WHO	WHEN	WHERE	WHAT
North Shore Mac Users Group	Tues. Jan. 2 7:00 pm	Grand Marais Library Grand Marais, MN	Note 15
Northwest Branch	Tues. Jan. 2 7:00 pm.	Rockford Road Library 6401 42nd Av. N., Crystal, MN	AppleWorks™ Template Design Note 6
Apple II Users	Wed. Jan. 3 7:00 pm	Washburn Community Library 5244 Lyndale Ave. S., Mpls.	The Video Overlay Card Note 11
Mac Users	Thur. Jan. 4 (6:30) 7:00 pm	Hennepin County Library, Southdale Branch, 70th & Xerxes, Edina, MN	Notes 4 & 14
MicroSoft® Works™ S.I.G.	Tues. Jan. 9 6:30-8:45 pm	Washburn Community Library 5244 Lyndale Ave. S., Mpls.	Note 13
Board Meeting	Thur. Jan. 11 7:00 pm	Lexington Branch Library University Ave. & Lexington, St. Paul	Members welcome, Note 1.
Fourth Dimension™ Group	Mon. Jan. 15 7:00 pm	Hennepin County Library, Southdale Branch, 70th & Xerxes, Edina, MN	Note 2 Small Meeting Room, 2nd Floor
Mac Computer Art & Design Group	Mon. Jan. 15 6:45 pm	Mpls. College of Art and Design 133 E. 25th St., Room 325, Mpls.	Open Access to College Computer Lab — Note 7
Macintosh™ Programmer	Tues. Jan. 16 7:00 pm.	Hennepin County Library, Southdale Branch, 70th & Xerxes, Edina, MN	Note 2 Small Conf. Room, 2nd Floor
MacCAD/E User Group	Tues. Jan. 16 7:00 pm.	Heath/Zenith Computers Shady Oak Road, Hopkins, MN	Note 8
Apple IIGS S.I.G.	Wed. Jan. 17 7:30 pm	First Tech Computer 2640 Hennepin Ave., Minneapolis	Note 12
New Richmond Mac Users	Wed. Jan. 17 7:30 pm	Wisc. Indianhead Technical College New Richmond, WI	John Hackbarth, 715-246-6561
HyperCard™ Group	Mon. Jan. 22 7:00 pm	Hagen Office Equipment 801 W. 77-1/2 St., Richfield, MN	Note 4
Mac Novice User Group	Mon. Jan. 22 7:00 pm	Highland Branch Library 1974 Ford Parkway, St. Paul, MN	Note 9
Mac Desktop Publishing SIG.	Wed. Jan. 24 7:00 pm	First Tech Computer 2640 Hennepin Ave., Minneapolis	Note 3
AppleWorks© S.I.G.	Thur. Jan. 25 7:00 pm	Murray Junior High School 2200 Buford, St. Paul, MN	Database, Part 1 Note 10
Mac Users	Thur. Feb. 1	Hennepin County Library, Southdale	Notes 4 & 14
North Shore Mac Users	Tues. Feb. 6	Grand Marais Library, Grand Marais	Note 15
Northwest Branch	Tues. Feb. 6	Rockford Road Library, Crystal	Note 6
Apple II Users	Wed. Feb. 7	Washburn Community Library, Mpls.	Tax Preparation — Note 11
Board Meeting	Thur. Feb. 8	Lexington Branch Library, St. Paul	Members welcome — Note 1
Mac Computer Art & Design	Mon. Feb. 12	Mpls. College of Art and Design	Note 7
Microsoft® Works™ S.I.G.	Tues. Feb. 13	Washburn Community Library, Mpls.	Note 13
Fourth Dimension™ Group	Mon. Feb. 19	Hennepin County Library, Southdale	Note 2
Macintosh Programmer	Tues. Feb. 20	Hennepin County Library, Southdale	Note 2
MacCAD/E User Group	Tues. Feb. 20	Heath/Zenith Computers, Hopkins	Note 8
Apple IIGS S.I.G.	Wed. Feb. 21	First Tech Computer, 2640 Hennepin	Note 12
New Richmond Mac Users	Wed. Feb. 21	Wisc. Indianhead Technical College	John Hackbarth, 715-246-6561
AppleWorks© S.I.G.	Thur. Feb. 22	Murray Jr High, 2200 Buford, St Paul	Database, Part 2 - Note 10
HyperCard™ Group	Mon. Feb. 26	Hagen Office Equipment	Note 4
Mac Novice User Group	Mon. Feb. 26	Highland Branch Library, St. Paul	Note 9
Mac Desktop Publishing SIG	Wed. Feb. 28	First Tech Computer, 2640 Hennepin	Note 3

Notes:
1. Dave Laden 488-6774
2. Ian Abel 824-8602
3. Tom Edwards (actg) 927-6790
4. Mike Carlson 866-3441
5. Wesley Johnson 636-1826
6. Jere Kauffman 535-6745
7. Joy Kopp 440-5436
8. Bill Langer 937-9240
9. Tom Lufkin 698-6523
10. Dick Marchiafava 572-9305
11. Tom Ostertag 488-9979
12. Mark Evans 377-9000
13. Ed Spitler 432-0103
14. David Stovall 474-8015
15. Jim Ringquist 218 387-2234

Coordinators - Please Call John Hansen (890-3769) by the 1st Friday in order to have your meeting listed correctly!

mini'app'les

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

Board Members:

Officers

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

Directors

Publications	*Open*	
Software	Tom Gates	789-1713
Operations & Resource	Dave Undlin	432-0913
SIG: Macs	Tom Edwards	927-6790
SIG: Apples	Tom Ostertag	488-9979
Membership	Ian Abel	824-8602

Coordinators

Beginners' Consultant	Earl Benser	884-2148
Shows & Conventions	*Open*	
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
	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	*Open*	
	MicroSoft Works SIG	Ed Spitler	432-0103

Software Director's Staff

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

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

- Genealogy	Les Dikis	447-2870
- Medical	Stewart Haight	644-1838
- CP/M	Jim Rosenow	(414) 261-2536

Circulation this issue: *1000*

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

Membership —

Mini'app'les
attn: Membership Coord.
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/MaceDOMs	$5.00	per
	3 1/2" System	$3.00	disk,
Non-Members:	5 1/4" eDOMs	$6.00	Max
	3 1/2" Apple/MaceDOMs	$10.00	$4.00

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

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

Meeting Dates — Please phone calendar announcements to:
John Hansen 890-3769.

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

Advertising — Direct inquiries to:
Mini'app'les
Advertising Coordinator   Bob Lowe 933-0464
PO Box 796
Hopkins, MN 55343

Newsletter Publication Staff

Acting Director and Editor	Tom Lufkin	698-6523
Announcements	Kent Edwards	452-4956
Calendar	John Hansen	890-3769
Assistant Editor	Tom Edwards	927-6790
Contributing Ed.	Steve George	935-5775

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In This Issue

The Fine Print

The Mini'app'les newsletter is an independent publication not affiliated or otherwise associated with or sponsored or sanctioned by Apple Computer, Inc. or any other computer manufacturer. The opinions, statements, positions,and views stated herein are those of the author(s) or publisher and are not intended to be the opinions, statements, positions or views of Apple Computer Inc., or any other Computer manufacturer. Apple®, the Apple® , 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.
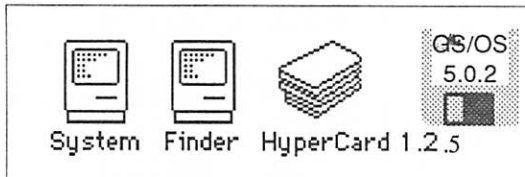
✔ **System Updates for Macintosh**
✔ **ProDOS and DOS 3.3 systems for Apple II/IIGS**

Apple II Users
Wed, Jan. 3rd
Washburn Com. Library

MacUsers
Thurs., Jan. 4th
Southdale Library

Advertisers

Membership

Application and Renewal

Regular (1st year)	$20
Regular (renewal)	$15
Sustaining Membership	$25
Educational Membership	$50
includes:	
4 membership cards	
4 newsletters	
1 new member kit	
1 vote	
Corporate Membership	$100
includes:	
6 membership cards	
6 newsletters	
1 new member kit	
1 vote	

TO CONTACT MINI'APP'LES:

send requests for Memberships, inquiries about advertising, letters to the editor, brick-bats or cookies, to:

> MINI'APP'LES
> attn: (person or department)
> PO Box 796
> Hopkins, MN 55343

Join other members on the
Mini'app'les BBS — 892-3317
Set Data bits at 8; Stop bits at 1; Parity at none; 300, 1200, or 2400 baud
enter name and number exactly as on newsletter mailing lable

Deadline for February Mini'app'les Newsletter is January 1. Your letters, comments, or even rants, are invited.

Members Helping Members

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

Apple II	Key
Applewriter	2
AppleWorks	1,2,9
Ascii Express	
BASIC	5
Beagle Buddy	9
BPI Programs	
Datalink 1200	1
Dollars & $ense	1
DB Master	7
Epson LX80	1
Hard & software	9
Home Acc'n't	
Laser 3.5 drives	1
PublishIt!	
ProTERM	1
Talk Is Cheap	
TimeOut	9
TO SideSpread	1
TO QuickSpell	1
TO SpreadTools	1
TO Thesaurus	1
WordPerfect	

Apple IIGS	Key
816 Paint	
AppleWorksGS	
APW	
DeluxePaint II	
General	3,10
Graphics Studio	
GS/OS	
MultiScribe	
Music Studio	
PaintWorks Plus	
Prosel	
TML Basic	
Writer's Choice	

Macintosh	Key
4th Dimension	
Adobe Illustrator	
Beginners	13
Canvas	5
General	
Helix	
HyperCard	6
MacDraft	5
MacDraw	5
MacPaint	5
Mac OS	4
Microsoft Excel	5,6
Microsoft Word	4,5,6
Microsoft Works	11
Networking	
	5,6,13
OverVue	
PageMaker	4,6
PostScript	8
Power Point	5
QuickBasic	5,6
ReadySetGo	
WordPerfect	

*Sea Horse , a download
from A.O.L*

> **See your name in print!!**
>
> **All it takes is a quick phone call to Lloyd Nelson and say that you want to be a Member Helping Members volunteer!**

Key

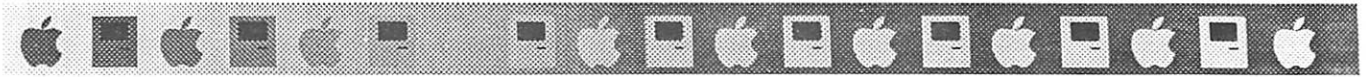|			
1-Lloyd Nelson ....423-3112 E	2-Tom Ostertag ....488-9979 E	3-Tom Gates ....789-1713 EW	
4-Tom Edwards ....478-2300 D	5-Earl Benser ....884-2148 EW	6-Dan Buchler ....890-5051 E	
.......................927-6790 E	7-Ann Bell ....544-4505 E	8-Fritz Lott.................377-3032 E	
9-Dick Marchiafava .572-9305 DE	10-Randy Dop..........452-0425 EW	11-Ed Spitler ....432-0103 D	
12-Timothy Shea .....739-3764 E	13-John Hackbarth ...715-246-6561 D		

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.

AppleWorks SIG

by Dick Marchiafava

The AppleWorks SIG meets to discuss the workings of all versions of AppleWorks, as well as the various assistant programs that support it. Join us to add to or share your AppleWorks secrets.

Winter Schedule

Jan. 25: Data Base Part 1
Feb. 22: Data Base Part 2

Any corrections to the published meeting calendar will be posted on the Mini'app'les Bulletin Board. Meetings are held monthly on the 4th Thursday unless there is a conflict with a major holiday. In the event of a conflicting holiday, the meeting will be the 3rd Thursday of the month. Call 572-9305 if you need information about these meetings. Dick

Apple II SIG Meetings

by Tom Ostertag
Apple // Interest Director

The Apple II Sig committee got together and set up the meeting schedule for 6 months or so. Here is the schedule as of December (may be subject to change, so keep reading these announcements!):
- Jan 3 - John Hyde will demonstrate the Apple Video Overlay Card.
- Feb 7 - David Kronk of KFS/Tax fame will demo KFS/Tax and provide tax tips.
- Mar 7 - DTP demo by Springboard (not firm)

Looks like lots of good stuff. So come on over to the Washburn Community Library on 5244 Lyndale Ave. So. Time 7:00 to start (Librarian sends us to Perkins at 9:00).

Apple II DTP SIG Organizing?

by Tom Ostertag

Many people using Apple II computers have acquired Desktop publishing software in the past year. It is felt there is a need for a Special Interest Group to support and promote this area of computer use.

