

mini'app'les

newsletter

Vol. 15
No. 8

\$2

The Minnesota Apple Computer Users' Group, Inc.

AUGUST 1992

Calendar
of
Events

M	T	W	T	F
3	4	5	6 Mac Main Meeting MN ED Comp. Consor. 6160 Summit Dr. N, Brooklyn Center (Hwy 100 & 694 by Earl Brown Ctr.) Subject: MECC Software 7:00 PM Mike Carlson: 866-3441 Melvyn Magree: 559-1108	7
10 Apple II & GS Main Meeting Washburn Com. Library 7:00 p.m. 5244 Lyndale Ave. So. Mpls. Subject: Telecommunications by Multi- Tech, Tom Ostertag: 488-9979	11	12	13 mini'app'les Board Meeting Lexington Branch Library University & Lexington Aves. St. Paul, MN, 7:00 p.m. David Laden: 488-6774	14 Programer Workshop/Think-C 1-4 p.m. Call for location Saturday August 15 → Keven Kassulker, 535-2968
17 Fourth Dimension™ SIG Lampson & Tew 2700 East 82nd Street, Bloomington, 7:00 p.m., Ian Abel: 920-5520	18	19	20 North Shore Mac CIG Bethlehem Lutheran Church Grand Marais, 7:00 p.m. Jim Ringquist: 218-387-2234	21
24 Mac Novice User SIG Highland Park Library, St. Paul, 7:00 p.m., Tom Lufkin: 698-6523	25 MacCAD/E SIG Micro Age Computers, 5909 Baker Rd. Suite 530, Minnetonka 7:00 p.m., Bill Langer: 937-9240, Daron Applequist: 938-7001 MircoSoft Works SIG Highland Br. Library, 7:00 p.m.	26 Mac Desktop Publishing SIG Jefferson El. School, Rm 201 25th St & Hennepin Ave. So Bob Grant: 827-6294	27 * PICNIC! * Sucker Creek Picnic Area, St. Paul, 6:00 p.m. This picnic is for all members!	28
31	Mac Programmer SIG No meeting in August, regular meeting next month. Gervaise Kimm 379-1836			

Notes:

The deadline for articles is the 1st of the preceding month. If you want your article in September's newsletter, we must have your copy by the 1st of August. We accept advertising and want ads until the 10th of the month.

Coordinators, please call Dick Aura (941-1198) by the 1st to have your meeting listed correctly.

SIG - Special Interest Group
CIG - Community Interest Group
**THE CALENDAR FOR
SEPTEMBER IS ON
PAGE 4**

Board Members:
Board of Directors

President	<i>David E. Laden</i>	488-6774
	675 West Wheelock Pkwy, St. Paul, MN 55117	
Vice-President	<i>Tom Lufkin</i>	698-6523
	2078 Highland Parkway St. Paul, MN 55116	
Secretary		
Treasurer		
Publications		
Membership	Bill Rhoades	652-2221
Software	Greg Carlson	544-8252
Operations & Resource	Allen Mackler	424-8889
SIG: Macs	Tom Shaff	225-1191
SIG: Apples	Tom Gates	789-1713
Director At-Large	Jason Mooney	894-3778

Coordinators

Beginners Consultant	Earl Benser	884-2148
Dakota County Shows & Conventions Volunteer Coordinator	Tom Michals	452-5667
Mac Users SIG	Mike Carlson (days)	866-3441
	Melvyn Magree	559-1108
4th Dimension SIG	Ian Abel	824-8602
CAD & Engin. SIG	Bill Langer	937-9240
DeskTop Pub. SIG	Bob Grant	827-6142
FileMaker Pro SIG	Steve Wilmes	458-0838
HyperCard SIG	Peter Fleck	370-0017
Mac Computer Art. & Design SIG	Joy Kopp	440-5436
Mac Novice SIG	Tom Lufkin	698-6523
Mac Programming SIG	Gervaise Kimm	379-1836
MicroSoft Works SIG	Ken Edd	631-3679
North Shore Mac Users	Jim Ringquist	(218) 387-2234
Apple II Users SIG	Tom Ostertag	488-9979
Apple IIGS SIG	Mark Evans	935-7251
AppleWorks® SIG	Jim Shields	434-9836
Apple II DTP		
Beginner's Basic SIG	Tom Alexander	698-8633
Languages/Tech SIG	Wesley Johnson	636-1826
Tech. Adviser (hardware.)		

Software Director's Staff

Mac eDOMs:	Jacque Gay, Jim Spencer & Mary Kosowski
Apple eDOMs:	Bill Job, Randy Peterson & Tom Gates
eDOM Sales:	Mac - Allen Mackler & Mary Kosowski Apple - Les Anderson

Liaison Contacts (Contact with non-mini'app'les SIGs)

Genealogy	Melvyn Magree	559-1108
Medical	Stewart Haight	644-1838
CP/M	Jim Rosenow	(414) 261-2536
PACER Center	Karen Samuels	827-2966
TC/PC	Gervaise Kimm	379-1836

This is the Newsletter of mini'app'les, the Minnesota Apple Computer Users' Group, Inc., a Minnesota non-profit club. The whole newsletter is copy righted © by mini'app'les. Articles may be reproduced in other non-profit User Groups' publications except where specifically copyrighted by the author. (Permission to reproduce these articles must be given by the author.) Please include the source when reprinting.

Questions - Please direct questions to an appropriate board member. Users with technical questions should refer to the Members Helping Members section.

Membership - mini'app'les
attn: Membership Coordinator
P.O. Box 796
Hopkins MN 55343

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

	eDOMs	At Meetings	Mail Order
Members:	5 1/4" eDOMs	\$3.00	Add
	5 1/4" System	\$1.00	\$1.00
	3 1/2" Apple/Mac eDOMs	\$5.00	per
	3 1/2" System	\$3.00	disk,
	3 1/2" System 7.0 (9 disks)	\$15.00	\$4.00
Non-Members:	5 1/4" eDOMs	\$6.00	maximum.
	3 1/2" Apple/Mac eDOMs	\$10.00	

Make checks payable to: mini'app'les

Mail to Mini'app'les: Attention: eDOM Sales
P.O. Box 796, Hopkins, MN 55343

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

Newsletter Contributions - Please send contributions directly to the Newsletter Manager, David Undlin, 6670 West 133rd St., Apple Valley, MN 55124 or upload to David on the mini'app'les BBS or DTP Exchange BBSs. You can also reach Dave at 432-0913 (voice & FAX).

