

mini'app'les

newsletter

\$2

Vol. 13
No. 10

The Minnesota Apple Computer User's Group, Inc.

OCTOBER 90

Calendar
of
Events

M	T	W	T	F
1	Northwest Branch CIG 2 NO MEETING DISCONTINUED Jerry Kaufman 535-6745	Apple // Main Meeting 3 North Regional Library, 1315 Lowrey Ave North - 7:00pm Subject: Educational Software Speaker: John Hyde Tom Ostertag 488-9979	Mac Main Meeting 4 Hennepin Southdale Library 6:30 / 7:00 pm - Mike Carlson 866-3441, David Stovall 474-8015 Apple II DTP SIG 7:00 PM - Bill Warner 644-0658 Murray Jr. High School, St. Paul	5
Mac Computer Art & Design SIG 8 Minneapolis College of Art & Design, 133 E 25th St., Rm 325 6:45 pm - Joy Kopp 440-5436	9	Dakota County SIG 10 Mac, Apple II, Apple IIGS Metcalf Junior High Intersection Cedar Ave & County Rd. 30, Burnsville - 7:00 pm Tom Michals 452-5667	Apple mini'app'les Board Meeting 11 Lexington Branch Library University & Lexington Aves. St. Paul, MN - 7:00 pm David Laden 488-6774	12
Fourth Dimension™ SIG 15 Hennepin Southdale Library Ian Abel 824-8602	MaccAD/E SIG 16 Bill Langer 937-9240 Heath/Zenith Computer Hopkins - 7:00 pm Microsoft® Works™ SIG* Highland Park Library Ken Edd 631-3679	Apple IIGS SIG 17 First Tech, 2640 Hennepin, Mpls. Mark Evans 377-9000 New Richmond Mac CIG Wisc. Indianhead Technical Coll. John Hackbarth 715-246-6561	North Shore Mac CIG 18 Bethlehem Lutheran Church Grand Marais - 7:00 pm Jim Ringquist (218)387-2234	19
HyperCard™ SIG 22 Hagen Office Equipment - 7:00 pm Mike Carlson 866-3441 Mac Novice User SIG Tom Lufkin 698-6523	Mac Programmer SIG* 23 Gervaise Kimm 379-1836 Murray Jr. High, St. Paul - 7:00	Mac Desktop Publishing SIG 24 First Tech, 2640 Hennepin, Mpls. - 7:00 pm Bob Grant - 228-9637	AppleWorks® SIG 25 Murray Jr. High, 2200 Buford St. Paul - 7:00 pm Subject: TeleComm, TO Dialer, working with ASCII files Dick Marchiafava - 572-9305	26



NOTICE!

**Our Annual Swap Meet will be held October 13th.
Members & Vendors see page 17 and the advertising
section for details.**



Notes:

* Denotes a change in time or location.

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

*CIG - Community Interest Group
SIG - Special Interest Group*

**THE CALENDAR FOR
NOVEMBER IS ON PAGE 4**

Board Members:
Officers

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

Directors

Publications	Dave Undlin	432-0913
Software	Tom Gates	789-1713
Operations & Resource	Dick Peterson	473-5846
SIG: Macs	Jim Horswill	379-7624
SIG: Apples	Tom Michals	452-5667
Membership	Jason Mooney	627-0956

Coordinators

Beginners' Consultant	Earl Benser	884-2148
Shows & Conventions	<i>Open</i>	
Dakota County	Tom Michals	452-5667
Northwest Branch	Jere Kauffman	535-6745
🍏 Apple II Users	Tom Ostertag	488-9979
🍏 Apple IIGS SIG	Dick Peterson	473-5846
🍏 AppleWorks SIG	Dick Marchiafava	572-9305
🍏 Apple II DTP	Bill Warner	644-0658
🍏 Beginner's Basic SIG	Tom Alexander	698-8633
🍏 Languages/Tech SIG	Wesley Johnson	636-1826
🍏 Tech. Adviser (hdwre)	Roger Flint	771-2868

📧 Mac Users	David Stovall (eves)	474-8015
	Mike Carlson (days)	866-3441
📧 Excel SIG	M. Nightingale	545-9380
📧 Mac Programming SIG	Ian Abel	824-8602
📧 HyperCard SIG	Mike Carlson	866-3441
📧 CAD & Engin. SIG	Bill Langer	937-9240
📧 4th Dimension SIG	Ian Abel	824-8602
📧 Mac Novice SIG	Tom Lufkin	698-6523
📧 Smalltalk SIG	Martin McClure	227-9348
📧 DeskTop Pub. SIG	Bob Grant	228-9637
📧 MicroSoft Works SIG	Ken Edd	631-3679
📧 North Shore Mac Users	Jim Ringquist	(218) 387-2234
📧 New Richmond Mac U.	John Hackbarth	(715) 246-6561

Software Director's Staff

Apple // DOM Editor	Tom Gates	789-1713
MaceDOM Editor/Prod	Bob Fellows	
CP/M	<i>Open</i>	

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

Genealogy	Melvyn Magree	559-1108
Medical	Stewart Haight	644-1838
CP/M	Jim Rosenow	(414) 261-2536
PACER Center	Roslie Becker	827-2966

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

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

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

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

Make checks payable to: Mini'app'les

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

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

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

Deadline for publication for November newsletter only is October 5th. An article will be printed when space permits and if, in the opinion of the Newsletter Editor, it constitutes suitable material for publication.

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

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

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

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

Newsletter Publication Staff

Publications Director	Dave Undlin	432-0913
Editor	Linda Bryan	777-7037
Graphics Consultant	Nancy McClure	227-9348
Calendar	Dick Aura	941-1198
Assistant Editor	Tom Lufkin	698-6523
Contributing Editor	Tom Gates	789-1713
Contributing Editor	Steve George	935-5775
Contributing Editor	Jim Horswill	379-7624
Contributing Editor	Chris Gibson	437-8255
Contributing Editor	Dan Buchler	435-3075
Contributing Editor	Gary Kjellberg	459-1493
Contributing Editor	Ken Edd	631-3679
Production Manager	Cindy Reeve	934-7500
Business Manager	J. Edward Wheeler	881-5928

Circulation this issue: 1000

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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 \$ _____ (tax deductible) |
| <input type="checkbox"/> Sustaining \$25.00 | |

3. Please tell us your special interests:

- | | |
|--|--|
| Which personal computer do you use? | Area of Interest? |
| <input type="checkbox"/> Apple II | <input type="checkbox"/> Business Application |
| <input type="checkbox"/> Apple II + | <input type="checkbox"/> Home Application |
| <input type="checkbox"/> Apple IIe | <input type="checkbox"/> Educational Application |
| <input type="checkbox"/> Apple IIc | <input type="checkbox"/> Desktop Publishing |
| <input type="checkbox"/> Apple IIGS | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Macintosh Plus | Do you own or use? |
| <input type="checkbox"/> Macintosh SE | <input type="checkbox"/> Printer |
| <input type="checkbox"/> Macintosh II | <input type="checkbox"/> Laser Printer |
| <input type="checkbox"/> Macintosh SE/30 | <input type="checkbox"/> Modem |
| <input type="checkbox"/> Macintosh IICx/IICi | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Laser - Other | |

Sponsored by: _____

Check if interested in volunteer opportunities. Special Area _____

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

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

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

NOVEMBER 1990

Mac Main Meeting	Thur. November 1	Hennepin County Library, Southdale: PageMaker 4.0	Notes 4 & 14
Apple II DTP SIG	Thur. November 1	Murray Jr. High School, St. Paul	Note 19
Northwest Branch CIG		DISCONTINUED	Note 6
Apple // Main Meeting	Wed. November 7	North Regional Library: Educational Software-John Hyde	Note 11
Board Meeting	Thur. November 8	Lexington Branch Library, St. Paul	Members welcome - Note 1
Mac Computer Art & Design SIG	Mon. November 12	Mnpls. College of Art & Design, Computer Lab, Rm. 325	Note 7
Dakota County SIG	Wed. November 14	Metcalf Jr. High, Cedar Ave. & County Rd. 30 Burnsville	Note 16
North Shore CIG	Thur. November 15	Bethlehem Lutheran Church, Grand Marais	Note 15
Fourth Dimension™ SIG	Mon. November 19	Hennepin Southdale Library	Note 2
Microsoft® Works™ SIG	Tues. November 20	Highland Branch Library, St. Paul	Note 13
MacCAD/E SIG	Tues. November 20	Heath/Zenith Computers, Hopkins	Note 8
Apple IIGS SIG	Wed. November 21	First Tech Computer, 2640 Hennepin	Note 12
New Richmond CIG	Wed. November 21	Wisconsin Indianhead Technical College	Note 17
HyperCard™ SIG	Mon. November 26	Hagen Office Equipment	Note 4
Mac Novice SIG	Mon. November 26	Highland Branch Library, St. Paul	Note 9
Macintosh Programmer SIG	Tues. November 27	Hennepin Southdale Library	Note 18
Mac Desktop Publishing SIG	Wed. November 28	First Tech Computer, 2640 Hennepin	Note 3
AppleWorks® SIG	Thur. November 29	Murray Jr. High, 2200 Buford, St. Paul	Note 10

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

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

17. John Hackbarth	(715) 246-6561
18. Gervaise Kimm	379-1836
19. Bill Warner	644-0658

Members Helping Members

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

<u>Apple II</u>	<u>Key</u>						
Applewriter	2	TO SideSpread	1	PaintWorks Plus/Gold	15	Microsoft Excel	5,6,17,18
AppleWorks	1,2,9	TO QuickSpell	1	Prosel	2	Microsoft Word	4,5,6,14,17
Ascii Express	3	TO SpreadTools	1	TML Basic	3	Microsoft Works	11,17
BASIC	5	TO Thesaurus	1	TML Pascal	3	Networking	5,6,13,19
Beagle Buddy	9	WordPerfect		Writer's Choice	15	OverVue	
BPI Programs						PageMaker	4,6,17
Datalink 1200	1	<u>Apple IIGS</u>	<u>Key</u>	<u>Macintosh</u>	<u>Key</u>	PostScript	8
Dollars & Sense	1	816 Paint		4th Dimension		Power Point	5
DB Master	7	AppleWorksGS	15	Adobe Illustrator		QuickBasic	5,6
Epson LX80	1	APW	20	Beginners	13,14	ReadySetGo	
Hard & software	9	DeluxePaint II		Canvas	5	Telecommunications	19
Home Acc'n't	20	General	3,10	FileMaker II	17	WordPerfect	
Laser 3.5 drives	1	Graphic Writer II/III	15	General	14,17,18		
PublishIt!		Graphics Studio		Helix	16		
ProTERM	1	GS/OS	3	HyperCard	6,19		
Talk Is Cheap	3	Merlin 16+	15	MacDraft	5		
TimeOut	9,2	Mousetalk	15	MacDraw	5		
TO Graph	2	MultiScribe		MacPaint	5		
		Music Studio		Mac OS	4		

If you would like to be a "Members Helping Members" volunteer, please post your name, phone number, area(s) and convenient contact time(s) to Dave Undlin on the BBS or call the voice mail number - 627-0956.

1. Lloyd Nelson	423-3112	E	6. Dan Buchler	435-3075	E	12. Timothy Shea	739-3764	E
2. Tom Ostertag	488-9979	E	7. Ann Bell	544-4505	E	13. John Hackbarth	715-246-6561	D
3. Tom Gates	789-1713	EW	8. Fritz Lott	377-3032	E	14. Jim Horswill	379-7624	DEW
4. Tom Edwards	478-2300	D	9. Dick Marchiafava	572-9305	DE	15. Tom Michals	452-5667	
	927-6790	E	10. Randy Dop	452-0425	EW	16. Arnie Kroll	433-3517	E
5. Earl Benser	884-2148	EW	11. Ed Spitzer	432-0103	D	17. Michael Foote	507-645-6710	
						18. Richard Becker	870-0659	EW
						19. Timothy Kunau	737-4957	D
						20. Steve Peterson	922-9219	EW

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



Minutes of the Board Meeting

August 9, 1990

St. Paul Public Library - Lexington Branch

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

Members in attendance:
Steve George, David Kloempken.

The meeting was called to order by President Laden at 7:00 P.M. The meeting agenda was distributed and reviewed. Motion by Lufkin to accept agenda. Second by Peterson. Carried.

The minutes of the July 12 Board Meeting were submitted by Dop.

Motion by Lufkin to approve July 12 minutes. Second by Horswill. Carried.

Agenda Item 2.1 - President's Report

David Laden announced that his report this month would be a participatory event. David asked each board member to write a response to the question: What is the mission or purpose of Mini'app'les today.

Some of the responses given were: provide support for members in the use of Apple computers, disseminate information as it comes available concerning Apple computers, provide a source for shareware and public domain software, a forum for people with a common interest to exchange information and discuss common problems, communicate with members and public with computers in general, provide a social gathering, evaluation of software, be a service to the community in community education, a place for members to come for technical help, to have fun and learn new things.

David said that the Board should keep these responses in mind as they perform the duties of each position.

Agenda Item 2.2 - Vice President's Report

Tom Lufkin is in the process of composing a letter to a possible speaker for the February general meeting.

Agenda Item 2.3 - Secretary's Report

Randy Dop is in the process of sending out e-DOM coupons to members that have had articles published in the Newsletter.

