WHO	WHEN	WHERE	WHAT
Mac Users	Thur. Feb. 4 (6:30) 7:00 pm	Hennepin County Library, Southdale Branch, 70th and Xerxes, Edina, MN	New Apple Products Notes 3 & 9
Mac Computer Art & Design Group	Mon. Feb. 8 6:45 pm	Mpls College of Art and Design 133 East 25th Street, Rm 325	Call *Joy Kopp*, 440-5436 or *Colette Gaiter-Smith*, 224-8622
HyperCard™ Group (New Group)	Mon. Feb. 8 7:00 pm	Hagen Office Equipment, Inc. 801 W. 77-1/2 St., Richfield	Note 9
Dakota County Branch	Tues. Feb. 9 7:00 pm	1301 Wilderness Run Dr. Eagan, MN	Note 5
Languages/Technical S.I.G.	Wed. Feb. 10 7:30 pm	1st Minnesota Bank 31 9th Ave. S., Hopkins, MN	Note 11
The Smalltalk Group	Wed. Feb. 10 7:00 pm	250 S. Milton St. St. Paul, MN	Programming in Smalltalk Note 4
Board Meeting	Thur. Feb. 11 7:00 pm	Call for Location of Meeting	Members welcome, Note 1.
Fourth Dimension™ Group (New Group)	Mon. Feb. 15	Hennepin County Library, Southdale Branch, 70th & Xerxes, Edina, MN	*Ian Abel*, 824-8602
MacCAD/E User Group	Tues. Feb. 16 7:00 pm.	Heath/Zenith Computers Shady Oak Road, Hopkins, MN	Note 6
Beginning Macintosh™ Programmer (New Group)	Tues. Feb. 16 7:00 pm.	Hennepin County Library, Southdale Branch, 70th & Xerxes, Edina, MN	*Tom Vind, 473-0455* Meet in Small Conf. Rm.
Apple II SIG	Wed. Feb. 17 7:30 pm	St. Louis Park High School 33rd & Dakota, St. Louis Park, MN	Apple II, IIe, IIGS, and Mac Seminars, Note 7
Excel™ User Group	Thur. Feb. 18	Call for Time and Location	*Marilyn Nightingale*, 545-9380
U. of Mn. Mac User Group (UMMUG)	Thur. Feb. 18 7:30 pm	UM Physics Building, Rm 210 116 Church St. S.E., Minneapolis, MN	*Charles Lukaszewski*, 338–8581
Mac Novice User Group	Mon. Feb. 22 7:00 pm	Highland Branch Library 1974 Highland Parkway, St. Paul, MN	Note 12
Northwest Branch	Tues. Feb. 23 7:00 pm.	Rockford Road Library 6401 42nd Av. N., Crystal, MN	Communications Note 8
Apple IIGS S.I.G.	Wed. Feb. 24 7:30 pm	1st Minnesota Bank 31-9th Ave. S., Hopkins, MN	Note 10
AppleWorks© S.I.G.	Thur. Feb. 25 7:00 pm	Derham Hall High School 540 S. Warwick, St. Paul, MN	Beagle Bros. TimeOut™ Enhancements, Note 7
Mac Users	Thur. Mar. 3	Hennepin County Library, Southdale Br.	Notes 3 & 9
Dakota County Branch	Tues. Mar. 8	1301 Wilderness Run Dr., Eagan	Note 5
Languages/Technical S.I.G.	Wed. Mar. 9	1st MN Bank, Hopkins	Note 11
The Smalltalk Group	Wed. Mar. 9	250 S. Milton, St. Paul	Note 4
Board Meeting	Thur. Mar. 10	Call for Location	Members welcome, Note 1
Mac Computer Art & Design	Mon. Mar. 14	Mpls College of Art and Design	*Joy Kopp*, 440-5436
HyperCard™ Group	Mon. Mar. 14	Hagen Office Equipment, Richfield	Note 9
MacCAD/E User Group	Tues. Mar. 15	Heath/Zenith Computers, Hopkins	Note 6
Beg. Macintosh Programmer	Tues. Mar. 15	Hennepin County Library, Southdale Br.	Tom Vind, 473-0455
Apple II /Mac S.I.G.	Wed. Mar. 16	St. Louis Park High School	Apple Reps, Bylaws, Nom's, Note 7
Excel™ User Group	Thur. Mar. 17	Call for Time and Location	*Marilyn Nightingale*, 545–9380
U. of Mn. Mac User Group	Thur. Mar. 17	UM Physics Building, Rm 210	*Charles Lukaszewski*, 338–8581
Fourth Dimension™ Group	Mon. Mar. 21	Hennepin County Library, Southdale Br.	*Ian Abel*, 824-8602
Northwest Branch	Tues. Mar. 22	Rockford Road Library	Communications, Note 8
Apple IIGS S.I.G.	Wed. Mar. 23	1st Minnesota Bank, Hopkins	Note 10
AppleWorks© S.I.G.	Thur. Mar. 24	Derham Hall High School	Note 7
Mac Novice User Group	Mon. Mar. 28	St. Paul Highland Branch Library	Note 12

Notes:

1. Ann Bell, President	544-4505	5. Bob Pfaff	452-2541	9. Mike Carlson	866-3441
2.		6. Bill Langer	937-9240	10. Dick Peterson	
3. David Stovall	474-8015	7. Dick Marchiafava	572-9305	11. Chase Allen	435-2645
4. Martin McClure	227-9348	8. Jere Kauffman	535-6745	12. Tom Lufkin	698-6523

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

Board Members

President	*Ann Bell*	544-4505
	8325 39th Avenue N.,	
	New Hope, MN 55427	
Past President	*David Laden*	488-6774
	1215 W. Laurie Rd,	
	Roseville, MN 55113	
Vice-President (Acting)	*Dick Marchiafava*	572-9305
Treasurer	*J. Edward Wheeler*	881-5928
	P.O Box 796	
	Hopkins, MN 55343	
Secretary	*Open*	
Communication Director	Dan Buchler	890-5051
Software Director	Tom Gates	789-1713
Technical Director	John Hook	435-6281
SIG Director	Dave Stovall	474-8015
SIG Director	Dick Marchiafava	572-9305
Branch Director	*Open*	

Coordinators

Beginners' Consultant	Earl Benser	884-2148
Membership Form Distr.	Bill McAndrews	645-6713
Membership Co'tor	Ed Spitler	432-0103
Shows & Conventions	*Open*	
SIG - Apple IIGS	Dick Peterson	473-5846
SIG - AppleWorks	Dick Marchiafava	572-9305
SIG - Beginners Basic	Tom Alexander	698-8633
SIG - Languages/Tech	Chase Allen	435-2645
SIG - Macintosh	Dave Stovall	474-8015
	Mike Carlson	866-3441
SIG - Macintosh Excel	M. Nightingale	545-9380
SIG - Mac Beg. Prog.	Tom Vind	473-0455
SIG - Mac HyperCard	Mike Carlson	866-3441
SIG - Mac MacCADD	Bill Langer	937-9240
SIG - Mac 4th Dimens.	Ian Able	824-8602
SIG - Novice	Tom Lufkin	698-6523
SIG - Smalltalk	Martin McClure	227-9348
Tech. Adviser (hdw)	Roger Flint	771-2868

Branch Coordinators

North West	Jere Kauffman	535-6745
Liaison (†) - Genealogy	Jules Goldstein	690-4447
Liaison (†) - Medical	Stewart Haight	644-1838
Liaison (†) - CP/M	Jim Rosenow	(414)261-2536

† To provide contact with non-Mini'app'les SIGS

Software Director's Staff

Software Director and Apple // DOM Editor	Tom Gates	789-1713
Assistants:		
CP/M	*Open*	
Eamon	Dave Nordvall	724-9174
IAC	Richard Peterson	
MacDOM Editor/Prod	Joe Carroll	938-4028

Circulation this issue: *1350*

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Questions

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

Membership

Applications for membership should be directed to the Membership Co-ordinator: Ed Spitler 432-0103 PO Box 796 Hopkins, MN, 55343

$15 buys membership for one year (effective Dec 1, 1987—$12 before Dec 1). New members pay a $5 administration fee. Members receive a subscription to newsletter and all club benefits.

eDOMs		@ Meetings	Mail Order
Members:	eDOMs	$3.00	$4.00
	MaceDOMs	$5.00	$6.00
Non-Members:	eDOMs	$7:50	$8.50
	MaceDOMs	$10.00	$11.00

Send orders to Mini'app'les at PO Box 796, Hopkins, MN, 55343, attention **eDOM Sales** or **Mac eDOM Sales.**

Dealers

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

Newsletter Contributions

Please send contributions on Mac 3 1/2" disks or via telecom-munications 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 Mini'Info Exch BBS

Club members may utilize the club's BBS: Tel. No 831-6235

Advertising

Direct Advertising inquiries to our co-ordinator Eric Holterman at: 3608 Blaisdell Ave S. Minneapolis, MN 55409

GEnie: EFHolterman
TCCN: Box 431
612-822-8528

Newsletter Publication Staff

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	Tom Edwards	927-6790
	Bob Woods	
Comp./Layout	Joan Kistner	

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In This Issue

Advertisers

Mac eDOM #38 Games 8

Mini'app'les BBS No— 831-6235
See also Club info page 2

March Mini'app'les Newsletter goes to press on February 14. Please observe minimum one week leadtime.

Membership Application and Renewal Form 02/88

Name: _____.

Address: _____

City: _____

State: _____.

ZIP: _____

Home Phone: (_____) ___ - _____ .

Work Phone: (_____) ___ - _____ .

New Member ( )   or   Renewal ( )

Spouse's name: _____.

Childrens names: _____.
(if interested in computers)

Sponsored by: _____.

I own or use a:
Mac+ ( )   SE ( )   MacII ( )
Apple //or //+or //e ( ) //GS( ) //c( )
Other   ( )

Special Interests - Check all that apply.
Programming	( )	Spreadsh'ts	( )
Business	( )	Publishing	( )
Education	( )	Novice	( )

Send to: Membership Coord
Ed Spitler
PO Box 796
Hopkins MN 55343
Club Dues: $15/yr + $5 application fee .

Mini'app'les 1988 Membership Drive

The Club is looking for: New members
Cooperative Dealers
Renewals and Referrals

Goal: To have 1,988 members by Dec 31, 1988

With your help and enthusiasm, and the backing of all other Mini'app'les members, we are embarking on a concentrated effort to build and strengthen member resources within Mini'app'les to...

Grow
in
1988.