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

Meeting Dates - Please phone calendar dates and changes to: Dick Aura at 941-1198.

mini'app'les BBS - 892-3317, 24 hours: 8 data, 1 stop, 0 parity

mini'app'les Voice Mail - 229-6952

Advertising -

Newsletter Publication Staff

Publications Director		
Newsletter Manager	David Undlin	432-0913
Editor	Michelle Parks	571-3788
Advertising		
Production Manager		
Layout	Earl Holdridge	922-7311
Layout	Jane Vanden Plas	537-4384
Graphics	Leroy Sorenson	870-7366
Calendar/Delivery	Dick Aura	941-1198
Contributing Editor	Peter Fleck	370-0017
AppleLink Contributor	Rand Sibet	560-8103

CONTENTS

VOL.15, NO.8
August 1992

IN THIS ISSUE

Making the Grade ... A Review of Local Training Facilities by Teri Ross	5
Mac Programmer's SIG	6
The Software Expo is Coming and We Need <i>YOUR</i> Help	7
Quality Type, Cheap ... or How Emmiline Pinches Her Pennies	7
From Tidbits #128 Information About the New FileMaker Pro 2.0	8
Adjusting Your ImageWriter II A Tip to Avoid Service Charges	9
Customize ProDOS for More than 35 Tracks (Yes, More <i>IS</i> Better)	11
New PIMs for Word — More Plug-In (and Play) Modules	12
Bug Season: A Word (5.0) Update	12

ADVERTISERS

Lotus 1-2-3	13
Member Classified Ads	14
TCCN	14
RAMCO	15
HyperActive Software	15
Laser-print Supply/Dodd Technical	Back Cover

The Fine Print

The Mini'app'les newsletter is an independent publication not affiliated, sponsored, or sanctioned by Apple Computer, Inc. or any other computer manufacturer. The opinions, statements, positions, and views herein are those of the author(s) or editor and are not intended to be the opinions, statements, positions or views of Apple Computer Inc., or any other computer manufacturer. Apple®, the Apple logo, Apple IIGS®, AppleTalk®, AppleWorks®, Macintosh®, ImageWriter®, LaserWriter®, are registered trademarks of Apple Computer, Inc. LaserShare™, Finder™, MultiFinder™ and HyperCard™ are trademarks of Apple Computer, Inc. PostScript® is a registered trademark of Adobe Inc. Times® and Helvetica® are registered trademarks of Linotype Co.

IF YOU ARE MOVING...

... please let us know six weeks before you move so we can change your address. Thank you.

Copy your newsletter mailing label showing current address in this space:

I.D.#: _____ Exp. Date: _____
 Name: _____
 Street: _____
 City, St., Zip: _____

PRINT YOUR
NEW
ADDRESS
HERE

Street: _____
 City, St., Zip _____

MAIL TO: mini'app'les, P.O. Box 796, Hopkins, MN, 55343

*Yes . . .
I'd like to join!*

Please accept my
mini'app'les MEMBERSHIP APPLICATION.

Please Print or Type:

1. Name _____

Address _____

City _____ State _____ Zip _____

Res. phone _____ Bus. _____

Renew ID# _____ Exp. Date _____

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

- | | |
|---|--|
| <input type="checkbox"/> Regular [1st year] \$20.00 | <input type="checkbox"/> Educational \$50.00 |
| <input type="checkbox"/> Renew [one year] \$15.00 | <input type="checkbox"/> Corporate \$100.00 |
| <input type="checkbox"/> Foreign \$30.00 | <input type="checkbox"/> Donation \$ _____ |
| <input type="checkbox"/> Sustaining \$25.00 | <small>(tax deductible)</small> |

3. Please tell us your special interests:

Which personal computer do you use:

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> Apple II | <input type="checkbox"/> Macintosh Portable |
| <input type="checkbox"/> Apple III | <input type="checkbox"/> Macintosh Powerbook |
| <input type="checkbox"/> Apple IIe | <input type="checkbox"/> Macintosh Quadra |
| <input type="checkbox"/> Apple IIc | <input type="checkbox"/> IBM or IBM clone |
| <input type="checkbox"/> Apple IIc+ | |

Areas of Interest:

- | | |
|--|--|
| <input type="checkbox"/> Apple IIGS | <input type="checkbox"/> Business Application |
| <input type="checkbox"/> Laser - Other _____ | <input type="checkbox"/> Home Application |
| <input type="checkbox"/> Macintosh Plus | <input type="checkbox"/> Educational Application |
| <input type="checkbox"/> Macintosh SE | <input type="checkbox"/> Desktop Publishing |
| <input type="checkbox"/> Macintosh Classic | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Macintosh LC | |

Do you own or use:

- | | |
|---|--|
| <input type="checkbox"/> Macintosh II | <input type="checkbox"/> Printer |
| <input type="checkbox"/> Macintosh SE/30 | <input type="checkbox"/> Laser Printer |
| <input type="checkbox"/> Macintosh si | <input type="checkbox"/> Modem |
| <input type="checkbox"/> Macintosh fx | <input type="checkbox"/> Scanner |
| <input type="checkbox"/> Macintosh IIfx/Ici | <input type="checkbox"/> Other _____ |

Referred by: _____

Check if interested in volunteer opportunities.
Special Areas: _____

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

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

mini'app'les
P.O. Box 796
Hopkins, MN 55343

SEPTEMBER 1992

Macintosh Main Meeting.	Thur., Sept 3	Bloomington Educational Center 90th & Portland	Note 6
Board Meeting	Thur., Sept. 10	Lexington Branch Library, St. Paul	Note 1 (members welcome)
Software Expo	Fri. & Sat., Sept 11-12	Science Museum of Minnesota	Note 5 & 22
Programers Wk. Shp.	Sat., Sept. 12	Van CLeve Pk. Bld. 15th Ave. & Como	Note 21 (New SIG!)
Apple II & GS Main Meeting Mon.,	Mon., Sept. 14	Washburn Library, 5244 Lyndale Ave South	Note 11
Fourth Dimension SIG	Mon., Sept. 14	2700 East 82nd Street	Note 2
MacCAD/E SIG	Tues., Sept. 15	Micro Age Computers 5909 Blake Rd., Mtka.	Note 8 & 19
Micro Soft Works SIG	Tues., Sept. 15	Highland Br. Library, St. Paul	Note 10
FileMaker Pro SIG	Thur., Sept. 17	Highland Park Library, St. Paul	Note 20 (New SIG!)
North Shore CIG	Thur., Sept. 17	Bethlehem Lutheran Church, Grand Marais	Note 15
Macintosh Programmer	Tues., Sept. 22	Murray Jr. High, 2200 Buford, St. Paul	Note 18
Mac Desktop Publishing	Wed., Sept. 23	Jefferson El Sch Rm 201, 25th & Henn.	Note 3
AppleWorks@SIG	Thur., Sept. 24	Murray Jr. High, 2200 Buford, St. Paul	Note 10
Mac Novice SIG	Mon., Sept. 28	Highland Park Library, St Paul	Note 9

1. Dave Laden	488-6774	6. Melvyn Magree	559-1108	11. Tom Ostertag	488-9979	18. Gervaise Kimm	379-1836
2. Ian Abel	920-5520	7. Joy Kopp	440-5436	12. Mark Evans	377-9000	19. Daron Applequist	938-7001
3. Bob Grant	827-6294	8. Bill Langer	937-9240	15. Jim Ringquist	(218) 387-2234	20. Steve Wilmes	450-7448
4. Mike Carlson	866-3441	9. Tom Lufkin	698-6523	16. Tom Michals	452-5667	21. Kevin Kassulker	535-2968
5. Peter Fleck	370-0017	10. Jim Shields	434-9836	17. John Hackbarth	(715) 246-6561	22. Tom Gates	789-1713

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

Members Helping Members

Need Help? Have a question the manual doesn't answer? Members Helping Members is a group of volunteers who have generously agreed to help. They are just a phone call away. Please: only call if you are a Member, own the software in question and during appropriate times.