Agenda Item 2.4 - Treasurer's Report

J.E. Wheeler provided a history of the events concerning the IRS penalties against Mini'app'les. The various actions and results were explained and discussed.

Report for June 1990 submitted by Wheeler.

INCOME			
Membership Dues	585.00		
Savings Account Interest	18.93		
eDOM Sales	82.00		
Newsletter advertising	473.40	591.87	
EXPENSES			
e-DOM Cost of Goods Sold	235.00		
Office supplies	21.00		
Telephone	40.00		
Postage, shipping	275.00		
Printing, publications	803.45		
Insurance	556.00		
Bank service charge	12.50	1943.55	
MONTH LOSS			784.22
Checking Account Balance			615.53
TCF Inv Mgt Acct			3158.27

Report for Second Quarter 1990 submitted by Wheeler.

INCOME			
Membership Dues	1830.00		
Savings Account Interest	53.73		
eDOM Sales	517.00		
Newsletter advertising	493.40	2894.13	
EXPENSES			
e-DOM Cost of Goods Sold	298.37		
Office supplies	21.00		
Telephone	97.50		
Postage, shipping	300.00		
Printing, publications	2389.54		
Insurance	556.00		
Bank service charge	18.56		
Petty cash, misc	72.77	4461.27	
SECOND QUARTER LOSS			1567.14

Agenda Item 2.5 - Membership Director's Report

Jason Mooney reported that the current Mini'app'les database is at 771 which includes members and newsletter exchanges.

Agenda Item 2.6 - Executive Committee Report

Randy Dop provided minutes from the Executive Committee Meeting held August 7. Action items: Tom Michals and Jim Horswill to contact all SIG coordinators and obtain a copy of any applications or permits that have been signed in order to hold meetings at the SIG location. Tom Lufkin to look into having Mini'app'les attend the MECC and MEA conference. David Undlin to contact Dan Buchler and retrieve any Mini'app'les property.

Board Minutes GOTO next page



Board Minutes continued from previous page

Agenda Item 2.7 - Publications Committee Report

David Laden reported for David Undlin that the newsletter delivery to the printer was on time with members receiving their issue before the first of the month.

Agenda Item 2.8 - Software Director Report

Tom Gates reported that the CD-ROM drive should have shipped on 27-July-1990. It has not been received yet. Tom provided statistics on the voice mail service. We are not receiving the statistics on a monthly basis from the service - Tom will investigate.

Agenda Item 2.9 - Resource Director Report

Dick Peterson reported that the club's LaserWriter is down. Jason Mooney reported that the print head on the Imagewriter II printer needs to be replaced.

Agenda Item 2.10 - Interest Group Directors Reports

Jim Horswill is exploring the possibility of a SIG at the U of M campus. Jim also reported that Team Electronics is interested in sponsoring a Macintosh SIG in the Oakdale Mall.

Tom Michals spoke with Fred Evans concerning a joint meeting with the Dakota County SIG concerning communications. Tom Ostertag and Dick Peterson gave a presentation on ProSel at the Main Apple II meeting. The Dakota County August meeting was cancelled due to a lack of meeting place. Possible Dakota County meeting subjects include Appleworks and Forth on the GS.

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

OLD BUSINESS

Motion by Marchiafava to cash the IRS check. Second by Peterson. Carried.

Agenda Item 3.2 - Purchase of CD ROM Drive

Item discussed during the Software Director report.

Agenda Item 3.3 - Committee Assignments and Appointment of Staff

William Foreman - Dakota County Planning Group.

Motion by Dop to accept appointment. Second by Horswill. Carried.

Agenda Item 3.4 - General Membership Meeting - February 1991

No new information.

Agenda Item 3.5 - Swap Meet

WHEN: Saturday, October 13, 1990

TIME: 10:00 AM to 2:00 PM (9:00 AM setup time)

WHERE: Apache Plaza

COST: \$10.00 per table

Members may receive 1/2 table on first come first served basis at no cost. Additional space may be purchased at per table cost. Commercial vendors allowed, pay for table space (\$10.00). Advertising/Publicity: Mini'info'line, Mini'info'net, Other BBS systems, Newsletter, Computer User, Press releases to community papers, Classifieds. Carried

[Ed. note: Sept. Board raised vendor fee to \$25.00.]

Agenda Item 3.6 - Mini'app'les Membership Blanks

J.E. Wheeler reported that the new membership blanks are being folded.

Agenda Item 3.7 - Mini'app'les Membership Roster

The membership roster was published in the August newsletter.

NEW BUSINESS

Agenda Item 4.1 - Formation of Nominating Committee

Dick Peterson nominated Tom Ostertag and he accepted. Jim Horswill and Tom Gates were given a list of people to contact. Tabled.

Agenda Item 4.2 - Insurance Coverage for Liability/Property Damage

SIG Directors to contact all SIG coordinators and obtain copy of any applications or permits that have been signed in order to hold meetings at specified location.

Agenda Item 4.3 - Contact Dan Buchler concerning Mini'app'les Materials

Mini'app'les need to contact Dan Buchler to obtain any club material he still has in his possession such as machine readable newsletter and DOM catalog copy, software (and registrations thereof), supplies, etc. Recommend current Publications Director to handle this.

Agenda Item 4.4 - Brainstorming session on Membership/Promotion

Tabled.

Agenda Item 4.5 - Repair of Imagewriter Printer

Motion by Dop to refer item to the Resource Director. Second by Lufkin. Carried.

The meeting adjourned at 8:50 P.M.





Announcements

Apple II Main Meeting

by Tom Ostertag

Hello there all you happy (hot) campers:

Well... the Apple II SIG met at their new location, the North Regional Public Library on Wednesday, 5 September. Fortunately the meeting room was air conditioned. Twelve people (including the speaker) showed up. When I arrived, there was a very impressive graphics and sound demo from the Free Tools Association being run. (Had to hit Control-Reset to stop the music...)

The meeting opened with announcements and very quickly merged into Question and Answers and discussion. There were some arcane questions about 3.5" drives and what happens when they die (\$) and how come Apple hasn't come up with an init routine to park the heads on the Apple II like they did for the Mac. There was also some discussion about nonSCSI hard drives.

Next was the presentation: Earl Benser kindly consented to talk about the early history and some of the more esoteric aspects of the Apple II. He admitted to the fact that he now spends more time on his Mac II than on his IIGS (but we let him continue anyway...) Earl also talked about networks on the Apple II and whether or not they would be possible. Earl talked about Apples until the Librarian announced that the library would close in five minutes. At that time, Dick Peterson wrapped up the IIGS and we all headed outside.

There was a discussion in the parking lot about where we should go for the after meeting meeting and it was decided to head towards Robbinsdale. They may have found a place and are probably still there, but I had to go home and pack for vacation. (Door County on our Tandem...)

See you next month. John Hyde will present the latest in educational software for the Apple II. Should be good so come on up North where everything swings...

Tom

Upcoming meetings

Note new meeting site: North Regional Library, 1315 Lowry Avenue North, Minneapolis. This is on the corner of Emerson and Lowry.

October 3: *John Hyde* will gather some of the best educational software together and bring it to this meeting. We've seen lots of great stuff in years past and this year should prove no exception!

November 7: *Lee Reynolds* will talk about the "Art and Magic of Word Processing" and will show several word processors. Come and watch her put that truculent text through its paces.

December 5: *Fred Evens* will present the perennial favorite at this time of the year: Games, Games, Games....Come and see what great games have been developed for the Apple II platform this year.

Tom Ostertag

AppleWorks SIG

by Dick Marchiafava

October 25: TeleComm, TO Dialer, working with ASCII files

November 29: (fifth Thursday) Using Mail Merge

December 20: (third Thursday) Spreadsheet Template Development

January 24: ReportWriter; Using AppleWorks relationally

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

New Apple DTP Sig Director

Bill Warner (644-0658) is the new Apple DTP SIG director.

MCAD SIG (Mac Computer Art and Design)

Meetings start at 6:45 p.m. Location unless otherwise noted
Minneapolis College of Art & Design
Computer Lab, Room 325
26th and Stevens, Minneapolis

October 8—no confirmed meeting topic yet.

November 12—Understanding PostScript and PostScript Programming. Presenter: Fritz Lott, freelance PostScript programmer. Fritz will share his work in PostScript programming and define this software technology. A discussion on when and how to incorporate this type of service into your page layout work will be the focus of the presentation.






Letters to/from the Editor

Mac MultiFinder Users Take Note

Dear Editor:

In the July 1990 Letters to the Editor, I had the temerity to offer an addendum to your article on MultiFinder. I said, in part:

If you hold down the option key while choosing the  menu, you will only see the applications that you have open in MultiFinder. This saves scrolling through a long list of DAs in order to get to the list of applications. I have a lot of DAs and I have to pack a lunch before scrolling through them.

My heart was in the right place, but my brain wasn't. Nancy McClure told me recently that this trick didn't work on her machine. At this point, Bob Grant pointed out that it only works if you have Suitcase installed. Silly me.

Via con carne.

Jim Horswill

From a corporate member

April 16, 1990

Dear Editor,

It was with interest I read the article by Fank Van Alstine, "What They Didn't Tell You: Mac Monitors" in your April 1990 newsletter. The writer had contacted Hagen Office Equipment and First Tech in his search for a 256 grey level monitor. ComputerLand has been an Apple Authorized Dealer for 10+ years and I was surprised that we weren't thought of or contacted yet Dayton's Computer Depot which has been out of business for over three years came to mind. As a point of reference, ComputerLand sells, services and supports Moniterm Viking monitors and 90 percent of the time we have a unit in each of our Business Centers for demonstration.

Enclosed is our membership application. Although we don't promise that ComputerLand will be a proactive member, we would like to be involved and contacted about new products, demonstrations and special offerings that mini'app'les may need. We're very pleased to see the new thrust of your newsletter with attention being given to education, children, etc. These are the major reasons that we are applying for membership. Thank you.

Pat deJager
Education Market Manager
ComputerLand Education Det.

[Editor note: This letter just came into my hands recently. I am unsure as to how accurate the information about Moniterm monitors is. Nevertheless, we thank the author for her letter.]

Did you know...

Nancy McClure, graphic artist, won first prize in the Fossil Watch Company's watch design contest. She used Aldus FreeHand, with output on the Electronic Easel's QMS ColorScript printer.

Lost ad?

Apparently I've lost a member ad. Will the member who gave Steve George a "printer wanted" ad months ago please contact the club again?

Red alert

I threw the Board into a panic this month by saying that I had few locally-written Mac items and only one Apple one. Steve George reminded me of a number of transcribed or downloaded items he uploaded onto the bulletin board earlier in this year—faithful servant of the Club—and you'll find them in this issue. But the fact remains, we haven't much in the way of locally-generated material, especially about the Apple II side of things. (What would we do without Dick Marchiafava?)

I know that the Club has a lot more Apple II members than the Newsletter contributions reflect. Why not write up your impressions of some Apple II or AppleII-related product?

Many members feel that they're still learners and that they haven't the expertise to write. That's hogwash. Anyone who has conquered some concept in operating a computer can teach another member who still hasn't got the hang of that concept. We need articles on all levels. If we're going to attract more members, we have to talk to more members, and that means the beginners, the new owners, the ones that have only conquered three software packages in the five years they owned the computer (and one of those is PrintShop and two are games).

Since it's the beginning of the school year, I must remind you readers that we've made a commitment to working with kids and schools, but I still lack a kid editor for a kid's page, and have recruited only a couple kid writers in six months. That's awful. I'm looking for material by kids for kids. My address is inside the front cover.

And then there's the largest single Apple-using demographic group in the nation—school teachers. We need more information about Apple II and the schools. Parents, kids, and teachers can all benefit from those of you who have something to say about computers in the schools.

Now for something completely different— letters on the BBS

Letter to the Publication Director, David Undlin:
David,



Seems like people are very pleased with the newsletter. So am I. A lot of credit goes to you for your leadership in this area. I'm sure I speak for many members when I say that I'm very appreciative to you and the entire newsletter staff (Linda, Cindy, Nancy, Dick, Tom, Steve, Jim, Chris, Ken, Richard, ... did I miss any one?) for the work you are doing.

I know that all of you spend many hours each month on this task and it really shows. We have a classy publication with good articles, editorials, etc. and it is getting better each month. Glad to see we are doing more with "press release" type material (e.g. Closing the Gap Conference, MECC 1990 conference) and really enjoyed Linda's Letters to/from the Editor. Thanks again!

David Laden

And after a BBS discussion of whether we need to sell ads to keep the newsletter going:

Hello all,

I just wanted to second Dave Laden's remarks and let you know my appreciation for the Newsletter and the work going into it to improve it each month. As mentioned by others, the ads do not bother me, I read them and sometimes find them useful if I'm in a buying mood, and they do help pay for the thing! The color covers are nice, but not mandatory... It seems to this ordinary reader that a lot of energy is going into improving the look & content, and it shows!

Thanks.

Leroy O. Sorenson

An important correction referring to our previous issue:

Linda,

Have done some checking and here are the names that I have found to go with the articles I submitted to you (they were run in our September 90 issue):

Fargo Moorehead Apple User Group (FMAUG) articles on scanners were by R. Reames.

What to put on a harddrive article was by Rick Taft.

Database conversions between Apple/Mac databases is by Rich Lowenburg.