Cooperating Dealers:

Hagen Office Equipment
801 West 77-1/2 Street
Richfield, MN 55423
Phone: 866-3441

First Tech
2640 Hennepin Ave. South
Minneapolis, MN 55408
Phone: 377-9300

Computerland-Hopkins
11319 Highway 7
Hopkins, MN 55343
Phone: 933-8822

Heath-Zenith - Hopkins
101 Shady Oak Road
Hopkins, MN 55343
Phone: 938-6371

New Members

We welcome the following new members:

Last, First	ZIPCODE	Home Phone
Anway, Allen	54880	715-394-4061
Brooks, William W.	55101	612-774-7903
Burnett, Karen & John	55403	612-721-5294
Christenson, Roger	55428	612-537-5257
Conham, Wallys W.	55405	612-374-9407
Duggan, Michael	55437	612-835-7013
Geerdes, James A.	55406	612-724-5293
Getsug, Ray	55116	612-690-2974
Gib, Tracie F.	55419	612-929-6131
Hayner, Chris	55003	612-439-7334
Hockin, Robert	55108	612-642-1930
Houghton, Eric	55105	612-698-6907
Howard, Charlie	55424	612-927-9093
James, Phillip	55109	612-777-2303
Johnson, Wesley D.	55112	612-636-1826
Johnson, David A.	55429	612-535-7182
Krywosz, Ben	55101	612-292-1983
Kvam, Eric J.	55117	612-771-2343
Lechtman, Suzanne R.	55116	612-699-2251
Lindeen, Charles	55104	612-489-5596
Lovrien, Joan	55125	612-739-6958
Luger, John	55092	612-464-5233
Moe, Thomas R.	55105	612-698-4529
Moline, Steve	55428	612-535-6111
Morrison, Hugh	55082	612-436-5447
Patrick, Vickey L.	56001	507-387-6897
Pearson, Dale G.	55106	612-772-2285
Peterson, Richard L.	55108	612-644-0453
Rabkin, Jeff	55407	612-724-1005
Rydberg, Roger	55441	612-546-5368
Scaramuzzo, James C.	55113	612-631-3066
Schellenberg, Steve	55119	612-731-4972
Schroetke, Mike	55422	612-529-8423
Shavers, Anna W.	55455	612-698-4854
Strating, Jeff	55413	612-623-7828
Walton, Susan	55431	612-831-5932
Westlund, Nanc	55406	612-722-3515
Wheeler, Rob	54806	715-682-6877
Widmer, Ronald & A.	55113	Not Provided

Cooperating Schools:

(We're working on this. Watch for this list to start to grow with next month's Newsletter!)

Sponsoring Members:

(Your name will be listed here, each time that you are listed as the sponsor of a new member. Go for it! Make us get bored with seeing your name here.)

Announcements

Apple II SIG

by Dick Marchiafava

Meeting space is confirmed at St. Louis Park High School for February 17, March 16, April 20, May 18 and June 15.

February 17th meeting - Seminars:
Macintosh: MicroSoft Works, Ed Spitler
Apple //e: AppleWorks, Dick Marchiafava
Apple IIGS: Software Demos, Dick Peterson
Apple //: For Beginners, Earl Benser

Apple II & Mac SIGs

March 16th meeting: General Membership Meeting—Review Purposed By-law Changes, Nominations. Guests, Representatives from Apple Computer Erik Johnson and Lonnie Arima from the Apple Computer office in Bloomington will be guest speakers. They will tell us about newer Apple products, answer questions and take User Feedback. This will be an opportunity to bake Apple a bit.

Mac SIGs

On Thursday, Feb 4, Hennepin County Library, Apple will be on hand to talk about (and maybe show) the new Apple Mac products which include the 3 new Laser printers, the Midi Interface and new Claris software, See elsewhere in this newsletter for details of these products.

AppleWorks SIG Meeting Schedule & Announcements

Meetings are held monthly on Thursday, in the week after the main meeting, **unless there is a conflict with a major holiday.** In the event of a holiday, the meeting will be the 3rd Thursday of the month.

Despite the Christmas holiday in December, a classroom full of people were at the AppleWorks meeting. The program on AppleWorks integration, which included some bits not presented in the data base meeting went well, until the final part of the meeting arrived. The computer in use began crashing randomly. At one point, it was observed to drop into Monitor without any key having been pressed, indeed, without anyone within 2 feet of the computer.

Repeated attempts at loading the program continued to produce the same undesirable result. The meeting was completed by using overhead slides. I thought the people at the meeting were amused by the situation and hope they were not too disappointed.

February 25: Beagle Bros TimeOut Enhance-ments

We will take our first look at some of the 7 software enhancement products for Apple-Works which are from Beagle Bros. Coming meeting dates: March 24, April 28, May 26 and June 23.

With the interest in TimeOut products, another look at configuring, loading and using RAM Drives will be useful. Other forthcoming meeting subjects are TimeOut Graph and macro programs. Watch the announcements for details.

Any corrections to the published meeting calendar will be posted on the Mini'app'les Bulletin Board.

The meeting location is at Derham Hall High School, 540 S. Warwick in St. Paul. This is 1 block South of Randolph, 3 blocks East of Snelling. Meetings will begin at 7 PM. Call me at 572-9305 if you need information about these meetings. Dick

4th Dimension SIG Formed!
by Ian Able

A "4th Dimension" Special Interest Group (SIG) will focus on creating applications running under 4D. It will meet on the 3rd Monday of each month in the *Small* meeting room on the 2nd floor of the Southdale Hennepin County Library on York Avenue (Same building in which Mac SIG meets).

The room has been reserved for:
February 15
March 21st
April 18th
May 16th
All meetings start at 7pm.

Since the small meeting room only holds about 10-12 people, we may have to change location as and when the group size grows. But until I have a better handle on the number of attendees, we'll use that room.

If you are interested in attending the meeting and utilize the SKYLINE BBS, leave a message for the SYSOP with your Mini'app'les membership number. Alternatively call Ian Able at 824-8602. You do not have to be a member to attend the meetings, but don't be surprised if membership benefits arev mentioned at every meeting—remember, this SIG is part of Mini'app'les.

HyperCard SIG
by Dan Buchler and Tom Edwards

You all ought to know what HyperCard is by now, and if you want to know more than you have already heard from Bill Atkinson, Curtis Juliber, et al, come to this SIG. *Mike Carlson* will be chairing the meeting for now, but would like this task to be taken over by someone else. He will open the doors at **Hagen Office Equipment** as a meeting place. Mike says that he has a hard disk loaded with about 15 megs of StackWare. That's good fodder for its utility and also for the learning process that can come from dissecting other's efforts to see how they work.

See calendar for meeting date and time.

mini'app'les

Minutes of the Board Meeting December 10, 1987

Board Members in attendance: Ann Bell, David Laden, J. Edward Wheeler, Dan Buchler, Tom Gates, John Hook, Dave Stovall, Dick Marchiafava, Dick Peterson, (Ed Spitler, Acting Secretary). Also in attendance: Steve George.

Jim Wheeler reported total receipts of $1517.13, Expenditures of $5,402.38 and a checking balance of $4,554.35, for a debit of $3,926.17.

Dick Marchiafava made a motion to impeach the current Vice President, Secretary and Branch Director, seconded by Tom Gates. Discussion centered around the failure of these individuals to carry out the responsibilities of their respective offices. Guy Rice was contacted by telephone. At that time, he submitted his resignation, so Dick's motion was amended to exclude Mr. Rice from the impeachment process. He did agree to send copies of previous Board Meeting minutes to guidelines to assist newly elected Board

The AppleWorks Advisor
A Column For Users Of AppleWorks
by Dick Marchiafava

ProDOS New Year Dating

With the certainty of the advance of time, Apple users all around the country who use clocks in their computers and run early versions of ProDOS, will or have experienced a problem with the year display with the change to 1988.

With many persons with clock cards and running ProDOS 1.1.1 version operating system, I experienced an error in the clock dating when starting up my computer after the 1st of January, 1988. This early version of ProDOS can only count years to 1987. With 1988, the year display reverts back to 1982!

This problem showed up with Thunder Clock and the AE Timemaster clock. Maybe others will also be effected.

The fix I found for this problem was to replace ProDOS 1.1.1 with ProDOS 1.4, after installing this patch by Glen Bredon.

```
BLOAD PRODOS,A$2000,TSYS
POKE 12175,78
BSAVE PRODOS,A$2000,TSYS
```

This patch corrects an obscure problem with interrupts and MIL calls.

With ProDOS 1.4, the problem with the year display disappeared. Maybe ProDOS 1.4 knows enough to take off the other sock, to be able to count higher than 5.

Some users with clocks which patch ProDOS or which have software drivers on disk, many not experience this problem. I understand there was a patch which circulated a few years ago to fix ProDOS 1.1.1, but I do not know what it is.

I wonder how many calls Apple Computer, and other firms, received about this problem when they opened their offices on January 4?

16 Bit AppleWorks

Many owners of Apple IIgs computers have been clamoring for 16 bit software which takes advantage of the power of the 16 bit 65816 microprocessor their computer sports. That is, application software that is faster or more powerful, not colorful bells and whistles. There has been speculation about what a 16 bit version of AppleWorks would look like.

Introducing— the 16 bit AppleWorks! What, you have not heard of it? It has been here for some time. AppleWorks 2.0 contains 16 bit code specifically for the Apple IIgs in two files, APLWORKS.SYSTEM and SEG.RM. AppleWorks recognizes what type of memory the computer has that it is loading on and reacts accordingly. See the next section also.

I am not suggesting that a "new" version of AppleWorks especially for the Apple IIgs is

not going to be released, I do not know.

Sub-host AppleWorks Program Files

The people at Beagle Bros have been busy disassembling AppleWorks to determine how it works. Randy Brandt, of Beagle Bros, reported the presence of the 16 bit code files in AW 2.0 in a letter printed in the Open-Apple newsletter.

Also described, are what was called sub-host files. When AppleWorks is loaded, it looks at the memory in the computer and loads the proper sub-host file. The files and the memory they work with are:

SEG.00   128K Apple (64K bank)
SEG.XM   Apple Memory Board (slinky board)
SEG.RM   Apple IIgs Memory (256K bank)

If you are booting AppleWorks from a floppy disk, the presence of the sub-host files and the type of memory in use is of no concern. The unnecessary files are just ignored. But, if you are using AppleWorks from a RAM Drive, you will have 2 useless files taking up space in the RAM Drive. Each of these files are 9 blocks in size. Removing the unused SEG files, will save a total of 9K of memory. Reclaiming this memory, is like getting back a $20 bill that you did not know you had spent.

Besides the memory space saved, there will be 2 less files to load when the RAM drive is being loaded, so loading time will be reduced. Try it, it works.

TimeOut Looking Great

The seven TimeOut modules which I received were very early releases. There were many files which were buggy on these disks. Most, if not all the problems I had with the installation and operation of TimeOut, disappeared when updated (corrected) files were in my hands.

Installation of TimeOut is simple and need be done only once. More accessories or modules may be added or removed by just copying or deleting the necessary files to the location which was specified upon installation. When AppleWorks is booted after a change to the TimeOut files available, the changes are automatically recognized. This is incredibly easy after some of the contortions which I have heard about another desktop program.

Version 2.0 of AppleWorks is required to use TimeOut. Any hardware configuration which works with AppleWorks will work with TimeOut. But, hardware enhancements such as a 3.5" drive and RAM drive will make it easier to use TimeOut, especially if many

features are selected. Commands of all Time-Out modules are similar to AppleWorks commands.

I now have my personal choice of TimeOut modules and accessories installed and operating. Today, there is only one problem which I have experienced which has not been cleared up. I don't mean to say that I have tested every aspect of all 7 modules. There is much capability here, it will take more time to wring out the entire series! I work with my choice of the TimeOut modules as I need them and examine the others as time and interest allows.

QuickSpell Rates High

QuickSpell lives up to its name. Imagine, a full powered spelling checker as available as a pop-up! Since QuickSpell operates while AppleWorks is active, corrections are made the same way that text is edited. When a document is checked, a list of unknown works is displayed on the right of the screen and a menu on the left. Now, the user can do some batch processing, marking all words to ignore, add to dictionary or replace from the list. Checking words in context, which is slower than batch processing, can be reserved for only words that the user really needs help on.