In the Apple //e, //c and IIgs markets there are several programs which are for Desktop Publishing. These include Publish It! by Timeworks, Springboard Desktop Publisher, Personal Newsletter, modules of GEOS by Berkley Software, aspects of Beagle TimeOut Graph and SuperFonts for AppleWorks. Also, there are DTP capablilites in AppleWorks GS and a stand-alone DTP program called Medley from Milliken which are for the Apple IIgs computer.

If you are interested in an Apple II Desktop Publishing SIG, please contact one of the following persons:

Bill Warner	484-8275
Dick Marchiafava	572-9305
Tom Ostertag	488-9979

When a list of interested persons has been gathered, an initial organizing meet will be held. Those responding will be notified when and where this meeting will be.

At the initial meeting, there will be an introduction to Apple II Desktop Publishing. The members attending will discuss and decide what activities and programs this group will undertake. If a viable SIG organization and program is decided upon, this SIG will apply to the Mini'app'les Board for recognition.

Thanks to Joan Kistner

by Tom Edwards

Joan Kistner has decided to retire from the newsletter assembly crew. She has been part of more newsletter pasteup sessions than anyone but Dan, I'd guess. I know that she had enough experience by the time that I came along, that she could keep an eye on me to see if I was doin' it right or wrong... that's more than 5 years ago, when rulers, glue and blue pencils were the tools of the trade. As we switched to the Mac and PageMaker, she grimaced and groaned right along with us as we all learned new tricks and technology. (Did you know that Joan and I are in the Guinness Book for wiping out more PageMaker files in less time that it takes the IRS to shake hands with a Wheel of Fortune winner?)

Many thanks, Joan, for the donation of all those Saturdays and other untold hours of newsletter prep, the laughs and chuckles whenever we messed up something and the willingness to always see it through to the last window shade # marker.

Mac User SIG Stuff
by Tom Edwards
Mac Interest Director

The Mac User SIG will return to its normal schedule with meetings on the first Thursday of the month. Time and place remains the same: the Hennepin Southdale Library at 70th and York Ave. South, with pre-meeting activity beginning at 6:30 and program at 7:00. The January 4th meeting at the Library will be feature a demo of ProViz, a video frame grabber, in a presentation by Frank Van Alstine.

The first Thursday and Library location for the meetings has been scheduled through May, 1990.

If there is something that you really feel would make a top-notch program, give David (Stovall), Mike (Carlson) or me (Tom Edwards) a call. Your needs are what we want to fill. Let us know what turns you on!

Mac DTP Meeting

The Mac DTP group meets at First Tech Computers, 26th and Hennepin (7:00 pm, host John Hyde), the 4th Wednesday of each month. That's January 24th, for the first meeting of the group in 1990.

Look for a demonstration of TimeWorks' **Publish It!**, a new DTP entry at the lower price bracket that includes some neat features. The copy that TimeWorks sent turns out to be a "demo," although it contains registration cards, etc. The program will save and print, but it prints with a banner about Publish It! splashed across the page. I planned to have a drawing for this program, and will do so for members in attendance at the DTP January meeting. I will be checking with Time-Works in the hopes that we can make it a *real* program with full functionality for the winner.

I've been contacted by a representative of B.M. Grady, a company that offers ad agency services to businesses and service bureau access to DTP'ers. Expect a short presentation from the rep and a brochure hand-out about their services.

Hope to see you there.

Mac Computer Art and Design
by Joy Kopp

The Macintosh Computer Art and Design (MCAD) User Group meets on the second Monday of the month at 6:45PM. The location of the meetings is the Minneapolis College of Art & Design, room 325 Computer Lab., unless otherwise noted.

MCAD meets from February through November. That means that you can plan on a get-together in February. Up-to-the-minute details can be obtained by recorded message at 440-5436.

For any questions or suggestions for future meeting topics, contact me, Joy Kopp.

Mac Novice SIG
by Thomas M. Lufkin

The Mac Novice SIG will meet in January, on the 4th Monday, the 22nd., at 7:00, at the Highland Park Public Library - St. Paul, on Ford Parkway. The topic for this meeting will be "DeskTop Publishing for Beginners."

I'll be talking about my recent experience as a desk-top-publisher and looking at both the high end programs and the less expensive (cheap) ones.

SmallTalk SIG Interest
by Martin McClure (as told by TWE)

Things are looking up for this Object Oriented Programming system. Although the SmallTalk meetings have been suspended for some time, there seems to be renewed interest in getting things going again.

If you have an interest in taking part in discussions and viewing examples of SmallTalk, I'd like to hear from you. It won't take a huge grass roots movement to get this going. Give me a call... 227-9348.

To Russia with Love
Computerists respond to letters
by Tom Edwards

You've seen the initials "TCCN" in these pages before... it's a BBS that is operated by Ray Douglas who was instrumental in bringing some of the early BBS and computer-oriented talk shows into Minneapolis and St. Paul. That's still going strong and, thanks to a hip young woman named Virginia McGaffey, the BBS sprouted an entire new section that makes computers a vital link in yet another warming crack in the cold war wall.

Virginia wrote to Pravda, the leading newspaper in Russia, offering to answer any letters that the readers would send as part of a "pen-friend" link between her and those in Russia. She's done this type of thing before, and has managed to keep an impressive exchange of mail moving between her south metropolitan residence and countries near and far. Her hope is to make a bond between average Joe's in different countries, kind of a "postage stamp diplomacy." Much to her amazement, her letter was published in Pravda.

There were so many responses... numbers like 400 and 600 fly about at times... that there was no way she could keep up with the letters which came, not only from Russia, but also many other countries that Pravda reaches. In an effort to help find folks that would "adopt" a letter and answer it for her, she contacted Ray and a scheme was born. Using e-mail on the TCCN BBS, the 3000 members were contacted and told about the letter exchange and asked if they would lend a hand. Those that were interested, filled out an electronic questionaire that helped Virginia match a letter received with an adoptee, and letters began to flow between the USA and wherever.

The BBS takes on a role...

as a central "clearing house" to keep folks at this end of the paper bridge up-to-date with exchanges. Many of the folks have posted the letter that they are responding to, along with their reply. It has provided a lot of good reading and understanding to see that those in other countries have many of the same interests, responsibilities, frustrations and joys as we do here.

The letter exchanges seem to be entering a "second stage" as some folks have send two or three letters to their adpotee writer. The teacher that we are writing to has come back with a letter from one older son and also has a high school-age son that loves basketball and would like to swap letters with someone here with similar interests. We have send some photos of the TC area and are beginning to focus on what responses might be of greatest interest. In many ways, you might be writing to the folks next door!

There are still a lot of letters that need adopters. Some of the letters are in Russian (making translation necessary), but most sport an embarassingly good command of english. If you'd like to enter into this low-key, rewarding letter exchange, contact Virginia on TCCN.

Here's warm fuzzies to a bunch of computer hackers that have started to build a paper bridge between countries by finding that a simple letter can make you seem like a great statesman.

TCCN: 300/1200/2400 baud, 7-N-1-Full
Phone: (612) 349-6200
Answer "TCCN" to logon message and "GUEST" to password for first-time users. At menu screen, type "DO-SURVEY" if you want to become an adopter of a letter.
TCCN is free. Best is non-business hours.

More bytes later...
TWE

> Virginia wrote to Pravda, the leading newspaper in Russia, offering to answer any letters that the readers would send as part of a "pen-friend" link between her and those those in Russia.

Minutes of the Board Meeting
November 9, 1989
St. Paul Public Library - Lexington Branch

Board Members in attendance:

David Laden, Tom Lufkin, Randy Dop, J.E. Wheeler, Tom Edwards, Tom Ostertag, Dick Marchiafava. Excused: Dan Buchler, Tom Gates. Unexcused: Dave Undlin, Ian Abel.

***Members in attendance:

Dick Peterson, Steve George, Ed Spitler.

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

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

Motion by Lufkin to approve October 12 minutes as amended. Second by Ostertag. Carried.

***Agenda Item 2.1 - President's Report

No report this month.

***Agenda Item 2.2 - Vice President's Report

Tom reported that Mini'app'les was not represented at the Control Data Computer Fair that was held on October 25, 1989 because of a personal conflict.

***Agenda Item 2.3 - Secretary's Report

Randy reported that he is continuing to receive requests for payment of past owed e-DOM coupons from members. The additional name tags for SIG coordinators were delivered to the SIG directors.

***Agenda Item 2.4 - Treasurer's Report

Report for September 1989 submitted by Wheeler.

Report for Third Quarter 1989 submitted by Wheeler.

***Agenda Item 2.5 - Membership Director's Report

Tabled.

***Agenda Item 2.6 - Executive Committee Report

No Executive Committee meeting held.

***Agenda Item 2.7 - Publications Committee Report

Tom Lufkin reported that it was the decision of the Publications Committee to publish the December 1989 and January 1990 newsletters. Burnsville Printing will continue to print the newsletter for the time being. Tom has written quotes from a number of different printers. The low bid was from the Lino Lakes Correctional Facility for $690.00. Tom will personally visit the Lino Lakes facility to look at some examples of their work and to get some references. The current newsletter staff includes Tom Lufkin, Tom Edwards, Steve George, and Dan Kimball.

***Agenda Item 2.8 - Software Director Report

Tabled.

***Agenda Item 2.9 - Resource Director Report

Tabled.

***Agenda Item 2.10 - Interest Group Directors Reports

Tom Edwards provided a written report on MAC activities for the previous month.

Tom Ostertag provided a written report on the activities of the Apple SIGs for the previous month.

***Agenda Item 2.11 - Past President Report

Dick provided an article concerning club membership. This subject will be discussed at the December Board meeting.

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

Treasurer's Report for September 1989

INCOME		
Membership Dues	917.00	
Savings Account Interest	16.78	
Newsletter Advertising	285.60	1219.38
EXPENSES		
Telephone	12.50	
Printing, publications	1265.63	
Conf, conv, meetings	25.00	
Insurance	111.00	
Bank Service Charges	7.80	1421.93
MONTH LOSS		202.55
TCF Inv Mgt Acct	8429.29	
Checking Account Balance	1022.12	
Bills Outstanding -		
Attorney Fees		3500.00

Treasurer's Report for Third Quarter 1989

IINCOME		
Membership Dues	2199.00	
Savings Account Interest	90.60	
e-DOM Sales	378.00	
Newsletter Advertising	336.40	3004.00
EXPENSES		
e-DOM Cost of Goods	249.37	
Office supplies	134.34	
Telephone	164.26	
Postage, shipping	183.36	
Printing, publications	2985.09	
Conf, conv, meetings	69.26	
Insurance	1223.00	
Bank Service Charges	19.42	
Bad checks	4.00	5032.10
THIRD QUARTER LOSS		2028.10

***OLD BUSINESS
Agenda Item 3.1 - Status of IRS Penalties
Tabled.
***Agenda Item 3.2 - Lawyer's Fees
Tabled.
***Agenda Item 3.3 - Printing of Membership Blanks
Jim Wheeler distributed the new membership blanks.
***Agenda Item 3.4 - MAC SE/30 Upgrade
Tabled.
***Agenda Item 3.5 - Newsletter Printing Costs
Recommendation from Publications Committee.
It is the recommendation of the publications that during the transition period following Dan Buchler's resignation, that Mini'app'les continue utilizing Burnsville Printing for printing the newsletter, using their latest quote of $951 for a 32-page, 1000 press run.
Motion by Marchiafava to approve this recommendation. Second by Lufkin. Opposed: Wheeler. Carried.
***NEW BUSINESS
Agenda Item 4.1 - Acceptance of Dan Buchler's Resignation
WHEREAS Daniel B. Buchler was one of the founding members of Mini'app'les; and
WHEREAS Daniel B. Buchler has served as President of Mini'app'les from 1978 through 1981; and
WHEREAS Daniel B. Buchler has served in the capacity of Newsletter Editor for over 8 years, and as Communications/Publications Director since the position was created in 1984;
THEREFORE BE IT RESOLVED that it is with deepest regret that the Board of Directors of Mini'app'les accept the resignation of Daniel B. Buchler from the positions of Publications Director and Newsletter Editor.
Motion by Wheeler to accept resolution. Second by Marchiafava. Carried.
In recognition of over 10 years of dedicated service that Daniel B. Buchler has given to Mini'app'les as indicated in the above resolution;
THEREFORE BE IT RESOLVED that Daniel B. Buchler be in stated as a lifetime member of Mini'app'les.
Motion by Wheeler to accept resolution. Second by Marchiafava. Opposed: Tom Ostertag.
Carried.
***Agenda Item 4.2 Appointment of Tom Lufkin as Interim Publications Director
WHEREAS Tom Lufkin has volunteered to serve as Publications Director for the next two months only;
THEREFORE BE IT RESOLVED that Tom Lufkin be appointed as Interim Publications Director and that he have the authority to recruit and appoint interim staff as necessary.
Motion by Wheeler to accept resolution. Second by Dop. Carried.
***Agenda Item 4.3 - Brainstorming Session on Future of Newsletter Staff
Tabled.

