.0		MacNifty
SuperCopy	1.1	s	Ron Gibb
Supercopy	1.1		KOR GIUU

SuperPaint	β	C+	Silicon Beach
	5.0B4	a/c-	+ Apple
System			and Alexandra
(MFS-128K)			Apple
System:			Apple
Chooser	2.3		
Control Panel		a+	
TabUtil	1.1		Chet J. Graham
Telescape Tempo		c	Mainstay Affinitỷ
TermWorks			Horizon
The Namer			Apple
Think Tank 128			Living Videotext
ThinkTank 512			Living Videotext
Three-D Edit	1.5	s	Colin Olson
Looking Glass	1.0	с	Apple
Throw Paint	1.0	f	Strider
Thunderscan	3.2	C	ThunderWare
TimeBase		(no	longer marketed)
TinCan	2.0Ъ	C+	longer marketed) Yale University
TinCan TK!Solver		(no	longer marketed)
TML Pascal	2.0	¢+	longer marketed) TML Systems
TMON	2.585	c	TMQ Software
Top Desk	1.4	C+	Cortland
Transylvania	1.0	¢	Pengiun
TurboCharger	2.0	C+:	Nevins
TurboDownload	1.0	C	Mainstay
Twelve-C			
Financial DA	1.2	C+	Dreams of the
			Phoenix
Typemasters	1.0	¢	Adobe Systems
TypeNow		с	Mainstay
Typing Tutor III		с	
Uninvited			Mindscape
Utilities			Gil Beecher
Vco	1.3	S+	Harry Chesley
VersaTerm	2.1	¢+	Peripherals,
V			Supplies Daniel Stavnicky Steve Dagley Hayden/Spinnaker/
Version Checker	1.2	[ <del> </del>	Daniel Stavnicky
ViewPaint Videoworks	1.1	S	Steve Dagley
Videoworks	1.1	C+	Hayden/Spinnaker/ MacroMind
VMacS (was			Macroivinia
MACSnVAX)	4.2		White Dine
VMCO			Bob Perez
VMCO DA	2.0		Bob Perez
VUWTerm	0.17	f	U.of Wellington
Wator		s S	Robert Martin
Waystation	2.6	s f+	Steve Brecher
WillWriter		C+	
World Builder		C+	
Word Count			Steven Martin
Word Handler			ALS Systems
WriteNow		• •	indo ogotino
(was NEXT/			
MacAuthor)	n/a	C+	T/Maker
XLisp	1.6		David Betz
Xyphus		r C	Penguin
Yapu	3.2		A. O'Brien/D.Sachs
<b>r</b>		- 1	
			<b>۲</b> ۲
	V.1888	8	

### See Mac-related announcements on Page 4!

#### MacSIG:ntu Oct., Concluded

allow the connection of non-Mac computers into the network and the sharing of data from previously "incompatible" systems.

The larger drives from Mirror also show a speed increase in the flow of data in and out of the computer. Switching programs comes at speeds that must not be too far below the speed of RAM based systems... certainly not much more time for you to do much more than take a deep breath. However, you will sacrifice portability with these large capacity units. Some of the smaller would qualify as "luggable", but the larger are heria inducers.

After a final round of questions about the Mirror products, Dave Stovall treated us to a look at another stage in the development of "Servant", proported to be a replacement for "Finder" that will offer several functional improvements. "Servant" is being written by Andy Hertzfeld, who worked on the original Mac team. This product is touted as faster than "Finder" and accessible from within applications. It will combine some aspects of "ResEdit", allowing you to modify icons without the need of a separate program.

#### Thank you!

Apple loaned the Limelight projector to the MacSIG:ntu for this evening's presentation. The Club is most appreciative of this type of cooperation that has been provided several times by the local office of Apple Computer.

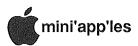
More bytes later..... TWE



#### MacSIGs:

Mini'app'les MacSIGs meet (usually) on the 2nd and 4th Monday of each month (see Calendar on front cover).

Nov 3rd and 24th we meet in the Edina Community Center. Dec 1st and 15th, we return to the Southdale Library!



Mini'app'les Board of Directors July 2, 1986

> he meeting was called to order at 7:41 p.m. with 8 members present. Those present were Tom Alexander, Ann Bell,

Steve George, Dick Marchiafava, Dick Peterson, John Hook, David Laden and Janelle Norris.

- 1. The secretary's minutes from the 6/4/86 meeting were read and approved.
- 2. The treasurer's report was read and approved. We had income in the amount of \$1600 last month and expenses of \$2345.