Macintosh	Key	PostScript	8	Quicken	25	Prosel	2
Adobe Illustrator	21	Power Point	5	Talk Is Cheap	3	TML Basic	3, 10
Beginners	13, 14	QuickBasic	5, 6	TimeOut	2	TML Pascal	3, 10
Canvas	5	XPress	21	TO Graph	2	Writer's Choice	15
FileMaker II, Pro	1, 17						
Freehand	22	Apple II	Key	Apple IIGS	Key	Apple III	Key
General	14, 17, 18	AppleWriter	2	AppleWorksGS	15	General	12
Helix	16	AppleWorks	2, 23, 25	APW	20, 23		
HyperCard	6, 9	Ascii Express	3	Complete Pascal	10		
MacDraft	5	BASIC	5	Delux Paint II	25		
MacDraw	5	Beagle Buddy	23	General Information	3, 10		
MacPaint	5	Dazzle Draw	25	Graphic Writer II/III	15		
Mac OS	4	DB Master	7	GS/OS	3, 10		
Microsoft Excel	5, 6, 17, 18	Educational Software	25	HyperStudio GS	3		
Microsoft Word	4, 5, 6, 14, 17	General Information	25	Merlin 16+	15		
Microsoft Works	11, 17	Home Acc'n't	20	Mousetalk	15		
Networking	5, 6, 13	PublishIt!	23, 25	PaintWorks Plus/Gold	15, 25		
PageMaker	4, 6, 17	ProTERM	23, 25				

if you would like to be a "Members Helping Members" volunteer, please leave your name & phone number on our BBS or leave a voice-mail message at 229-6952.

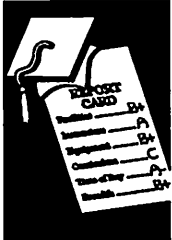
1. Steve Wilmes	450-7448	E	9. Peter Fleck	370-0017	DEW	16. Arnie Kroll	433-3517	E
2. Tom Ostertag	488-9979	E	10. Randy Dop	452-0425	EW	17. Michael Foote	507-645-6710	DEW
3. Tom Gates	789-1713	EW	11. Ed Spitzer	432-0103	D	18. Richard Becker	870-0659	EW
4. Tom Edwards	927-6790	E	12. Bob Rosenberg	377-4300	EW	20. Steve Peterson	922-9219	EW
5. Earl Benser	884-2148	EW		340-0234	D	21. Jodi Roste	933-1698	EW
6. Dan Buchler	435-3075	E	13. John Hackbarth	715-246-6561	D	22. Nancy McClure	227-9348	DEW
7. Ann Bell	422-1115	E	14. Jim Horswill	379-7624	DEW	23. James C. Fullwood	454-7610	EW
8. Fritz Lott	377-3032	E	15. Tom Michals	452-5667	DEW	25. Rand Sibet	560-8103	EW

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

Making the Grade ...

A Review of Local Training Facilities by Teri Ross

Viewpoint



by Teri Ross

I begin my monthly review on computer training in the Twin Cities with the Science Museum of Minnesota in St. Paul for the simple reason that this is where I began my own personal training. Evaluating the school with me was novice Bob Ganz, a doctor who thought that a "byte" was something to be treated and that "floppy disk" meant a loose joint in the back.

The Science Museum offers classes on both the IBM and Macintosh platforms. They have two Macintosh classrooms which contain 16 Macs with 13" color monitors. Every student has their own computer, and classes are limited to 8 people (4 people in the scanning class).

Their extensive curriculum of software-specific classes includes: Lotus 1-2-3, 4th Dimension, Excel, FileMaker, FoxBase+, Freehand, HyperCard, Illustrator, MacDraw Pro, PageMaker, Persuasion, Photoshop, PowerPoint, Word 4.0, Word 5.0, WordPerfect and XPress. Their overview classes include: Scanning, Shareware Review, Desktop Publishing Basics, How to Buy a Computer, and Mac Intro for both System 6 and System 7. Their classes on how to buy a computer and shareware review are offered at *no charge*. With all classes being offered days, evenings and week-ends, scheduling conflicts can't be your excuse for not furthering your computer education.

Most classes run approximately 4 hours. The fees for weekday classes are \$80 for Science Museum members and \$95 for non-members.

Evening and Saturday Classes are \$50 for members and \$70 for non-members. If you are planning to take more than one class, it is certainly worth the \$27 investment to get a Science Museum membership (I personally think it's worth the investment even if you take *no* classes.) Not only will it save you money on your computer education, but it will allow you to go and see some wonderful exhibits during your class breaks. While you're at it, why not come early or stay late and round out your education with the latest film at the Omni Theater?

Obviously, a class is only as good as the instructor who teaches it. Ever since the day our own

Bob Grant taught the first classes at the Science Museum, the school has maintained a high standard for the quality and training of their instructors. Stacey Tuross, the school's staff instructor, had a strong background in adult education before she began to use and then teach computer classes. In addition to her thorough knowledge and personable style of teaching, she possesses that very elusive quality of patience. Each of the classes Bob and I attended had at least one student upon which we felt a lobotomy ought to be performed, but Stacey maintained her calm and got through the problem with style and grace.

Many of the school's classes are taught by contract instructors with proven credentials in their chosen applications. The school interviews and tests many instructors before they are selected to teach.

Beginning in September, the Science Museum will be making a unique addition to their class offering. For \$10 (to cover postage and handling), all graduates will be able to check out a MacAcademy tape that covers the application of their class. According to Chuck Penson, the director of the Computer Education Center, these tapes are meant to be a brush up and supplement to the classroom training. He feels strongly that tapes are a good follow-up, but cannot replace the one-on-one live education that he feels is necessary for an introduction to new systems and software.

The mission statement of the Science Museum is to offer the highest quality education at the best price. They support this with their satisfaction guaranteed policy which states that if a student is not happy, the Science Museum will make it right by either offering the class again or returning your enrollment fee.

The mission statement of the Science Museum is to offer the highest quality education at the best price. They support this with their satisfaction guaranteed policy which states that if a student is not happy, the Science Museum will make it right by either

offering the class again or returning your enrollment fee.

The Science Museum is located at 30 East 10th St. in St. Paul (221-4722). If you can, park at one of the nearby open lots for \$2.50, as opposed to under the building which will cost you \$5 (prices based on a one class stay).

One final piece of advice, which applies to any

Making the Grade continues on next page

Mac Programmer's SIG

Mac
Programmer's
SIG



by Steve
Axdal

The May Mac Programmers meeting was held on June 23rd, the regular fourth Tuesday of the month, at Murray Jr. High School in St. Paul, just behind Luther Northwestern Seminary. The meeting got off to a slow start when the normal meeting room was locked and a janitor could not be found. The meeting convened on the school steps on a fine summer evening.