***Agenda Item 4.4 - Acceptance of Chuck Bjorgan's Resignation from DTP SIG
Motion by Lufkin to accept resignation of Chuck Bjorgan. Second by Dop. Carried.
***Agenda Item 4.5 - Formation of Conflict of Interest Policy
This written policy covers the conduct of the Board of Directors of Mini'app'les, its agents, and members of the user group.
No member of the Board of Directors, its agents, or other members holding leadership positions within the user group shall participate in the selection, awarding, or administering of purchases and contracts if to his/her knowledge, a conflict of interest, real or apparent exists. A conflict of interest would arise when any of the following has a financial or other interest in the vendor or other organization considered for contract or awards:
1) the Board member, agent, or other member holding a leadership position;
2) any member of his/her immediate family;
3) his/her partner; or
4) any organization which employes any of the above.
If a member of the user group is submitting a bid for purchase of equipment or supplies, there must be two "outside" (i.e. non-members) bids considered also.
Members shall not solicit business while acting in an official capacity at a user group meeting, nor shall recommend use of his/her services or the services of his/her employer.
Carried.
***Agenda Item 4.6 - Formation of Purchase Policy
It shall be the policy of Mini'app'les to require three bids for all purchases over $200.00. Three bids are also recommended for purchases under $200.00, though not required. This policy applies to all purchases including capital equipment and supplies.
Carried.
***Agenda Item 4.7 - Formation of Audit Procedures
The Audit Committee shall have full authority to investigate all financial and related matters of the user group. Basically, this means that they have no authority to take any action with respect to their findings other than to report to the Board of Directors. At a minimum, this audit shall include examination of financial books, membership records, inventory of fixed assets, and inventory of goods held for resale (e.g. disks, e-DOM's, etc.), including reconciliation of the above with each other. The audit shall begin on or about January 1 of each year. The audit committee shall generally complete their investigation within 15 days of its beginning and report to the board by its March meeting.
Carried.
***Agenda Item 4.8 - Reconsideration of Free e-DOM Policy
RESOLVED that the Board of Directors of Mini'app'les reaffirm its past practice/policy of providing a free

The AppleWorks Advisor
A Column for Users of AppleWorks
by Dick Marchiafava

With more people beginning to plumb AppleWorks 3.0, differences in the way this most recent version of AppleWorks operates, compared to experience with the previous versions are beginning surface. There are many changes which we will have to get used to, but not all the differences noted can be attributed to AppleWorks 3.0. Read on.

Mysterious ⌂-0 Command

An AW user called me shortly after getting his new AW 3 configured and running to ask what the AW ⌂-0 command he discovered did. When this combination of keys was pressed, most of the bottom line of the screen cleared and the prompt character > appeared. It was possible to enter text at that point. He found no reference to such a command in the program manual, nor did I.

In Chris Adam's book and the television series, "The Hitchhiker's Guide To The Galaxy," the Guide, is an electronic compendium of everything a hitchhiker in the galaxy would need to know to survive. The guide is described as having on the cover in large, comforting letters, the words "DON'T PANIC!"

Maybe there should be such a proclamation on the cover of the UltraMacros manual. The mysterious ⌂-0 command is a feature of UltraMacros and is used to enter information about string variables which may be used in macros.

A close examination of this manual reveals that many ⌂-key combinations not used by AppleWorks are utilized by UltraMacros. These macro commands are hard coded "Reserved Macros" and cannot be changed. Many of them use obscure keystrokes, but not all do.

UltraMacros permits the use of macro commands, -Control commands, Both Apple commands and in some instances ⌂ macro commands. Not all unusual things you may encounter with AW 3 will be bugs. If you use UltraMacros and something seems strange with AW 3, "DON'T PANIC" and consult the UltraMacros manual for a possible explanation.

Since I am discussing UltraMacros now, here are some observations I have made. If an error is found while compiling, the screen is set to the Zoom mode and the Overstrike cursor is on when one is returned to the WP screen.

I suppose this is to make it easier to edit a macro, but it assumes the editing needed is such that overwriting characters is what is to be done. I find the Overstrike cursor so destructive, that I seldom use it. It is too easy to wipe something unintentionally. Most word processing editing I do is completed without resorting to the overstrike mode.

In the situation described, it is necessary to execute 2 commands to get back to a normal screen and the Insert cursor. Most errors I make while developing macros, are in the nature of omissions, requiring inserting characters, instead of overstriking characters to correct. I wish the Overstrike mode assumption had not been made about editing macros from the compiler.

While musing about UltraMacros, I wish there were fewer hard coded macro commands, assuming the functions could be created by the user if needed. Or possibly they could have been buried in some really awkward keystroke combinations, to be used by calling them within other macros.

One hard coded macro come to mind which I especially wish had been handled differently. It is the -Return. This hard coded macro sets the screen to the Zoom mode and moves the cursor to the next Carriage Return. Now, I appreciate that UltraMacros can find Returns and have already used it to edit out Carriage Returns from a document which was loaded as a text file.

The function I had programmed for this macro is now handled by the ⌂-Return macro. It moves the cursor down a line and to the left margin without splitting a line of text or adding a Carriage Return to the screen. I'll get used to this, but would rather not have the decision made for me.

AppleWorks 3.0 Manual

Claris, or whoever developed the new manual for AppleWorks 3.0, deserves praise for the excellent job. I find the new manual a significant improvement in substantial ways over the manuals which had emanated from Apple. The manual may not be perfect, but is much better than past versions.

One aspect of this documentation that deserves comment is the use of logical flow charts to help the user understand where they are and what actions occur depending on where they choose to

go on the decision tree. The flow charts used by Claris are simple and illustrate specific operations. I am a strong believer in the use of flow charts to understand software. I would like to see software flow charts used more often and charts that are broader in scope.

SuperPatch 6.0 Conflicts

When I got all the elements required for the AppleWorks configuration I need, I set to work recently. The elements are:

AppleWorks 3.0
Beagle Bros TimeOut, including UltraMacros
Checkmate's RAM Disk protector
SuperPatch 6.0

After assembling all the parts, I found the configuration did not work. Going back to square 1, I assembled the configuration a step at a time, testing extensively at each step. I finally got it all up and working properly, except for the many patches I want.

After installing the desired patches, my working configuration was unstable and subject to crashes. Most of the problems I encountered center on UltraMacros. The program would freeze or crash while recording macros and it crashed a few times while using the UltraMacro Compiler. The most unusual problem was being unable to exit the record macro mode on some occasions.

I removed all patches, then applied patches only to the Aplworks.System file. Even with just these, I had some of the same problems. I finally got down to just patchs to change the insert cursor and use check marks in menus. As long as I used any patches had problems. Other users reported that the Clock display on screen interferes with the "print to screen" function of SuperFonts.

I wrote to John Link describing these difficulties. John sent a pre-release copy of SuperPatch 6.1 to me. SuperPatch 6.0 was written and released before UltraMacros 3.0 was complete. It is likely that most of the problems I have will not be present with SuperPatch 6.1.

As program versions change for AppleWorks, people like Beagle Bros and John Link must scramble to keep up with changes. John says the SuperPatch 6.1 beta version I now have is compatible with UltraMacros 3.0, but not with UltraMacros 3.1! There will additional changes to Super-

Patch 6.1. John says he is writing patches and changes while the manuals are at the printer.

In addition, UltraMacros will be undergoing revision because of conflicts found when using a mouse with the Apple //c+. John said that because of that problem, there may yet be a third new version of SuperPatch. Meanwhile, SuperPatch 6.1 will offer 100 patches for AppleWorks 3. Registered users of SuperPatch will receive the update when it is released.

Beagle Bros Distribution Change

Along with the big round of TimeOut updates sent out to Beagle Buddies, there was a note explaining that Beagle Buddies would have to get future updates by modem from the Beagle bulletin board. This move was intended to lessen the work of getting the updates out.

However, this decision has been rescinded. The Beagle bulletin board has only one phone line and is often tied up. Beagle Buddies will continue to get updates by mail on disk. But, there is a change in how this is done. The update files are compressed.

ShrinkIT, Packed Files

ShrinkIT a utility by Andy Nicholas (Brown Bag Software), is intended to pack disks or files for storage. Compressed or packed files are also useful for bulletin boards. The files take up less space and transfer by modem faster.

Beagle Bros used ShrinkIT to prepare the latest batch of upgrades. The first such 3.5" disk I received held 790K of information. Of this about 200K was system files, the ShrinkIT program, data base files, word processor and miscellaneous files. The balance of the disk was packed data. When unpacked it became 3.5" versions of UltraMacros, Desktools, Desktools II and both 5.25" sides of UltraMacros. These become actual program disks, not a collection of updated files.

ShrinkIT is a great way to archive data files not accessed often. Also, I will try placing the Beagle TimeOut update programs on my hard disk as compressed disks. The UnShrink operation produces a full disk copy in a relative short time. It is comparable to some disk copy utilities in copy speed and ease of use.

AWA, concluded from 11

AW 3.0 Spelling Checker

The spelling verification module of AW 3.0 is an improved version of Beagle Bros QuickSpell. It is fast and convenient to use. It is not as powerful as Sensible Speller or some other spelling checkers, nor was it intended to be.

It is just a little 20K program (if seperate from the dictionary) which cannot have many powerful algorithms to find correct spellings for every possible misspelling. It finds typos and any words which do not have a match in the dictionaries. With an 80,000 word main dictionary, there is a limit to its ability to offer correct spellings for great numbers of words.

The most powerful dictionary I know of is Webster's which has a 115,000 word dictionary and uses powerful algorithms. But, it is not AppleWorks resident and the last time I checked, was copy protected, which meant it could not be used from a RAM disk.

The built-in AW 3.0 speller is more capable of finding correct spellings than QuickSpell. Where QuickSpell might offer a list of 29 suggestions, the built-in spelling checker will produce a shorter list with a higher probability of containing the correct spelling.

Generally, spelling checkers do not concern themselves with upper and lower case of words checked. They just try to preserve the case usage of words which may be replaced. This accounts for a quirk which was reported to me.

Bob Hamlett of Wellington New Zealand, demonstrated to me that a misspelt word containing an upper case character, such as capPital, would be returned as capItal after correction. Of course! The fourth character of the original word was an upper case character, so the fourth character of the replacement is. The program is trying to preserve the case usage it found, it does not know or care if upper case characters are incorrect. That is why one should proof read a document and/or use a grammar checker.

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

Minutes, concluded from 9

eDOM for contributions to the newsletter or eDOM. This applies to all articles submitted and published in the newsletter and includes re-keying of previously published articles and downloading of public domain or shareware. This does not include announcements. A coupon redeemable for a eDOM of the bearer's choice shall be issued within 30 days of publication of the article or eDOM material. This policy shall be listed in the newsletter along with other "boiler plate" material in a similar size style and type.

Further, be it RESOLVED that anyone who feels they are owed eDOM coupons for past contributions contact the Secretary by December 1, 1989. The Secretary will investigate and see that these past debts are paid off. The Secretary is authorized to distribute eDOM coupons for this purpose.
Carried.

***Agenda Item 4.9 - Policy regarding Cash Contributions
It is the policy of Mini'app'les to accept contributions and donations in cash. The Treasurer will provide the donor a receipt for tax purposes.

The Minnesota Apple Computer Users' Group, Inc. (Mini'app'les) a non-profit 501(c)(3) organization, cheerfully accepts tax deductible contributions to further the educational work of the user group.
Carried.

***Agenda Item 4.10 - Utilization of Voice Mail Service
Tabled.

***Agenda Item 4.11 - ROM Purchase for Apple IIGS
Tabled.

***The meeting adjourned at 8:30 P.M.
Respectfully submitted by Randy L. Dop
November 9, 1989

REQUEST FOR CHANGES TO THE BYLAWS

According to Article H, Paragraph 1 of the current bylaws, "Requests for changes in the bylaws will be made in the Mini'app'les newsletter at least four months prior to the election of officers." (NOTE: The bylaws in their entirety were published in the March 1989 newsletter.) Any member who would like to propose a change to the bylaws should put the request in writing and send it to the President by January 4, 1990. The board will act on these requests at its January meeting. Changes to the bylaws will become effective after publication and ratification by the membership. Ratification will be by means of written ballot as published in the April newsletter.

Applesoft BASIC

by Tom Alexander

MENUS

There's really nothing new about menus. Every restaurant in town has one with the exception of Joe & Erna's Hotdog Heaven out on Highway 12. Menus are just the same for your computer program. With one, you can select which portion of the program you want to work with. They can also add a sense of order to an otherwise gigantic maze. You can't, however, get a cheeseburger to go.

Let me use a small example to explain things further. Your program is going to show the four basic parts of arithmetic and one exit section: 1) Addition, 2) Subtraction, 3) Multiplication, 4) Division and 5) Quit. You might have some subroutines for the program so you'll have to allow room for them.