I will add my two cents worth here also for the really fine job being done by the newsletter group. Looks nice, and I'm getting comments on its appearance when dropping off newsletters at dealers.

Tom Gates

And a comment about the letter above:

Tom,

I am glad to see that we are going to publish the names of the articles' authors. It may be a small point to some, and it may just be that I personally know the authors of many of these articles, but I recall one a while back which seemed to

give the impression that a Mini'app'les member had written it, when in fact it was a handout at a national seminar. That kind of practice does not give a very good impression of our group nationally, and with telecommunications, we *are* known nationally. Thanks!

Gerry Rasmussen

And a tirade from the old bag...

To all who have been kind enough to post their positive comments, thanks a bunch.

At deadline time, I go crazy and my family gets lousy meals and I begin leaving draft copies on all tables in my house. But after the thing goes to Cindy for final assembly and I look back over all I've learned by reading and working with the authors' stuff, I feel really good about being involved with the Newsletter.

I have a proprietary stand toward these writers—they're "my" authors. Each one—the ones who've written for years and the ones that have just taken their first shot at writing for a larger public than they did in school—is really special. I figure that each author puts at least two, and sometimes more like ten, hours into a piece. Board minutes, how-to's, philosophical speculations, whatever. They all take tremendous amounts of time.

Someone said that the layout is a snap: "You just pour it in, right?"

Well, that's what Aldus would like us to think. Actually, there's a lot that goes into working with a "finished" document. Rewriting for style and clarity, proofreading for typos and grammar, checking if something seems to be amiss, then search and replace of extra spaces and uncurled quotes/apostrophes and substitution of em dashes for two hyphens, then formatting of the doc for styles (body text, subheads, lists, etc.).

Then, when most of that is done, I quit Word and go into PageMaker (I'm using my copy of 4.0 now) and begin to see how long each article is. I roughly divide the pages into their sections (general, then Apple, then Mac, then potpourri) then delete the temporary "pour" and begin pouring again, this time more seriously.

The redesign will omit the drop caps. Drop caps alone take about two hours to accomplish on a Mac Plus for one issue, and even then a few will be misaligned or missing.

Working with the Newsletter has taught me a lot about the nature of repeating publications and how hard it is to achieve a consistent look from issue to issue. My respect for Dan Buchler and his past staffs has risen with each look backwards. I have better software available and it's still damn hard.

Keep writing, folks! You too can be one of *my* writers.

Linda





The AppleWorks Advisor

A Column For Users Of AppleWorks

by Dick Marchiafava Copyright 1990. Publication by permission only.



Macros Easy As AppleWorks ==--== Imagine ==--==

You load and use AppleWorks as usual. The time arrives when you get to the point where you want to use make some macro commands, but do not know how to create them. However, you recall a small message that would flash on the screen each time AppleWorks starts, which tells you to press a certain key to create macros.

When you use that command, you would be prompted through a short series of commands which will start you recording macros, testing the macros, saving a macro file to disk and updating AppleWorks, so your own macros are available to you. Creating macros as easy as using AppleWorks? Exactly!

On September 6th Tom Weisharr, publisher of A2-Central, called me in a state of excitement. He said he had a man with him who has done impressive things with UltraMacros to make creating and using macros as easy as using AppleWorks.

Tom said he wanted to send this man to see me. So twenty-four hours later, I was at the airport to pick up someone whose name I did not know. All I had was a general description of this paragon of macro programming. However, I was easy to identify, as I brought a green two-wheel cart for his use with luggage.

My visitor, Dr. Hugo Balster of Wickede (Ruhr), West Germany made the contact without difficulty. This began an intense four day period.

Dr. Balster is a physicist and computer consultant from near Cologne, in Germany. In his role as a computer consultant, he devised methods for clients to make creating and using macros easy. His intent is to have UltraMacros available when the user is ready to begin using it. This concept requires that the initial level of macro generation be transparent to the user, and look and feel like AppleWorks.

Dr. Balster has considerable experience with Apple //, Macintosh and MS-DOS computers, programs and the macro command techniques used on these systems. He consults on creating macros for these computers. He also teaches computing and physics. In his opinion, UltraMacros is powerful macro and programming software, and is the macro program he prefers to work with.

Development is nearly complete on German and French versions of AppleWorks 3.0 and his macro system. During his trip to the USA, Dr. Balster he had discussions with various persons about developing and publishing an English language version of this system, with variations for USA, Canada and Britain. I asked if he had a Spanish version planned. He smiled and suggested that I get that one made.

The Balster macro system uses a "Universal Macro" set, a specific set of macros to make creating macros by recording easy, and an UM Task File that is used for writing more advanced macros.

The Universal Macro set is a basic macro set to be used as a beginner's first macro command set. The macros used to create macro commands will take a user to the point where simply recording will not produce the commands desired. From there, the user can to learn to edit macros to add features and power that cannot be achieved by recording.

The next step is to create macros by writing them in the macro word processor file. The Macros Writing task file can help the user with editing and writing macros. It is designed to do this in a way that mistakes are eliminated, or at least, minimized.

Much of the money raised by the sale of the Balster macro system is slated to be used to pay programmers, such as Randy Brandt, for their work.

I am very impressed by the Balster macro system. I will be keeping in touch with this project, expect to read more about here in coming months.

Ditto By Word Macro Again

A few months ago, I discussed two ditto macros, the first a ditto by character, the second was ditto by word. Greg Gilles created these macros, when I expressed a wish for them.

Both macros worked in the word processor, but always returned the overstrike cursor. Greg changed the character ditto macro to return the insert cursor, but we could not get the word ditto macro to do the same.

Thanks to Dr. Hugo Balster, the word ditto macro has been completed. This macro now returns the insert cursor, if it is selected or the overstrike cursor, if it is the selected cursor at the start of the macro.

Ditto by word macro. Cursor can be under any character in the word above.

```
:<awp><c = peek 4337 up right oa-left begin
: read : left down $3 = $0 : print $3 : up A
= asc $0 : ifnot A = 32 rpt else : down if c
= 0 then insert else : stop>!
```

Date Format With Macros

With the arrival of September 10, 1990, the length of the date printed by a macro became long enough to exceed the date location I provided in some spreadsheets. These templates were designed in the days when a date macro printed the date as Sep 10, 1990.

The date locations were long enough for the longer AppleWorks 3.0 date format, until September 10th. When I found I was loosing the last character of the date, I grumbled



a bit and decided to use the other date format, as in 9/10/90. It would not be as suitable for word processor documents and data bases, but it would fit the spreadsheet date location. I selected format #2 from the menu (below).

My date macro still returned the date as: September 13, 1990, instead of 9/10/90. A refresher look at the UltraMacros manual reminded me there are 2 Open-Apple commands added by UltraMacros for use in dating. To use these commands in macros, the macro tokens are <date> and <date2>. I change my date macro to use <date2>.

Things got better, but it still needed some refinements. Dr. Hugo Balster showed me that the Change date format screen (below) is inaccurate, or misleading. If one selects either #1 or #2 from the menu, the date format printed by a macro depends on the macro token assigned. Selecting #3 or #4 moves the day of the week to the front of a date, in the European or military manner. The date tokens are assigned to the formats indicated below.

Change date format

- | | |
|----------------------------------|---------|
| 1. Mon DD, YYYY (April 11, 1988) | <Date> |
| → 2. MM/DD/YY (4/11/88) | <Date2> |
| 3. DD Mon YYYY (11 April 1988) | <Date> |
| 4. DD/MM/YY (11/4/88) | <Date2> |

With this information, I was able to close in on the date format I needed. I finally decided to keep the long date format (September 10, 1990) for word processor and data base use and use the short format (9/10/90) in the spreadsheet. The date macros at this point look like:

```
Date (Print the current date)
D:<awp><oa-Y date>!
D:<adb><oa-Y date>!
D:<asp><date2 : rtn>!
```

In the first two macros, the oa-Y erases any date that exists when a new date is to be entered. In a spreadsheet this is not needed, as an entry in a cell will replace the prior entry. The third macro was changed to <date2>.

That macro will not work in a spreadsheet just as it is, however. The macro will print 9/10/90 into a cell, which the spreadsheet interprets as a formula, returning a value of .01. The long date format starts with a word, therefore is accepted as a label.

To get the macro to work correctly, it was necessary to enter an alphabetical character to force a label format and then delete that character. With that change, the macro works correctly. The spreadsheet date macro looks like this:

```
D:<asp>a<del><date2 : rtn>!
```

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

Dear Appey

by Tom Alexander

Dear Appey—My husband wants to get me an Apple IIe enhancement kit for our Silver Anniversary. I had my heart set on a 40 meg hard drive. What should I do? Signed—Mrs. Scrooge
Dear Mrs.—Compromise is always best. Insist on a 40 meg hard drive and a new Apple IIGS. Cheapo will then pop for the hard drive.

Dear Appey—My doctor told me to loose weight. He said too many pounds are bad. Since getting my Apple IIc I've accumulated 3,430 disks. Is this bad for my IIc? Signed—Big Daddy

Dear Big—Only if you try to boot them all at the same time.

Dear Appey—My grandfather told me to keep my nose to the grindstone. Does my Apple IIe have a grindstone? Signed—Pinnocchio

Dear Pinnocchio—Your grandfather, although well meaning, is outdated. Today we say, "Keep your nose to the drive." This is done by putting your nose in Drive One and turning on the power.

Dear Appey—ProDOS has added a few new commands and frankly I'm stumped. My plumber hooked up water to my Apple IIGS and I've tried and tried to flush it but nothing works! Signed—Roto Rooter

Dear Roto —How much did he charge?

Dear Appey—I'm a veteran. Most government jobs have veteran's preference. Will learning Applesoft BASIC recognize my status? Signed—Major Major

Dear Major—Yes. The veteran's version of the language will allow you to use the keyword HALT instead of STOP.

Dear Appey—Most of my friends use Copy II+. Can I use it to copy a Kaypro disk to one of my 5.25 inch disks? Signed—Zee Rocks

Dear Zee—Sure. But you can only use it on a Kaypro. Apple doesn't speak that kind of language. It's too foul.

Dear Appey—My daughter said she wanted a mouse for her birthday. I thought girls were supposed to be afraid of mice. Where do I get one? Signed—Sylvester

Dear Sylvester—Try a local computer store. If they don't have one, try the Humane Society.



**Mention the
Newsletter when you
respond to an ad!**



Look Mom, No Software!

The Apple II Plus in the Kindergarten Classroom

by Phil Shapiro

A computer without software is supposedly no more than an expensive paperweight. Last week I learned how this maxim is not necessarily true. The setting was a small after-school class I teach at a nearby primary school. The class is composed of four or five kindergarten students who share three computers. Since the school does not have a lot of funds for computers, the students make do with two old Apple II Plus computers, and a Commodore 64.

The Apple II Plus, while antique by today's standards, performs valiantly well in the classroom. A lot of educational programs were written in the early 1980's, the heyday of the II Plus. As long as the computer has 64k of memory, you can run hundreds and hundreds of fine educational programs. (The original II Plus came with 48k of memory. You can buy a 16k memory card for about \$40 from various mail order companies.)

Last week we played *Reader Rabbit* on one of the computers. After the kids had played for a while, I decided to boot a simple joystick game on one of the two Apple II Plus's. One of the students wanted to continue to play *Reader Rabbit*, so I carried the disk over to the other II Plus to boot it up.

Much to my dismay, *Reader Rabbit* would not boot on the second II Plus. The only thing that appeared on the screen was a hodgepodge of mixed up graphics.

Meanwhile, the other students were tugging at my sleeve to play the joystick program. The situation forced me to consider how I could use the computer without any software.

Writing practice without using software

First I switched off the II Plus to clear the memory. After a suitable five-second pause, I turned the computer back on, and pressed the two keys <Control-Reset> together to stop the disk drive from spinning endlessly.

Then I typed "HOME" to position the cursor at the top of the screen. Now the *Reader Rabbit* scholar could type whatever she wanted on the screen. My task as a teacher would be to give her little assignments to perform while I was assisting the kids at the other computers.

The first assignment was the typing of her name. Quickly completed, the next task was to type the name of friends, siblings and parents. Help with spelling was available, if needed.

All the while, this young scholar was learning both keyboarding (the position of the letters on the keyboard) and editing skills. Mistakes could be corrected by using the "back-arrow" key, and typing "on top" of the mistake.

For a young child learning to read and write, this type of activity is ideal for experimentation. For a young child,

writing and erasing words on a blank screen amounts to his or her first brave steps into the mysterious and fabulous world of literacy.

So the next task almost suggested itself. "Could you please write the word 'stop' for me?" Every kindergartner knows how to spell "stop." So she enthusiastically undertook the task of finding the letters "S-T-O-P." After the word "stop," the next task was "dog" and "cat."

By this time, the young scholar was on a roll. She had typed in over four words, and there was no stopping her now. Her stated goal was to fill the screen with as many words as possible. My job, as teacher, was to keep feeding her with simple, phonetic words to type on the screen.

By the end of the half-hour class, she had typed in "red," "big," "ball," "play," "sky," "pie," and "boy." As her final assignment, I suggested she type in the short phrase, "big girl." The word "big" was already on the screen. All she had to do was go back and find it. Quite accidentally, this young student and I had stumbled into the world of literacy.