Steve Link was freshly back from the MacHack conference in Ann Arbor, and filled with enthusiasm. MacHack lives up to its billing as the premier place to meet hot-shot Macintosh programmers. The messages aren't always clear, Steve was at one session which basically said that individual programmers couldn't make commercial successes anymore; the next session told the steps the individual could take to make his program a success. More information on HyperCard 2.5 was released: 2.5 should be out by year's end; will be much more modular and give the capability of stand-alone executable stacks.

The claimed introduction to Object Orientation was superseded by the announcement of Apple's Newton. Unfortunately, Jeff Brown was not able to bring hardware, only data sheets gleaned from press releases. Apple is using a new RISC processor, the ARM 610. The processor includes a built-in memory

management unit to handle virtual memory, and apparently is well optimized for the object oriented operating system NewtOS. Running the same tasks, the ARM 610 should be about three times faster than a Mac IIfx. Under NewtOS, the processor generally won't be doing the same sorts of things, however. There's no keyboard on the Newton, all interaction is with a stylus and the touch sensitive LCD screen. Freehand handwriting recognition is a major feature of NewtOS. The combs and predefined input blocks aren't needed. A drawing recognizer adjusts drawn shapes on the fly, straightening lines and rounding circles. Along with handwriting and drawing recognizers,

NewtOS also will interpret text. The example used is to write 'call Bob', and Newton presents you with a directory of 'Bobs' with phone icons which will beep the phone numbers at a tap. At 7" x 3.5" x 1" dimensions and under a pound in weight, Newton will fit in large pockets but will make a bulge. The price should be under \$1000.

July is slated to be the shoot out between Marksman and AppMaker. The meeting will start at 6:30. August's meeting is called off, the school building won't be open. September's meeting should return

to Murray on September 22. Object Orientation introductions will continue at that time, unless other things come up.



Making the Grade continued from page 5

computer class you take; in order to get the most out of your course, take the time to do a little homework first. Examine any tutorials or manuals for the software and do the practice lessons before you go. The more you know going in, the higher the quality of your education will be coming out. Remember, though the Macintosh does give you "the power to be your best," it doesn't give you the skills. Education and training is your responsibility.

As for Dr. Bob, well, he still has his own definition for "byte" and "floppy disk." However, with his newly developed knowledge and skills, he had the confidence to purchase a Macintosh LC, from

which he plans to create all his own speeches and slides. He also enjoys flaunting his knowledge while exhibiting his sense of humor, when he advises his sexually active patients to be sure and use "surge protection."

REPORT CARD	
Curriculum	A
Class scheduling	A
Instructors	A
Cost	B+
Facilities/Parking	B

by Teri Ross 🍏

The Software Expo is Coming! and We Need *YOUR* Help

Software
Expo



by Peter
Fleck

WHEN: September 11 & 12

WHERE: Science Museum of Minnesota

We Need Volunteers!

Tend the info booth or demonstrate your favorite software, we need members with all levels of expertise. Help with ongoing software demos at our booths or design a special presentation for the auditorium. Share the joy of using an Apple Computer.

We Need Equipment!

Can we borrow your computer or hard drive or external drive or monitor? The club desperately needs equipment for the Expo — especially Macintosh equipment! If you're a vendor, we'll post a Thank You at the Expo noting your generosity!

Don't Delay! Contact one of these members TODAY!

Peter Fleck: 370-0017, Tom Gates: 789-1713 (eves), Voice Mail: 229-6952, or our BBS: 892-3317.



Quality Type, Cheap ... or How Emmeline Pinches Her Pennies

Software
Information



by Emmeline
Grangerford

The newest Font & Function catalog of Adobe type arrived in June. This publication is a wonderful resource for people who are learning about type, and type freaks look at it the way kids looked at the Wards catalog at Christmastime when I was a kid. It always gives a few articles on how to think about type and design, and it introduces Adobe's latest typefaces with a lot of hoopla. Unfortunately, the Adobe type library has grown so big that Font and Function no longer shows major samples of the whole library; it now shows history and samples of the new faces only and just a snippet of the balance of the collection, so save your back issues if you want a complete reference.

Big news for bargain hunters: In a Font and Function article on hard-to-pronounce typeface names, there is an announcement of the following Adobe Type 1 PostScript fonts at \$89

per package:

- 86 Cochin
- 167 ITC Esprit
- 173 ITC Fenice
- 219 Nofret
- 114 ITC Novarese
- 65 Peignet
- 245 Poppl-Pontifex
- 254 Poppl-Residenz
- 88 Sabon
- 255 Stone Phonetic
- 230 ITC Veljovic
- 81 Berthold Walbaum Book
- 131 Weidemann

This is a heck of a deal for people who usually drool over their catalogs and take out loans just because there's a new typeface in town. But of course, you have to actually like these faces. Personally, I am looking hard at Weidemann — not a new face, by the way — which this catalog tells me is one that was designed for a German edition of the Bible, and which

packs readable words into small spaces. Sounds good to me. Besides, it's the most highly discounted of any of the faces, so it appeals to my cheap side.

This \$89 offer seems to be available to anyone: "To order yours, just call us at 1-800-833-6687." While you're at it, ask if you can still get Adobe Type Manager for \$7.50 from them also. Another deal. (IBM'ers pay a lot more.)

To order Font and Function, I think the same phone number applies, or you can write Adobe Systems Inc., 1484 Charlestown Road, PO Box 7900, Mountain View, CA 94039-7900.

Emmeline

(Emmeline Grangerford is a sometime employee of Your Blue Pencil, an editorial and dtp company run by Linda Bryan, former editor of the Mini'app'les newsletter.) 🍏

From Tidbits #128

Information About the New FileMaker Pro 2.0

Software
News



submitted by
Peter Fleck

© 1990-1992 Adam & Tonya Engst. Non-profit, non-commercial publications may reprint articles if full credit is given. Other publications please contact us. We do not guarantee the accuracy of articles. Publication, product, and company names may be registered trademarks of their companies. Disk subscriptions and back issues are available.

FileMaker Pro 2.0

Claris has given notice that it intends to pull no punches in the Windows market. At PC Expo in a few weeks, Claris will show a pre-release version of FileMaker Pro 2.0 for Windows, along with its almost identical twin for the Mac. The marketing elves have been working long and hard on this release, and the press materials are extensive and useful, hopefully foreshadowing the program itself. Claris's emphasis on the Windows version of FileMaker Pro 2.0 is especially interesting given Apple's forthcoming ad campaign against Windows - perhaps this shows that Claris is not completely under Apple's control.

But enough of the marketing nonsense - you want to read about the programs. Perhaps the most interesting thing is that the two versions of FileMaker Pro are almost identical, sharing 85% of the core code. If you've used FileMaker Pro on a Mac, you'll be able to use it under Windows, and you'll even be able to transfer files directly, without any sort of conversion. From the promotional pictures that Claris distributed, the two versions can create databases which even look almost identical save for the Windows-specific interface elements like the ugly underlining of the Alt key character and the short filename in the title bar. One of FileMaker Pro 2.0's main selling points on the Windows side is the interface since Claris is known for producing well thought-out interfaces that bring the power of the programs to the surface.