My first step is to determine how much space is going to be needed for each program section.

I use standard subroutines that are kept on a separate disk so they can be used when needed. I determine that I'll need two of these so I'll set aside space from 100 to 999 at the beginning of my Applesoft BASIC program. Each section of arithmetic will use about 50 lines so my first segment, Addition, will be numbered from 2000 to 3999 to leave plenty of room. Each of the other three will be given the same space in the appropriate line numbers: 4000, 6000 and 8000. I'll start my exit on line number 10000.

The program will start at line 10 and immediately jump to the beginning of the displayed program at line 1000. Remember, the subroutines are listed from line 100 to 999. You must jump over these to prevent a RETURN WITHOUT GOSUB ERROR.

```
10 REM * Start program
20 GOTO 1000
::

1000 REM * Main menu
1010 TEXT: HOME
```

The main menu will be displayed as follows:

```
1120 PRINT TAB (22); "MAIN MENU"
1130 VTAB (5)
1140 PRINT TAB (10); "1. Addition": REM * 2000
1150 PRINT TAB (10); "2. Subtraction": REM * 4000
1160 PRINT TAB (10); "3. Multiplication": REM * 6000
1170 PRINT TAB (10); "4. Division": REM * 8000
1180 PRINT TAB (10); "5. Quit": REM * 10000
1190 PRINT
```

```
1200 PRINT
1210 HTAB (5): INPUT "Select number you want: "; A$
```

The operator is now presented with a choice of topics and is asked to make a selection from the menu. A number between 1 and 5 should be typed in and the variable, A$, will accept it. As this is an alpha-numeric variable it can be tested for a correct response. Lines 1190 and 1200 each contain one PRINT statement. Why not put them on the same line number? This will be explained below in the section covering the GET statement.

The following lines will test for the correct response in the INPUT statement:

```
1220 IF LEN (A$) <> 1 THEN CALL -198: CALL -998: CALL -958: GOTO 1200
1230 IF ASC (A$) < 49 OR ASC (A$) > 53 THEN CALL -198: CALL -998: CALL -958: GOTO 1200
```

Line 1220 will test to see if the length of the variable A$ is more or less than 1. If so, the bell will ring (beep), the cursor is moved up one row, the screen is cleared from the cursor to the bottom of the screen and the INPUT line, 1200, is printed again. Line 1230 will test to see if the ASCII value of A$ is less than 49 (1) or more than 53 (5). If so, the same actions as above.

The next program lines will advance the program to the section indicated by the menu selection:

```
1240 REM *
1250 IF A$ = "1" THEN GOTO 2000
1260 IF A$ = "2" THEN GOTO 4000
1270 IF A$ = "3" THEN GOTO 6000
1280 IF A$ = "4" THEN GOTO 8000
1290 IF A$ = "5" THEN GOTO 10000
1300 REM *
```

The above example used the INPUT statement to receive the operator's choice. It was stored in the variable, A$. A faster method of accomplishing the same result would be to use the GET statement and the ON/GOTO statement. The GET statement is fast but should be used where only one keystroke is required for the answer. If more than one character is, or might be called for, the INPUT statement should be used. This is so because the GET statement will only accept the first character typed. The sequence will be changed to look like this:

The Beagle Compiler

Review by Phil Shapiro
via Steve George, Mini'app'les Contributing Editor

Applesoft BASIC is one of the most popular programming languages for the Apple II family of computers. It's easy to learn, flexible to use, and compatible with every Apple II computer ever sold. Applesoft is built into every Apple II computer since the antique Apple II+, so it's immediately accessible to everyone. Even the ancient, "original" Apple IIs, from circa 1978, can run Applesoft BASIC programs (when installed with an Applesoft BASIC language board). [However, for the sake of this discussion, the original Apple II must be eliminated because what we need here is a machine that has room for both Applesoft and ProDOS concurrently. Machines meeting this requirement are 64k Apple II+, IIe, IIc, IIgs, and IIc+. – C.Ed]

Although the acronym BASIC stands for Beginner's All-purpose Symbolic Instruction Code, Applesoft BASIC is used by more than a few professional programmers. And Applesoft is by far the most popular programming language for amateur Apple II programmers. You need only look at the mounds of public domain programs written in Applesoft to appreciate the great flexibility of the language.

But Applesoft does have one important limitation: sometimes it can be as slow as a snail with two broken legs. The reason for Applesoft being slow is that it's an interpreted language. Each time you run an Applesoft program your Apple II has to translate each line of code into instructions that are intelligible to the CPU.

In many programs this translation process does not slow the program down appreciably. After all, your Apple II can carry out hundreds of instructions in one second. But in other programs the translation of Applesoft lines into lower-level "machine language" code slows the program down to an unacceptable crawl.

"What to do?" you sigh impatiently. Never fear, Beagle Bros to the rescue. Beagle Bros is a company that built its reputation by selling extraordinarily useful software tools to Apple II programmers. (These days Beagle Bros has shifted their marketing emphasis to the sale of Apple-Works enhancements.) Back in 1986, Beagle Bros released their (then) latest programming tool, the **Beagle Compiler**.

The Beagle Compiler is a program that translates your Applesoft program into low-level "machine code" before the program is run. Then, when you run your "compiled" program, the program zips along from anywhere between two to fifteen times faster than it did before. All of a sudden Applesoft BASIC is not only easy to learn and flexible to use, but now good old Applesoft is fast and powerful too.

To be honest, the Beagle Compiler is not a panacea for all Applesoft woes. Some Applesoft programs are not speeded up much by being compiled. Programs that make heavy use of the random function (RND) or the trig functions (SIN, COS, and TAN) do not run at lightning speed.

But your average Applesoft program that seems a little weary and fatigued in normal operation will benefit splendidly by being compiled. In the few seconds it takes for the Beagle Compiler to work its magic, your program will regain that youthful bounce in its step.

"So how do you go about using the Beagle Compiler?" you might ask. Well, the best thing about this compiler is its ease of use. You don't need a PhD in computer science to use it. Even beginning programmers could learn how to use it.

Having just said the above, it behooves me to add that to get the most our of this compiler, you really ought to have a solid familiarity with Applesoft BASIC and the ProDOS operating system. You can use the compiler easily of you have simple programs to compile. But if your programs are long and/or complicated, you'll have to study up a bit to make use of the advanced features of the compiler.

The documentation that accompanies the Beagle Compiler is concise, informative, and complete. Used in conjunction with the demo programs on the disk itself, the documentation does an exemplary job of explaining what you need to do to use the compiler. Basically, all you need do is:

Boot the Beagle Compiler disk

Take the disk out of your disk drive

Put your own ProDOS based Applesoft disk in the drive, and

Type RUN followed by the program name you want to run at compiled speed.

Your disk drive will then whirr, the compiler will take about five to ten seconds to "do its thing," and very soon your program will be off and running at machine language speed. Easy enough for a second grader, come to think of it.

If you are a thoroughly devoted speed demon, the Beagle Compiler also allows you to compiler your Applesoft programs to disk. The compiler can actually translate your program into pseudo machine language code, and them save that code to disk. To do this, type the command COMPILE, followed by the name of the program you want compiled, and the name you want the ensuing compiled program to be saved as.

Once a program is compiled to disk, you can run it at the fast speed without even waiting the usual five to ten seconds for the compiler to translate your code. Pretty darn nifty, don't you think?

The Beagle Compiler opens up whole new programming possibilities for creative Applesoft aficionados. Gone are the nagging speed limits of old. Combined with the speedy new Zip Chip CPUs [and Rocket Chip & TransWarp -C.Ed], and the fast CPUs of the Apple IIgs and IIc+, Applesoft BASIC is sure to enjoy a resurgence among amateurs and professionals alike.

When Bill Atkinson first introduced Hyper-Card for the Macintosh, he likened the flexibility and ease of use of HyperCard to Applesoft BA-SIC. Like HyperCard, Applesoft BASIC is a wonderful "erector set": simple to use, fun to play with, practical to build upon.

The Beagle Compiler runs on all Apple IIs from the Apple II+ to the Apple IIc+. In the great Beagle Bros tradition, the disk is not copy-protected. It sells for about $46, mail order. A big thanks is owed to Alan Bird, the inspired creator of the Beagle Compiler program.

Beginner's Corner, concluded

1200 PRINT TAB (5); "Select number you want: "; A$;: GET V$

The semicolon is placed after the variable and before the colon to keep the cursor on the same line. I think it just looks better. The GET statement, like the INPUT statement, will suspend program execution until the operator makes his/her move. The GET statement will resume program execution on the first keystroke. The IN-PUT statement will wait until the RETURN key is hit. The lines 1190 and 1200 each contain a PRINT statement as mentioned above. This is done so the GOTO statements in the testing lines, 1210 and 1220, will go to a line that positions the cursor at the left margin before the INPUT statement in line 1210. Otherwise, the INPUT statement will be all over the screen.

To substitute all of the IF/THEN statements listed above, you can use an ON/GOTO statement. The A-N variable must be changed to a numeric variable first. It looks like this:
1240 REM *
1250 A = VAL (A$)
1260 ON A GOTO 2000, 4000, 6000, 8000, 10000

The big advantage in using the GET - ON/GOTO sequence is the time you save typing in the statements. What if you had twelve items on your menu?

If you want your program line numbers condensed, you can use a RENUMBER utility. You should probably wait, however, 'til all of the bugs have been worked out and any additions have been made. This is the reason why so much space has been left between program segments.

THE USER'S LAMENT

by Ken Edd

Call me Seymour. *She* does. Audrey. Audrey Plus, the light of my life, the bane of my being. I can still remember the first time I saw her in the shop window, looking up so trustingly with that single gray eye, her platinum skin glowing under the fluorescents, the slit of her mouth fetchingly cocked to one side, that whimsical little multi-colored apple on her cheek. It was love. I had to buy her and bring her home to my cellar under Mr. Mushnik's flower shop. I named her Audrey Plus after Mr. Mushnik's shop assistant, Audrey.

Little did I know how much that innocent little conniver would cost me in money, time and self-respect. I had visions of us computing away happily together ever after. We would write the Great American Novel, one that would sweep the sales charts and make me millions. It was a fool's paradise. No sooner had I got her home than she began demanding more and more and more of my time, my money and my being. I have a Macintosh on by back. I know that If ever I have the misfortune to be pursued by the Hound of Hell, it would look like a computer.

At first it was simple things: a printer, so that other people could read the terrific things she and I were going to be doing, and a second floppy drive, so that she didn't have to wear herself out changing disks all the time, and a little program— just a simple little integrated program that had the basic features- a word processor, a spreadsheet, a database and communications.(FEED ME, SEYMOUR.) This was about all I could afford out of the pittance I made at Mr. Mushnik's flower shop, but that didn't stop *her*. I made the mistake of putting my financial records on the spreadsheet, so the little vixen knew, to the penny, how much money I could spend, and she wanted to spend it all, whether it was needed for rent, doctor's bills, food, or clothing. She wanted it all, and spent it all, regardless.

She needed a better word processor, because after all, the one she had wasn't the *standard* that all the editors were expecting, and if I ever wanted us to be successful, I couldn't let a little thing like the lack of the proper program stand in our way. All the editors expected artwork with the articles, so there were disks and disks and disks of clip art.

A paint program to handle the art work. (FEED ME, SEYMOUR.) A 30-megabyte hard disk, because all the magazines said it would make the work *so* much easier, and then I wouldn't have to sift through the disks of artwork. A drawing program that would make output much finer than the the paint program, and which was object-oriented, besides. (FEED ME, SEYMOUR.) A page layout program, so I could do my own desktop publishing, since by now it was obvious that no one else would ever publish my stuff. (FEED ME, SEYMOUR.) A modem, so we could communicate with other computers. (FEED ME, SEYMOUR.) It was at this point that I began to rebel, asking Audrey Plus when, if ever, any of this stuff was going to pay off. When, to put it bluntly, she was going to go to work. She got into a snit, trashed her hard disk, and I was unable to input data for a week. Her answer was, that since I had so much free time (by now I had alienated all of my non-computing friends by my constant babble about Audrey Plus and I), I should take a second job. I got one, at *Neon Al's Videorama and Marital Aids*, pushing sleazy tapes and rubber underwear to the children of the night.