To her own astonishment, the young girl was able to find the word "big" from the long list of words on the screen. With a little prompting, she typed in the letters "G-I-R-L." As she finished her last assignment of the day, she grinned at her bold foray into the "adult world" of literacy. The last phrase neatly summed-up her own feelings of self-competence.

Options for blank screen computing

As I walked home from the lesson, I couldn't help but think that the lesson had actually been enhanced by the malfunctioning computer. Educational software still holds out great promise in stimulating young minds. But, by the same token, a blank screen provides an exquisite "intellectual sandbox" for inquiring young minds.

Here are some tips and suggestions for parents and teachers who would like to experiment with "blank-screen" computing. You may want to forewarn your kids that the computer may spit out some "Syntax Error" messages every so often. These messages are accompanied by an annoying short beep. Apple IIc, IIc+, and IIGS users can turn the sound down or off. II Plus and IIe users do not have any hardware options with sound. *[Though it means opening up the cover, I would consider unplugging the speaker, a hardware option -C.Ed]*

From the computer's point of view, the words on the screen are part of a computer program. If the computer can't make sense of the words, a syntax error message will follow. You can minimize the syntax error messages by refraining from

II Plus GOTO next page



Impossible Mission II

Review by Pete Iber

Impossible Mission II (Epyx, Apple II series) is a video arcade joystick skill game with an added plot for mystique and challenge. I did not play or examine the first entry in the series, so my impressions are likely those of anyone who might purchase the game based solely on its box description.

You must have a 128k Apple IIe or IIc or a GS to play this game because it uses very good double high resolution graphics. Motion is excellent, without any ragged edges or blurring. The game comes on a double-sided 5.25" protected disk. Directions for saving your game are unclear. An extra sheet tells you to have a pre-formatted DOS 3.3 disk available to

II Plus continued from previous page

pressing the Return key. Another option is to type "10 REM" before the child's writing. This little trick fools the computer into thinking the words are comments to a computer program.

As a matter of fact, you can use any number before the words REM. For your own education, REM is an abbreviation for the word "remark."

Another option for blank-screen computing is to load up your trusty word processor. The drawback with word processors is that the text is usually displayed in 80-column format, which is far too tiny for young eyes.

The best possible situation would be to have large-sized, proportionally spaced text on the screen. A Macintosh computer with Adobe Type Manager gives crisp looking, large-sized text. Choose a font of about 48, or 72 point. That way, the children will be able to clearly see the shape and form of the words they type. [Um, suddenly we went from using a II Plus without any software to mentioning a Mac and Adobe. If these two are going to get a mention, let me mention a IIGS and AppleWorksGS or MultiScribe or just about any other IIGS-specific word processor. Also, for most of the II series, the generic Paint programs allow use of a Text Tool with varying point sizes. And, while most will not have the clarity of a specialized product like ATM, most people already have these programs at home. -C.Ed]

[Another option is to use FrEd Writer, the free educational word processor, on a machine with at least 64K and lower case. It has a 40-column/80-column toggle to allow the program to be used by younger children who need large type as well as by older writers who prefer to see more of the composition at once.—Ed.]

from the Washington Apple Pi Journal 4/90
via Steve George, Mini' app' les Contributing Editor



save onto, unless you wish to save onto the game disk. How to save onto the game disk is not well explained and for the beginner will present problems. As you load the game, you will be told to flip the disk and then continue the load. That puts you on the flipside, which of course is not punched for a save. You must reverse the disk before saving.

The objectives are to collect code numbers and music segments for use in your pocket computer. When you have the right code and a piece of music from one of Elvin's safes, you may proceed to the next of seven towers to be explored. As someone without a great amount of hand-eye coordination when using a joystick, I found it took about 4-5 hours to get proficient enough to complete one tower in the time allotted for the game. Eight game hours (actual time is about one hour) are given to solve 7 towers and get to Elvin. If you don't make it, you will be shown a score sheet based on the number of towers solved, codes broken, and music collected. If you finish all 7 towers within the time limit (I didn't even finish 3), you must then enter Elvin's tower and find the correct computer to deactivate the missiles he has set to destroy the world.

The manual for this game is very loosely written, addressing all types of computers in one book. This leaves much to be desired for the beginner. An added sheet (could have been an afterthought) has been included only for the Apple series.

You will need a good joystick for this game. The instructions tell you how to play from the keyboard, but I wouldn't recommend trying this. It is hard enough to work your agent with a joystick and fire button, much less operating eight keys and the closed or open apple keys.

The game is challenging and younger readers especially should enjoy it. The challenges are varied and even an adult can find some serious spatial problems to overcome within the game. Impossible Mission II is a typical Epyx game, and follows their general challenge game format. If you want a fun evening without a lot of mental strain, this game is for you.

Impossible Mission II Rating

- Look: 10/10 (The graphics are good.)
- Feel: 9/10 (The joystick is calibrated at the beginning of the game, but it will still take you some time to make your agent work the way you want. The sound is somewhat irritating, but can be shut off.)
- Play: 8/10 (Some may find the game next to impossible to win and not experience some of the specials I'm sure are there. I didn't make it myself.)

Reprinted from Washington Apple Pi (WAP) Journal 4/89
via Steve George, Mini' app' les Contributing Editor



Random Access Memory Lane: Disk.Menu

by Clark Hugh Stiles,GRApple NEWS 2/89

DISK Menu Program

Back in 1987 and perhaps early 1988 I showed you a 40-column menu program that allowed you to run, lock, unlock, and delete files with a scrolling point-and-shoot method that works well. It cataloged a subdirectory and read what was on the screen using the wonderfully useful PEEK command. PEEK and POKE have always been my favorite command names, probably because I'm a degenerate. Bawdy All-purpose Symbolic Instruction Codewords...

The final versions of those old programs split the directory up a bit with the use of the T parameter to view only the files of a particular filetype (thanks to Brian Patrie). This was a masterstroke because it not only allows almost all filenames to fit on the screen so that they *can* be read, it also makes it simple to control what commands are available. This means that Appletworks files can be listed, but can't be RUN like a BASIC program.

Here is version 4.0 of CAT.MENU, now called DISK.MENU so you don't think you'll be given a choice of cats in a pet store or some such...

Listing One

```
NEW
0 D$ = CHR$(4): PRINT D$"PR#3": PRINT:
  S = 5: D = 1: OV = 20: VTAB 12:HTAB 8:
  PRINT "Disk.Menu by Clark Stiles": CALL
64780
1 T = 1:L = 2: PRINT D$"PREFIX,S"S",D"D
2 PRINT D$"PR#3": PRINT: TEXT:
  PRINT D$"CAT,T" MID$(
  "BASBININTSYSTXTAWPASPADBDIR"
  ,T * 3 - 2,3):V = 20
3 VTAB V:K$ = "":A = PEEK(40) +
  PEEK(41) * 256:K$ = K$ + CHR$(
  PEEK(A + X) - 128):FOR X = 1 TO 7:
  POKE - 16383,0: POKE - 16299,0:K$ = K$ +
  CHR$(PEEK(A + X) - 128):POKE -
16300,0:
+ X) POKE - 16384,0:K$ = K$ + CHR$(PEEK(A
- 128):NEXT X: X = 0: POKE 36,0: IF LEFT$(
(K$,1) < > " " THEN GOTO 5
4 ON V > 19 GOTO 12:V = 20: GOTO 10
5 OV = V
6 HTAB 2: INVERSE : PRINT K$;: NORMAL
7 CALL 64780:K = PEEK(49152): ON K < 128
  GOTO 8: ON (INT(PEEK(49249) / 128) +
  INT(PEEK(49250) / 128) + 1) GOTO 7
8 HTAB 2: PRINT K$;: ON K + 1 GOTO
6,14,14,14,14,6,14,26,13,14,10,11,23,17,25,6
19,28,6,14,14,12,15,14,6,6,6,28,20,6,6,6,6,6
6,6,6,6,6,6,6,6,23,6,6,6,6,29,6,16,16,16,16
16,16,16,23,6,6,6,6,6,6,6,29,6
9 ON K - 64 GOTO
14,14,14,14,6,14,26,6,14,6,6
23,6,25,6,19,28,6,14,14,24,15,14,6,6,6,6,20
6,6,6,6,14,14,14,14,6,14,26,6,14,6,6,23,6
```

```
25,6,19,28,6,14,14,24,15,14,6,6,6,6,20,6,6
22: GOTO 6
10 V = V + (V < 20): GOTO 3
11 V = V + 20 * (V = 1):V = V - 1: GOTO 3
12 ON L * T = 9 GOTO 15:T = VAL(MID$(
  "23456789",T,1)): GOTO 2
13 T = VAL(MID$("912345678",T,1)):
GOTO 2
14 T = VAL(MID$(
  "112791811311111191145116
  1111111111111111111111111111111111111111
  2791811311111191145116111111111111
  2791811311111191145116",K + 1,1)): GOTO
2
15 D = VAL(MID$("1121",L + D,1)):T =
1:
  GOTO 1
16 S = K - 48: GOTO 1
17 ON T GOTO 27,27,2,27,2,2,2,2
18 PRINT D$"PREFIX";K$:L = 1:T = 1: GOTO
2
19 PRINT D$"PR#3": PRINT D$"PREFIX":
INPUT N$:
  PRINT "Enter Prefix: "N$;: HTAB 15:
  INPUT " ";N$: PRINT D$"PREFIX"N$: GOTO 2
20 PRINT D$"PR#3": PRINT D$"PREFIX":
INPUT N$:
  N = LEN(N$)
21 N = N - 1: ON (MID$(N$,N,1) < > "/" )
  GOTO 21:N$ = LEFT$(N$,N): PRINT D$(
  "PREFIX"N$: GOTO 2
22 PRINT D$"DELETE"K$: GOTO 2
23 PRINT D$"LOCK"K$: GOTO 2
24 PRINT D$"UNLOCK"K$: GOTO 2
25 VTAB V: HTAB 2: INPUT " ";N$: ON (N$ =
  "")
  GOTO 2: PRINT D$"RENAME"K$", " LEFT$(
(N$,15):
  GOTO 2
26 ON (T < > 1) GOTO 2: PRINT D$"LOAD"K$:
GOTO 2
27 PRINT D$"PR#3": PRINT : PRINT D$-"K$
28 PRINT D$"PR#3": PRINT : NEW
29 GOTO 2
  SAVE DISK.MENU
```

[Note: enter long lines like #3 without spaces between commands or letters (except within "quote marks") or the commands won't all fit within a line number. -C.Ed]

Reunite each program line as you enter it. I had to split some of the lines, such as Line 14, onto several printed lines, either for length or clarity or both. Problems? [Call the Mini' app'les BBS and capture it from the Apple II board. You'll still have to edit it, but you won't have to enter it. -C.Ed]

The method by which we PEEK the odd columns of the screen as well as the even comes from the Apple Clinic column in the March 1988 *InCider*. I've fooled with it to jam the whole formula into one line.

Okay—since this program will be noticeably slower than the 40-column version, I should point out that it is also much easier to use on the IIfx, IIfx+ or IIGS because of the



keyboards *and* the built-in 80-column capability. Don't even think about arguing that the IIe needs a (standard) expansion card to display 80 columns.

Using Disk.Menu Command Keys

Left and right arrow keys move to next filetype, and up and down arrow keys move the inverse box. The other commands are easy enough to figure out. All key descriptions assume a combination with one of the Apple keys or (usually) the Control key. In the case of using the Delete key to delete the highlighted filename, you must also hold down one of the Apple keys (II+ does not have either key. [Apple keys can be simulated with the joystick/paddle buttons on a II+]). All pertain to the files on the current prefix.

Catalog Commands

- A** = Applesoft programs
- I** = Integer programs
- T** = Text files
- C** = Spreadsheet ("Calc")
- D** = Directory files
- B** = Binary files
- S** = System programs
- W** = Word Processing file
- F** = Database ("File")

File Commands

- L=Lock file (Apple-* shifted or unshifted also locks files)
- U=Unlock file (Control-U is one of the arrow keys instead)
- N=New name (then enter the new name. Program selects first fifteen characters.)
- G=Get (Load) BAS file (rejects other types)
- Apple-Delete deletes file

Path Commands

- V=Volume (back to main directory, or if there then jump to other drive)
- #=Jump to slot 1-7
- \=Strip one level of Prefix (to exit Subdirectory)
- P=enter Prefix by hand

Other Commands

- ?=Help (You have to write your own help screen. End with GOTO 2.)
- Q=Quit (Escape also quits)

Modifications

RETURN will dash ("-") or smart run command) the highlighted filename if the filetype is BASic, BINary, or SYSem. Return will set the prefix to the name of the highlighted DIRECTORY file. If you want to be able to EXEC textfiles, change the program this way:

```
20 ON T GOTO 27,27,2,27,27,2,2,2
```

If you do not have a Delete key, change the program to make Control-E erase files. In Line 8 change the second "6" to "22". This makes Control-E branch to line 22, which DELETes the highlighted filename. Once DELETED the program can't get it back, so DELETE *carefully!*

If you catalog by any filetype and there are no such files, the program will advance to the next filetype. If you are in an empty subdirectory you'll return to the main directory after the program checks for each of the nine filetypes. If the main directory is empty...well, try Control-C (you'll have to hold it down).

This bug is easy to fix, I just don't feel like it. Add a line to check — BLOAD/DISK.NAME,TDIR,A768,L2,B28 I believe it is. If both bytes are zero there are no files, Take my advice—use this menu program on disks that have files instead.