Other useful features that may not be common in Windows databases include ScriptMaker, which allows you to create scripts by selecting items from menus and clicking on buttons, extensive graphic tools for designing layouts, sophisticated text handling that makes FileMaker Pro into an excellent platform for database publishing, and instant updating of multi-user databases, even over mixed platform networks. There's also automatic record locking and release for ensuring data integrity, and FileMaker Pro 2.0 still has its

multi-user file server technology, so you don't have to have a file server to take advantage of the network capabilities.

This isn't to imply that the versions are entirely equal. The Windows version uses Dynamic Link Libraries to support Novell NetWare and PhoneNet Talk networks, and it supports TrueType, Bitstream Facelift, and Adobe Type Manager fonts. Windows-based help is included, and for those of you with extra PC sound hardware, you can even add sound to your databases. QuickTime is still limited to the Mac version, although that will change when Apple ships QuickTime for Windows. The Mac version also supports Apple Events in scripting, so FileMaker Pro 2.0 can talk to other Apple Event-aware programs like HyperCard, Resolve, QuicKeys, and Frontier. Claris included other System 7 features, so much so that Claris claims it is "System 7 omniscient," including support for the Data Access Manager, Balloon Help, and TrueType, along with the Apple Event support mentioned above. Finally, you will be able to reorder layouts, reserialize records, and use wildcards in searches, and for those of you who do database publishing, FileMaker Pro 2.0 has more complete style control for text.

Without having seen a pre-release copy of the program, it certainly sounds like Claris has a winner with the dual-platform FileMaker Pro 2.0. We'll only know in the fall when it ships (\$399 list, \$89 upgrades for existing owners). Interestingly, the press information also implies that Claris wants to release another Windows product soon, and high on the list is MacDraw Pro, although my sources have said that ClarisWorks might be even more likely.

Claris — 408/727-8227 — 800/544-8554

Submitted by Peter Fleck 🍏

min'app'les BBS

892-3317

8 data 1 stop 0 parity

24 hours

Adjusting Your ImageWriter II

A Tip to Avoid Service Charges

Hardware Solutions



submitted by
Rand Sibet

By Ken Peterson, L.U.G.

The ImageWriter II is an absolutely remarkable printer for the money. Not only does it provide 144 dot per inch resolution for beautiful high resolution graphics with an accuracy never approached by the ImageWriter I, but it firmly grips all kinds of paper, forms and envelopes, feeding them correctly. In addition, it prints its native character set at an honest 180 CPS, a speed generally reserved for the \$1000 price class. Add to that the color printing ability, classy case design and ... well, I think you get the idea. I think it's really great!

As enthusiastic as I am about the actual hardware, however, I am not nearly as pleased with the factory's outgoing setup procedures. Many of the printers I have seen have been delivered with a few items misadjusted, and some of the complaints I have heard regarding smeary looking printing, etc., relate to the bad setup, not inherent malfunctioning. In particular, it is common for the clear plastic paper guard to drag heavily on the platen/paper when it shouldn't, and the printing head clearance lever may not be correctly adjusted for a single thickness of paper.

Here is how you can "tweak" the printer to make sure it will do its best. It is best to give attention to these items in the order they are described here.

Here is how you can "tweak" the printer to make sure it will do its best. It is best to give attention to these items in the order they are described here.

Establishing Proper Head-to-Head Clearance

Theoretically, if you're only using a single thickness of paper, the correct thickness lever is all the way up. You then adjust it for thicker paper or multiple sheets by clicking it downward about one notch per additional sheet thickness. I have seen a couple of printers, however, where the printer head dragged heavily on the paper when the lever was all the way up, abrading the paper and printing too light.

You can easily determine whether yours is set correctly:

1. Install a ribbon that has dried out a bit. A super-dark new one won't show the printing difference we're looking for.
2. Remove the transparent guard/window from the removable top cover by lifting the

cover and gently pressing the two catches toward the center while hinging the guard off the cover. Replace the cover. We'll be wanting to adjust the head clearance while it's printing.

3. Insert a single sheet of average 20 lb paper and use any word processor to start printing a full page of text in Faster or Best mode.
4. Start with the lever in the full-up position. Print several lines, make a pencil mark on the paper even with the line where the print head is printing at that moment, and move the lever down one notch (click). Do this for all lever positions, marking the boundaries between the groups of lines printed at each setting. If the printing starts getting quite light, you have gone far enough and you can stop the test.
5. Now you should inspect the printed page. The lever setting that produces the darkest group of lines is the correct setting for one thickness of paper. It's supposed to be the first group (i.e. the topmost lever setting), but if it is not, just use the indicated lever setting for single-sheet printing and don't

use any setting above that. (The adjustment to make the correct setting become the top setting cannot be done without removing the printer chassis from its plastic case — a bear of a task with this model.)

Now you've got the head's little printing wires traveling the correct distance before they strike the ribbon and paper, producing a dark and clear impression. Now you may need to adjust the plastic paper guard so it doesn't drag on the paper.

Adjusting the Plastic Shields

The paper shield is the wide clear plastic piece that moves along with the printing head, guiding the paper under the head and bail rollers and keeping it clean. You'll observe, looking down on either side of the print head, that it's attached with only two easily accessible screws, and you can loosen the two screws to adjust its position. If it drags substantially on the paper, the head's position timing is not properly controlled during the precision left-right and right-left scanning, blurring the characters printed.

There are several alternate ways to determine if

your printer's paper shield is correctly adjusted. With power OFF, remove the printer's top cover and insert one sheet of 20 lb bond paper, pulling it tight over the plate (roller). Then:

1. Move the print head back and forth by hand as you change the position of the paper thickness lever. You should not feel additional resistance to head movement as you move the lever from the 4 to 1 thickness setting. If the drag increases substantially, the shield is dragging too much on the paper.

2. Watch closely while pressing the plastic shield toward the paper by alternately pressing on it to the right and left of the head, and changing the paper thickness lever position back and forth. The shield should move slightly toward the paper on the 3 thickness setting, less on the 2 and hardly at all on the 1 thickness setting — and be parallel to the paper. If it's immobilized on the settings 1 and 2, it's too close to the paper. If it moves a bit on the 1 setting, it's too far away.

3. Look closely at the shield, sighting down across the black piece that sticks up from the head, near where the shiny metal piece is glued onto the shield. As you move the paper-thickness lever back and forth, does the shield move with the head? Or does it seem to remain in contact with the paper while head moves? It should appear as though the shield just contacts the paper as you raise the lever to the one-thickness setting.

It's difficult to mess up this adjustment, so don't hesitate to make it. You just loosen the screws, move the shield a bit, and tighten them to test, using your choice of the criteria explained above. (Check it again after fully tightening the screws.) The idea, if you haven't gotten it yet, is that the shield should be just touching on the sheet of paper in the one-thickness lever setting, and not drag-

ging as the print head moves. Most printers are coming

through with the shield set much too close to the platen, and the dragging smears the characters and unduly wears the drive belt.