This brought in some more money, and I thought that at last, I would be able to spend some of it on myself, but Audrey Plus had other ideas. She needed a laser printer, so that I could take advantage of the finer output that the draw program and the page layout program were giving me. (FEED ME, SEYMOUR.) She needed upgrades of all of her programs,(at an average of $80 per upgrade) since the new versions all had capabilities she needed She needed more memory, to take care of the greater memory requirements of MultiFinder and the new System 7. She needed a bigger hard disk, since her old one was getting cramped with all the data she was storing. (FEED ME, SEYMOUR.) I would have pulled the plug, but she used her modem to order up an uninterruptible power supply, with my money, on my credit card, no less. She had accessed my credit records, and knew my card numbers. I canceled the cards, and pulled the modem line, except when I want to communicate, but I have the feeling that she may still be able to communicate without me, since I saw a bulletin on GEnie that "AudPlus" from

What parents can teach their children about computers

by Sandy Kotarides, via Steve George, Mini'app'les Contributing Editor

You have a computer at home. You've read the claim by the Computer Learning Foundation that "by 2010 virtually every job in our nation will require some computing skills." You enjoy using your computer and would like your children to use it more and enjoy it as much as you do. What should you do?

1. Model appropriate behavior.
Display your enthusiasm about computer activities. Try not to curse the machine. Adhere to safety rules. If you are afraid that if you touch it you may break it, feign interest and make an effort to learn at least one program (that really interests you) to model appropriate behavior for your child.

2. Start at age 3 or 4 if possible.
Preschoolers (and children of all ages) thoroughly enjoy computer activities. They aren't afraid of doing something wrong. The computer provides instant reinforcement and is a source of feelings of mastery and self-esteem. Purchase programs that will interest your child, that he will eventually be able to run independently. Teach him how to run one program at a time. Set aside age-appropriate disks that your child can boot himself (after proper instruction).

3. Teach your child to run simple programs.
Begin by discussing basic safety rules (hands clean and dry, red light rule, no toys or food near the computer, etc.). Demonstrate proper disk handling very slowly and with exaggeration. Let your child boot the disk. Sit your child comfortably in front of the computer, while you sit to the side pointing out and naming computer parts and keys to be used with the program. Give lots of praise. Eventually your child will be pressing all of the right keys and will need you only for questions. You'll know when to let her run the computer independently. Always end a teaching session when your child's interest is high.

4. For preschoolers and beginning readers, try a Language Experience Activity.
Sit at the computer with your child. Tell her you are going to write a story together. She will tell you the words and you will type them on the computer. Begin with one or two sentence stories, print them out, read them with your child, then let her illustrate them. Hang them on the refrigerator and be sure to show them to your spouse and relatives who will lavish praise.

If your child can't think of a story on her own, try one of these for starters:

"I like my birthday (Christmas, summer, Halloween) because..."

"Yesterday my best friend came over and we..."

"My favorite foods (toys) are..."

Talking word processors are especially fun. (**KidTalk** for the IIgs can be ordered for as little as $35.) Large-print word processors make reading easier, but any word processor will do.

When your child is accustomed to writing stories he will dictate longer ones. Some young children will attempt to type short stories by themselves. If your child does, lavish praise and ignore spelling errors. You may type a corrected version for her later.

You can also encourage your child to write thank you notes, letters, birthday cards, signs, banners – anything! Print programs are especially inspiring.

5. Let a child try out a variety of programs.
Children enjoy computer assisted instruction in areas in which they already have mastery (**Early Games for Young Children, Math and Me, Reader Rabbit, The New Game Show, Number**

GOTO 20

Lament, concluded

Minnesota is looking for a good Macintosh programmer, for an unspecified project.

Now I feel real fear, because the next project she is pushing for is an upgrade in status to Audrey IIci, with a 19-inch color monitor, a scanner with optical character recognition, and a plotter, so that we can start doing CAD design work. She may even be plotting to dump me for the new programmer. Still, I have faith that all will work out. She can be so sweet and helpful when she wants to be. All that I have to do is to keep her happy in the meantime.

I have to go now, Audrey Plus is calling me.

(FEED ME, SEYMOUR.)
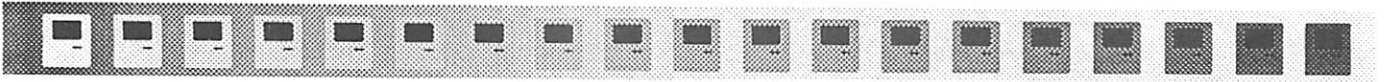
Macintosh Magic per Harry Anderson
As heard by Andy Reese
by Andy Reese, via Steve George, Mini'app'les Contributing Editor

At the January MacWorld Expo, held in San Francisco, Harry Anderson provided the introduction of Jean-Louis Gassee. The combination of the talents of a professional actor and comedian with the devotion of a Macintosh enthusiast resulted in a classic presentation. Since the video tape of his introduction was not made available, I have put his words to paper. Although you miss the attributes of a stand-up comedian's performanc – the facial expressions, the hand motions, the poetic pauses – you can at least get the look (but not the feel) of the presentation. And Harry has truly put to words those feelings of a Mac enthusiast. Enjoy.]

I am not a big football fan. But for some reason I was watching the Superbowl game in 1984 and I saw that famous first Macintosh ad, the one where the blonde with the really great ...arthritis... ran into the assembly of drones and busted big brother in the chops. "Thanks to Apple," the ad said, "1984 won't have to be like 1984." Then came this magic word, **"Macintosh."** Well the Reagan Administration made sure that 1984 was after all 1984.

But... the next month, there I was at my Apple dealer waiting for my Mac, reading a pamphlet that said with a Mac I could draw a tennis shoe and make my personal letters unreadable by using a wide variety of type styles. But none of that mattered. I was not sold on a machine. I was sold on a myth... and a blonde. So I got it home and made room by clearing away my Commodore 64 state-of-the-art Toys R Us system. And I setup that funny little box called the Mac. While plugging in the phone jack keyboard, my dog decides that the systems disk is a toy. He grabs it in his mouth and runs off. Thinking quick, I shoot the dog, get the disk back and try it in the machine, holding my breath. Now despite the fact that the disk had been chewed, banged on the floor and spit on, it still did not work. So I fly back to my dealer for a new systems disk and while I am there I pick up a mouse pad, a disk box, and a pad of note paper that looks like a Mac until you start using it and then it looks like a Mac with a lobotomy. Little realizing that I was then falling victim to the Mac boutique mentality that would eventually force me to sell one of my children.

So I get back home, pop in the disk, (I figure I can bury the dog later), I boot up and that is when it happens. There is a bong, it sounds like a midget version of that gong they used to hit at the beginning of a J. Arthur Rank movie. And then this little smiling face appears welcoming me. Then I am in the Finder which is a Jules Feiffer landscape where odd little objects zoom and vanish and move about. And it is all in glorious black and white, just like those J. Arthur Rank movies. Four hours later, I am still at it. My wife notices that my eyes have gone square and I realize that I have not even opened up MacPaint or MacWrite, I have been playing with the desk accessories. I have made two dozen truly obnoxious background patterns, calculated some big meaningless numbers, I have written a whole lot of notes to myself, and I have figured out how to play the sound controls like one of those sledgehammer games at the carnival. Most of what I know and feel about the Mac to this day, came to me on that night in 1984.

But now it is 1989 and it is a kinder and gentler computer world. I miss my dog. The Mac is no longer the James Dean of CPUs. He has learned to reach out and shake hands with his lesser contemporaries. Apple has grown to international proportions. Thanks to the miracle of continuous reorganization, the company has new jobs and Jobs has a new company. The Mac has speed and power and expandability in a wonderful world of output possibilities. Tennis shoe art is now 32 bit color, font abuse is happening at 2400 dpi. We have gone from a skinny machine of 128k of memory to one that you can expand to eight megabytes of memory. Or you could buy a Porsche, depending on how you want to spend that kind of money.

Now me, I am like everyone else, I am dying for the Mac laptop or Portable Mac or Mac-in-a-Pack, whatever it turns out to be. The release date has been pushed up on the thing so many times that its code name is now Godot. But I am anxious to get one and I wish it was here today and then I could take the little remaining time that I have been devoting to real life and spend that time in fatbit hell, too. But on the other hand, I am really glad that what we are getting here today, the SE/30, is what it is. Although this probably has occurred to

you, if you put a 68030 in a MacII and call it a IIx, when you put it in an SE, why don't you call it a SEx? I mean, do you want to sell these things or not, you know?

What Apple gives us in the SE/30, the speed, the power, the expandability, is almost as important as what they did not take away. The little Jiminy Cricket profile, and the Rank bong and the little smiling Jack in glorious black and white who still seems to be wishing us well in whatever task we have chosen to tackle on the thing. Now I know full well that the idea that a machine could care about us and could offer us that kind of maternal concern is impossible. It is absurd. And it is wonderful. And that qualifies it as magic.

Last year my two year old son, Dashel, visited **Walt Disney World** for the first time. As a gift to occasion his birthday, he was given a private audience with Mickey Mouse, who at that time was no less than Dashel's supreme being. His first words were "Mickey Mouse." Actually they were "Monu Monu," but we knew what he was talking about. Because I have a working relationship with the Disney people, Dashel was given a VIP meeting with the great rodent. We went to the Main Street Bank where a secretary told us that Mr. Mouse was expecting us. We were led to a back office and there, seated behind a desk, working on a word processor, finishing a phone call, was Mickey Mouse. He stopped what he was doing and he spent five wonderful minutes with my son.

And when it was all over, although I do not think Dashel blinked for hours or closed his mouth for days, it occurred to me that the boy had not only met his hero, more than that, he was left with the distinct impression that Mickey Mouse was the CEO. As far as he knew, the mouse ran the whole damn place. And from that realization, as so often happens, another realization grew. In that five minute meeting, the Disney folks had given to my son what it gives to thousands of children and adults every day. Something that a parent hopes he can give to his child just once. And that is the belief that if you put a dream in charge of your enterprise, you will succeed beyond anyone's wildest imaginings.

Which brings me rather neatly around to our man of the hour, our keynote speaker, Mr. Jean-Louis Gassee. Much has been said about Jean-Louis. We all know much about the high esteem his work is held in France. Of course those are people who consider Jerry Lewis a genius. I think it was John Dvorak who described Jean-Louis as the classic dichotomy: "the mind of a Frenchman trapped in the body of a Frenchman." I have followed Gassee's remarkable career at Apple. I read his book **The Third Apple** where he so eloquently describes his hopes for the future of the personal computer. So I had no small reaction when, one day not too long ago, I got an invitation from Jean-Louis to his home for dinner. All those memories of Dashel and Mickey came back like a belt of warm scotch. Of course I was not expecting the big ears or the three finger gloves. But I knew it was going to be magic.

Mr. Gassee has a lovely home in the hills north of Cupertino. I was charmed by his beautiful wife and lovely children, obviously rented for the evening. We see the ear ring, we are not fooled. I had come prepared bringing what I thought were very clever software ideas, and loads of notations on how Apple might get more machines to more people. I talked about my belief that the Mac demystifies the whole process and should be in the hands of children as well as business executives who watch the Sunday business news shows. And by putting it in the hands of children we might increase the odds that a four year old fiddling with a mouse in 1989 would be the one who would figure out how to sew up the ozone in 2010.

I talked and talked sure that when my thoughts were laid out, Jean-Louis would sort out the fact and folly and reveal to me things about the machine and the future that would make my short hairs curl. But Gassee did not speak much about the Macintosh. Rather, he told me humorous stories about the life of a designer-emigrant, wistfull anecdotes about his children, described his first day working on the Apple assembly line. He mentioned moonlight more than once, music more than twice, and fine wine more than both. And he smiled at the things that were a mystery to him just as he smiled at those things which he knows. It took me some time to realize that Jean-Louis was by no means avoiding the subject of the personal computer, in fact, that was the topic of his conver-
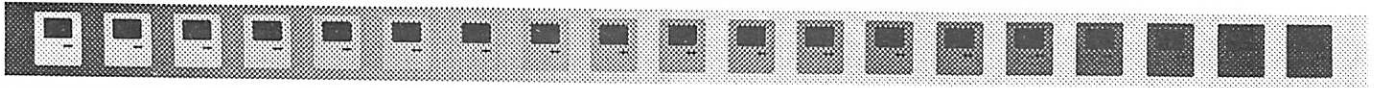
Macintosh Magic, concluded

sation. He was just letting his thoughts fly, kind of like the reckless abandon you find with a suicidal trapeze artist. When you have nothing to loose, you don't need a net. This corporate figurehead, this power-hungry foreigner, this viewer of the microscopic and belittler of the giants, is, it turns out in every sense, a dreamer. And I thought you would be pleased to hear that.

I am certain he will now come out and deny this imagery by delivering some second-rate rehash corporate coverups. About why System 6.0 seemed like a good idea at the time. Or why the ImageWriter LQ, which prints at 200 dots per inch, seems to do it in no particular order. He will probably mumble something to the order on how profit margins always look bigger in the Wall Street Journal than they are in real life, and he will, in his baroque-style, refer to the ensuing year, subsequent releases, impending projects and succeeding developments. And only the most clever of you will realize how he avoided using the word NeXT. But the great thing is that he is here. And the great thing for the thousands of Mac users gathered here with big hopes and fancy dreams is that he is here, for us. Ladies and gentlemen, for your dancing and dining pleasure, Mr. Jean-Louis Gassee.