A question was raised about liability and equipment insurance for the club. No record of this was available to board members on the current treasurer's report. Tom Alexander will go back and look for this information.

#### **Old Business**

3. Appleworks, 512 K Memory Card and a second

Ann mentioned that the numbers on the newsletter labels were no longer necessary. At this time can Appleworks be used to maintain the club's mailing list

Requirements for this would be a 512K card for the club's use and a copy of the Appleworks program. Dick Marchiafava mentioned that Checkmate has offered the club a memory card for \$100 with the option of a \$25 rebate if the card is reviewed and written up in the newsletter. If we are dissatisfied with the card, they will buy it back.

Discussion on this followed. A motion was made and approved that we purchase the Checkmate card, update it to 512K, write a review and get the rebate offered by Checkmate.

Dick Marchiafava will follow up with Checkmate regarding the purchase of the card and the subsequent updating and written review.

Another motion was made and approved that we buy a copy of the Appleworks program, total cost not to exceed \$250, for use by the membership

### **Minutes**

,

by Janelle Tryggestad, Secretary

coordinator and the newsletter staff. Prior to purchasing a copy of this program, we should write to the local Apple office and ask if we can get a copy of Appleworks for club use. It was suggested that Tom Edwards follow up on this.

4. Membership Forms

Question was again raised about the response to color coded membership forms. Tracking has been poor and the forms have not been used as intended. Janelle Norris will tabulate by month, the number of members, and the statistics for each color form received.

Jim Ruprecht should be called and asked about the colors used, the number of each printed and the intended use.

Before membership forms are printed again, we will make an effort to implement the color coding scheme to track sources of new members. At the present time we will continue to use the old forms.

5. Club Office Site

No action has been taken to date on finding a club office. This will be investigated in the future. Suggestion was made that we have the office staffed in the evenings and on Saturdays with yolunteer staff.

6. Tom Androff's \$900 bill for tax preparation

The club has at this point refused to pay the \$900 bill submitted by Tom Androff for preparation of taxes. The reason for this is, Tom was put on notice that a deadline must be met and he failed to meet this deadline. John Hansen is familiar with the events regarding the work done. It was decided that we would contact John Hansen and find out what happened. Then, report back to the board and make a final decision at that time.

7. IRS Tax Exempt Status

The Federal government requested further information regarding our application for tax free status. This consisted of general questions about the club. This reply was due by 7/7/86. Tom Alexander drafted the necessary letter and sent it on to the IRS.

#### 8. Bonding of Signatories

The cost of a commercial blanket bond will be \$160 from Norwest Agency. This would cover all 3 signatories required for check issuance.

A motion was made and approved that the ratified by-laws be published in the newsletter as a notice of ratification of the by-laws. In addition we go ahead and implement the changes of those bylaws including obtaining the commercial blanket bond mentioned above.

9. Hard Drive & Modem for Bulletin and the Board

Chase Allen is still checking prices on hard drives and modems. He indicated that the cost will exceed the money approved. It was suggested that the equipment be chosen and a request for any additional money be submitted to the board. Dick Marchiafava will work with Chase on choosing equipment.

10. State of Minnesota's request for Handicap User

The State of Minnesota was notified that we had a machine available for their use, but they have not gotten back to us. It has been 30 days since we notified them.

11. Search for a new Treasurer

Bob French was contacted by both Dick Marchiafava and Chase Allen, but at this time he has not given us an answer.

#### 12. By-Laws

A motion was made and approved that the by-laws should be published in their entirety in the newsletter, included in the membership kit and copies be given to all board members immediately. David Laden will take responsibility for this.

#### 13. Midwest Apple User's Group Conference, July 19-20

Motion was made and approved that Dan Buchler and David Laden be appointed representatives to the Chicago Midwest Apple User's Group Conference and the individual registration fee of \$60 be paid for each of them.



#### Mini'app'les Board of Directors July 2, 1986 (Continued)

#### 14. Past President's Gavel

David Laden was presented with his gavel for service rendered to the Club as president for the previous 2 years.

15. Use of the Bulletin Board

Kent Edwards and anyone else on Dan Buchler's newsletter staff has the approval of the board to use the Bulletin Board as needed for newsletter preparation.

16. Budgets

Budgets for the coming year were worked on at this meeting and will be available at a later date.

#### Board of Directors Aug 6, 1986

The meeting was called to order at 7:11 p.m. with 12 members present. Those present were Steve George, Dick Marchiafava, Chase Allen, Ann Bell, Tom Alexander, David Laden, Dan Buchler, Ed Spitler, Dick Peterson, John Hook, Jerry Kaufmann and Janelle Norris.