The Scanning-Timing Adjustment

If you remove the top cover, in the lower-left corner of the opening you'll find the DIP switches that alter the "personality" of the printer for different computers and different special applications. The rightmost two switches, SW 2-5 and SW 2-6, are fine adjustments for the timing difference of left-right and right-left printing of head scans. A current setting of these switches (there are 4 possible combinations) assures that dots printed while the print head sweeps from left to right line up exactly with dots printed during a right to left scan. As the drive belt "breaks in" or if you remove drag from the print head by loosening the plastic guard (above), the setting as delivered may not produce the best printing quality. On many machines, they are simply not correctly set in the first place.

The manual mentions a couple of warnings not to touch these switches but you can be fearless! You can't do any harm. Just mark down the original positions somewhere in your manual to allay your worries, and using a small screwdriver to flip the switches, conduct your own experiments.

Having made the paper-guide clearance adjustments described above, here's how to adjust these switches. Using a medium dry ribbon in Best (high) printing quality, begin printing a whole page of text. Print several lines after the head stops pausing in the center of the paper (the top inch or so). Lift the top cover, flip a switch, replace the cover, and press the SELECT button to restart the printing. Print a few

more lines and repeat. Make notes of the switch positions that result in the crispest possible printing for each mode. If the print head obscures the switches, just push it to the right. It repositions itself properly. You may find, as I did, that one switch setting produces crispest graphics. I keep a small screwdriver next to my printer, and when I want absolutely the best printing quality, I flip the switches if necessary. No sweat. For most other purposes, you can leave the switches in a "compromise" setting determined by you, not the factory.

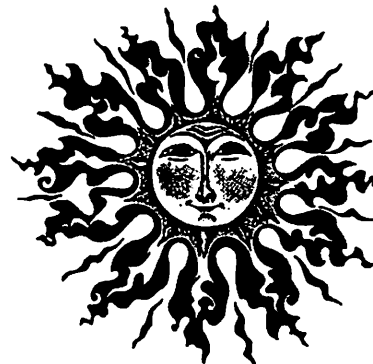
Well, that's about it. Pity that the printer's maker in Japan frequently doesn't take proper care to set up this excellent machine. Since the adjustments rarely if ever have to be repeated, the refinements you make will last a long time and can give you impressively better printing!

=== ACES ===

[The Apple Computer Enjoyment Society is a not-for-profit users group which has been helping Apple and clone computer owners since 1979.

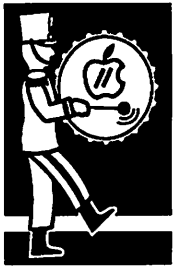
A.C.E.S. reserves the rights to all materials printed herein. All articles that are not protected by copyright may be reprinted by Apple User Groups and other non-profit computer organizations. Such reprints must give credit to the author and A.C.E.S., Inc., PO Box 291557, Ft. Lauderdale, FL 33329.]

Submitted by Rand Sibet 🍏



Customize ProDOS for More than 35 Tracks (Yes, More IS Better!)

Software
Solutions



submitted by
Rand Sibet

By Tom Chapo, Portland Apple II Users Group

Have you ever needed that little extra bit of disk space to save your file only to be told there was not enough? Let's face it, 35 tracks and 280 blocks (140K) isn't a lot of disk space. Your Apple II is capable of more than this in most cases. How would you like to get 304 blocks or 320 blocks of disk storage out of your ProDOS diskettes instead of the normal 280 blocks?

Most Apple disk drives are capable of formatting 38 tracks, for a total disk capacity of 152K or 304 blocks. All Apple IIc drives, IIe DuoDisk and IIe UniDisk

drives should work with 38 tracks as well as drives for the Apple IIgs. Many disk II drives will work as well, but the older disk IIs are only good for the stock 35 tracks. Some non-Apple drives are capable of formatting 40 tracks, giving you 160K or 320 blocks of storage.

How do you get this extra capacity? You'll need to patch ProDOS to recognize more than 35 tracks and you'll also need a program that will format and copy more than 35 tracks.

Here's how to patch ProDOS. Normally limited to 280 blocks (35 tracks), it will ignore the extra 24 blocks on a 38 track disk. To increase its capacity for up to 40 tracks:

1. From AppleSoft, type "BLOAD PRODOS,TSYS,A\$2000"
2. Type "CALL -151"
3. Type "56E3:number" for ProDOS v1.1.1 or "58E3:number" for ProDOS v1.4, or "59E3:number" for ProDOS v1.9
4. Type "BSAVE PRODOS,TSYS,A\$2000"
5. Type "3D0G" or press Control-reset to get back to AppleSoft
6. Reboot to install the new extra-track version. It will work with 35 track version disks as well

If you aren't using version 1.9 of ProDOS, I strongly suggest you get a copy from your

All Apple IIc drives, IIe DuoDisk and IIe UniDisk drives should work with 38 tracks as well as drives for the Apple IIgs. Many disk II drives will work as well, but the older disk IIs are only good for the stock 35 tracks.

librarian, modify it as shown here, and copy it to your existing ProDOS disks. The built-in program launcher makes it worth the change. Modify your version of ProDOS to recognize 40 tracks even if you will format your disks to have fewer than 40 - it won't hurt a thing. You'll need to copy your modified version of ProDOS to any disk that is to be a bootable with more than 35 tracks.

If you are using an Apple IIgs, this article applies to you as well. The file "P8" is the same as ProDOS on the Apple IIe and IIc. Take your modified version of ProDOS v1.9 (the one for more than 35 tracks) and save it in place of P8. Rename it P8 and you'll have an Apple IIgs cable to recognize more than 35 tracks.

recognize more than 35 tracks.

The Apple II family has lots of untapped potential. I hope this article will help you get a little more from your system. Soup it up and get on with the show!

=== ACES ===

Submitted by Rand Sibet 🍏

Monthly Newsletter Advertising Rates

1/12 Page		
2.5" w. x 2.5" h.		\$10.00
1/6 Page		
2.5" w. x 5" h.		\$20.00
1/3 Page		
2.5" w. x 10" h. Vert.		\$40.00
5" w. x 5" h. Horz.		\$40.00
HALF Page		
7.5" w. x 5" h. Less 5%		\$60.00
2/3 Page		
5" w. x 10" h. Less 7%		\$80.00
FULL Page		
7.5" w. x 10" h. Less 15%		\$120.00
Frequency Discounts		
Six months	@ 5%	
One year	@ 15%	
Outside Back Cover		
7.5" w. x 7.5" h.		\$100.00
Inside Back Cover		
7.5" w. x 10" h.		\$120.00
Mail Inquiries to:		
P.O. Box 796, Hopkins, MN 55343		

New PIMs for Word

More Plug-In (and Play) Modules

Software
Information



submitted by
Peter Fleck

Very good news: Word 5.0's modularity has started to pay off, and Microsoft has made new Grammar and Spelling plug-in modules (PIMs - and you thought PIM stood for personal information manager). The grammar checker had a nasty habit of crashing when running under System 7 on a 68000-based Mac, and the Spelling PIM slowed to an incredible crawl if you added more than a few hundred words to a custom dictionary. Both of those bugs are now fixed, and the Spelling PIM has been generally improved. You can get the new PIMs by calling Microsoft tech support at the number below and being nice. Or, if you wait a few weeks, Microsoft may make the PIMs available on the on-line services.