Reprinted from The Apple Corps of Dallas Apple-

SILENCE, concluded

0371) and Vertical Video Board (PN 982-0024). This also comes with a new, differently designed, fan as part of the package.

The result is a much quieter SE and a rock-steady screen image. Really worth the wait. If you have this problem, and your dealer is the one that is fuzzy on the fix, tell him/her to check the Product Notice Service Bulletin manual, page 8.4.12. (My dealer, Hagen's, didn't need any reminder, thank you!)

Yes, silence and steadiness are golden. And the "NC" at the bottom of the service ticket made my day. Thanks, Apple!

More bytes later...
TWE

Parents Teach, concluded

Munchers). They also enjoy more open-ended programs with lots of choices such as paint or draw programs (**Blazing Paddles, Dazzle Draw, PaintWorks**), print programs (**Print Shop, Print Magic**), music programs (**Kids Time II**), problem-solving programs (**Gertrude's Secrets**), and LOGO programs (**EZ Logo, Logo, Logo Plus, Logo Writer**). Older elementary students particularly enjoy learning history and geography with **Oregon Trail** and the **Carmen Sandiego** series. Beginning in the fourth grade, children may enjoy learning typing skills with **The Wonderful World of Paws** or **Master Type**.

6. Socialize during computer time.
Let your child invite a friend over to use the computer together. Make computer time a family time. Encourage an older child to teach a younger sibling, or your child to teach her friend. Ask your older child to teach you to play a game or make address labels with a database program.

7. Talk about computers in the community.
With younger children, point out computers in medical offices, at the grocery store, etc. and explain how they are used. Show older children how you use a computer at your job, and ask friends to show your child how they use their computers.

8. Bring older children to (club) meetings.

9. Ask computing friends what programs their children enjoy.

10. DON'T PUSH!
Begin with short training sessions and try to end each session with your child's enthusiasm high.

[As an aside, the same issue detailed an offer from Terrapin Logo (Logo and Logo Plus) for their Take-Home Pak for students, teachers and parents. With a minimum order of 10 Paks, Logo and Logo Plus are available for $30 and $35 respectively. Normally these go for around $100. If you are interested in such an offer for yourself, friends or your students, step forward at a meeting or on the BBS and coordinate the purchases (after confirming it with Terrapin, of course). – C.Ed]

Reprinted from The Apple Resource Team (TART) 8/89

Silence is a new Mac fan

by Tom Edwards

With the release of the SE, Apple included a fan. Though some Mac purists may have complained, excessive heat buildup, along with a marginal power supply, has done in more than one computer. Many of them Macs.

I barely gave it a thought, as I picked up my bright, platinum SE more than 2 years ago... until I turned it on! The original fan was noisy, but I figured, what the hey! As long as I could avoid the spectre of a burned up computer, what's a few dB's of noise humming along in the background?

Within a few weeks, I took the SE back to the dealer with a complaint about the screen... just wasn't steady. Not that it looked like trying to pull in the Walker MN TV station during a thunderstorm, but... well it just wasn't right. The dealer said "Had it on for hours, but couldn't make it wiggle."

Some time later, I heard about the interconnection between the two... the noisy fan and screen jitters. By then, Apple would fix the jitters, but not the fan, even though the fan was intimately tied into the problem.

I, and the rest of the family, put up with the fan noise... we have Boing 727's to contend with where we live, so the fan seemed like small potatoes. The jitters... well, more like looking at the screen through a pan of water being gently rocked back and forth... was an annoyance, but gee!, how does one put up with the loss of a computer even for a day or two? I mean, as long as sparks didn't fly out, and an aspirin or two cured the headache from eyestrain, and you could still shout over the noise of the fan...

It went on like that until a month or so ago. Then the fan started to compete with the 727's, and the intensified beat of the fan was echoed by the motion of the screen.

A call to Apple...

confirmed that whatever "it" was, I had a good case of "it." Matter of fact, any SE with a serial number of F749 or lower qualifies for a "hidden warranty" extension, according to Ginny at Apple Customer Service. The symptom is the screen undulations, evident in the upper-left part of the screen. The fix is a new Analog Board (PN 661-go

HYPERION HYPERPYREXIA

by Jason Parker - (c) 1989

Xpanding our world

As I write this article, people in Germany are celebrating a very significant event in their history. Truly, world citizens rejoice. The Iron Curtain is being drawn. In honor of this momentous occasion (and because it just happened to be a coincidence), we are going to break down another wall ourselves. For many Hyper-Card dabblers, HyperTalk was the first programming language they used. And not a bad choice to begin with I might add. HyperTalk has most of the basic concepts of traditional procedural programming, plus many concepts of the impending Object-Oriented paradigm. Others may have learned to program in BASIC or Pascal, but never really programmed on the Macintosh. This is mainly due to the very steep learning curve associated with all the software routines burned into the ROM (Read Only Memory) of every Mac. It is this handcrafted software built into every Mac sold that makes the Macintosh such a fun, friendly, and powerful place to be. I fall into the second category. I have never really had the time to dig inside the Mac and program it. I've got the books, and even read some of them in preparation. I've written a few programs that used some of the simple QuickDraw routines, but thats it.

Well its time to bust through that wall into the free land of Mac programming. Don't get me wrong... freedom sometimes comes at a price, and the Mac has its share of bureaucratic red tape. In this article I'm going to start writing a HyperCard XCMD in Pascal. For those who may not know Pascal, I'll try help out there as well. However, there will be no substitute for a Pascal book nearby! I will add the disclaimer that this will take two or so months of articles (I don't know, I haven't written it all yet!). But regardless we shall learn something in the process.

Scaracity abolished! Resources unending!

There is no scarcity of software in the computer world. (What is scarce, is quality software that does what you want!) And this is true of the HyperCard realm as well. In HyperTalk there are two ways of adding commands to your disposal. Foremost is simply to create a new handler. Its name becomes a new command to use. [Please note use of elipses (...) within listings, indicates a line was broken during editing. -C.Ed]

```
on new Command
    Put "Yes Master, How may I serve you?"
end newCommand
```

The second, more daunting method is to write an XCMD or XFCN (I'll use XCMD generally for both.). An XCMD is a program written in some computer language other than HyperTalk, like Pascal, that has the ability to transfer information into and out of HyperCard. When attached to a HyperCard stack or to HyperCard itself, the XCMD is a *resource* that becomes available as a command from within HyperTalk scripts. You can attach as many as 2727 resources to a single Macintosh file (not recommended!). It is important to realize that XCMDs are just one type of resource a Mac file can have. For instance ICONs are resources that store the bit representations of their pictures. MENUs are resources that store the relative position, appearance, and names of a program's menus. Resources are an indispensable part of the Macintosh world. My copy of HyperCard consists of no less than 25 different types resources! I encourage you to read up on resources, you wont get far in programming the Mac without them. A good discussion on Mac resources can be found in Danny Goodman's HYPERCARD Developer's Guide. Two tools for manipulating (and looking at) resources are Apple's ResEdit (The latest version I have is 1.2), and, for HyperCard users, Steve Maller's ResCopy. The is no better tool than ResCopy for looking at resources in HyperCard or its stacks. You can find ResCopy on one of the user group's MacDOM Stackware disks.

SHUTDOWN!

As a HyperCard user, you have most likely already used an XCMD or two. The command FLASH is actually a XCMD that comes already attached to HyperCard. One XCMD that I have run into that I really like is SHUTDOWN. After putting this into your home stack (using ResCopy or ResEdit), typing "shutdown" into the message box at any time will safely and immediately shut

your Macintosh down, just like the shutdown command found in the Finder Special menu. I thought writing our own shutdown XCMD would be a good easy choice for writing our first XCMD. Writing XCMDs in general is an excellent way to wade carefully into the Macintosh programming ocean, while still keeping your head above water. Your program can be very specific in focusing on a particular action without worrying about the wide variety of issues that full-fledged Macintosh programs have to. In this way you can slowly explore the Macintosh toolbox routines, and still have useful programs to show for it.

Commander X

Ok, enough background, lets dip our toes and test the water. I am writing this code using Light-Speed Pascal version 2.0. LightSpeed Pascal comes with a folder of four files for use by the HyperCard XCMD programmer. Two are example XCMD programs. The other two "XCMDIntf.p" and "XCMDUtils.p" are more important (If you have Gary Bond's book *XCMD's FOR HYPERCARD*, he labels these files as HyperXCmd.p & XCmdGlue.inc respectively).

Lightspeed Pascal files & XCMDs

XCMDUtils.p is a set of Pascal routines that you can (and will) use in your own Pascal XCMD code. These routines accomplish common needs. For instance:

```
procedure SendCardMessage;
begin
   with paramPtr^ do
      begin
         inArgs[1] := ORD(@msg);
         request := xreqSendCard Message;
      DoJsr(entryPoint);
   end;
end;
```

"Oh my Lord! I can't see under water. Its just gibberish!" WAIT! Before you turn the page, give yourself a break, and bear with me. If you insist on understanding everything you read about computers the first time, you're being too hard on yourself. Computer knowledge takes time. Learning any language, takes time and practice!
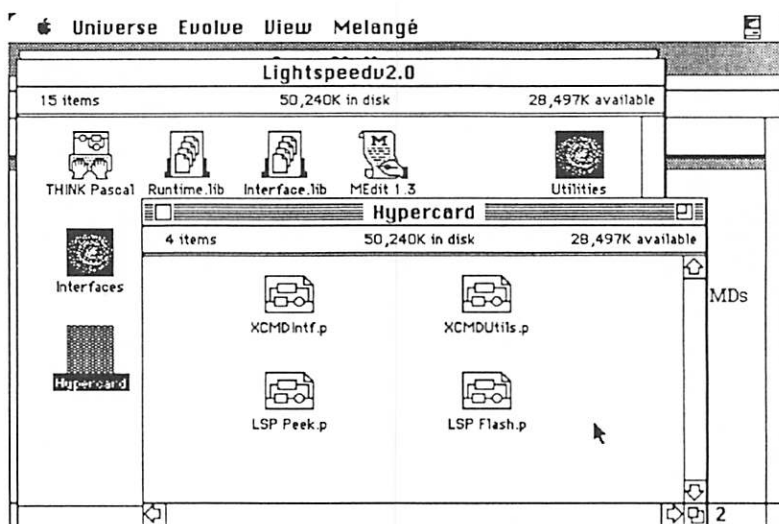
Now, I'm not going to explain everything in the Pascal code, but I will give you a framework so that we can move on. Within a Pascal program, if you want a new command that does something, you create a **procedure** (or a **function**). Instead of the word "on" in HyperCard, Pascal uses the key word **procedure** (Every time I refer to a Pascal key word in this article it will be in **bold** face). Pascal is not as smart as HyperTalk and needs lots of words to ensure that it knows what you want to do. Pascal is what is referred to as a "strongly typed" language. That is, it is very particular about the syntax needed to form a correct Pascal statement. Pascal needs to group lines of code or statements with the key words **begin** and **end**. In this case the line "**procedure** SendCardMessage;" simply names the procedure. The first **begin** defines the start for the program statements for the procedure, and the last **end** marks the finish point for procedure statements. The third line "**with** paramPtr^ **do**" is a special construct that works with Pascal **record**s, as we shall see. But it too needs a set of **begin** and **end** words that define its block of statements. Hyper-Talk is such a lovely language, that it may seem a bit unbelievable what you have to go through in a Pascal program. Keep in mind that programmers wrote languages for themselves to use with machines that weren't as powerful as today's!

GOTO 24

"Stak Hak"

Stack Hack, continued

Anyway the file XCMDUtils.p is full of small Pascal procedures like this that you will need to use in your own XCMD code. By the way these routines are what is called by programmers in the know as "glue routines". This is because they act like glue connecting information from one program to another. The second file, XCMDIntf.p is a file that defines a set of variables whose values stay constant and are needed in a XCMD program. It also defines a **type** which is used as a definition for a variable that transfers data between an XCMD and HyperCard. In Pascal before you use a variable, you must declare it. Each variable is declared to be of a certain **type**. An integer is a type of variable. A character is another. Unlike HyperTalk, a variable can only be used to store information of its declared **type**. So if I have the following Pascal definition:

```
procedure variableDeclaration Example;

var
    aNumber : INTEGER;
    aCharacter : CHAR;
    aBoolean: BOOLEAN;

begin
    aNumber := 1 + 2;
    aCharacter := 'a';
    aBoolean := true;
end;
```

I have declared three variables, aNumber, aCharacter, and aBoolean. aNumber is only used to store integer values, aCharacter is only used to store character values, and aBoolean is only used to store the values of true or false. In Pascal a programmer has to convert a value to move it from one variable type to another. Decadent Hyper-Talk does this automatically for you.