Word wrap and all word processor features are operational, while QuickSpell is running. When checking is complete, the document is ready to go. There is no need to look for excess spaces which have been pushed into text or markers to find and delete. The final step is an automatic check for double word. The only difficulty with this is that the speller ignores all punctuation. Therefore, any word which is used consecutively, but separated by punctuation, is [found to be] a double word, which it may not really be.

Although not as powerful, or perhaps intuitive as Webster, the speed and ease of use make QuickSpell a winner!

SuperFonts, which I examined briefly, offers Mac like fonts much like MultiScribe. One does not see on screen what a document will look like until it is printed to screen or paper. Considering the lack of speed of the graphic printing process, it is a good idea to preview documents by printing to screen first.

FileMaster offers some advantages and disadvantages over my favorite utility, Copy II+. The differences are probably a trade out. For example, file deletions with FileMaster work the same as the way as AppleWorks deletes files. For each file, you must answer Yes to "Do you really want to do this?" as each

file comes up. On the other hand, when copying files you can choose to replace existing files or not, and keep the file dates the same, or not to. As I said, a trade out. When I have spent more time with it, I will have a better feel for how well I like FileMaster. For now, it is OK.

AppleWorks Advisor Meets TAWUG President

A few weeks ago, Mr. Lee Hayward, president of The AppleWorks User Group (TAWUG) was in the Twin Cities, making a presentation at a TIES educational affair at the Radisson South. We were able to get together for a couple hours of coffee drinking and intense conversation and discussion about Apple-Works and computing.

For once, the face and person matched the impression I had developed over several months of correspondence and phone calls related to the AppleWorks Template disks which TAWUG produces. A pleasant meeting and too short couple of hours.

AppleWorks questions and tips from anyone 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

IIGs Finder Concluded

ing a document, the user could then "quit", whereby the user would be returned to the Finder. From the Finder the user could then select an application like a speller program. After finding errors, the user would then "quit" the speller and again automatically be return to the Finder. The user could then again select the word processor to make the corrections to the document. In summary, the Finder has provided a big change for most IIGS owners. Its added power and ease of use will be greatly appreciated. It is also apparent to this user that Finder and the increasing system files will be increasing hard disk sales or the coming months.

Announcements, concluded

Jom Wheeler for our records and publication in our newsletter. Motion was seconded by Jim Wheeler with unanimous approval of the board.

Dick Marchiafava will fill in for the Vice President until another Vice President can be appointed or elected. Ed Spitler agreed to take notes of Board Meetings on that same basis.

Dick Marchiafava reported that the Apple II SIG meeting for January, 1988 would be in the form of a Swap Meet on January 16 at the Cretin High School Cafeteria. Hours of the Swap Meet would be from 10:00 a.m. to 2:00 p.m. Dick asked for help to supervise that event. He further noted that while the Swap Meet would be open to the public and that the public would be allowed to buy items, only members would be allowed to sell or trade items.

Dick Marchiafava requested and received approval to advertise the Swap Meet in local newspapers.

Dick Marchiafava indicated that the February meeting of the Apple II SIG would be at St. Louis Park Senior High School and would be a seminar of popular Apple computers and four software programs, including Apple-Works. Ed Spitler agreed to provide a Macintosh SE and demo MicroSoft's "Works" at that meeting, as well.

Dan Buchler suggested that Dick Marchiafava and Dave Stovall get together and plan the March meeting for both Apple II and Macintosh Users so that an election process, including nominations and proposals for changes to the By-laws could be initiated. They agreed to do so.

Steve George noted that PinPoint was willing to give a demo of their products at an Apple II meeting.

Jim Wheeler described a meeting he had with tax people to discuss our tax liability for 1982-1986. While the CPA would not sign off on his statement, it will be mailed to IRS for approval.

Jim Wheeler asked that he be provided a count of DOM disks purchased, on a monthly basis, to more accurately keep track of operational expenses.

Ann Bell discussed the need for operational guidelines to assist newly elected Board Members and Members appointed to positions. It was agreed that guidelines would be very helpful and that all responsibilities of the various positions should be outlined for new people.

Dave Stovall informed us that there are going to be several new SIGs for the Macintosh Users. Ian Able will be creating a group

for 4th. Dimension Users. Tom Vind is starting up a new group for Experienced Programmers. Mike Carlson is starting a group for HyperCard Users.

Dave Stovall indicated that the U of M group was considering starting a group for Advanced Programmers. He also noted that the leaders of the Excel and CAD SIGs are not members of our group. If that is the case, it was generally agreed that those groups should not be advertised in our newsletter. (Editor's note: An exception was made for the Excel group because of it's importance as a SIG.)

Dave Stovall further noted that Mike Frazee would be submitting an article to our newsletter each month regarding FarceFilm.

Dick Marchiafava submitted minutes of his committee for By-law and Board Changes. Dick Peterson and Dave Laden assisted Dick in making recommendations for our consideration and approval, and then submission to the general membership. Their main purpose was to simplify and clarify By-laws and Board position. After discussion of the items, Dan Buchler made a motion that the recommendations of the By-law and Board Change committee be approved as agreed to. The motion was seconded by Dick Marchiafava and unanimous approval given.

Tom Gates noted that his budget for DOMs was about depleted. It was agreed that he should submit a projected budget to our January Board Meeting to provide additional funds.

A motion was made by Tom Gates to explore the feasibility of Apple Computer, Inc., licensing our club for Apple operating system software at a cost of $150.00 per year, $75.00 for Apple II and $75.00 for Macintosh. Under this agreement, our group would be mailed operating system updates with labels on a regular basis. Only Mini'app'les members could recieve appropriate updates. Dave Stovall agreed to contact Apple through AppleLink to determine the conditions and application procedure for this process. John Hook seconded the motion and it was approved.

Tom Gates made a motion that the meeting be adjourned. Seconded by Dave Laden.

Ed Spitler, Acting Secretary

SMT No-Slot Clock Update

by Dick Marchiafava

The problems which I experienced with installing the SMT No-Slot clock (reported in January issue) disappeared when SMT sent me a new utility disk. It seems the clocks I received were shipped with some really ancient utilities.

The new utility disk is much improved over the old one. In doing a setup, you can tell the system where the clock is installed, or let it "Auto Find". This new disk will also work with ProDOS version 1.4. A tip if making the clock installation on ProDOS 1.4, do not tell the system where the clock is located, let it find it.

An interesting capability of the No-Slot clock is that it can be installed on any 28 pin ROM chip socket, including on cards in slots, not just on the motherboard.

The modest cost of this clock, plus the fact that it does not take up a slot, could make it the best choice for many users. Frankly, the AE Timemaster clock is simpler to install and use. It just plugs into a slot and the time is set with the utilities. The Timemaster automatically emulates other clocks, so it looks like what ever clock a software package may expect.

Timeout QuickSpell

A program by Beagle Bros, Inc.
Two Opposing Views by Joyce and Ken Larsen

It's great! Here, finally, is a spell checker that will list all questioned words in one spot at one time, including any double words such as "the the". You then have the choice of changing the word, checking the work in context, adding it to the dictionary or ignoring it. Therefore, it takes just a fraction of the time to spell check a document using Quickspell than it does using a program such as Webster's. Best of all, you don't have to leave Appleworks!! — *Joyce*

"It's a disaster!" The problem with the program is it only works for people who know how to spell and type. I don't know how to do either one. If you misspell a word the suggested spellings all begin with the same letter you start with. For instance, if you spell encounter "incounter" the program comes up with 29 words further away than where you started. Thank you but I'll stay with Webster's — *Ken*

Tell your advertiser you saw it here!

Thanks Steve!

by Dick Marchiafava

I use BPI General Accounting for my business. When it was updated to the ProDOS version, I bought the upgrade. The cost was, I believe, $150.

Although this version of BPI was friendlier, improved and not copy protected, it runs at half the effective speed of the DOS 3.3 version. This is despite using all methods which had helped the operating speed of the old version.

After many months I tried locating BPI GA in a RAM drive to speed it up, but it would not run from there. If started, it could not find itself.

When contacted, BPI offered an update to the ProDOS version which would allow use of 3.5" drives and would operate from RAM. I paid another $50.

I could not run this version from a RAM drive either. Repeated sessions on the phone with BPI Tech support making modifications to the program simply produced program crashes. BPI has not been known for the speed or effectiveness of support. I gave up.

Several weeks ago I was discussing this with some Mini'app'les members. One of them, my friend Steve, offered to look at the program. I guess he was intrigued by the problem and likes a challenge.

Shortly after I handed him my program, he returned it to me with a fix. "Just rename the RAM drive after loading it." This may not be what BPI had in mind, but it is simple to do and it works.

So, with BPI General Accounting ver. 2.2, I change the RAM drive name after loading it from /MRAM to /BPI.STARTUP. This must be done each time it is loaded, but is easy to do!

This tale is about user groups, personal networking and assistance. Because of my association with and work in our user group, I have developed contacts with others who could help me with this problem. I appreciate this.

I have written this to express my gratitude to the group and to my friend, whom I would not know, except for Mini'app'les. Thanks Steve!!

Mac Tech Tid Bits continued

HyperCard "Old File Format" Message

Q: When HyperCard is booted from a floppy, everything works OK, including the loading of files from the hard disk. However, when an attempt is made to run HyperCard from the hard disk, a dialog box appears with an "Old File Format" message and a "OK" button. Clicking the button returns to the Finder. I have found it impossible to run HyperCard from the hard disk at any time, only floppies. Any suggestions on why this is happening, and how to correct it?

A: The Home stack located on the hard disk was created for an earlier version of Hyper-Card using data structures that aren't supported in the released version. A stack created by early pre-release versions of HyperCard may return this error. Copy the released version Home stack to your Hard Disk, and your

problems should be solved. You may need your old Home Stack, however, to run those HyperCard stacks that were developed prior to the release version.

TOPS and HyperCard - Submitted by Jim Kateley, West Coast Tech Support

My sources at TOPS (formerly Centram) advised me that there is no problem in using TOPS with HyperCard, although there is a problem with the older TOPS installers which replace INIT 31 and AppleTalk resources: This appears to create a problem for Hyper-Card operation. The suggested workaround is not to use the TOPS installer, or to make a new TOPS installer disk using System 4.1/Finder 5.5.

Beginners' Corner
 and

By Tom Alexander

Compilers and Interpreters

After several months of familiarizing myself with the hardware, software, books and magazines about computers, I decided to look into programming. After all, this is what makes the machine work.

Not knowing a thing about programming, I forged ahead with the enthusiasm of a zealot. I bought the wrong book! Not knowing this, I kept at it for a couple of months. Turns out the book I chose to start with was written for the Atari. My second book was written for the PET (whatever that is). I didn't learn much about programming the Apple. A tutorial on computer languages was what I really needed.

A person does NOT have to be a whiz-bang at math to program the computer. Some algebra would be nice. Algebra 101 should do it. If you can understand A=B+C, that's about all it should take. Programming involves more logic than math. The further along you go, the more helpful an understanding of math will be.

A digital computer only understands zeros and ones - 0's and 1's. This type of programming is known as Machine Language. It is the native tongue. Back in the '50's and '60's, many programs were written this way. Typical Machine Language program instuctions might look something like this:

001110110001010011110111.