The only things this version *still* won't do is UNDELETE files and FORMAT disks. Wait a month and ask me.

Enjoy the program. Enjoy this weather. All too soon we'll be jumping in the convertibles and heading for the pleasant inland seas for a refreshing dip and some volleyball, wishing that winter were back among us (joke).

submitted by Steve George, mini' app' les Contributing Editor





Morgan Davis Group's Object Module Manager for Apple II Programmers via Usenet

The Morgan Davis Group released in June its latest product, the Object Module Manager (OMM), an application technology for BASIC and machine language programmers. The Object Module Manager implements a dynamic overlay management system that cooperates with ProDOS 8 and ProDOS BASIC to manage intercommunicating program modules and drivers. It provides these services:

- Makes it easy to add machine language routines and drivers to BASIC
- Allows many programs to peacefully coexist in memory
- Makes efficient use of memory
- Protects loaded program modules from being overwritten
- Instantly relocates modules from disk into memory
- Modules may be loaded and unloaded as needed
- Provides intermodule communication (IMC) technology
- Includes utility routines common to machine code programs
- Supports built-in ampersand command parsing
- Allows a code module to be removed from memory, dynamically relocating remaining modules to reclaim unused memory space.
- Completely compatible with ProDOS, BASIC.SYSTEM, and Applesoft
- Programmer and user-approved standard interface

Morgan Davis, president, says, "Basically, the OMM does some really neat things that until now could not be integrated into one system of managing multiple machine language programs. The ability to parse ampersand commands makes it easy to interface machine language routines with Applesoft. And, since programs using this system can communicate with one another, the possibilities are endless for a highly-integrated environment of program modules and drivers. This technology provides the foundation for our future projects, and we're confident that it is the standard method by which machine language programs and Applesoft will integrate."

To develop modules for the Object Module Manager, the programmer should have some experience with BASIC and 6502, 65C02, or 65816 assembly language. An assembler is also recommended in order to write custom modules. Included with the OMM Development System are sample source files in ORCA/M (APW) and Merlin assembler formats, the Object Module Manager system with source code interface and runtime files, and fifteen pages of on-disk documentation. Commercial distribution and site licensing is available for a low one-time fee.

Requires any Apple II series computer and a disk drive. \$24.95.

Press release submitted by Steve George.

MD-BASIC Now Stands Alone

As of May, MD-BASIC, a development tool for creating Applesoft BASIC programs using a high-level structured language, has been enhanced to work without a particular shell environment. Previous versions required the Apple Programmer's Workshop (APW) or ByteWorks ORCA/M shells to operate. The stand-alone revision can be launched from any GS/OS application capable of launching EXE files, including the Finder. The MD-BASIC product now comes with its own menu-driven development shell for those desiring more integration than a standard program selector provides.

Registered owners of earlier versions can update to latest version for free by sending their original disk to Morgan Davis Group.

MD-BASIC translates structured source code into Applesoft BASIC programs. You can LIST and RUN the resulting programs on any Apple II series computer, as with any standard Applesoft program. Using MD-BASIC, the programmer can create Applesoft programs in a structured BASIC language environment without making existing tools for Applesoft BASIC obsolete.

Requirements: Apple IIGS and GS/OS. Optional development shell such as the Apple Programmer's Workshop (APW), ORCA/M, or ECP-16 is supported but not required.

MD-BASIC is available for \$49.95 suggested retail through reputable distributors only.

APW™ Apple Programmers and Developers Association
ORCA/M™ Byte Works, Inc.

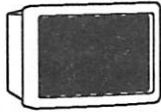
ECP-16© Carolina Systems Software

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Press release submitted by Steve George



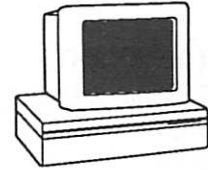
Mini'app'les Computer Swap Meet



October 13, 1990

10am to 2pm

Apache Plaza Shopping Center
38th and Silver Lake Road
St. Anthony Village



Setup may begin by 9:30 am. Tables are provided by the shopping center. Please do not bring your own. Additional tables will be added as needed.

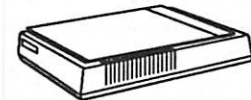
The swap meet will be located in the center courtyard area of the shopping center. Parking is available on all four sides of the mall. Material may be brought in thru any of the main mall entrances on these four sides. Please do not bring materials in thru store entrances.

Mini'app'les members are allowed to use and sell from the tables set up. Members and the public are invited to purchase swap meet items. Commercial vendors may make arrangements to purchase a table to sell from by contacting Mini'app'les via PO Box 796 Hopkins, MN 55343, or by contacting Sharon Gondek at 644-7418, or by leaving a message on the Mini'info'line Voice Mail at 627-0956. A member is entitled to 1/2 of a table for free. If a member desires to rent a full table, the cost is \$10.00 The cost to a non-member or vendor is \$25.00 a table.

We hope this location will provide you a very public setting for the sale of your swap meet items, ample parking and a comfortable environment (air conditioning!).



Hope to see you there!

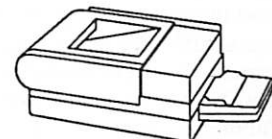
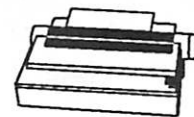
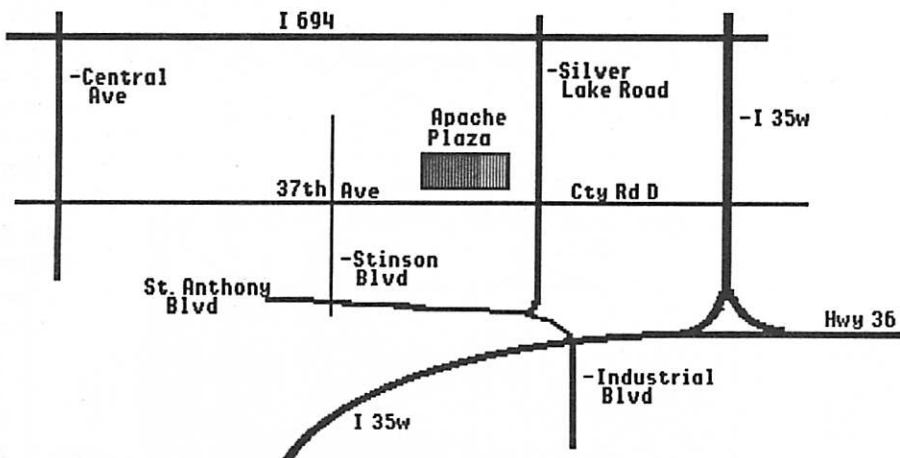


Some quickie directions are:

From 694* South on Silver Lake Road to Apache Plaza (about 3 miles).

From 35W* Exit County Road D, West to Silver Lake Road (about 2 miles). North on Silver Lake Road 2 blocks to Apache Plaza.

From Downtown* Either take 35W north to County Road D as above or 3rd Ave across river (becomes Central Ave) North to 37th Ave NE. Turn right (East) and go to Silver Lake Road (about 2 miles). North on Silver Lake Road 2 blocks to Apache Plaza.





laser Dan on Printers

A user perspective on selecting a low cost PostScript personal printer for Macintosh

by Dan Buchler

Introduction

In September, 1984, I had the good fortune to be sent by my employer, Honeywell, on a trip to Apple in Cupertino. There we were shown the then unreleased Apple LaserWriter. I was immediately completely enthralled with this machine. I had seen the success of the HP LaserJet Laser printers for the IBM PC, so it wasn't the laser printers themselves that captivated my heart, but PostScript. (PostScript is the program in the printer that makes the printer do the wonderful things we see today in desktop publishing.) When the printers started shipping early in 1985, our company quickly started acquiring these devices (guess who influenced them?). I made masters for the Mini'app'les newsletter on a LaserWriter since May, 1985.

Since then, you and I all have seen the success of PostScript. I also spent a not inconsiderable effort in becoming acquainted with the PostScript language itself and tinkered with several of my own PostScript applications.

More recently, Apple and others would have you think that you can use nonPostScript printers with Macintoshes. GCC was the first out with a QuickDraw laser printer and then Apple brought out its own Personal LaserWriter.

It is certainly possible to achieve quality output with QuickDraw printers, but I, for one, would never even consider such a purchase! In my opinion desktop publishing is solidly behind PostScript, and in the PC world with Windows 3.0, which comes with a PostScript driver (now shipping), PostScript is gaining more and more of the marketplace.

Since early 1986 I have been fortunate enough to use my company's printers and the club's LaserWriter Plus printer while I was Mini'app'les newsletter editor. Having relinquished editorship along with the club's printer and finding that my laser printing requirements were building rapidly, I embarked upon an adventure to acquire my own PostScript laser printer. (I have just heard that the club's LaserWriter Plus is in the hospital with a sick mother (board). Luckily, this year is the year of the new low cost PostScript printers.)

Following is a synopsis of my thought processes in selecting a printer.

Laser Printer Basics

Laser printers consist of:

- A printer engine. This includes the mechanical parts that transport the paper, the electrical/electronic portion that does the actual imaging and the image transfer process itself (much like an everyday copy machine). It turns out that just about every engine is made in Japan and by a handful of companies.

- The firmware and logic that drives the engine. This influences speed and font availability.

In many cases the same engine is used in a variety of printers. One can be fairly sure that if a particular engine produces high quality output reliably in one manufacturer's model, that another manufacturer, using the same engine will produce similar results. There are in fact 3 basic types of engine technology in use:

- A true laser printer wherein a laser beam paints the picture on the drum. (All Canon engines, TEC, Ricoh, Sharp.)
- LED arrays, where a couple of straight line rows of really small LEDs are turned on and off to paint the picture as the drum turns past those LEDs. (Okidata OkiElectric engines.)
- Liquid crystal array. Similar to LED, only using LCD technology. (Casio LCS-130 engine.)

Theoretical advantages of an engine using LEDs or liquid crystal are:

- 1) Fewer moving parts; therefore higher reliability.
- 2) More accurate lateral pixel positioning. The LEDs can't move relative to each other, whereas the laser beam is mechanically driven. This can cause variations from one side of the paper to the other. However in all cases you are at the mercy of smooth paper movement!

The firmware and logic in one way are peculiar to a particular manufacturer. A common factor is that those manufacturers that use genuine Adobe PostScript are all using a version of PostScript at about the same release level. (Adobe v51.0 and later) What seems to make a difference is the type of processor (68000, 68020), the basic cycle time, amount of memory, cost of upgrading memory, availability of a port to hang a disk drive on if you should want hordes of fonts, etc.

Then there is the issue of speed. Manufacturers place much emphasis on ppm (pages per minute.) In the PostScript world this is really of little interest unless you are going to spend \$10,000 on a super high performance machine. Up till recently, with dominance of Canon engines, laser printers ran at 8 ppm. How many times have you been able to maintain such a speed? Maybe an all-12 point Times or Courier document could be printed at such speeds. Most of the time you are waiting on the firmware to do its thing. You will see later that firmware performance has indeed improved, but it is that firmware performance which should govern your judgement of performance issues. The new batch of low cost laser printers generally have rated speeds of either 4, 5 or 6 ppm. You will see that most of the new 4 ppm jobs outperform their 8 ppm ancestors.

Regarding fonts—the most prevalent combination is that which is in the LaserWriter Plus and LaserWriter IINT. It results in 11 families and 35 actual combinations of family and font rendering (plain, bold, italic, etc.):

Times
 Helvetica
 Courier
 Symbol (Συμβολ)
 Avant Garde
 Bookman
 Helvetica Narrow
 New Century Schoolbook
 Palatino
 Zapf Chancery
 Zapf Dingbats □×%*▲⑤⑨→↔

I guess this is a personal thing, and depends on what you are going to do with the printer. Personally I find I rarely use anything except Times, Helvetica, Courier, Symbol, Zapf Chancery, and Zapf Dingbats.

At least two manufacturers have realized similar combinations (the TI PS17 and QMS's UltraScript Emulator, both of which are discussed later). In both cases one can save about \$300 by restricting one's choice of fonts. A few manufacturers have added a few extra fonts beyond the 35 basic.

My requirements

- Built-in PostScript or option for on-board PostScript (must be shipping today).
- Genuine Adobe PostScript (see text.).
- Outstanding quality of output so it can be used for reproduction masters.
- Consider low cost (≈\$1000) basic laser printer with HP LaserJet II Emulation so that it can be used with QMS UltraScript-for-Mac PostScript software (See text).
- Total street price less than \$2000.
- Operating cost (toner, renewable hardware pieces, etc.) at low end of what is achievable.
- Required Fonts: Times, Helvetica, Courier, Symbol, Zapf Dingbats and Zapf Chancery. (However would prefer the 35 fonts discussed in Basics above if I weren't paying a premium for them.)
- When used with on-board PostScript, must have enough memory to process legal size paper (Generally 2 meg or more, although Apple manages this on LaserWriters with 1.5 meg).
- Feeds standard 33/page label stock (prefer straight-through feed, but curved feed OK if it works reliably with label stock).
- Manual feed capability for labels and envelopes.

- Feeds legal size paper through manual feed or has tray available for legal .
- Equal or better in performance to LaserWriter IINT.
- Manufacturer will be around for a while in case of problems.

Getting evaluation information!