In Pascal you can also define new types that variables can be declared as, and hence refer to. Lets first look at an abbreviated listing of the XCMDIntf.p file. Then I'll explain the **type** that it defines.

```
{ This is a incomplete listing for demonstrative purposes only}
const

{ result codes }
xresSucc = 0;
xresFail = 1;
xresNotImp = 2;

{ request codes }
xreqSendCardMessage = 1;
xreqEvalExpr = 2;
xreqStringLength = 3;
xreqStringMatch = 4;
xreqScanToReturn = 28;
xreqScanToZero = 39;

type

XCmdPtr = ^XCmdBlock;
XCmdBlock = record
  paramCount: INTEGER;
  params: array[1..16] of Handle;
  returnValue: Handle;
  passFlag: BOOLEAN;
  entryPoint: ProcPtr;...
    ...{ to call back to...
    ...HyperCard }
  request: INTEGER;
  result: INTEGER;
  inArgs: array[1..8] of LongInt;
  outArgs: array[1..4] of...
    ...LongInt;
  end; {end of record}
```

Pascal lets you declare variables that don't ever change. They aren't really variables, they're constants. The first part of this file starting with the key word **const**, consists of a long list of constants and the values that they will always be equal too. But the item we're interested in is the definitions under the **type** key word. There are two Pascal types being defined here. XCmdPtr is a type that *points* to, or refers to, a XCmdBlock. An XCmdBlock is a **type** consisting of a group or **record** of variables. Each variable inside the **record** is in turn declared to be of a certain **type**. Remember that every Pascal variable is of a specific **type**. There are a bunch of new variable types used within this **record**. If you are curious refer to your Pascal book, they go beyond the scope of this article ("No problem is so formidable, that you cannot just walk away from it"!).

To show you how these types are used, I'm going to give an example that declares a variable to be of **type** XCmdPtr.

```
uses XCMDIntf.p;

procedure SendCardMessage;

var
  paramPtr: XCmdPtr;

begin
  with paramPtr^ do
    begin
      inArgs[1] := ORD(@msg);
      request := xreqSendCard...
      ...Message;
      DoJsr(entryPoint);
    end;
end;
```

This should look familiar as nearly the same procedure I first showed you. Now we can begin to make some sense out of this code! Lets see... first, the **uses** line tells us that we want the code found in the file XCMDintf.p to be included. This means that the definitions found in the XCMDintf.p file will be made available to our Pascal program. Next we find that paramPtr^ is a XCmdBlock pointer variable. The **with** statement says that we can access the XCmdBlock set of variables pointed to by paramPtr^. The **with** statement is really just a convenience for working with variables defined in Pascal records. We could access the request variable in the XCmdBlock pointed to by paramPtr^ with the line:

```
paramPtr^.request := xreqSend...
    ...CardMessage;
```

Think of the left side of the equation as an address and the right side as the value to place into it. request was declared as a **type** INTEGER in the XCMDintf.p file. Here in this code we are making it equal to the constant variable, xreqSendCardMessage, whose value is 1. It was declared as a constant set to 1 in the XCmdIntf.p file.

Ok, I think this is a good spot to stop for now. We'll actually write our XCMD next month. I mean geez, in the time I wrote this, the Berlin wall came down, and Czecholslovakia has begun the formation of a coalition government! I'd better stop before we're invaded by aliens.

Dr. Macintosh, Steve Deyo
the second half of part two

This is a conclusion of the Dr. Macintosh article which has been running in preceeding issues of the Mini'app'les newsletter. This column is brought to you courtesy of the: **"Smart Mac User Group"**, P.O. Box 11626, St. Paul, MN 55111-0626. Steve Deyo, a long time Mini'app'les member, publishes this and other good Mac stuff in his own newsletter. For futher information or comments, contact Steve.)

Q. Just got Suitcase II and am confused by it.

A. Sorry to hear you were confused by Suitcase II. You can get the hang of its basics easily, but given the "completist" manual it can be hard to know where to draw the line between what you need to know, and everything else. I wouldn't be without Suitcase, though! Make sure you call Fifth Generation to get the free updater disk to make yours the latest version if you plan to use Linotronic output at any service bureau; they're all changing over to Adobe and Apple's new NFNT screen font scheme.

Confidential: Amstrad with a Mac
What a rise these sales people are! You can use any paper whatever in the Apple LaserWriter. Printing double-sided, however, is not recommended. I use $3/ream colored Xerox-qualit

paper for draft copies and a 25% cotton bond for most printer's copy ($7/ream wholesale). You can also use 100% cotton bond for a really bright-white stock—no shadows or splotches in reproduction—so long as you don't need type smaller than 9 points; small type tends to get lost in the rag's graininess. For high-quality output I do use a coated stock that has a smooth finish such as 80# Lustro Offset Enamel; it can be gotten custom-cut from your larger paper warehouses. (A printer here that uses it as house stock recently gave me a ream free.)

Depending on the size and complexity of your mailing list, FileMaker II (now from Claris, upgraded from Nashoba's FileMaker Plus and FileMaker 4) should serve quite nicely at $249 retail. Panorama from Overvue is also very good. Our dollar-minded salespersons are probably thinking you need a custom-designed 4th Dimension database to handle your addresses. FileMaker can handle a very full-featured database of 12,000 names, addresses, phone numbers and other data fields. It can do lookup, autoposting, calculation and summary fields.

There's no PD or shareware database for the Mac that you'd want to trust data as vital as yours to. There are some good on-the-fly envelope generators like Kiwi Envelopes and Laser Envelopes DAs.

Happenings

by Tom Edwards

Been to a Mac Special Interest Group (SIG) lately? Things may have slowed down, SIG-wise, over the holiday weeks, but the steam is starting to build up once again as we charge into the New Year. Get ready to be at a meeting soon so you can vote on your favorites for Club Officers, Directors, etc. Plan on watching for a few by-law changes, too. And if YOU, personally, have a hankering to aid with the direction and operation of the Club, speak up! There's always something that needs doing, room for a fresh idea, or someone to help share the load.

If you are a Mac enthusiast with a special interest that just doesn't seem to be covered by the 10-or-so current SIG's, let's hear about what you'd like to have added. One of the previous groups that hasn't been meeting for a while (SmallTalk) may soon get a recharge. If you've been reading any of the magazines lately, you must have read about "OOP"... Object Oriented Programming. That's SmallTalk-related, and holds close ties to the much-ballhooed System 7 release we've all been hearing about. Got an interest here? Then contact *Martin McClure* (check inside front page for phone number) for more details on the possibility of re-activating this SIG.

What with the many talents offered by the Mac, the artsy thing sure has caught on in several areas. But one SIG that I would have guessed would have formed a long time ago... but hasn't... is a music and performer group. *Chuck Hoffman* has demoed some performance software in years past, and you must recall the debut of **Finale**, the Coda effort that some swear by and others swear at. Here I sit, with a fledgling son on the one hand that plays music and composes on the Mac, and a son-in-law on the other that MIDI's all of Wright County together, and I can't get a nibble on a Music SIG. There's got to be a lot of music-types out there that could benefit from getting together and swapping bars and measures!

Another group that needs a jump-start is a multi-media SIG. This holds the promise of being "a group before its time", as was SmallTalk, but things must be getting close. All of this jawboning about colorized QuickDraw (at least I hear that color can be seen on the screen... not that my little

old SE knows much about it!) leads me to think that Ted Turner must somehow live inside those slotted Macs. Red, Green, Blue? All I can see with those hues are little spots of light that hang on a plastic tree from Penny's. One of these days, the promise will come to pass and all of those hyped up Macs will be able to keep you tuned in to Dallas or The Cosby Show while you grind out that spreadsheet or process those words.

Now to catch up...

on a few of the recent Mac SIG meetings. You can catch the calendar each month here in the newsletter to check on the next meeting date for your favorite, and perhaps to see if there's still an open day during the month where you could fit in one more meeting. (The Mac User Group will be back on track with meetings on the first Thursday of each month, beginning with the January 4th meeting. Wheew!)

In November, Mac User Co-Coordinators *David Stovall* and *Mike Carlson* ran into schedule problems in capturing one of the "big time" names for a demonstration. It really worked out quite well anyway, for the bulk of the time was devoted to Questions and Answers... the reason behind the existence of the Club. There seemed to be a thirst that must have been building for some time, for the questions just kept coming, and the answers, too.

- **Adobe Type Manager** gets kudos from those that value the appearance of what they can see on the screen. The functionality of the good looking fonts (on screen) was slightly offset by the grumbles about the need to re-buy Adobe fonts that many users have already purchased. With some, the price of this may deter purchase while they wait for Apple's QuickDraw technology in System 7. Nonetheless, the word seemed to be "if you do a lot of work with font technology, don't wait, buy this now."

- Apple's FDHD drives have a quirk in them that bears repeating. If you inadvertently format a high density disk as an 800K on a non-FDHD drive, you risk the loss of any data that you may have on the disk if you move the disk to a FDHD drive. The FDHD does not recognize a disk formatted in this manner, and would just as soon wipe it out for you. You can "fix" it by

taping over a special notch on the high density disk to read the files, but you can't reformat as HD with the tape in place. (Hope that I got this about right. Seems that somehow you also end up with a disk that can not be formatted to HD in this situation.)

- Caution: there's a conflict with **Tops** and **Excel** on the Mac II machines.
- Hard drives? Folks had some good things to say about one of the local assemblers, **Mirror Technologies**. Past reliability problems seem to be just that, past, and their "we fix other brands" policy has been of service to those needing quick turnaround.
- Looking to learn more about **Word 4.0**? Check around for the title "Mastering Word 4.0."

Dave also did a rundown on the **America Online** service (he's a Sysop there, so he had a lot of answers). There are several local folks that are leaders and assistants on the service. If you are into modeming, there's something for everyone, and the price for online time is pretty low for a "pay for" utility.

In December...

Steve Vetter showed the ins and outs of **MacBack**, a software program that is designed to backup disks (large type, usually) onto tape. The program offers a lot of flexibility in how you can back up material. Rather than always making "mirror images" of the storage unit, you can select files in several different ways. This makes the process faster, requires less tape, and can be an aid in better restore operations. By keeping detailed directories, tapes are filled efficiently and files retrieved with a minimum of searching.

Computer Care has made presentations to the SIG before. *John DePew* was back for the introduction of yet another product that keeps those old machines close on the heels of the new stuff. This time it is a "daughterboard" unit that plugs on top of the CPU of a 128K or 512K machine. It adds SIMM slots so you can boost memory to 4 megs, and also adds a SCSI port.

Who says that "classic" Macs are fodder for the chip pile?

The DTP Group...

met in November and had to extemporize for a program. Our contact from Aldus opted for an early start to the turkey table, so the planned review of **Persuasion 2.0** will be rescheduled to February. That left a bit of a void, but only for a few minutes. As at the Mac User meeting, there was a lot of pent up questions that needed to be asked and answered. We touched on **Adobe Type Manager**, some preliminary discussion of **Publish It!**, and how to access the Club's BBS.

This last item has lead to activity on the BBS to lay out a "map" of the system and develop inserts for the Member Kit. This information will probably be added to a DOM, too, so that more folks can get familiar with the offerings on the BBS.

The Mac CAD/E SIG...

expects to have a demo of Ashlar's **VELUM**, to continue the 2D-3D drafting emphasis of this group, at the December 19th meeting. There's always something new coming along for this segment of the market. However, **Claris CAD** appears to be a solid performer in the generalized, mid-price range. We'll see how well VELUM makes the bunch drool for more power and try to catch you up to date in the February issue.

The Mac Novice Group...

will give the DTP group a bit of competition at their January meeting. The subject will be "Desktop Publishing for Novices." Should you have any beginning level curiosity about this semi-pro subject, this will be an opportunity to test the water without fear of getting in over your head. **PageMaker** and **Publish It!** are at least two of the programs that will be discussed.

And on other fronts...

I'd guess that the HyperCard group will be reviewing the latest rev to their namesake, 1.2.5 at the January meeting. Although there may be other bug squashing taking place inside the code, the one that has gotten the press is the fix for stacks with more than 8000 cards. (We all have stacks with 8000 cards, right?)

In January...

the Mac User Group will see a demo of **ProViz**, a
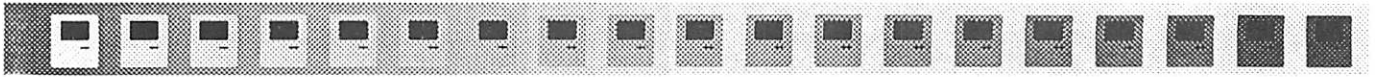
What They Didn't Tell You

An Ongoing Critical Evaluation of Macintosh Software

by Frank Van Alstine

It seemed like it would be such a simple project! All I wanted to do was to use my new HP ScanJet Plus scanner to dump a drawing into my Mac II so that I could edit the drawing. What a project this turned out to be, but it sure was not the scanner's fault – it (of all the programs I tried to use to get the job done) worked perfectly. I love the scanner but now I have learned to hate almost every Macintosh graphic program there is.