Can you imagine looking at several pages of this stuff, let alone writing it? People wiser than I developed ways of writing programs that would be more easily understood by human beings. They wrote the progrmas in English, then translated the English into 0's and 1's. The actual set of statements or instructions which make up the program is frequently referred to as the source code. There are two fundamental ways this source code is translated into machine code by the computer:

- A Compiler
- An Interpreter

APPLESOFT Basic is an example of an interpreted language. Apple wrote this program in the form of an **Interpreter** and installed it permanently in the Read Only portion of memory (ROM). When the Apple executes the Basic source code in response to the RUN command, the **Interpreter** reads a Basic source statement (e.g. A=B+C) and then trans-lates that source statement, piece by piece, into a series of more fundamental steps. In this example, the "C" of "A=B+C" is a step that says "go get the contents of variable C". That step is represented by a set of Machine Language equivalent smaller steps (0's and 1's) that accomplish the same action. These smaller machine language steps are part of the Basic Interpreter stored in ROM. After the statement has been executed, the Basic **Interpreter** finds the next statement in the source code.

Compilers also deal with source code, which can be identical to that code fed to **Interpreters**. Basic Compilers are available that will read the same source code as the **Interpreter**. The difference is in the way the program is actually RUN. The Source Code is first translated into a series of ones and zeros (Machine Language) by a program called a **Compiler**. The series of ones and zeros is called an "Object Program" and is stored on disk as a Binary file. Since this file is actual machine code, it can be loaded into the computer's memory and executed as is without futher translation. Most variations of Pascal, COBOL and FORTRAN are **Compilers**. However, the popular Macintosh "Pascal" is an **Interpreter**.

So far, we have discussed how source code is translated into machine code, not the variations in the languages which set the rules for the source code. Assembly Language is a another language written in source code and translated into machine code by a **compiler**. Assembly language is a "low-level" language because, generally, there is one assembly language statement for each machine language instruction. In higher level languages such as Pascal, a single source code statement results in many machine language instructions. The statements are written in a form that can be understood by the Assembler, which is a **Compiler**, and by some humans.

Beginners are encouraged to start programming with a high level language. APPLE-SOFT Basic is the language most Apple II users start with because it's already in the machine. Mini'app'les has a SIG for the beginning Basic programmer. Many Macintosh users will start with the HyperCard programming language, HyperTalk, an Interpreter, because it comes with the machine and is easy to learn. Call me at 698-8633. Maybe you won't get stuck with two useless books.

Apple II Tech Tidbits

Edited by Sue Goodin (Charlotte)
Published by East Coast Tech Support
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Keyboard Compatibility

Q: Can I use a Mac SE keyboard with the IIgs?

A: Yes. The SE keyboard is an ADB (Apple Desktop Bus) keyboard, and is supported on the IIgs: It is not supported, however on the Apple II, //e or //c. The Mac SE, Apple IIgs and Mac II extended keyboards can ALL be used interchangeably on the SE, IIgs, and Mac II.

Department of Funny Stories

CUSTOMER CALLS DEALER: "Um, you know this system you just sold me? Well, how do I tell if the disk drive is a 5-1/4" or a 3.5" drive?

Sharing a Common Hard Disk Drive

Q: I'd like to have two IIgs' use the same files on AppleWorks. If I purchase a SCSI drive and run MacServe, can I partition the hard disk?

A: Currently, there is no Apple solution to this problem. A SCSI drive can only be connected to one system at a time. MacServe or AppleShare are products that run on a Mac, and do not work with the IIgs. We have heard, however that CMS Enhancements, Inc. (714/529-9555) has a SCSI II Interface Card which will support two CMS SCSI Hard Disk Systems or two partitions on the same drive. In addition the SCSI II card can be set to allow for Mac and ProDOS partitions to reside on a common CMS SCSI hard drive. A CMS Conversion Utility allows text files to be shared between ProDOS and the Mac Systems. It supports both the //e and IIgs and has Host ID selectability. You may wish to get in touch with CMS for further information.

IIgs Finder - Where's My Drive?

Q: My customer has an Apple IIgs with a 5.25" and 3.5" drive. The IIgs Finder will not recognize some 5.25" disks. Yet the customer can boot from these same disks. Both the IIgs and 5.25" drive check out OK. Any ideas?

A: The IIgs Finder looks in many respects like the Finder on the Macintosh, but it does not work in precisely the same manner although many people expect it to. The Finder on the IIgs does not automatically "poll" for the disk drives to see if there are disks inserted. This polling does occur on "start-up", but not during a session. If you insert a disk in the 5.25" drive, you must double click on the drive's icon before it will recognize the disk that you have just inserted. Likewise, when you exit an application running on a 3.5" drive, for example, you will have to double click the 5.25" drive's icon before it will be recognized.

Name That Folder!

Q: How do you name folders on the Apple IIgs ? We are using a HD20SC on a IIgs, and so far we have not been able to name a folder. We have tried double clicking on the (censored) folders, pulling down the (censored) menu item. All has gone for naught, we have a desktop full of "untitled A-Z". We would be grateful for any help you can offer.

A: To name a folder on the IIgs desktop, select "Make a New Folder" from the File Menu on your Menu Bar (unless you already have the folder that you wish to name). Now, select the folder by single clicking on it (a double click will open the folder), and while the folder is selected (highlighted), return to the File Menu and select "Rename" from the menu. Type in the name of the folder and press return.

IIgs VGC and ROM Upgrade

Q: One of my customers is in a quandary. Two of his favorite games are not compatible with the new IIgs ROMs, and until he gets an update he does not want to get his system upgraded, since he will then no longer have the old ROM to run those two games. His concern is that he has heard that the VGC & ROM upgrade ends at the end of November. To the best of my knowledge, there is no ending date on the upgrades, or have I missed reading some notice? His other concern is that much of his Public Domain and ShareWare software, especially the very old ones, do not work with the new ROMs. Is there any suggestion I can offer him on this latter?

A: We're not sure where this rumor started, but FOR THE RECORD: There is at this time, NO cutoff date for upgrading your IIgs VGC and ROMs. Users who are concerned about software compatibility may wish to delay their upgrades until the vendors of the software products have upgraded their software to insure compatibility with the new ROMs. The old ROMs are required for the dealer to receive reimbursement from Apple.

While commercial software incompatibility with the new ROM has actually been very minimal, there have been concerns from user's groups about software incompatibility with Public Domain, FreeWare and ShareWare programs. This is a real concern, certainly, but one to which we have no solution. Many independent authors are updating their programs to provide compatibility, and others may not be adverse to doing so if asked.

IIgs and Keyboard Connection - I Want to Make Music!

Q: We have received numerous inquiries about how to hook up a keyboard to an Apple IIgs. Can you help us out?

A: Your best resources for connecting the IIgs to a Synthesizer or keyboard are third party vendors, such as Passport Designs, located at 625 Miramontes St., Half Moon Bay, California 94019 (415/726-0280), who specialize in MIDI software and hardware.

+++ Won't Disconnect

Q: A customer is using Apple Access on an Apple IIe. She can dial in to a service correctly and use the modem, but she says she cannot disconnect. "+++" doesn't do anything at all. How can she disconnect aside from turning the modem off?

A: The "+++" command will not disconnect you from an on-line service. You must issue the correct disconnect command recognized by the system you are connected to. Every on-line service has a help file on-line which will indicate what word or words it recognizes as a log-off. Most services use commands such as "bye", "off", "logoff", etc. The "+++" command is not a replacement for this logoff command. It is a command that can be issued to the modem, and is detailed in the modem's manual. If after disconnecting from the on-line service you find yourself at an @ prompt, you are probably calling through a Telenet line, and typing "Hang Up" (without the quote marks) will disconnect you.

IIgs and AppleShare - I Can't Gain Access

Q: After connecting my IIgs to an AppleTalk network on which there was an AppleShare file server, I attempted to select the file server. There was no disk I/O and no file server was found. What am I doing wrong?

A: A IIgs on an AppleTalk network can access on-line printers, however, at this time there is no solution for accessing the file server.

MousePaint Won't Print In Color!

Q: Using an Apple //c, MousePaint and an ImageWriter II, I can't print in color (and yes, I am using a color ribbon!). Who's at fault?

A: MousePaint will generate color output ONLY when using an Apple Scribe printer. It can't output color on the ImageWriter II.

AppleWorks, Apple DMP and //e, Won't Print Right

Q: I am using AppleWorks with an Apple DMP on a //e with a Buffered Grappler Plus card. When printing from the spreadsheet, the printer misspaces words and prints things in the wrong column, cutting some numbers off both sides. I've tried using several versions of AppleWorks with no better results.

A: All versions of AppleWorks initially assume that you are using a Super Serial Card for the printer interface. Because of this, the codes "Control-I-80N" are sent to the interface when a document is printed. [Versions of AppleWorks earlier than 1.2 will only work with a SuperSerial Card. If you are not using a SSC, you will need to update to version 1.2 or later of AppleWorks.] Since the interface that you are using is not the SSC, you probably need to change the interface code setting to one appropriate to your interface card. (Control-I 0N may work).

AppleWorks Patch from Mark Wheeler, Technical Trainer, Columbia, MD

Users who would like to have another program run automatically after exiting AppleWorks might be interested in the ProDOS patch called QUIT.EXT and QUITCO.TXT by R. S. Bradford. It can be found on CompuServe in the GO APPLE forum of MAUG (Micronetworked Apple Users' Group) in the data library that deals with AppleWorks.

This utility patch will allow AppleWorks to run the program named .BASIC.SYSTEM whenever you quit AppleWorks. I have a developer now using it, and he reports it is working well allowing him to integrate his software with AppleWorks data.

AppleWorks 1.3R Problems

Q: There are 700 records stored in the database. I am having problems with three of the records, including graphic garbage symbols; system locking up, etc. I need to be able to remove these two files as they are keeping me from using the other records successfully.

A: AppleWorks 1.3R is an altered version of AppleWorks that has been patched to operate with the Applied Engineering RAM card. From your description, it would seem that the file is corrupt. AppleWorks does not handle corrupted files very well, and there is no Apple solution to recovering the files. You may want to check out the RAM card, however, since this type of problem may also be caused by a faulty RAM or RAM card.

Pascal on RAM: A Pipe Dream?

Q: I'd like to format my RAM card for use with Pascal. Is it possible?

A: You can format your RAM for use with Pascal as long as you have Apple II Pascal, Version 1.3 Earlier versions do not have this capability. Here's the procedure:

1. From your System Utilities Disk, select the Format option.
2. Provide Slot and Drive information as prompted (Slot 5, Drive 1).
3. Select Pascal for Operating System.
4. Make sure Pascal Disk is in the drive.
5. Enter volume name as requested.

CP/M and MS-DOS Commands on my Apple II? - New Product from PinPoint

In an earlier issue of Tech Tidbits, we reported on Command.Com, a new PinPoint offering providing users with the capability of using MS-DOS, CP/M, and UNIX command structures and batch file processing under the Command.Com Shell on the Apple II series of computers. Under Command.Com you can use one of the pre-designed shell structures, or, if you prefer, design your own shell structure to mimic any operating system that you enjoy working with, including, of course, ProDOS. In addition to providing extensive processing functions and built in utilities, it also permits the user to learn other operating systems on

your Apple. For complete information on Command.Com, you can search on AppleLink in the Tech Info Library using the search word "Command.Com", or inquire of PinPoint Publishing (415/654-3052). Presently, Command.Com is available primarily through PinPoint Publishing and a number of mail order houses, although PinPoint expects to be reaching dealers directly in the near future.