- 1. The secretary's minutes from the 7/2/86 meeting were read and approved.
- 2. No treasurer's report was available.
- 3. The budget for the current year was finalized at this meeting. A copy of the final budget will be sent to all board members during the next month.
- 4. Membership dues were discussed and various solutions suggested to help our declining renewal rate, but no final decisions were made. This subject was tabled until a future meeting.

#### Board of Directors September 3, 1986

. .

The meeting was called to order at 7:05 p.m. with 10 members present. Those present were Ann Bell, Steve George, Dick Marchiafava, Dan Buchler, David Laden, Ed Spitler, Dick Peterson, John Hook, Jere Kaufmann and Janelle Norris.

#### **Old Business**

- 1. Super serial card was purchased for the bulletin board system for a total of \$5 at one of the recent computer sales.
- 2. A letter was sent to Multitech asking them for a modem for the club's bulletin board and one was sent to us free. Unfortunately it was defective and had to be returned. We are waiting for this to be returned.
- 3. Motion was made and passed that effective immediately individuals who let their membership expire may renew with no administration fee.

#### New Business ,

- 4. After some discussion about meeting time, it was decided that the Board meeting will continue to be held at 7:00 p.m. on the first Wednesday of the Month.
- 5. A replacement is being sought for Technical Director. At the present time Earl Benser has volunteered to fill this position. It was also suggested that a Mac group member be recruited for this position. No action was taken on filling this position at the present time.
- 6. After the full membership list is printed in the newsletter, as new members are added, they will be reported monthly in the newsletter. The information reported will be name, home phone and zip code.
- 7. A maintenance contract for the Apple II has come up for renewal. It was suggested that we not renew this contract. This will be looked into and reported back to the board.

豊心的

November 1986

- 8. A motion was made and approved to pay A-1 Printers the sum of \$162.18. This bill exceeds the president's budget and special board approval was needed.
- 9. Tom Androff's bill has not been paid to date. Calls should be made regarding this bill immediately and all communication should be in writing.
- 10. A letter was received from the IRS on August 25, 1986 regarding our request for Tax Exempt Status. The matter has been referred to their Washington, D.C. office and we will hear in due government time.
- 11. Following a discussion of the Apple equipment owned by the club and its availability to its members, the following guidelines will be implemented regarding the use of club equipment.
  - a. Any board member, staff member, branch or SIG can request the use of the equipment.
  - b. A sign out form will be implemented to track who has given equipment, when it will be returned and what it is being used for.
  - c. John Hook has been given the board's approval to take any action necessary to follow up on these guidelines.
- 12. The meeting was adjourned at 9:03 p.m.

Do YOU want to get involved with some interesting people. Mini'app'les is looking for volunteers for Board members. The jobs take a little time, but the awards are very satisfying.

Call Ann Bell!



# Classified Advertisements

#### Get DOMs on your own disks!

Mini'app'les Members can order the DOMS listed below (not Mini'app'les Software or MacDOMS) using their own disks. To assure delivery you must follow this procedure: 1) Select the disk(s) you want from the list below and label your blank disks (some prefer to use both sides). 2) Insert disks in a returnable mailer. The same protective device will be used to return your disks. 3) Enclose return postage, stamps only, obviously the same as the sending postage. 4) Enclose a self addressed return address label. 5) Enclose a \$1.00 copying fee for each DOM requested. 6) Send to: C. Thiesfeld

8416 Xerxes Avenue S. Bloomington, MN 55431 7) Allow 60 days for delivery in USA. Incomplete packages will not be returned.

#### Currently available DOMs:

(address general questions about DOMs to the Software Director, Steve George). Mini'app'les DOMs #1 thru #34 Mini'app'les DOMs #35 thru #40 IAC DOMs #28,#35,#38

IAC DOMs #40 thru #44 IAC DOMs #46,#48a,#48b IAC DOMs #51 thru #57 Personal Domain Disks LOGO Documentation LOGO Toolkit LOGO Sample Programs One-key DOS Disk Manager "Nifty Works" ELF ABC SPARKEE(fire organ album) Class Records Hi-Res Doodle Others Math Invaders The Font Machine Master Chart EVE(terminal Program) Squire Print Shop Utility EAMON E3 Eamon Submaster Cave of the Mind E4 F5 Zyphur Riverventure E6 Castle of Doom UCSD PASCAL P1: PASEX1: P2: DARYL1: P3: PROSE: P4: COMPUTE: P5: ATTACH: PUG1: P6: PMU: P7:

- PROSTXT: P8:
- "F83X" Forth
- "U" Utility
- "K" Kernel

Mousewrite, \$50 - latest version (still in unopened shrink wrap) with spell check, dictionary, mailmerge and communications program. Thinkworks (Appleworks compatible outlining program) \$25. Profiler database, \$25. Beagle Bros GPLE and Double-Take (DOS and ProDOS), \$10 each, both \$15. Mousetracer graphic input device, \$15. Also Apple brand //c Composite Color Monitor (works on //e, too) \$100. 482-8924 (eves) Marc

COMREX Dual Drive & Control Card for Apple ]['s, \$175. Printer for Commadore, \$80. 6 Pen Plotter for Model TRS-80 Tandy. All Items are new in box. 477-4505 Ron

Memory upgrades for Mac's. John 572-1720 (eves) 593-2894 (days)

Digital Research Gold Card, 192K banked, CPM software, T-maker, Perfect Series; \$250. 941-8769 Chuck

Want to meet new people? Learn more about the business of Apples? Help your club? Get into the ad game today! Contact Eric, Advertising Coordinator for Mini'app'les for more information. Eric 822-8528

Apple //e System. 128K 80 column card, CPM card, 2 drives, DMP, numeric keypad, joystick, system saver fan, much software. Excellant condition, used 9 months. Glenn 888-7089 (eves) 853-6412 (days)

Seldom used Apple ][+, 64K, with Videx Compatible 80 col. card & upper/lower case chip, w/o peripherals. \$395, best offer. Call 374-5134

Rags to Riches Software, professional billing program; \$100 - never used. Don Nichols (612) 338-1919

WANTED: Apple ][+, with or without peripherals. Need serial card, printer, monitor, drive, modem, 80 column card, etc. Don 341-4333 (days) 927-9263 (eves)

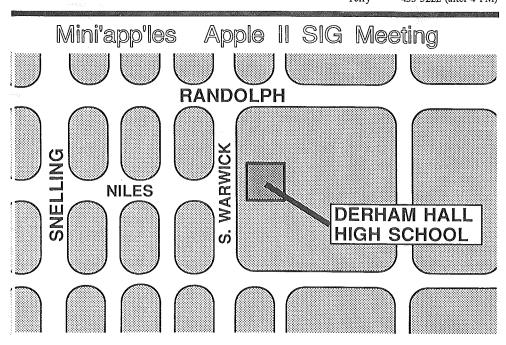
Apple Color 100 RGB Monitor, \$200; with Apple 64K 80 col RGB card, \$250. Apple 5 meg Profile with Apple ][ or //e interface card, \$250. Apple Disk ][ 5 1/4" Drive, \$60. Micro Sci A2 (same as Disk ][), \$60. Apple Disk || Controller Card, \$10. Apple Imagewriter I Printer with Cable, \$200; with Apple Super Serial Card, \$250. Apple Super Serial Card, \$50. super Serial to Imagewriter // cable, \$10. Slot 3 Clockcard, \$45. Terry 455-5222 (after 4 PM)

Apple ///, monitor, external drive. Mint Condition, less than 100 hours use. Software includes VisiCalc, Applewriter /// and more, with all documentation. Make offer. Jim 484-5772 (eves) 854-1601 (days)

18 issues "Micro" Magazine, April, 1979 thru January, 1981. Make Offer Dan 890-5051

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 Also, please notify editor if item is sold. Unless otherwise noted, all items are For Sale





Hours: M-W 9:30 AM-6:00 PM Th & Fri 9:30 AM-8:00 PM Sat. 9:30 AM-5:00 PM Fast, low cost delivery available on all products.



# yukon computer products, inc.

post office box 93, hopkins, mn 55343 (612) 593-1503

### BRODERBUND the NEW stuff !!

Where in the USA	
is Carmen San Diego?	\$39.95
Print Shop-Holiday Edition	\$19.95
Science Toolkit	\$31.95
Toy Shop	\$49.95
Enhanced Print Shop	\$41.95
Animate	\$59.95
Airheart	\$29.95

LALLALALA



Word Perfect 1.1\$139.95Power Print - Beagle31.95Certificate Maker41.95

System Saver - \$74.95

Animation Station - \$69.95

PHASOR speech by AE - \$169.95

<u>MONICORS</u> zzyzyzyzyzyzyz

**AMDEK** - All models at Special Prices

THOMPSON -High Quality

Ask Anyone About Yukon

# CALL FOR OUR NEW CATALOG