I was starting with a 11" x 17" line drawing of a hi-fi amplifier kit wiring guide. All I wanted to do was to import the drawing into a graphics program, make some changes to the drawing, shrink it to fit on an 8.5" x 11" page, and print it out on my Apple laser printer maintaining 300 dot resolution all the way so that the insti-printed copies I was preparing for a kit manual would be legible.

Would you believe the project took three days? Every graphics program I could get a hold of (except one) failed miserably in attempting to manipulate the drawing! Here is what happened.

Using the HP ScanJet Plus was the easy part.

But I had to think carefully about what file format to use and what resolution to set the scan at. The ScanJet Plus will make TIFF, PICT, EPS, and MacPaint files and will scan at 72, 144, 300, and 600 dots per inch. It will make line art, a variety of dithered half-tones, and 16 and 256 grey scale files. So the first thing was to figure out what settings would be best. The 72 and 144 dot per inch settings may be OK for simple clip art, but were too coarse and jaggy for my needs. The 600 dot per inch is just great – very high resolution – but a full page scan then makes a 4.2 Meg file and I needed to put four full page scans together in one drawing file to get all of this 11" x 17" original into the computer and I suspect when you go to print out a 20 Meg drawing you might tie your printer up for a while assuming you have a Mac with 20 Meg of active memory so you can just open the file. Nope, 600 dot per inch was not possible with this big graphic. So I settled on 300 dot per inch (makes about 1 Meg files) because four 1 Meg scans combined is about as much as my Mac can handle. Of course I used the line art setting because there were no grays to worry about in this drawing. This was a good thing, because a 16 gray scale scan of a full page would take 4.3 Meg of memory and a 256 gray scale scan eats up 8.6 meg. Luckily the HP scans directly to the hard disc (some scanners only scan to active memory and thus cannot make a big gray scale picture at all – even if they have gray scale capability – because the computer runs out of memory before the scan gets done).

Which file format to use took a bit of research and trial. Obviously MacPaint would not work because it is 72 dot resolution only. PICT files save data in a picture (object) format. I made a sample PICT file and ran a few tests to see if it would be useful in this case. It wasn't for reasons I will explain later. EPS (encapsulated Postscript) format also was not useful (mainly because no useful graphics program I tried would open it). Pixlepaint 1.0 does open EPS files, but converts them to 72 dots per inch when it does, losing all the resolution – not useful at all! So the file format of choice ended up being TIFF, which maintains the high resolution dot structure of the scan (and 256 gray levels too if necessary). TIFF files have one other nice characteristic; they can be re-sized and distorted without creating moire patterns and without significant loss of resolution. So the original 11" x 17" drawing ended up being four 1

Happenings

concluded

video frame grabber. Mike Carlson will arrange for the requisite Mac II and *Frank "Tell it like it is" Van Alstine* will provide the camera and software. Wouldn't surprize me to see frank with a few words about Publish It!, too. he's also reviewing the demo copy that we received and will have a counterpoint to the review process that I am doing for the DTP SIG.

More bytes later.....................TWE

Meg 300 dot per inch TIFF line art files in a folder on my hard drive. That wasn't too hard.

Now to find a graphics program

in which we can combine, edit, shrink, and print out these scans without loss of resolution. Have you got any good suggestions? I darned near ran out of possibilities because almost everything did not work!

SuperPaint 2.0 is supposed to have a "fat-bits" mode in which you can edit graphics at very high level resolution. Unfortunately it does not open TIFF files and when I tried to open the PICT file of one of the scans SuperPaint promptly crashed. When I tried to sneak the data in through the scrapbook, I got a message box saying the file was "too big" and SuperPaint then shrank it to fit, cleverly shrinking all the resolution out of it too. SuperPaint struck out completely.

Freehand 2.02 will not open TIFF files, but it will Place them into Freehand files (using the same technique as PageMaker does). It did display my scans at high resolution. It also allowed me to position the four scans together on the page, scale each down to fit, and join them together. Unfortunately, it does not allow any changes to the scanned TIFF files. It thinks they are images instead of collections of high resolution dots. Although you can add graphics and text on top of the images, you cannot change them. Freehand would allow using the images as templates to sketch over (a days and days process in this instance) or does have an auto-trace command. But the tracing was very poor, took forever, and created a huge file. Freehand was not a practical choice for this project.

Draw It Again, Sam will not open TIFF files and didn't like the PICT versions of the scans either. It opened to a blank page instead of displaying the data! It would not accept the images if copied in from the scrapbook either. Poor old Sam, it had such a nice cell library function, but everything else bombs. No wonder the company is out of business. I suggest you avoid the last copy of this program still sitting on the shelf at Software Etc. in Burnsville.

I gave Image Studio 1.5 a try. It is a gray scale image manipulation program that can even use your hard disc as virtual memory and should have been right at home with these TIFF files. Unfor-

tunately it crashed and hung every time I tried to open them. It did not like these line art TIFF files.

Digital Darkroom, another gray scale image program would open the TIFF files, but has almost no useful tools for working on line drawings and no text capability at all. It also converted the files to gray scale which made them look very nice on a Mac II screen but converting them back to black and white in the program lost most of the resolution – they came out looking like a MacPaint file.

My video digitizer programs, Proviz and MacVision 2.0, would not open the files because they were not gray scale. You cannot win!

The drawing programs I tried would not do the job either. They all see the scans as objects – drawings that can be scaled or stretched but not modified. They won't allow bit by bit changes. I just wanted to take a scanned image such as that shown below –

– and revise the image at high resolution such as I have done to the next copy of the image down the page. Notice that I have been able to remove two of the capacitors and some of the wiring without
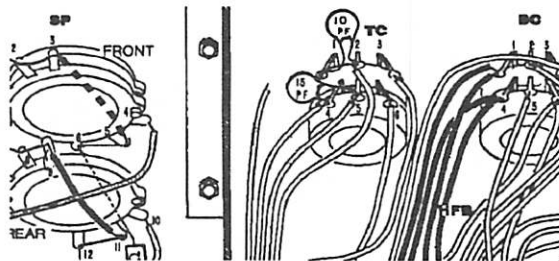
messing up the overall drawing at all. I just could not find a program that would do this! By the way, even getting these images into Word was fun. When I pasted them in from the scrapbook they jumped up to full size (they are shown about 25% of the scanned size here) and ran off the page. Thus you cannot get a hold of a corner to re-size them. I had to reset the size of the page to "Tabloid" to make it big enough to keep the image on the page so I could re-size it and then change the page size back to letter. Ah, the Mac is so easy to use!

Neither MacDraw II or MacDraft will open TIFF files and they treated the PICT file and the scanned
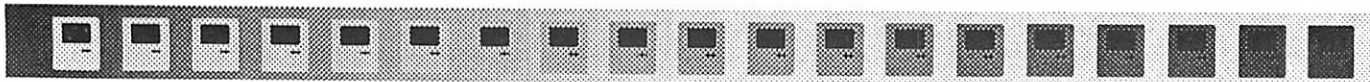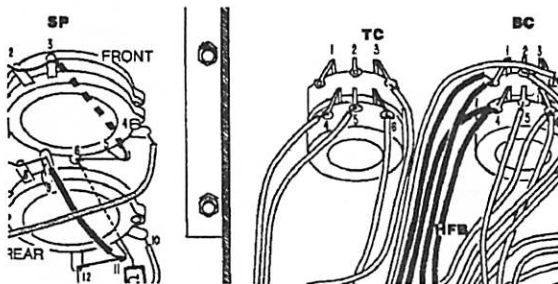
What they didn't tell you

image copied from the scrapbook as a non-modifiable draw object. I am running out of programs!

Next I tried DeskPaint, which comes standard with the HP scanner. It almost worked (and would be just fine for smaller images). It opens TIFF files. It displays these 300 dot per inch images at

full resolution. It allows exact bit by bit manipulation with a full array of paint tools. But it ran out of memory (and I have 8 Meg – all you can stuff in a Mac right now). It simply would not allow a drawing size large enough to display all four scanned images at the same time and what "slopped over the edge" was cut off and lost. It also had a very slow response time. With a big file it felt like your Mac was stuck in a pool of goo. But for smaller images DeskPaint will do a neat touch up job, and it can be opened as a desk accessory. It isn't a bad little tool at all.

I didn't get a chance to try Adobe Illustration on this problem. But since it has only draw tools (no high resolution paint capability) I suspect it will have the same difficulties Freehand had – all show and no go with these scanned images.

You can place these scanned TIFF images in PageMaker 3.02 files and the program does a great job of displaying them and will allow accurate resizing while maintaining resolution, but PageMaker has no capability for editing the images. It does print much faster than Freehand.

But I had just about run out of programs and still didn't have the job done.

Finally, Canvas 2.0 to the Rescue!

It's not perfect, it has a few hitches in its getalong, but it got the job done. Canvas 2.0 was the only program I tried that could handle high resolution editing and manipulation of large scanned TIFF line art files. It did not run out of drawing size, you can have images up to ten feet on a side. It did not run out of resolution, you can view files at any scale from one thirty-second of normal size to thirty two times normal size and you can edit high resolution bit-maps at 4X, 8X, 16X and 32X normal size – fine enough to make little smiley faces in the dots on your "i"s. It did not run out of memory. In fact it somehow reduced the file sizes. When I put four 1 Meg scanned TIFF files into one Canvas 2.0 document, by the time I got done combining things and editing, and then scaling the whole works down to fit on one sheet of paper, the Canvas file size only totaled 300K! Now that's really nice. I sure wish other programs could use negative memory like that!

Canvas does not have a "Place" command so the way I combined the files was to first open each of the four scanned segments of my 11" x 17" drawing with Canvas and re-save them as Canvas format files. Then I created a new Canvas file and opened each of the other four in turn and copied and pasted their contents all into the fifth file. I set the size of the new file to cover four 8.5" x 11" sheets to get everything in. Then I was able to grab each section and match them together and then group them. Next I scaled the whole mess to 47% of the original size to fit on one page. Then I had to ungroup the scaled down combined image in order to work on each section with Canvas' high resolution paint tools (the program would not let me work on the grouped image as a whole – an annoyance but not a disqualifying defect).

From then on it was child's play. The images in this article are small samples from those original TIFF files as edited in Canvas and then saved to the scrapbook for insertion in Word. I can now make any changes to scanned line art documents I want and throw my drafting set away. But, they sure didn't tell me how hard it was going to be to find a program that would do the job (and Canvas does much, much more very well too – stay tuned for a full review). Lets hope my experience makes your next adventure in graphics manipulation a bit easier.

Frank Van Alstine

Classified Advertisements

Each Mini'app'les member may run one free non-commercial classified ad per month in the newsletter. Submit ads to Bob Lowe by phone (voice) at 933-0464. Ads normally must be received by 5 PM on the second Wednesday of the month to appear in the next month's newsletter (occasionally they must be in by the first Wednesday. Call to verify). Ads may be edited for length or to fit our usual format. There is a charge for commercial ads.

For Sale: Apple II+ with 2 floppy drives, CPM, serial, parallel cards; joystick; Epson RX80 printer; lots of software with original manuals for all $800. Call Doug after 6 at 442-2743.

For Sale: Open For Business I & II by Open Systems. Plains & Simple One Write Accounting by Great Plains. Microsoft File data base. All unused—registration cards included. Ron 477-4505 eves.

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For Sale: IBM Pagemaker 3.0 new was $450, sell for $250; IBM Deluxe Paint II new $104, sell for $50. Bob days 474-7420

Mac Desktop Publishing Wednesday Jan. 24

Mac Novice Users Group Monday, Jan. 22

Mac Users Southdale Library Thursday Jan. 4

Microsoft Works SIG Washburn Comm. Library Tuesday Jan. 9

Apple II Users Washburn Comm. Library Wed., Jan. 3

Have you backed up your disks lately?

Mac SIG Meeting Place
Southdale Library, 7001 York
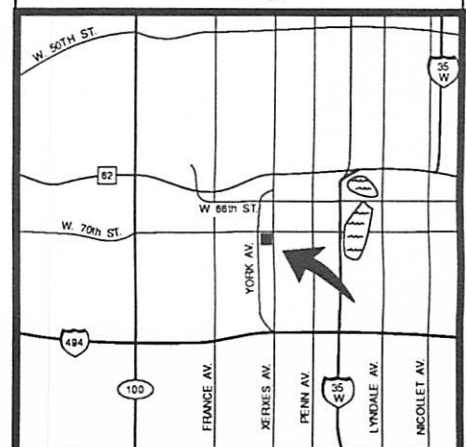
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