IIc PDL(0) Discrepancy

Q: On the Apple IIe, the following program works:

```
10 HOME:GR
20 COLOR=0:PLOT P%,39
30 X=PDL(0):P%=X*39/256+1
40 COLOR=3:PLOT P%,39
50 FOR T=1 TO 10:NEXT T:GOTO 20
```

It draws a character whose horizontal position is dependent on the joystick's horizontal deflection, then erases it. On the Apple IIc, however, the joystick reads only to about 185 [line 45 PRINT X], and the character only travels about 2/3 across the screen. If the same program is Run with TRACE on, it works fine! Our customer wants to know why, and we're rather interested, too.

A: The most likely explanation for the problem you cite relates to the way the computer "reads" the Game ports. There is a variable resistance in series with a standard resistance and a capacitor that is "timed" by a 555 counter. "Normal" timing interval from trigger read to complete discharge is approximately 3 milliseconds. It may be that the IIc is just a "smidgen" faster than the IIe. If that counter is polled at a faster rate than "expected", you will get a "smaller" reading than "full scale" (255). By turning TRACE ON, you allowed for just enough of a delay (Microseconds difference) to let the counter count the time of full discharge of the RC (Resistor-Capacitor) network.

As a suggestion, you can scale the reading that you get to give a value within the range needed, i.e. before ACTUALLY using the Joystick, you can take a sample full scale reading (in this case it may be 185 as you indicated). Use this value as the basis for your scaling. As you use the joystick, it will be necessary to convert the value read into the range expected, i.e. first, assume that REFVAL=<sampled full range value> (185), then the following statement "X=PDL(0):P%=((X/REFVAL)*39+1)" should give you the same result as line 30 above.

IIGS Finder

Reprint of article by Mike Sample from the November 1987 AppleGram, Journal of the Apple Corps of Dallas.

TG) This could easily be the biggest improvement in the II user interface yet. Now upon boot, IIGS owners with 512K or more of memory are treated to a Finder that rivals that found on the Macintosh. (IIGS machines with less than 512K will start up in the Launcher. TG) This utility adds another razzle dazzle to the II line.

The purpose of the Finder is to launch applications programs and to aid in file/disk management. It does so using the mouse in a totally graphics mode, providing some excitement to an otherwise boring job. Finder gives a visual description of what drives are on-line, what disks are in drives and those disks that have been in drives but are no longer. Disk cataloging is a major task supported, allowing you to copy and (to a certain extent) delete files, directories and disks. Finder can also format disks for ProDOS use.

Adding Finder to the operation system has some penalties. Finder, as a file, is only 51K in size but will not work in machines with under 512K of avaiable RAM. Boot time has ust about doubled from the previous system isk to the new disk with Finder (probably not ntirely due to the addition of Finder). For hose having less than the required memory, he system disk automatically opts for running he older Launcher, which is on that same disk.

he IIGS Finder, I have been told by Mac sers, appears and functions about 98% identical to the Mac version. The user manipulates cons in the 100% graphics environment. cross the top of the screen is a standard roDOS 16 application menu bar providing ccess to New Desktop Accessories, File, dit, View, Special and Color options. Each con can be colored to the user's preference. An example of this use could be to color all ord processor text file icons the same color. f you may be using two word processing rograms, you could color all text file icons nd the program icon the same. Blue for ppleworks, Green for MultiScribe, etc... TG)

cons in windows can be selected as either arge or small. (This user has not had 100% success with small icons, but that could be due to pilot error.) Icons take on specific shapes, depending upon the file type. Some applications programs bring in their own custom icons, but there is a standard set. Each icon is labeled with the file, disk or device name. Along the right side of the desktop are usually arranged the disks, drives and Trash icons. After selection a disk or Trash icon, a window will appear showing the contents of your selection.

Windows take the place of the catalog found in the ProDOS 8 environment. The contents of the directory selected is shown either in the small window, the large-icon default format, or the format which the user has previously selected and saved. The contents of the directory can either be shown in large or small icons arranged again in either a default pattern or one that the user has produced.

A lot of the power of Finder comes from the way on can arrange file icons either in the window or by moving the icon to the desktop to provide easy access to applications programs buried deep in subdirectories. This will be a great help to hard disk users. The user will soon learn that the Special menu Cleanup option is powerful for arranging the position, improving the appearance and adjusting the space available in a window for icons. The directory can also be shown with small icons and other file information, much as you would see on a ProDOS 8 catalog. The sort order of the files can be selected from File Name, Type, Size or Date options. When using the normal icon display, this file information is available by clicking on the file menu and selecting the "Get Info" option.

Another great feature is that Finder makes the display setup optionally saveable. If the disk is not write protected and the Special menu Preferences option "Save Finder information onto disk" is selected, the setup is saved into a directory-specific file name FINDER.DAT. (Each directory will then contain a file by this name.) After the user has set up all disks to preference, the user can deselect that option knowing changes made during normal disk use will not affect previously stored settings. Whether FINDER.DAT is displayed or not in the directory window is selected under the Preferences setup menu. Hiding this file from the window help prevent its accidental movement from any given directory to another. Since the information in this file is directory specific, moving this file from one directory to another could turn up some disastrous results. (Also be aware that inserting a second disk with the same volume name will cause the FINDER.DAT file from the first disk to replace the file on the second disk. TG)

One of the purposes of Finder is to show the user what volumes are connected, what disks are in drives and what disks have been, but are no longer in drives. Again this is done through icons. In the default display, they are arranged along the right side. Disks which are in drives are shown normally; those out of drives are shown with a hashed appearance. As new disks are place in drives, a new icon for each is placed on the desktop. Each disk icon is labeled with the disk name below it. In addition to the disk and 5.25" drive icons, there is a RAMdisk icon which looks like the RAM card and a trash-can icon for disposing of unwanted files or removing disks from the desktop.

Launching applications is another major purpose of the Finder. This is done by pointing to and double clicking an icon of the file you wish to run. Finder will presently run any file that could be run from the older Launcher. Plans have been made to improve that in the near future. Soon the user could, for instance, select a text file from his or her favorite word-processor program. (Presently such an action would result in a warning block stating that the file must be called from an application program.) Plans are to have Finder realize what applications program must be launched for that selected file and do so automatically. These plans do have some limitations, however. Apple has decided to allocate 256 codes to those applications that will support this function. Apple will therefore have control over just what applications gets those valuable codes. (Have heard talk that this may be expanded to a 2-byte code, thus allowing over 65,000 program codes. TG)

The management of files, folders (directories) and disks is another major purpose of Finder. Copying files from disk to disk or folder to folder is made ver easy under this environment. To copy files, one basically drags the icon representing the file to the destination. The same goes for copying folders or disks.

There are also some limitations to this. To copy disks, the volume sizes must be identical. For example, one cannot copy the contents from a 5.25" disk to a 3.5" disk by disk copy because the volumes are not equal in size. The same goes for copying to or from the RAMdisk. The RAMdisk min and max size must be equal to the size of the other disk volume.

This problem can be overcome by selecting all the icons in the root directory of the source volume and dragging that selection to the destination volume. Deleting files can be done by dragging selected files to the Trash icon. This places those files in the Finder Clipboard, which can be viewed by selecting the Trash icon as you would any other volume.

Printer Tech Tidbits

Edited by Sue Goodin (Charlotte)
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Printing Problems on an ImageWriter

Q: When printing cards in groups of 8 or single cards, after a few lines of print the printer jogs the paper forward a fraction of an inch too much and then jogs it back. This tends to leave a small white, unprinted line on the page that looks like the printer missed between 1 and 3 dot lines across the page.

A: The problem you have identified is not with HyperCard but instead a known anomaly with the ImageWriter print driver. Depending upon the weight of paper used and size of the pin feed holes in the paper, the printer, after jogging the paper, does not properly realign the paper where the printing stopped before the jog. The problem can be helped by:

1) Using a heavier weight paper (20 lb. or heavier stock).
2) Using paper with smaller pin feed holes.
3) Use single sheets and friction feed.

Stencils on the ImageWriter

Q: We understand that there is a way to shim the print head on an ImageWriter II that will enable it to print ditto masters darker. We have been unable to locate any notes on AppleLink on this subject. Can you help?

A: PLEASE don't shim the head of a printer or you'll be calling us in a few weeks to help you repair it. Dittos and stencils can be cut on the ImageWriter II by adjusting the print head all the way forward (same setting as for four part forms). You should also LEAVE THE RIBBON installed as it actually adds to the impact. If you are cutting stencils, you might try one designed especially for computer printers, such as the A.B. Dick #2060 stencil.

LaserWriter Manual Feed Wasted Paper

Q: How can we stop a manual feed instruction sheet from printing out when doing a manual feed on the LaserWriter Plus?

A: The manual feed instruction is generated by the LaserWriter Driver being used in the environment. If you upgrade your Laser-Writer to Version 4.0, this should eliminate the wasted pages.

LaserWriter/Legal Size Print Area

Q: I'm having trouble getting a .4" margin when using the legal cassette on the Laser-Writer. On page 121 of the manual it states "Legal: The imageable area is 6.75 by 13.0 inches, centered on 8.5 by 14" page." Is this wrong?

A: No, the manual is not incorrect, but it only reflects one aspect out of four that affects the printable area. The first is the technology - the physical limitations. This is what the manual is referring to. The next is the printer driver being used, which may impose further limitations. The third is the ROM available in the printer, and finally, the fourth factor is the application itself that you are using, which may impose even further restrictions.

Solution for VALENTINE Puzzle on Page 27

Press Releases from
"Midi Music"

Computer Technology Changes the Music World

Musical keyboards are being joined in recording and rehearsal studios these days by keyboards of a very different type—ones attached to personal computers. In fact, computers and a variety of new electronic instruments are rapidly adding to the musician's repertoire of creative tools.

Microcomputer technology is changing the way music is both created and learned. Music composition and notation, sequencing, learning about music, experimenting with and creating new sounds, and managing sound libraries can all be accomplished faster and easier with the help of a personal computer.

Both the professional and education music markets benefit from personal computers. In schools and at home, personal computers can make learning music easier and more enjoyable. With appropriate software, teachers can enhance music instruction in skills such as performance, theory, composition and ear training. Music applications require at least a personal computer and appropriate music software. Those who wish access to more sounds than a personal computer can generate by itself or who wish to convey performance information between an instrument and a computer utilize MIDI (Musical Instrument Digital Interface) technology, which greatly expands the creative options available.

Traditional instruments are being joined in the musicians' repertoire with MIDI-equipped, microprocessor-based musical instruments. Among them are synthesizers, which create an assortment of instrument sounds, and samplers, which take sounds from the real world for playback through the synthesizer.

Personal computers and instruments like these give musicians more creative control over their music. They won't turn poor musicians into great players. The distinct techniques and musical interpretations of great performers can't be recreated using technology. But technology can produce new musical effects and enhance the musical capabilities and possibilities of any musician.

MIDI, The Musical Connection

The first full MIDI specifications were released in 1983. As electronic music technology evolved, musicians had a strong need to connect instruments such as synthesizers and drum machines to make them work together. They quickly discovered that there was no standard "language" for communicating musical information. In a cooperative effort, electronic instrument manufacturers introduced MIDI 1.0, which evolved into an industry standard. MIDI technology has rapidly been adapted to connect not only electronic instruments, but also electronic instruments and a personal computer, which can then be used as a control device.

MIDI's data format is digital. MIDI-equipped instruments communicate with the computer by sending a series of numbers over the connecting MIDI cables. Each MIDI message conveys a single musical event or piece of performance information such as the notes played, how they are played and what special control devices are used to add nuances to the performance. Once the computer captures the information, it can be used as a sophisticated control or playback device to correct mistakes and experiment with different sounds and arrangements.