The first thing I did was to start reading every trade journal article I could find, and believe me there are lots of them. It became quickly evident that even though there is a performance requirement (LaserWriter IINT or better), that, in fact, this is not that tough a baseline. The first problem I ran into was my timing for purchase. 1990 is turning out to be the year of the low-cost laser printer. Every week in MacWeek, there seemed to be a new announcement and I found myself scrambling trying to get information on enticing just announced or rumored products. Then just before going to press both *MacWorld* and *MacUser* published major evaluations. My conclusions do not necessarily parallel those publications.

The second problem was that the first versions of many of the new printers were either without PostScript or had PostScript designed for use with IBM compatibles. The Mac versions were slower at coming out. Thus the reports that appeared were in PC magazines. As it turned out this enabled me to evaluate the engine separately from the firmware and logic (PostScript), and even the printer manufacturer.

<i>PC Magazine</i> 12 June 90	An excellent review of low cost laser printers in which the HP LaserJet IIP and the Okidata OkiLaser 400 using an LED array OkiElectric engine received top honors.
<i>InfoWorld</i> 14 May 90	"Scoring PostScript Printers: From Compatibility to Text Output Quality" This PC-oriented article tied the LaserJet IIP with the TI PS35 at a score of 7.4. The LaserWriter IINT got a score of 5.5. The IIP was tested with a Pacific Page cartridge, the HP PostScript cartridge not being available. The tests showed this combination to be rather slow at between 50 to 75% of the speed of the LaserWriter IINT.
<i>InfoWorld</i> 14 May 90	"Software Emulators Offer an Easy Path to PostScript for LaserJet Owners" (See text below.)
<i>PC Publishing</i> July 90	"Hands-On PostScript: A Question of Speed" included built-in PostScript, cartridges and software emulators.

What conclusions could be drawn from all this information? Most of the new printers with the various engines produced good to excellent quality print images. The clear leaders were the printers using the Canon LBP-LX engine (HP LaserJet IIP, Apple Personal LaserWriter NT, QMS PS-

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Printers continued from previous page

410) and the Okidata OkiElectric engine (OkiData 400 and the GCC BLP II). From what I read, I decided to keep the TI PS17 and PS35 on my list as *InfoWorld* liked them best.

Another consideration of most of the reviewers is toner replacement convenience and cost. For convenience the simple cartridge replacement we have gotten use to with the older LaserWriters are hard to beat. The Canon LBP-LX also uses the replaceable drum/toner like its older brethren, except that the new cartridge is much smaller.

Most reviewers only considered list price so I found their information somewhat misleading. Because of the popularity of the HP IIP, those cartridges are discounted and readily available and offer the lowest running cost. For example, Laser-Print Supply, who have two local stores, sell them from stock for \$72. CompuAdd advertises the cartridges for \$65. You can also buy reloads at a still lower price.

Anyway, if one assumes 3,000 copies per cartridge (a conservative estimate), the toner cost is $\$72/3000=2.4¢$ /page. (For you dyed-in-the-wool dot-matrix-printer fans, you figure your ribbon cost, assuming you don't use the ribbon until you need a course in braille to read the output. A typical ribbon at a discount cost of say \$8 may last 500 sheets until it is turning grey. That's 1.6¢/page!) The OkiElectric toner cost is somewhat higher than for the HP IIP, mostly due to unavailability of significant discounts.

An all software solution?

The Software Emulator article above, coupled with some other industry rumors, gave me the idea of purchasing one of the Postscript emulators that loads into the Mac might be an acceptable approach. A software emulator is a Mac program that runs like a printer driver and can generally handle a wide variety of printers, not just laser printers. With a laser printer, the emulator takes in PostScript commands and outputs a 300 dot-per-inch MacPaint like image to the laser printer. The laser printer only has to print it, one pixel for every dot sent to it.

An emulator depends on your Mac to do all the work normally done by the printer's on-board PostScript firmware.

I collected information on 3 software Emulators for the Mac. All supported multiple printers including LaserJet II compatible laser printers, HP DeskWriter and many others. Memory requirements for the Mac vary, but as for one printer with on-board PostScript, the more the merrier.

MacUser did an article on Freedom-of-Press, apparently rating it quite highly. UltraScript wasn't available at the time

Those same PC articles, mentioned below, revealed that

only one of the existing emulators tested (they did test the PC version of Freedom-of-the-Press, at least for the PC, provided proper PostScript emulation. (Note that a new version of Freedom-of-Press has just been announced!)

Mac PostScript Software Emulators		
Item and Phone No	Description	List Price
QMS UltraScript 800-631-2692	15 Adobe licensed fonts including Times, Helvetica, Courier, Symbol, Zapf Chancery and Zapf Dingbats	\$195
QMS UltraScript Plus 800-631-2692	43 Adobe licensed fonts including all LaserWriter IINT ones. No stated memory minimum for Mac. Requires 1 meg on laser printer.	\$495
Freedom of Press Custom Applications Inc. 800-873-4367	PostScript compatible emulator with 35 fonts. Requires 2 meg on Mac, 1.5 meg on printer	\$495

Anyway, the one properly performing emulator is the QMS UltraScript. Extrapolating this information to the Mac, it seemed likely that only the QMS version here would be a viable candidate. I called QMS and found that the Mac version of UltraScript would be shipping in July and its price would be \$495. The advantage of such a combination, if any, is price. One can pick virtually any LaserJet compatible printer, pop the emulator into your Mac, connect one of your two Mac serial ports via cable to the printer and, if you have enough memory, you are ready to print.

An interesting conclusion from reading the *PC Publishing* article above was that as the speeds of the computers themselves increase, the viability of a software emulator increases. They suggest that the new generation '386 PCs run PostScript faster than most printers with built-in PostScript. Since a



68030 is comparable to a '386, the idea of using a software emulator on a Mac should be considered:

- 1) You might lose the concept of a networked printer (although the QMS UltraScript, according to their spec sheet, "allows your Mac with UltraScript Plus to act as a print server over an AppleTalk™ network.")
- 2) You lose the use of a spooler.
- 3) You talk to your printer through a serial port usually at a speed of 19.6Kbits/sec. This is much lower than the AppleTalk speed of 230K, and worse, your Mac has to send every pixel in the rasterized image through this link. A regular 8" x 10" image at 300 dots per inch is made up of $8 \times 10 \times 300 \times 300 = 7,200,000$ pixels = 900,000 bytes. A moderately complex picture could easily consist of 10% of 7,200,000 = 720,000 bits. So at 19,600 bits/sec, it would take 37 seconds just to send the data. PostScript itself is voluminous, but not quite that bad.

(The comments on performance stated above would assume you have at least 2 meg in your Mac.)

I seriously considered buying one of the lowest priced printers that performed well in one of the test articles listed above together with UltraScript. I had convinced myself that only UltraScript offered good enough compatibility. The entry level UltraScript at \$195 offering the most used Adobe fonts, together a minimum laser printer with at least 1 meg at around \$1200 would get you into Postscript Laser printing for around \$1400. Not at a bad deal.

A press release in MacWeek, 21 Aug, reveals that Epson is offering, with it's laser printer line, a customized version of Freedom-of-Press that contains 17 fonts for a list price of \$125! Epson uses a TEC based engine that rated favorably in the IBM PC articles discussed above and has been advertised for as low as \$700, but usually sells around \$1000. This would get you into a PostScript laser printer for around \$1300 with the needed extra memory. You also get a free toner cartridge! I still think UltraScript is the best solution!

But, for \$400 more, as you will see below, I could get on-board PostScript which seemed to me a safer bet, despite what I said above about performance on a 68030 (which I don't have—I have a regular 68020 based Mac II). So read on to find out why I bought an HP LaserJet IIP with an HP cartridge.

Part II

We have seen some articles about PostScript Laser Printers prepared by and for the PC audiences. An important point I gleaned from those articles had to do with PostScript clones, that is: firmware executing the PostScript compatible emulator

not engineered by Adobe. My conclusion—Don't! Without exception, they all exhibited flaws usually in the area of graphics such as fill patterns. Some clones couldn't produce any fill patterns. Just imagine how you would feel if your beautifully shaded Pie chart came out all white! (Note the UltraScript software emulator discussed earlier uses Adobe fonts, but QMS engineered graphics. It seems to be OK.)

Theoretically one pays a premium for Adobe—at least in the past the industry have always blamed Adobe for tough licensing policies that inflated the price of true Adobe Laser Printers. Those days have gone. Adobe now faces tough competition and wants to retain its large market share. Hence the Adobe versions don't seem to cost any more than the clone's versions of PostScript.

So, I set out to select one of the new low cost printers with Adobe Postscript that met my requirements (listed earlier). It would have been easier if there were some good published comparisons/reviews of these printers running in a Macintosh environment. Well, in a nutshell, not much had appeared when I started, but a lot was published just as I was finishing this article.

Here are a few references:

MacUser, July, 1990	"HP speaks AppleTalk"—Revealed little information other than list prices on the HP line.
MacWorld, Aug, 1990	"LaserWriters for Less"—Detailed review of the Apple Personal LaserWriter NT compared to the older NT.
MacWeek, 20 Feb, 1990	"PLP II betters original GCC QuickDraw printer"—demonstrates quality of new GCC printer (the PostScript version wasn't out yet!)
InfoWorld, 6 August, 1990	"Apple's Low-Cost Personal LaserWriter NT Delivers on the Money"
Byte August, 1990	"No-Muss, No-Fuss, Low-Cost PostScript Printer"—All about the QMS PS-410
MacUser, October, 1990	Review of Lasers (Not sure of title)
MacWorld, October, 1990	Page Printers Revisited

You saw above that I was already leaning towards a printer

Printers GOTO next page



with either the new Canon LBP-LX engine, or the OkiElectric engine, or the TIPS 17/35. All of the above articles discussed machines based on the Canon LBP-LX engine (previously called P110). None of these articles said anything different than I had already gleaned from the IBM PC PostScript Laser printer articles. They did establish a few facts.

- 1) The new printers were generally faster in the Mac environment than the current workhorse, the Apple LaserWriter IINT.
- 2) The same high quality was exhibited on the QMS printer as on the HP, as expected.

So we enter the arena with the following candidates:

- 4) Apple street price based on that quoted by Heath Zenith (see discussion below).

I was really tempted to buy the GCC BLP II. I liked its simplicity. I liked the quality of output. I was taken with the advantages of the LED array engine as the accuracy of the image from one end to the other might be a benefit in producing multi-page posters that I have occasion to do. Preliminary reports also indicate that its performance is definitely superior to that of the Apple Personal LaserWriter NT.

I also liked the local dealer, Dan Patch Micros Systems, who have always provided me with support and stood behind what they sell. Unfortunately, GCC apparently offers poor

dealer incentives, resulting in a selling price of around \$2300. This puts it at the same price as I could likely buy an Apple Personal LaserWriter NT and \$500 higher than that of an HP LaserJet IIP with a PostScript cartridge. For similar reasons, the cost to run the GCC appeared to be somewhat higher than the HP and Apple.

I also had kept the TI in the running. It was the first choice in the latest MacUser magazine review. But, with TI memory upgrades for it rather expensive and third party memory upgrades not quite yet available, and no particular price or performance advantage, I also rejected it.

This left things as a horse race between the triumvirate of machines using the Canon LBP-LX engine:

- the Apple LaserWriter NT
- the HP IIP with HP cartridge
- the QMS PS410.

The three printers with the Canon LBP-LX engine all come with the small unfolding Multi-Purpose (MP) feeder. This MP feeder looks like a bottom-hinged door that pulls out from the front of the printer. It can only hold a few sheets, but in my HP IIP incarnation with its MP feeder (which is identical to the other two), the MP feeder looked like it would do everything I needed in stock form and, in actual practice, seems to work just fine. It will feed letter, "A," legal, envelope, and other sizes. The feeder has a right side guide that adjusts.

A second feeder mechanism is available as an option (approx \$125 street price) and standard on the Apple Personal

Printer	Comments	Prices
HP LaserJet IIP with HP Postscript (Canon LBP-LX engine 4ppm) 2.4 cents/page toner cost	10Mhz 68000 processor chip Plug-in Adobe Postscript 35 fonts—v52.2 0.5 Mbytes standard 2 MBytes 3rd party memory (Note 1) Requires 2 Mbytes for legal doc	approx list=\$3300 Street=\$1800
Apple Personal LaserWriter NT (Canon LBP-LX engine 4ppm)	12Mhz 68000 processor chip Built-in Adobe Postscript 35 fonts—v51.8 2Mbytes standard (Note 2) Has as standard, 2nd high capacity 250 sheet feeder tray. (Note 3)	List=\$3299 Street=\$2475 (Note 4)
QMS PS-410 (Canon LBP-LX engine)	16.67Mhz 68020 processor chip Built in Adobe Postscript 45 fonts 2Mbytes standard	List=\$2795 Street=\$2400
GCC Business Laser Printer II (BLP II) (OkiElectric OL-400 LED array engine)	16Mhz Processor chip Built-in Adobe Postscript 35 fonts 1Mbyte upgrade to 1.5Mbytes Legal tray, Straight through path	list=\$2399 Street=\$2300
TI MicroLaser PS17/35 (6ppm Sharp 9500 eng.)	Built-in Adobe Postscript 17 or 35 fonts 1.5 Mbytes standard (2Mbytes for legal) (PS35 has 35 fonts at extra \$500)	list=\$2500
Apple LaserWriter IINT (Canon LBP-SX engine)	Built in Adobe Postscript 35 fonts—v47.0 12Mhz 68000 processor chip 2.0 Mbytes standard (no upgrade possible)	list=\$4499

List prices from trade journals during June, July, and August, 1990

Street prices are either estimated based on knowledge of market in Twin Cities or are actual quoted prices as per notes above.