Microsoft Tech Support — 206/635-7200

Microsoft Customer Service — 800/426-9400

Information from: Laurel Lammers, Microsoft Corporation

WordBASIC cancelled

Bad news: All is not completely happy in Microsoft-land, and Microsoft recently announced that they will not ship the WordBASIC plug-in module for Word 5.0. Period. MacWEEK quoted

Microsoft Word product manager Leslie Koch as saying that WordBASIC will have to wait until the introduction of Word 6.0 in mid-1993. This means that all of you who had hoped to automate tasks within Word 5.0 will have to rely on QuickKeys or nothing at all. The Word 6.0 release will reportedly share most of its code with the Windows version of Word, much as Excel on the Mac and Windows share 80% of the core code. This means that the Mac version will be completely rewritten, which will hopefully take care of some of the lingering problems with figure, footnote, and table numbering discussed on the nets recently.

Information from: Michael A. McGuire — m McGuire@utkvx.utk.edu, from Tidbits 128.

© 1990-1992 Adam & Tonya Engst. Non-profit, non-commercial publications may reprint articles if full credit is given. Other publications please contact us. We do not guarantee the accuracy of articles. Publication, product, and company names may be registered trademarks of their companies. Disk subscriptions and back issues are available.

submitted by Peter Fleck 🍏

Bug Season: A Word (5.0) Update

The Word 5.0 bug that Emmeline Grangerford reported in the last issue of the newsletter has been fixed. This bug changes font information back to whatever the Normal style font is. The fix is the Word 5.0a Patch available from on-line services or by calling the Microsoft Customer Service number: 800-426-9400

-Peter Fleck

The Word 5 bug (see the July issue of this newsletter) has a fix: the official Microsoft Word 5 bug fix. It's available around town, in a little file with its own automatic installer, and I urge everyone who passes disks between machines or who installs and removes fonts from a Mac system before running Word to get this thing. It solves a lot of headaches and heartache and you don't have to be a techie to install it.

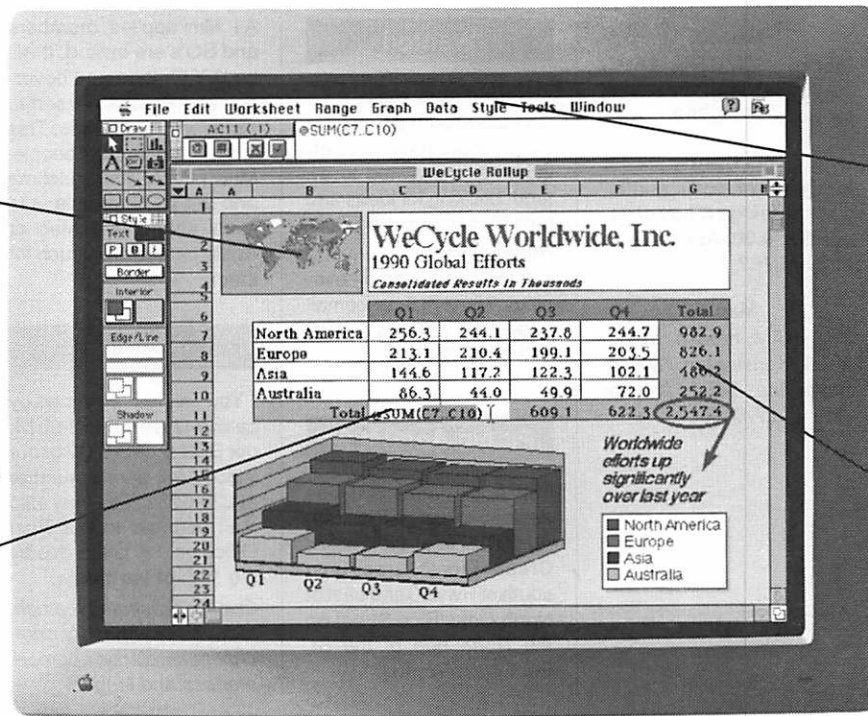
-Emmeline Grangerford 🍏

Only one spreadsheet is all 1-2-3 and all Macintosh. Right down to the core.

Be manipulative—
Command your worksheet with direct manipulation of all data, graphs, drawn objects and scanned images.

Unified Work Environment—The menu never changes and all information resides in one file.

In-cell vs. Excel—Enter data or formulas directly into a cell, bypassing the console. Sounds simple because it is.



Publish and Subscribe—Change your data and the changes will be automatically updated across the network.

*"1-2-3 for Macintosh...stands apart from its competition... by providing three-dimensional worksheet capabilities and the ability for users to perform in-cell editing."
—PC WEEK, DECEMBER 16, 1991*

One look and Apple Chairman and CEO John Sculley called it "a spectacular product."* You see, this isn't just another version of a Lotus® 1-2-3® spreadsheet. It's a program that really grabs hold of the full power of Macintosh.®

Its friendly Mac® interface makes working with data, text

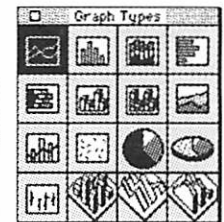
aaaaaa

and graphics fast and easy. Plus, you'll have features that push the capabilities of System 7 to the limit. Like Publish and Subscribe, Apple® Events, Data Access Manager and Balloon Help™.

1-2-3 for Macintosh is compatible

with other versions of 1-2-3 and even reads and writes Microsoft® Excel files. So you can switch to 1-2-3 and never look back. What's more, with one press of the slash key, the 1-2-3 Classic® menu appears on the screen—great news for those of you coming from the DOS world.

See why the world's best-selling spreadsheet is the world's best choice for Macintosh. Visit your favorite dealer for a free working model or call **1-800-TRADEUP, ext. 6465.**** Excel users, be sure to ask about our special upgrade offer.



Select from hundreds of graph variations, then directly manipulate and customize them to your liking.



Introducing 1-2-3 for Macintosh

Lotus

© Copyright 1991. Lotus Development Corporation. All rights reserved. Lotus and 1-2-3 are registered trademarks of Lotus Development Corporation. Classic is a registered trademark licensed to Lotus Development Corporation. Apple, Macintosh and Mac are registered trademarks and Balloon Help is a trademark of Apple Computer, Inc. The Apple Logo is a registered trademark of Apple Computer, Inc. used under license. Microsoft is a registered trademark of Microsoft Corporation. Adobe Type Manager and the ATM logo are registered trademarks in the United States of Adobe Systems, Incorporated. *The Boston Globe, 6/4/91. **There is a \$5.00 fulfillment and handling charge when ordering the working model direct from Lotus.

Classified Ads*

For Sale

Apple IIe/IIc Software
Andrew Tobias' "Managing Your Money" \$40; Nolo "Will Writer" \$20; Spinmaker "Homework Helper/Writing" \$15; Power Up "Sign Designer" \$15. These are new programs with manuals. Office: 571-1569. Home: 633-5427. Ask for Al.