Apple MIDI Interface

Apple Computer's Macintosh® personal computer is already a leader in the professional and amateur music market with its graphics interface and abundance of music software. In the kindergarten through high school education market, where Apple® II computers dominate, the Apple MIDI Interface brings greater functionality to the Apple IIGS®.

The Apple MIDI Interface is Apple's first music-specific product offering musicians, music educators and hobbyists a low-cost, high-quality Apple-labeled product.

The Apple MIDI Interface for the Apple IIGS and Macintosh family of personal computers has one MIDI in-plug and one MIDI out-plug, making it suitable for a broad range of musical applications.

It measures 3-inches long by 2-inches wide and 1.25-inches deep. An external power supply isn't required, eliminating extra wires and the need for another power source. The Apple MIDI Interface connects to one of the computer's two serial ports via a standard eight-pin system peripheral cable. It connects to the MIDI instrument with two standard five-pin DIN connectors.

The Apple MIDI Interface is immediately available for $99 through authorized Apple resellers.

MIDI-equipped devices are unidirectional. That is, data travels along a single MIDI cable from the out-port of one device to the in-port of another.

There are numerous software programs created for the Macintosh and Apple II family of computers that take advantage of the MIDI interface. Software can help musicians with musical tasks including sequencing, editing, composing and creating sound libraries

The Music Market

According to the American Music Conference in a study conducted in 1986, nearly half of the households in the United States own a musical instrument. All told, there are more than 26 million amateur and professional musicians in the United States. Retail sales of musical instruments were $3.37 billion in 1986. This includes $1.35 billion in electronic instrument sales—2.5 million keyboards estimated at $526 million, 350,000 synthesizers estimated at $275 million, and other electronic instruments.

Professional Music Market

Macintosh is as much a part of many musicians' musical equipment as are guitars, drums and keyboards. Macintosh is the computer of choice among many professional musicians, whose styles run the gamut from rock to classical and who include performers, music studio artists, record producers, record label executives, music promoters, professional music educators, music system integrators, film/video composers and special effects/sound designers.

Macintosh computers, MIDI interfaces, MIDI-equipped instruments and appropriate software are being used by professionals in a variety of ways.

Sequencing

Sequencing is the most popular software application for professional musicians. Sequencing on a personal computer provides more creative control over music, letting composers work with all the parts of a composition. The computer is used to capture performance information—that is, what notes are played, how long they are held, and how hard the keys are pressed. Unlike tape, which permanently records the sound, this "record-

ing" is strictly digital performance information. Musicians can now go back and experiment with alternative parts, arrangements and sounds.

Musicians who are not proficient on keyboards may record a piece slowly for more precision. Digitally recorded performance information can be played back at any speed without affecting pitch. This contrasts to tape recordings, which rise in pitch as playback speed is increased.

Sequencing can also be cost-saving. Musicians can work out all the parts of a piece with their computer and MIDI equipment, trying different variations and arriving at a final composition before entering the studio to record a live performance with other musicians. Also, parts of a piece can be completed on disk and brought to the studio where live performance parts can be added.

Music Notation and Publishing
In the past, musical lead sheets were hand written, and changing or modifying music was a major project. With a computer and appropriate software, creating music manuscripts and leads sheets for recording sessions is much easier and faster. The software provides functions such as aligning the notes in measures across all parts of a piece, automatically adjusting note spacing as lyrics are added, and transposing to another key.

Desktop publishing capabilities make computers especially well suited for music publishing, creating a score that is much easier to read than a handwritten version.

Sound Libraries and Editors
When people first started working with synthesizers, they were generally limited to sounds that were shipped with the synthesizer, usually numbering from 16 to 64. RAM (random-access memory) cartridges, each of which typically cost between $50 and $150, also became available as external storage devices for sounds.

Now many musicians have literally hundreds of sounds for each keyboard they own. In order to manage and edit these sounds, they need an alternative. A personal computer connected to a synthesizer through a MIDI interface enables musicians to store sound libraries on 800-kilobyte floppy disks or on a hard disk. Floppy disks cost approximately $3, and the sounds can be easily accessed and edited.

Editing and creating sounds is also a lot easier using a Macintosh rather than a synthesizer. On a synthesizer, sounds can only be viewed as a compilation of numbers, displayed in a small window. Using the

Macintosh's graphics interface, sounds are represented as two or three dimensional graphics on a larger screen and can be easily changed and manipulated.

Sound Sampling and Design
Sound designers create and keep track of thousands of sounds. They might have several types of sirens from sources like fire engines, police cars and air raid alerts. These sounds could be sampled, or recorded, from the real world. In sound design, sampled sounds are captured and modified for playback through a sampling synthesizer.

Using a personal computer and MIDI technology, musicians can create sounds at a high level of precision previously available only on more expensive sampling synthesizers. Sound designers can cut and paste sounds together on a Macintosh, letting them create new sounds and add special touches while avoiding the imperfections that could result from older techniques.

Film and Video Work
Macintosh and MIDI technology are being used to synchronize music or special effects with the moving images in film and video productions. In the past, a score or a set of sound effects created and sequenced to match the video events in a scene had to be painstakingly redone every time a change was made in the film or video edit. Now the process is faster and easier using the computer and appropriate software to rearrange the sequence of sound events.

Music Education Market
Teachers use computer-aided musical instruction to enhance learning in music classes. Music education, which extends into the home, includes keyboard skills, reading music, ear training, music theory, performance and composition. Aside from music skills, there is software available that lets musicians of any level explore the music world simply for the fun of it.

The Apple IIGS, with its 15-voice Ensoniq sound chip and the addition of external speakers, produces unusually sophisticated sound for a personal computer. In music education, many programs don't require a MIDI interface and MIDI-compatible instruments to operate. The sound capabilities of the Apple IIGS, combined with the color capabilities of the computer, which can show different parts on a musical score in different colors, already provides an excellent instruction tool for simple composition and drill and practice of skills like rhythm and note recognition.

But for students or music enthusiasts who

want to hook up a MIDI-compatible instrument, there are music programs that take advantage of the added musical capabilities.

Performance
In performance training, using the appropriate software, the computer can "listen" to and record input from a MIDI-equipped instrument. The computer can then play the music back and show where mistakes in notes and rhythm were made.

Music Theory
Grasping musical concepts like intervals, major and minor chords, and principles of harmony are easier when the student can use the computer for drill and practice. The computer can reinforce concepts the teacher has presented. The teacher is then freer to focus on more advanced instruction and the needs of individual students.

Composition
The computer, MIDI technology and the appropriate software allow students to enter music at any speed, compose full pieces and hear them played back at a normal speed. Music enthusiasts can create music without possessing advanced musical skills.

Using the appropriate software, music can also be printed in standard notation with the proper markings.

Sequencing
Music students, like professional musicians, can use the Apple IIGS, MIDI technology and the appropriate software to perform, compose, and edit an entire musical score.

Creativity
Creativity, learning and entertainment can all be facets of an individual's experience with computer music applications. Personal computer and MIDI technology are bringing new capabilities to the individual, making it easier to experiment with sound and music, and to create, control and polish music compositions.

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Mac II and HyperCard Tech Tidbits

Macintosh II Guided Tour Revisited

In order to run the Macintosh II Guided Tour successfully, you must set your Monitor to Black and White and two shades of grey. Make sure that your RAM cache is set to OFF, and run the tour from your floppy disk.

Mac II Screen Dump on MacPaint Skewed

Q: Using the Command-Shift-3 Screen Dump from MacPaint, running under System 4.1/Finder 5.5, I get a screen dump with the display rotated 90 degrees. I tried this on another Macintosh II using their software, again System 4.1/Finder 5.5, and I couldn't get a screen dump at all!

A: When using the Mac II with latest System Software (4.1/5.5), the Command-Shift-3 Option will indeed create a MacPaint file with the Mac display rotated 90 degrees: This is due to the relationship between the Mac II Video display and the maximum width of the MacPaint document. In order not to lose any of the data displayed, the image must be rotated. In all likelihood, the second system you tried this on was either not running under a

properly configured System and Finder, or it was set for color. If you replaced the System files with a new copy, or set the system for black and white, you will discover that you have the proper Screen Shot capabilities on it.

Mac II Color Background

Q: I'm trying to change the background color on the Mac II. I go to the Chooser, select the Monitor Icon, but I am unable to find the Color Bar that the manual talks about. While I am able to get color in applications, I can't change the background color. Am I doing something wrong?

A: The information you refer to is on page 98 of the Mac II Owner's Guide. The Color background feature mentioned in the manual was not supported in the version of the System Software currently released by Apple for use with the Mac II. The new version of the Mac Operating System (MultiFinder) recently announced does provide this color background pattern support as described in the manual.

Mac II Monitor Fun

The 'Monitors' portion of the Macintosh II Control Panel desk accessory has an undocumented, hidden feature that will brighten your day. Here's how to find it: open the Control Panel, click on the 'Monitors' icon on the left hand side, then click on (or to the right of) the

version number of the 'Monitors' controls in the upper right hand corner of the window. Apple's programmers do have a sense of humor!

Super Mac Tech 19" Screen and MultiFinder submitted by Rod Hill, Applied Graphics

After experimenting with the new System/Finder/MultiFinder we found that on a Mac II and a Super Mac Tech. 19" screen, the mouse will lock up and not be operational. The only workaround we have found for this problem is to install the Apple Monitor card and use the Apple monitor.

[Editorial Note: If anyone has found a working solution to using the Super Mac Tech 19" screen with the Macintosh II, we would be pleased to hear your solution.]

HyperCard Help!

Q: I have a Mac Plus and HD20 and can't get HyperCard to work. HyperCard will load up to the point that it displays the top menu bar and then quits to the Finder. The program will work if the HyperCard start-up disk is used to start the Mac. I'm using System 4.1 and Finder 5.5.

A: The symptom you describe would indicate that there may be another System file on the hard disk that is of an older version than

---

IIGS Finder Continued

This gives you an easy way to undelete by dragging files from the clipboard to another volume or the volume from which you originally made the deletion. The clipboard works much like most other clipboards do, in that it can contain only one level of deletions at a time. Dragging a disk icon to the Trash icon works a little differently compared with file deletions. The contents are not deleted but rather the disk is ejected (assuming the drive supports that function) and the disk icon is removed from the desktop.

Coping files using the Finder can be faster than doing the same task with a utility program such as "Copy II Plus". This is because the Finder will copy the files selected into memory first, utilizing as much memory as is available. When it runs out of files or memory, it then copies that data to the destination. Many

utility programs will copy one file at a time, or portions of a large file, prompting you to change disks between each copied read or write cycle. Finder therefore saved time by reducing the number of disk swaps (assuming enough memory is available). (And you are running on a 1 drive-type system. TG)

One fault of the current version of Finder is that copying to the RAMdisk is done as if the RAM disk were a normal disk drive. The information is actually copied to the normal copy buffer, then copied again to another section of memory designated as the RAMdisk. This two-pass copy is not necessary because the RAMdisk, if available for the copy, must be online. (In other words, you can't take the RAMdisk out like you can a regular disk.)

Finder also recognizes unformatted disk and will prompt you for permission to format the unformatted disk. This can be dangerous. In the case of some copy-protected disk, (or if

you happen to insert a DOS 3.3 disk. TG) the Finder can't read them and will ask you to reformat the disk. This will destroy the disk contents.