Specific Notes

- 1) Can add second 2 meg third party board for a total of 4.5 meg at a cost of \$249 at today's mail order prices.
- 2) Upgradeable to 4 meg with 2 standard 1 meg SIMMs—\$100 at today's mail order prices.
- 3) 250 sheet tray is an option on HP and QMS at a street price



LaserWriter NT. The advantage of this alternative mechanism is that the trays hold 250 sheets. The three manufacturers include new drivers of 6.0 rev that allow for selection of the feeder tray at Print time. See HP version below.

HP LaserJet IIP "Dan's IIP" 6.0

Copies: Pages: All From: To:

Cover Page: No First Page Last Page

Paper Source: Auto Select MP Tray
 Manual Feed Lower Tray

Print: Color/Grayscale Black & White

Letterhead: first page from MP Lower Manual

Section Range: From: 1 To: 1 Print Selection Only

Print Hidden Text Print Next File Print Back To Front

Buttons: OK, Cancel, Help

The normal (face-down) output stacker is upon the top of the machine. A straighter printer path is available when the face-up output tray option is selected, sending paper to a tray that clips on the front of the printer. Manual feed simply passes feeder control to you, the operator. The paper feeds when you hit a switch on the printer.

One of my requirements is to feed label stock. I was a little concerned that the Canon LBP-LX paper path was too twisty. The manual advises using the face-up output hopper. This does straighten out the path somewhat. I have fed several sheets of different label stock and envelopes using that method without any problem at all. The optional 250 sheet tray provides for an even straighter paper path when used with the face-up output tray.

So, which Canon LBP-LX engined machine?

The QMS PS-410, in theory, would out-perform the other two because of the 16.67 Mhz 68020 chip. However, the disadvantage of the QMS is, in my opinion, a lack of a wide chain of dealers.

The Apple Personal LaserWriter IINT uses the Peripheral Interface Controller (PIC) chip that was developed for the Mac IIfx. Supposedly this takes some load off the processor while PostScript data is flowing over AppleTalk into the machine. I am sure this is true, but I have observed by watching my Tops Spool information box that most of the wait comes from the printer, not from data flowing into the printer. The Apple is also the only one of three that comes standard with the 250 sheet feeder, as discussed above.

With the HP LaserJet IIP, you have to order:

- the IIP itself
- an AppleTalk interface board
- the PostScript cartridge
- 2 meg memory board

The IIP comes with 512K, obviously not usable for PostScript. You must add at least 1 meg, and preferably 2 meg, particularly if you intend to print legal size, as I do occasionally.

I was a little concerned that the "cartridge" approach with the HP might result in a performance compromise since the basic machine runs HP language, not PostScript. Testing after the fact removed those concerns. (See Timing below.)

One advantage of the cartridge is that it allows low cost upgrade in the future to a later version of PostScript. We know Adobe is coming out with version 2 and there will undoubtedly be a version 2 cartridge available within about a year. I want to reiterate here that, as I said in the earlier part of this article, I abandoned any ideas of buying a PostScript clone such as an HP IIP with a Pacific Page cartridge (which is slightly less expensive than the HP).

Then there is the consideration of cost. Most of the articles listed above that discuss the Apple Personal LaserWriter NT mention the HP IIP and then immediately dismiss it as being too expensive. They were wrong! (An exception is the latest MacUser article!)

They came to this conclusion using the list prices of HP memory add-on boards. I couldn't find one dealer who even proposed using the HP manufactured memory. third party HP memory boards are available from a horde of sources.

2Meg HP Memory Boards		
Manuf/Distr	Price	
HP at discount	\$596	
Starion	\$259	
Pacific Data	\$339	m
FRI	\$249	m
Sigma Data	?	m
Nevada Computer Corp	\$289	m
m=Mail Order		

The SIMMS for the Apple version are less expensive, but not when you look at the total price. I priced all of the in-the-running printers locally. See following table.

Printers GOTO page 25



Mac Beginners: Building a Reference Library

by James Horswill © 1990

There are some Mac users who take pride in the fact that they never read manuals. They're frequently programmers, perhaps even developers, and when they ride motorcycles, they never wear helmets.

I read manuals. I may not read them from cover to cover, but I usually do the tutorial if one is provided, and I keep the documentation for all of my hardware and software readily to hand. Over the years, I have cultivated my ability to use an index, and I have even learned to read the minds of some of the idiots who compile them.

Manuals alone aren't enough, though. I also have many books on Macintosh software and hardware. They help elucidate some of the more arcane discussions found in the documentation. They also give me the insights of people who actually use the software, rather than the observations of those who spend all of their time writing the manuals. They frequently offer tutorials that are better than those provided by the publisher, and they point out some of those "undocumented features" that, by definition, are not mentioned in the manuals.

Here, then, are some of the books that I have found valuable in my work with the Macintosh. The list is by no means exhaustive. I will only include those works which I have used extensively, and this means that I won't discuss books on WordPerfect, for example, as I don't use the program. I have also made no attempt to provide full bibliographical citations. All the works discussed here are in print, and available in trade paperback format from local book and computer stores. Most sell in the \$20-\$25 range. Of course, you can also find many of them at your public library.

General Purpose

Let's start with general purpose books. If you are truly a Macintosh beginner, you probably can't do better than to read *The Little Mac Book*, by Robin Williams. It's published by PeachPit Press. All of the material found here is available elsewhere, and it is all extremely elementary, but I am not aware of any other book that deals with the basics of using the Mac more clearly, or more concisely. *You must learn most of the material included in this book.* That sounds like an extreme statement, but if you don't completely understand how to save a file, for example, you *will* get into trouble eventually. Find a copy of this book. Page through it, reading the odd paragraph as you go. If you find anything that seems unfamiliar, you would be well advised to read it from cover to cover.

Robin Williams has also written *The Mac is Not a Typewriter*, also from PeachPit. It tells you all the things you ought to know about the difference between composing text on a Mac and on a typewriter. If you're still using all caps instead of italics or bold face, this is the book for you. It's only 72

pages long, and it will help you to make your copy look much more "professional."

The Apple Macintosh Book by Cary Lu is an excellent source of general information on hard drives, databases, networks, and any other aspects of the Mac world that interest or concern you. It isn't a "how to" book, but it gives you an excellent idea of what the Mac can do. If you're a bit vague about what a modem is and does, for example, this book will give you a clearer idea. It won't really tell you how to operate it, but it will give you a good idea of what to look for when you buy one.

The Macintosh Bible, which Arthur Naiman edits, is a collection of tips on using specific applications, as well as general suggestions on getting the most out of system software. Many of the contributors are quite opinionated, making their discussions extremely entertaining, and everything is done in the best of good humor. It's updated on a regular basis, and you receive two free supplements if you send the publisher your name and address. Warning: Do not keep this book in the bathroom. Many of the entries are as little as half a page long. You will find yourself saying, "I'll just read this next entry." Then you'll read "just one more." Half an hour and forty pages later, you'll still be in the bathroom, and you'll be extremely unpopular as well.

Encyclopedia Macintosh, by Craig Danuloff and Deke McClelland is as encyclopedic as its name implies. It provides a wealth of information on all things Macintosh, including sections on system software and utilities, applications, and hardware. This is one of the first books I grab if my hard drive starts acting up. I should note that the publisher, SYBEX, Inc., classifies this book in the intermediate-to-advanced range, but novices will also find much here that is both interesting and comprehensible.

Word

I probably spend more time using Microsoft Word than any other application. I'm using it right now to write this article. Word is an extremely powerful program, and it is well documented, but the manual can be a bit turgid, and some people find it incomprehensible. *Mastering MS Word 4.0 for the Macintosh*, by Pamela S. Beason, is clear, and as concise as it is possible to be with a program of this complexity. It does have one quirk, however. The book was apparently repaginated after the index was compiled, because references can be off by two or three pages. If you really want to explore the intricacies of MS Word, *Word 4 Companion*, by Gena B. Cobb, Allan McGuffey and Judy Mynhier discusses most of the quirks and quiddities. Many novices may find it more intimidating than enlightening, however.



Works

Many of my clients make extensive use of Microsoft Works. I sometimes recommend *Microsoft Works for the Apple Macintosh*, by Charles Rubin. It covers most of the bases, but I find the tutorial poorly integrated with the rest of the text, and some of the examples of how to use the draw tools are truly ugly. Gordon McComb's *Inside MS Works 2 for the Macintosh* is quite good, offering a wealth of tips and suggestions, but it presupposes a certain amount of experience with Works on the part of the reader. This may preclude it from consideration by some novices.

Excel

Microsoft Excel is a widely used spreadsheet application which many people find extremely complex. It is certainly powerful, but if you can handle the spreadsheet in Works, you ought to be able to learn Excel. *Excel in Business*, by Douglas Cobb and Allan McGuffey is perhaps the best known book on this software. Like *The Word 4 Companion*, it's from the Cobb Group, and like its sister publication, it may tell you more about the application than you really wanted to know. *Excel for the Macintosh™ Made Easy*, by Edward Jones may be of greater interest to the novice or first time spreadsheet user. It has an excellent tutorial which demonstrates most of the bells and whistles. It provides only a cursory examination of macros, but most novices probably won't be making extensive use of them anyway.

PageMaker and Layout

There are a wealth of books available on PageMaker, so I will touch briefly on two that caught my interest. *PageMaker for the Macintosh*, by Rob Krumm impressed me because of the quality of its tutorial. Too many software publishers provide tutorials that use "canned" files, where most of the difficult work has already been done for you. Books written about these programs often base their tutorials on those files. Krumm forces you to create the documents you import into PageMaker, and in the process you learn how to format them. Unfortunately, the version of Krumm's book that I have doesn't cover PageMaker 4.0, but I assume it will be updated.

Real World PageMaker 4, by Olav Martin Kvern and Stephen Roth, is subtitled *Industrial Strength Techniques*. The authors assume some familiarity with PageMaker on the part of the reader, as the subtitle would suggest. Thus it isn't, strictly speaking, a book for novices. However, it is so engagingly written, and offers so many excellent suggestions that even relative tyros might find it useful.

I am also impressed by *Graphic Design for the Electronic Age*, by Jan V. White. It's published by Xerox Press. While

it isn't aimed specifically at PageMaker users, it gives an excellent overview of the principles of typography and page layout.

HyperCard

If you're beginning to experiment with HyperCard, and find Apple's documentation less than adequate, you might want to take a look at *The Complete HyperCard Book*, by Danny Goodman. It was the first book on HyperCard, and has since been revised to cover version 1.2. He even has a version for HyperCard 2.0, which hasn't been released as of this writing! It's an excellent introduction, thorough and clearly written, but be aware that Goodman can be a bit chatty. He spends half a page on the influence of the railroad on communications, for example.

Once you decide that you want to move into scripting, *The Waite Group's HyperTalk™ Bible* can be invaluable. It's definitely not the first book on HyperCard you should read, but it explains each command in great detail. Mitchell Waite, Stephen Prata and Ted Jones give excellent examples of how to use them.

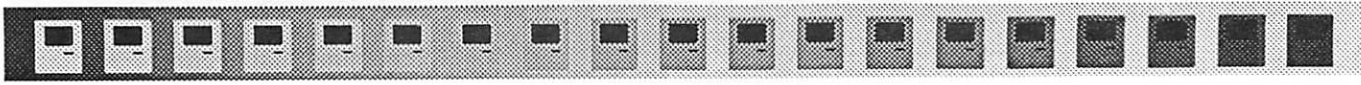
Mac Mags

Finally, this may be the time to begin subscribing to a magazine or two. *MacUser* and *MacWorld* are both useful, though I suspect that the latter may be of slightly more use to the novice. Still, *MacUser* publishes excellent lists of software with thumbnail reviews and ratings called "Minifinders." Each entry cites *MacUser's* last review of the software under discussion. *MacWeek* is a sort of paper of record for the Macintosh community, but it's expensive, unless you can get onto their list of gratis subscribers. You'll get an invitation to the White House first.

If you are having problems with a particular application, a book devoted specifically to it may be all the help you need. Once again: if you're the least bit uncertain about the Mac's operating system, get a copy of *The Little Mac Book* and study it carefully.



Have you written
a Newsletter
article today?



	Store	Note	Printer/ Engine	Mem to 2.5Meg	Post - Script	Inter - face	Total
LaserJet IIP	Cedar Computer, Edina		\$960	\$275	\$450	\$180	\$1865
LaserJet IIP	AmeriTech		\$975	\$279	\$490	\$200	\$1944
LaserJet IIP	Laser-print Supply		\$985	\$350	\$499	\$206	\$2040
LaserJet III	Laser-print Supply	1	\$1566	\$189	\$499	\$206	\$2460
Apple Personal LaserWriter NT	Heath Zenith, Hopkins	2	\$2475	2M incl	incl	incl	\$2475
TI micro 35	CompuAdd		\$2425	\$375	incl	incl	\$2800
TI micro 35	Dan Patch	3	\$2299	\$200	incl	incl	\$2499
GCC BLP II	Dan Patch	4	\$2300	2M incl	incl	incl	\$2300
QMS PS 410	Heath Zenith, Hopkins	5	\$2795	2M incl	incl	incl	\$2795
The "Interface" is an extra AppleTalk interface board that is not standard on the HP.							
Notes on pricing							
1	Assumes 3rd party memory from Nevada Computer Corp						
2	See text for Apple pricing discussion						
3	Dan Patch indicated 3rd party was working on board for TI. Price shown is estimate.						
4	Price was tentative at time of writing.						
5	List Price—Heath Zenith will be carrying QMS but couldn't provide selling price yet.						