Radius Full Page Display

This had a 16MHZ Accelerator and Math Co-processor for a Macintosh SE. Like new; excellent System 7 operation; SE runs 4 times faster. \$750 with manuals & Radius display software. Call Bill and 939-2795 (w) or 931-9047 (h till 9 p.m.).

Mac SE

Mac SE, 40MB HD, 2.5MB RAM, Std. keyboard. Ask for Barb, 827-2782.

IWII Printer

ImageWriter color printer, color cartridge & box of paper: \$250.00. Ask for Barb at 827-2782.

Mac +

2MB RAM, mouse, manuals & Kensington System Saver fan: \$400. Ask for Jim at 227-6496.

Wanted

Member Help

Science Museum Software Expo coordination meetings. All are invited to attend. Looking for ideas and help for the upcoming Software Expo.

Contact: Tom Gates - evenings 789-1713, voicemail 229-6952 (24 hrs), BBS 892-3317 (24 hrs).

Picnic August 27

The AppleWorks SIG has decided to have a Picnic on August 27th at the Sucker Creek Picnic area (just south of Hwy 96 and east of North Oaks/Rice Street on the North end of the St. Paul WaterWorks).

All Mini'app'les members and SO's are invited. It will be B.Y.O. food and beverage and Potluck dessert to share with the others. This is not just for Apple II people, Mac people are welcome and MSDOS people can even attend if a Mac or Apple person will vouch for them.

Notices

* You can leave your ad by calling Dave at 432-0913, our BBS at 892-3317 or our Voice Mail phone number at 229-6952. You may also mail your ad to our Post Office box. Ads are due by the 10th of the month.

Our staff reserves the right to make changes for completeness, clarity, appropriateness and length.

What's It All About?

The August Main Apple II and IIGS Meeting will cover the topic of telecommunications. We are planning on a general presentation to be made by Multi-Tech. This meeting is not being planned to be machine specific, so anyone that is interested in telecommunications in general is welcome to attend.

TCCN

It's FREE !!

Twin Cities Computer Network

- ◇ USA Today News
- ◇ Many, many forums
- ◇ 15 Access Lines
- ◇ Product Testing
- ◇ KTCA Program Listings
- ◇ Electronic Mail

349-6200 (24 hrs) Logon: TCCN Password: GUEST
Parameters: 7 data bits, 1 stop bit, Even parity 300/1200/2400

STOCK REDUCTION SALE

EXAMPLES: SENSIBLE GRAMMAR ORIG: \$99.95 NOW \$69.95!
 SENSIBLE SPELLER ORIG: \$125 NOW \$62.50!
 BRODERBUND NEW PRINT SHOP ONLY \$39

PRINT YOUR OWN PAPER - NEWSLETTER - GREETING CARDS
 BANNERS - PERSONALIZED CALENDARS - PARTY INVITATIONS
 PLUS BIG PRICE REDUCTIONS ON IN-STOCK AND ORDERED SOFTWARE

CROSSWORKS

COPY APPLEWORKS FILES TO IBM FILES AND IBM FILES TO APPLE FILES.
 ORIG: \$99.95, RAMCO SALES PRICE \$89.95 - SAVE \$10 (Developers INCIDER
 ad price still \$99.95!)

PRICES REDUCED ON EVERYTHING: SAVE ON DISK DRIVES: SAVE ON
 PRINTERS: SAVE 25% ON SOFTWARE: Printer Ribbon close-outs HALF-PRICE!

IF RAMCO DOESN'T HAVE WHAT YOU WANT IN STOCK
 WE'LL GET IT WITHIN 24 HRS!

ENJOY COMPUTING MORE BY ADDING MEMORY

IN STOCK

HUGE RAM CHIP INVENTORY AT LOWEST PRICES - MEMORY EXPANSION
 BOARDS- HARD TO FIND CABLES (WITH LIFETIME GUARANTEES)

RAMCO SUPPORTS APPLE OWNERS 100%

OPEN DAILY 9 AM TO 9 PM M - SAT - Sundays we take time to smell the flowers

RAMCO SALES, 612-561-8144 Rodger Kent, Minneapolis, MN 55444

WE BUY * SELL * REPAIR * TEACH * NETWORK

Hyper Who?

HyperActive
 SOFTWARE

Professional HyperCard® solutions

Technical

Educational

Database

Multimedia

Communications



(612) 724-1596

100% SPEED-UP

FOR MACINTOSH CLASSIC!

- Boost your Mac to 16 MHz and increase math intensive applications with "on-board" co-processor by 800%!!!
 - Backed by Harris Laboratories' Lifetime Warranty!
 - 100% compatible with System 6.0.7 and above!
- RAMCO Sales Special Price:

\$349 Installed!

Same Day Service!

Call RAMCO This Very Minute:

RAMCO SALES

(612) 561-8144

Monthly Newsletter Advertising Rates

1/12 Page		
2.5" w. x 2.5" h.		\$10.00
1/6 Page		
2.5" w. x 5" h.		\$20.00
1/3 Page		
2.5" w. x 10" h. Vert.		\$40.00
5" w. x 5" h. Horz.		\$40.00
HALF Page		
7.5" w. x 5" h. Less 5%		\$60.00
2/3 Page		
5" w. x 10" h. Less 7%		\$80.00
FULL Page		
7.5" w. x 10" h. Less 15%		\$120.00
Frequency Discounts		
Six months	@ 5%	
One year	@ 15%	
Outside Back Cover		
7.5" w. x 7.5" h.		\$100.00
Inside Back Cover		
7.5" w. x 10" h.		\$120.00
Mail Inquiries to:		
P.O. Box 796		
Hopkins, MN 55343		
Phone Inquiries to:		
Dave Undlin		(612) 432-0913

This space is for

SALE SALE

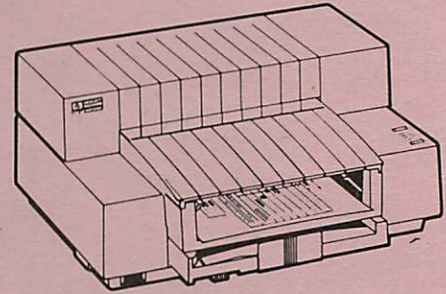
Now You Can Have Your Black And White. And Color, Too.



HP DeskWriter printer \$399

HP DeskWriter C printer \$750

cash price



- Affordable 300-dpi laser-quality printing
- Plain paper 300-dpi color printing with the HP DeskWriter C
- 3-year limited warranty
- Designed exclusively for Mac users
- Compatible with Apple System 7.0, AppleTalk, and all major Macintosh applications



**HEWLETT
PACKARD**

Authorized Dealer

Midway

Laser-print Supply

1568 Selby Avenue
St. Paul, MN 55104

649-0268

South

Dodd Technical

1301 Corporate Center Drive
Eagan, MN 55121

452-3094



mini'app'les
Box 796
Hopkins, MN 55343

ADDRESS CORRECTION REQUESTED

Non Profit Org.
US Postage
PAID
Hopkins, MN
Permit 631



Expire 99-12 ID No: 0160*
DAN B BUCHLER
2601 WOODS TRAIL
BURNSVILLE MN 55337