Documentation that comes with the disk is presently limited to the help files from within Finder. Those are fairly complete and very helpful. This should be browsed through for those who have the Finder and have not done so. My sources indicated that Apple intends to provide insert or addenda to the owner's manual providing more information on this utility.

Finder, as does the Launcher, supports the Quit Stack. Those familiar with this feature will be pleased. An example of the way the Quit Stack works is as follows. Upon booting the System Disk, the IIGS enters the Finder. The user can then select an application program such as a word processor. After compos-

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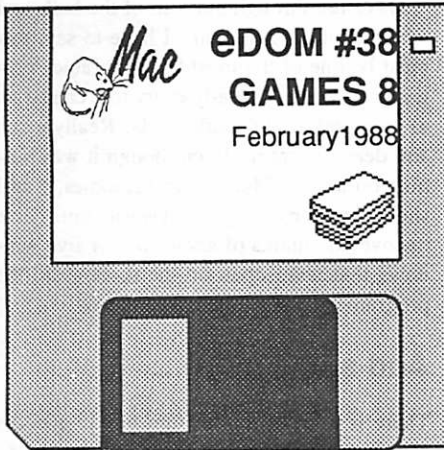
Games 8
MaceDOM #38

This 400K Macintosh Educational Disk of the Month was assembled by Bob Nimchuk for the Mac Special Interest Group of Mini'app'les, the Minnesota Apple Computer Users Group, Inc. Additional copies of this disk can be obtained at the MacSIG meetings: $5.00 for club members and $10.00 for non-members. They can also be mail-ordered by writing to:

Mini'app'les
Attention MaceDOM Sales
PO Box 796
Hopkins, MN 55343

Please add $1.00 for shipping.

The files contained on this eDOM #38 are briefly described below: many of them contain their own more detailed documentation.

First is the demo version of one of the best selling retail games for the Mac, **MacGolf**. For those of you who are not familiar with **MacGolf**, it is a three dimensional simulation of the game of golf. It is a great way to spend those rainy Saturday mornings when you can't get out to the real thing. This demo plays just like the full version, but you are limited to two holes. Directions are not included, but it is easy to pickup, so feel free to experiment.

Mac Missiles is the Mac version of the popular arcade game. While there are many versions, this is one of the better ones. As with all games on the Mac, the graphics are excellent. While I miss having a joystick, I like saving my quarters. The author requests a fee if you like and use the program. No directions but perhaps you can figure it out.

Mac Bugs! is another version of an arcade classic. It is a fast moving game (and free!) that I have yet to live longer than 10 seconds. Directions included.

Cairo Shootout is a shooting gallery game. The graphics are excellent and even allow you to aim through the gun sight. No directions are needed, just aim and shoot. Public domain.

MacII and HyperCard Tech Tid Bits Continued

System 3.2 and Finder 5.3. You should have only one set of System files on your Hard Disk to avoid this type of problem.

HyperCard Important Note: Do NOT use the system files that come on your HyperCard disk. They are special versions of System and Finder and do not contain all the usual System/Finder files. If you are working from floppy disks, use your usual System 4.1/Finder 5.5 disk to boot. If you are working from a hard drive, make sure that you update your System files from some OTHER disk, preferably the Installer program.

HyperCard Input

Q: Is it possible to input a database from FileMaker Plus into HyperCard's address book without losing fields?

A: There is an Import feature to HyperCard. You would have to get the data out of File-Maker (export), then create your card in HyperCard. You will need "Scripsit", HyperCard's scripting language to perform this operation. An excellent resource you may wish to utilize is "The Complete HyperCard Handbook", by Danny Goodman (Bantam Computer Books).

GO TO 8

Mac Users: never enough

by Tom Edwards
Jan. '88, MacUser Report

I nsatiable. Yes, I think that's the best word for it... insatiable. The Mac Users are insatiable. A never ending quest for more. More information. More programs. More speed. More RAM. More, more, MORE.

David Stovall and *Mike Carlson*, co-chairs for the Mac User Group, keep showing us that there IS more out there. Even when you've seen the program before, as I had with **Power-DRAW**, you see that it doesn't take long for the author to add more into it. Dave demo'ed PowerDRAW at the MacCAD/E meeting a few months ago... nose around for a back issue of the newsletter and there should be a sum-

mary in notes from the meeting. Tonight he was doing it again, only now the program had been sent through the wash... you know, new and improved... and there were plenty of added touches to make it even more fuller than before. Not only that, but Dave says that the author is **still** polishing up more features, to be shown and introduced at one of the big computer shows in the near future.

Whoops! Better catch up here for a moment, before you think (confirm) that I've babbled on and lost you all. This all was taking place at the January Mac Users meeting, held at the Hennepin County Library, Southdale. Quite a group... I reckon about 80... were on hand to soak up some of the "more" that was being offered tonight. Of course the title, "PowerDRAW", and the fact that Dave was doing the demo, have to be a tip-off to most of you that this is a drafting-oriented program. What else would you expect from an architect, anyhow?

Dave ran through most all of the bells and whistles of the program. I have to say, this must be one of the most "configurable" programs around. Virtually every tool can be set to your preferred default needs. Really a rich and deep program. Even though it was running on a mere MacPlus and floppies, it still showed reasonable speed. It wasn't until Dave uncovered chunks of about four or five windows that were open on the screen, did the program exhibit a touch of molasses.

And some more...

There is a lot of momentum building in the Mac side of the club. Dave and Mike had announcements of new Special Interest Groups that are forming. There's a chance that the Club will become an authorized source for distribution of Apple System Software releases, too. (They're getting so gordo, that it just isn't practical to download from BBS's anymore!) Dave made a plea for more representation (of Mac Users) on the board, and with elections coming up in March, now's the time to return a bit of the investment in the club by participating.

And more...

After welcoming several new faces into the group, Dave unleashed the Q/A session. We got some tips on hardware, software, vaporware and underwear fanware. Look for Claris (aka "Apple Computer") to let fly with some updates to old standbys... MacWrite, MacProject, MacPaint and MacDraw. Most of these will carry new version numbers, as a signal that the program has undergone major changes.

And finally...

The old saying, "put yer money where yer mouth is" comes to mind. After years of waiting, the club has popped for some new hardware... a Mac SE for one thing. Also a flat screen projection unit so that we don't have to keep borrowing a LimeLight'er each meeting (which turned the wall green tonight, thanks to *Bill Langer* and MTS Systems for the loan of theirs! Much appreciated.).

So that's it for another sloppy bit of note-taking on a Mac User meeting. Come by and try us out. There's always a bit more, at a Mini'app'les meeting.

More bytes later...
TWE

Extracts from "WINDOID #5 for HyperCard Fans"

Windoid Editor: David Leffler

(Note from Mini'app'les Editor: Windoid has been downloaded from AppleLink and some issues have been placed on our eDOM stacks. There is some advantage in having the information on paper rather than on disk, so we will periodically extract from recent issues of Windoid)

About XCMDs and XFCNs
by Sioux Lacy
Tips & Techniques for Users of External Code Resources

Many of you may not be aware of another tool HyperCard has provided for the stack designer/user. External commands or functions can be used to create extensions to HyperCard. Accessed much in the same manner that user-defined commands and functions are, "XCMD"s and "XFCN"s are code resources that can be attached to any stack.

Several external commands are included with the HyperCard product: "Flash" is an XCMD that will flash the screen (invert black and white, then invert back again). It's attached to the HyperCard application so it can be accessed from any stack with the command "Flash", followed by the number of times you would like the screen to flash.

Look in the Documents Representative stack. You will find another example of an external command: "Getdocs". It is called by the "Update" button's script. A line in the "mouseUp" handler reads: getdocs line i of documents. This is a call to the "getdocs" command, passing it one argument which is a folder name from the Documents card in your Home stack. "Getdocs" responds by creating the cards in the Documents stack.

Some interesting external commands have already appeared as shareware. Several provide the user with a button that will attach the external code to your stack, but if you discover one that hasn't, you can use the following method to do so:

To attach an existing external command to one of your stacks, you will need to use a resource mover, like ResEdit, to copy it from its current stack, and paste it into your stack. In ResEdit, this procedure works as follows:

1) Launch ResEdit
2) Find the stack with the external command or function that you want to copy, and open that stack
3) You will see a resource type of XCMD (or XFCN)
4) Select and copy the resource
5) Then find and open your stack
6) It will probably ask you if you want to open a "resource fork" for your stack (unless it already has one).

7) Click "Ok", ResEdit opens a window into which you paste the resource.

HyperCard User Tips
by Phil Wyman

• There is a form of the Repeat command which works with "down to". "Down to" is two words in this syntax. This form of the repeat command will iterate your variable downward each step through the loop.

```
repeat with x = 100 down to 1
  put x into field 1
  go next card
end repeat
```

An example of a useful application of the "repeat down to" command is if you're deleting all the buttons or deleting all the fields of a card or background. For instance,

```
put the number of buttons of¬
    this card into var
  repeat with x = var ¬
  down to 1
  choose button tool
  click at the loc of button x
  doMenu "Cut Button"
end repeat
```

If you had done this with "x = 1 to var" instead of "x = var down to 1" then soon you would be clicking at a button that didn't exist.

• There's a nice debugging feature in the HomeStack Script. The handler is called searchscript. Its two parameters are the string you are searching for, and the stack that you want to searching for that string. For example, if you had hundreds of cards with scripts, and found you misspelled a word in one script, you could then search all your scripts to find which ones had the same misspelling error. You would say in the message box:
```
    searchscript   "mispelled
    word","stackname"
```

• You do not have to have your cursor at the end of your message in the message window in order to execute your message. In the message window, you may be typing on the fifth word and find that you've made a typing error on the first word. Click on the first word and correct your error. Now the cursor is in the first word. At this point you can hit the return or enter keys to execute the message window, even though your cursor is not at the end of the message.

• An easy way to copy a current background in your stack into a new background in the same stack is: Copy Card, go to a temporary stack, paste Card. Immediately copy Card, go to original stack and paste the Card. This should create a new background in your stack that is exactly like your old one. (If you need to copy the foreground of a card to the current background, try the free utility stack "Foregnd to Bkgnd.")

"It's a Feature"
Explanations of some HyperCard features
by Robin Shank

Drawing through scripts:
The Polygon tool is controlled differently than the other drawing tools. The Drag From command won't work with this tool. If you need to plot irregular shapes, use the Curve tool, or the Line tool . The Lasso tool depends on an enclosing movement to select something. A script will only drag in a straight line.

In many cases, when you draw through a script, you will want to set the dragSpeed down to around 500. With the dragSpeed at the default setting, the Spray tool will only show the starting and ending points, because the spray cycle is slower than the movement on the screen. Also, with Draw Multiple on, you won't see any multiples unless the dragSpeed is slowed down.

Printing Notes:
Background fields that are overlapped by another object or card picture will print at 72 dpi on the LaserWriter. A piece of card paint, whose rect overlaps a background field, will cause that background field to print at 72 dpi. (The rect can be shown by the rectangle formed by the marching ants when drawn by the selection rectangle.) One exception: if a

Windoid #5 Extracts, concluded

transparent button that does not show a name or icon covers a background field, that field will still print at high resolution.