Printers continued from page 23

You can immediately see that the HP is very competitive. I believe the reason is that there is lots of dealer price competition. As you can see above, the price of a machine configured comparably to the QMS PS410 was \$1855, and there was a \$75 rebate beyond that. (Rebate expired Aug 31st) making for a final local price of \$1780. This configuration lacked the second feeder tray that is standard on the Apple, but I judged it not necessary for my application. At a 22% (\$500+) saving over the Apple, I did not feel I could justify the extra cost of the Apple.

Street prices for the Apple Personal LaserWriter NT will vary somewhat. Heath Zenith offer a reasonable street price and may offer a slightly lower price for employees of certain Twin City organizations. Other dealers may be higher or lower and offer more or less support.

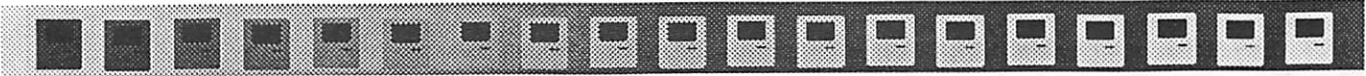
I would have felt better if I could have performed an actual side-by-side timing test of the HP with the Apple and the QMS versions *before* I bought it, but I was in enough hurry to get the printer, and with the HP rebate expiring at the end of August, I decided to go with the HP. I bought it from Cedar Computer, not only because they offered the lowest price, but of the three dealers I visited, they were by far the most knowledgeable. They also would sell me the Starion third party memory at a price equal to what I would pay mail-order. They seem to sell lots of HP printers (I saw their inventory) and are not a back-room operation.

Timing Data

After I got the HP, I did some actual stopwatch measurement of my own to compare the time from start of printing (laser printer indicates busy by flashing lights) to the time the paper finishes its travel through the machine. I timed my own HP, a LaserWriter IINT, and the new Personal LaserWriter NT. Timing was performed using four documents.

Let's discuss! The IIP printed the Postscript spiral in 81% of the time taken by the IINT. One has to assume that the improvement is achieved through the faster font rasterizing techniques included in the later version of PostScript. The slower draw times include an extra 8 seconds because of the

	LaserJet IIP	LaserWriter IINT	Ratio 1†	Personal LaserWriter NT	Ratio 2‡
Dan's PostScript Spiral (1 page)	6min 55secs	8min 31secs	81%	5mins 40secs	66%
MacDraw Plat Plan—1 page (1st time)	3min 19secs	2min 46secs	119%	2mins 24secs	86%
MacDraw Plat Plan (2nd time)	2min 33secs	2min 00secs	127%		
Excel document—18 pages	5min 33secs	4min 43secs	117%		
Word with lots of fonts—1 page	3min 49secs	5min 51secs	65%	2mins 53secs	49%
1† % time for HP IIP to print the tests relative to the original LaserWriter IINT.					
2‡ % time for Personal NT to print the tests relative to the original IINT.					
<i>The author wishes to thank Heath Zenith in Hopkins for providing the Apple printer for these timing tests.</i>					



slower engine, amounting to about 7% of the 119%. The rest is because of the slightly slower processor in the IIP.

In the case of the Excel documents, 135 seconds of the total print time, is attributable to the slower engine, so the actual PostScript processing time is in fact about 69% of the time taken by the older LaserWriter, again attributable to the faster font rasterizing. The Word document was rather an exaggerated case with about 50 different fonts. It does show the improvement in font rasterizing. The HP does overlap the processing with the paper feed, so that next sheet of paper is feeding before the first one has finished printing. (*MacUser* measured this overlap time.)

In the August, 1990 *MacWorld* article, the Apple Personal LaserWriter NT was measured at 203% of the regular LaserWriter NT. A seven-page Word 4.0 document with a lot of fonts printed in 48% of the time.

According to the test data above, the Apple Personal LaserWriter NT seems to be faster than the HP by 19% to 25% (for complex graphics or font intensive documents). This information is borne out by timings reported in the October issues of *MacWorld* and *MacUser*. *MacUser* tests measured a 25% to 30% difference. *MacWorld* measured a 30% to 35% difference. Overall, the performance of the HP could be explained by the combination of a 20% faster processor (12Mhz v 10Mhz) and the PIC chip. However, for routine printing of text documents, one would see little if any speed difference.

In the *Byte* magazine article, the QMS PS410 was measured at 65% of time of the LaserWriter IINT with a large PostScript graphic file. (I don't know what was in it.) Since the PS410 has a faster processor, undoubtedly that contributed to some of the improvement. One would expect the QMS to be faster than the HP and Apple printers.

Conclusion

So far I have no regrets on buying the IIP. It prints beautifully, just as anticipated. I envy the faster printing of the Apple Personal LaserWriter NT, but for \$700 or so, I can wait a few seconds longer each year! Since I got it, the printer has performed flawlessly!

I'd be glad to chat with anyone about all this. Call me at 435-3075. Dan

Note on LaserJet III

Those of you who read the journals must have heard by now about the LaserJet III, the big brother to the IIP. Besides sporting an 8 page/min engine, its main claim-to-fame is the "Enhanced Resolution Technology" that varies the pixel size to improve resolution. There's no doubt that it works. But you pay more: about \$600 more than the IIP. However, it comes with 1 megabyte standard, so one could get away with buying only 1 meg of third party memory, reducing the differential to \$500. This means you can get into a LaserJet III for about the same price you would pay for an Apple Personal LaserWriter NT or the QMS PS410. The "III" is undoubtedly a more sophisticated printer than the others.

—Dan

Has Dan's article intrigued you? Would you like to see the Mac/Hewlett-Packard connection at close range?

Mini'app'les members have been invited to attend the ComputerLand presentation of Hewlett-Packard peripherals interfaced with Macs at the next PC Pubs user group meeting.

Hewlett-Packard offices, 2025 W. Larpentur, St. Paul, MN 55113 (near the Fair Grounds),
6:30-8:30, Thursday, October 4.

For more information contact Julie Cartwright at 641-9657.

Printing Envelopes on an ImageWriter

Using Microsoft Works™ on the Macintosh

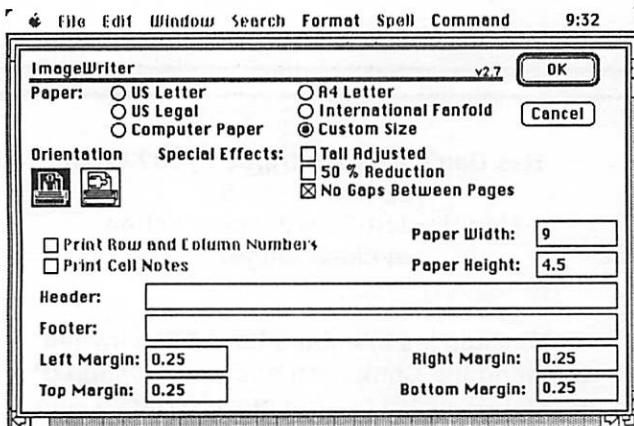
Ken Edd

One of the questions that comes up quite frequently at the Works SIG meetings is whether Works can be used to print envelopes on the ImageWriter. It can, and is one of the easier programs to use for that purpose.

The basic setup is the same one I described last month to print labels. To save you the trouble of searching back through last month's issue, here's the drill, altered to account for the differences between envelopes and labels:

In the File/Page Setup... Dialog box:

1. Select "Custom Size" for the paper size.
2. De-select "Tall Adjusted," Works' default selection for word processing.
3. Select "No Gaps Between Pages"
4. Measure the width and height of the envelope exactly, and enter the measurements in the respective boxes.
5. Set the top and bottom margins to 0.25 inches.
6. Set the left and right margins to 0.25 inches.
7. Click "OK" to return to the document.



Back at the document:

1. Reset the margins to reflect the width of the envelope. (You can tell if the margins are within the width of the page, because the arrows in the ruler that denote the margin locations will change from hollow to solid as soon as they are within the edges of the printable area as set up by the File/Page Setup... dialog.)
2. Set up the envelope as you want it to appear, and then use the "Print Preview" in the Print dialog box, to see exactly

what the envelope is going to look like.

3. If the dotted line that signifies a page break shows at the bottom of your screen, it means you have a number of extra blank lines at the bottom of your address, and the computer will ask for a second envelope when printing. Click and drag across all the lines below the last line of the address, and delete them.

Now that you're ready to print the envelope, you have to set up the printer for your envelopes. To do that:

1. Clear the printer of any paper or forms.
2. Move the sheet-feed lever (at the rear of the knob on the right-hand side of the printer as you face the printer) down, until it reaches the bottom of its slot.
3. Take off the cover over the print head and find the small lever at the far right end of the printer roller. (It's black, and all the pieces around it are too, so I usually find it by feel.) Move this toward the front of the printer two or three notches, depending on the thickness of your envelope. If it is set too far forward, the print will be light, and set too far back it will leave black streaks across the front of the envelope. Experiment a few times to see what settings to use.
4. Put the cover back on the printer and line up the left edge of the envelope with the edge icon on the back cover of the printer. (Just above the roller near the left edge of the roller.)
5. Press the "Form Feed" button on the front of the printer; the printer will feed the envelope and line it up with the top of the printer head.
6. Print the envelope as you would any document, being sure to check the Hand Feed button in the Print dialogue box.

Save the settings you use for the envelope by making a "Stationery" document in Works File/Save As... dialogue box, and then when you have an envelope to print, you won't have to reset the dimensions. I have used this method for printing envelopes as large as 9 by 13 inches; as long as they can fit in the printer, you can print them.



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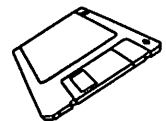


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Dan Patch Micro, 3802 W. Hwy 13, Burnsville, MN 55337
(612) 894-1683. Store Hours: Mon. - Fri. Noon to 7pm

MEMORY EXPANSION		
Size	Apple //e	Apple //c
512K	\$ 99	\$110
1Meg	\$139	\$150
1 Meg	Apple IIGs	\$119
1 Meg	Laser 128	\$136
Chips CAS/RAS RAM 256K		\$ 20
Chips CAS/RAS RAM 1Meg		\$ 65
Beagle Bros TimeOut		
Lower Prices, New Products		
TimeOut TextTools		\$ 34
TimeOut MacroEase		\$ 28
TimeOut ReportWriter		\$ 54
TimeOut TeleComm		\$ 47
TimeOut Thesaurus		\$ 34
TimeOut SuperFonts		\$ 47
TimeOut Graph		\$ 59
TimeOut UltraMacros		\$ 40
TimeOut SideSpread		\$ 34
TimeOut SpreadTools		\$ 40
TimeOut DeskTools		\$ 34
TimeOut DeskTools II		\$ 34
TimeOut FileMaster		\$ 34
TimeOut PowerPack		\$ 34
AppleWorks 3 Companion		\$ 28
SupraModem 2400, cable		\$135
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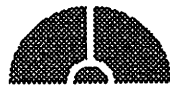
■ **Operate DOS programs** on your PC through a window on your Macintosh using AppleTalk® communications or a direct connect cable. MacChuck with AppleTalk support lets any Macintosh in the network operate a PC equipped with an Apple or compatible LocalTalk™ card. Direct cable communications is as easy as connecting the MacChuck cable between your Macintosh printer or modem port and a PC serial port.

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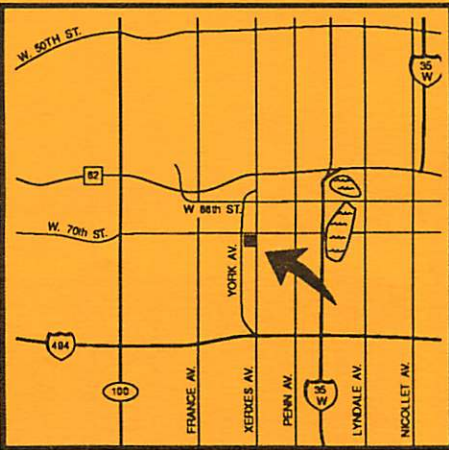
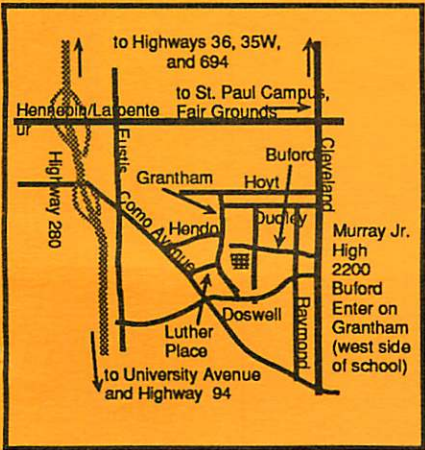
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