MultiFinder:

750K is the absolute minimum memory configuration recommended to run Hyper-Card under MultiFinder. If you run HC under MultiFinder on a 1 Mb machine, you will be limited to Typing UserLevel and processes that need more memory (such as pasting graphics or printing) will, at the least complain, and at the worst, exit grumpily back to the Finder (who said crash??). When printing under MultiFinder with Background Printing ON, Print stack sends copious amounts of data to the LaserWriter in a very short period of time. If a spooler of any kind is catching that before sending it to the printer, it is likely to fill up very quickly. A MultiFinder Spool folder for a 10 card, 20K stack could easily be over 1 Mb. (500K + per card is being sent to the LaserWriter)

Some Things Useful
by James Redfern

This is a short explanation of some concepts that are useful in using HyperTalk:

• A container is what you put your information into. Containers are: "it", "selection", the message box, a field, or a variable. Containers can be thought of as open or closed. An open container displays information on the screen; the contents of a closed container cannot be viewed. Variables and "it" are closed containers. The number of characters in an open container must be less than 32K, probably less than 30K to be safe, and less than 5K if a scrolling field is to respond quickly. The number of characters in a closed container are limited by available memory. (An exception is the use of the prepositions "before" or "after" with a closed container, which limits the number of characters to 64K.)
• Information is represented as a string of characters. Strings can sometimes be further interpreted as numbers or the logical values: "true" and "false". A number can be further interpreted as an integer or unsigned integer.
• When HyperCard performs an operation that requires numbers as operators, such as addition, it will try to interpret, i.e. convert, the strings as numbers. If the resulting number is put into a closed container, the container will retain the full precision of the internal representation. If the resulting number is put into an open container, the number must be represented, i.e. converted, as a string. HyperTalk uses the current value of the numberFormat property to format the string representation.
• When HyperCard performs an operation that requires strings as operators, such as concatenation, it will first represent any numbers as strings using numberFormat. The resulting string will remain a string even if it is put into a closed container.
• Constants, such as "pi" or "zero", represent strings of digits, and are not interpreted as numbers unless forced to by an operation. Therefore, "put pi" results in "3.141592653..." but "put pi + 0" results in "3.141593" (the "+" forced "pi" to be converted to a number, which had to be converted back to a string since the message box is an open container, so numberFormat was used to round to six fractional decimal places).
• Comparison is an operation that will try to interpret strings as numbers. Therefore, "3" > "20" is false, but "*3" > "*20" is true: If the goal is a string comparison and the values could be interpreted as numbers, then a non-numeric character must be concatenated to both values, such as 'if "*" & variable1 > "*" & variable2 then...' to prevent interpretation as a number. Remember that equality comparisons, "=" and "<>", use only primary ordering of characters, so case and diacriticals are ignored. Magnitude comparisons use both primary and secondary ordering.

Showing and Setting
by Paul Foraker

—Please remember that a ¬ is an Option-Return in ASCII TEXT —format. Editor.

Lost and Found

In the process of designing your own stacks, once in a while you're likely to forget things. If you've ever hidden a field or a button from yourself, you might appreciate this little script.
— make a new button on your card (you'll
— delete it later) and put this script in it:

```
on  mouseUp
    repeat with i = 1 to the ¬
    number of fields
    — or bkgnd buttons, or ¬
    card fields, or buttons
    show field i
    — or bkgnd button i, etc.
    end repeat
end  mouseUp
```

Now, when you click on this temporary button, all your hidden fields or buttons will come into view.

Setting Scripts of Objects on the Fly

There are times when you want a HyperTalk script to make new objects (like buttons or fields) and put scripts into them. The command for getting scripts into objects is: set script of <object> to <source>. This command can be used in a number of different ways. Let's look at some examples (for the sake of simplicity, I've assumed that we're using a simple button mouseUp handler to set the script of a button named "target".):

— getting the new script directly from
...the executing handler
— (remember not to use Option-Return
inside a quoted string)

```
on  mouseUp
    set script of button ¬
    "target" to "on mouseUp" & ¬
    return & "go next card" & ¬
    return & "end mouseUp" & ¬
    return
end  mouseUp
```

— ...from a field

```
on  mouseUp
    set script of button ¬
    "target"   to field 1
end  mouseUp
```

— ...from another object

```
on  mouseUp
    set script of button ¬
    "target" to script of ¬
    button 2
end  mouseUp
```

— modifying an existing script —let's say we think the old script was simply (on mouseUp) "go next —card", but we're not sure; it might already have a visual effect, — and we want to add a visual effect:

```
on  mouseUp
    —first check for a visual ¬
    effect & get out if there ¬
    is one
    if script of button ¬
    "target"    contains  "visual"¬
    then exit mouseUp
    — if not, then modify the ¬
    script
    put script of button ¬
    "target" into temp
    put return & "visual ¬
    effect wipe left" after ¬
    line 1 of temp
    set script of button ¬
    "target" to temp
end  mouseUp
```

[Suggestions from Linda Donovan]

HyperHackers: An idea

by Raines Cohen
Berkeley Macintosh Users Group (BMUG)

I can't hold back any longer! Here it is! The long-awaited "Improved HyperText Technique" I've been promising. I think I've generalized it enough to be useful all over...

```
[in script of Home stack, or your stack]:
-- BMUG HyperText trick by Raines Cohen, 12/11/87.
-- please retain this credit in your script ¬
   if you use this.
on mouseUp
  if word 2 of the target is "field" and msg is ¬
  not empty and word 1 of msg is not "find" and ¬
  the commandKey is down then
  put  "find"&&quote&msg&quote
  do "send lookUp to"&&the target
  type  return
  end if
end  mouseUp
```

This is different from the original XREF trick, in that fields DO NOT have to be locked for it to work, so you can use it on ANY field in ANY stack, unless the mouseUp message is trapped.

I send the lookUp message in order to allow overriding and special-case behavior, like:

```
[in script of bkgnd field "Body Text"]:
on  lookUp
   put  " in bkgnd field"&&quote&"Keywords" ¬
  &quote after msg
end  lookUp
```

This will make lookups based on the Body Text look in "KeyWords." Another example would be to put "Go to card" into word 1 of msg or something like that to allow cross-referencing.

How it works: When you Command-mouseDown on any field, locked or unlocked, HyperCard "picks up" the text and puts it into the msg box. My script just puts 'Find ""' around the text, and sends the lookup message to allow a particular field, or card, or background, or stack modify or override the searching behavior. I "type return" to get HC to execute the contents of the msg box. The user is left with any occurence of the phrase "selected" with the "find" rectangle, and the command still in the message box to allow the user to press return to repeat the search.

Disadvantages: the message box shows. You could, on mouseDown or mouseWithin, SET THE LOC OF MSG to n,n, where (n,n) represented a location off-screen. For my stuff, I prefer the visual feedback.

Credits: Please use this trick in your stacks, royalty-free! If you would, I'd appreciate it if you'd credit "The BMUG HyperText trick" in your script and about box if your use of it is significant. More importantly, let me know about any interesting variations or improvements you discover! You can reach me c/o: BMUG, 1442A Walnut #62, Berkeley, CA 94709. AppleLink: UG0001. Delphi, GEnie, BIX, MCI Mail,Well: BMUG. CIS: 70007,2271. FIDOnet(EchoMac): 161/444. Voice: [415] 549-BMUG.

This trick was inspired by an offhand remark by Dan Winkler at a HyperCard seminar. I aspire to attain his goal of writing poetry in HyperTalk.

— Raines Cohen / Leader, BMUG HyperCard Scripting SIG

Apple's Holiday Poem
DL from AppleLink

(This poem went to the AppleLink HyperCard User Groups just before the Christmas holiday. It reaches you a little late due to publishing deadlines, but we thought that you'd like to know that Apple took a moment to send this to those that have supported Apple products through thick and thin. After bouncing through several electronic mailboxes, it has wended its way from the editor of "Windoid" to Mini'app'les. Ed.)

From: LEANSE1   Leanse, Ellen
To: UG$ User Groups
Sub: $Holiday Poem about HyperCard
         Forwarding some Holiday cheer!

In the beginning there was mirth
about the first computers birth.
The numbers were small, there was quite a dearth
'cause the things were near as big as the Earth.

As things got smaller you see
computers appeared as many as leaves on a tree.
They were faster and smarter and I got one for me
then I learned that to train it I needed a PHD.

Well I hacked and I hewed and programmed 'tee hee'
in Pascal, Assembly, and C.
Then in August there came from Atkinson fame
a program that let me truly be me.

HyperCard was its name and true to the game
it allowed me the freedom to see
that programming the Mac took only a nack
and this Christmas that is just where I'll be.

Merry Christmas and a Very Happy New Year.

Forwarded by:
David Leffler

Press Releases from "Claris"

Editor's note: The following articles were downloaded from AppleLink just one day before going to press! Some minor editing has been performed to consolidate similar press releases.

Claris Introduces MacDraw II

*C*laris Corporation announced January 11 MacDraw II, an all new version of the Apple Macintosh software tool that set the personal computer industry standard for object-oriented drawing applications.

MacDraw II is a totally rewritten version of the original package, which was the first to bring high-quality object-oriented graphics to average computer users. MacDraw II is three to 10 times faster than other drawing programs including MacDraw. It satisfies user needs in graphic arts, presentations, desktop publishing and computer-aided design by providing color capabilities, more flexibility and more precision.

MacDraw II will run on all current Macintosh models and on the discontinued Macintosh 512K Enhanced. MacDraw II can read and revise all files created with the original MacDraw.

"The growing popularity and complexity of graphics produces demands for more speed, flexibility and precision options," said John Zeisler, vice president of marketing for Claris. "We completely overhauled MacDraw to meet users' needs for now and years to come."

The new, highly optimized software code is designed to eliminate screen redraw and to take full advantage of the Macintosh it is running on. MacDraw II provides on-screen color as well as output in color for color separations. Users can customize up to 16,000 different monochrome or color patterns. Color output can be specified and controlled, even while using monochrome displays. Layering capability is virtually unlimited—up to 500 layers on a one-megabyte Macintosh—and the overlapping transparent layers can be hidden, shown and rearranged in any order.

Precision features include a zooming capability that enlarges a drawing area up to 32 times or down to 3 percent of its original size, offering a drawing accuracy up to 2,000 dots per inch. Ruler settings can be customized for drawing to any scale from inches to miles, centimeters to kilometers. Objects and text can also be rotated at any angle from zero to 360 degrees in increments as small as 1/100 of a degree.

Other enhancements include libraries of named objects, stored for ready recall; single-letter type font; style and size editing capability; and nine user-defined views within a document, allowing the user to move rapidly from one place to another. In addition, it is possible to customize pen widths, dashed lines and patterns. A plotter driver is provided for output to selected plotters up to "E" size from Hewlett-Packard and Houston Instruments.

Claris supports MacDraw II with a 400-page manual and beginning and advanced training disks.

MacDraw II will be available in the United States in the second quarter of 1988 at a suggested retail price of $395. **Demonstrating commitment to its large installed base of users, Claris is offering an upgrade to all registered MacDraw owners for $100.** To receive the upgrade, MacDraw owners will be required to send in their original disk. The original MacDraw will be sold at $195 until MacDraw II becomes available through authorized Claris dealers.

Claris will have English versions of MacDraw II available upon release in over 40 countries including Britain, Canada, Australia and Japan. Other language versions will be available shortly thereafter

MacPaint 2.0

Rejuvenating the original painting program for personal computers, *Claris Corporation* announced on January 11, MacPaint 2.0, a powerful, free-form graphics tool for the Apple Macintosh personal computer. The new version features multiple windows, "tear-off" tool palettes, and a "Snapshot" function for selective retouching.

MacPaint, the very first application ever written for the Macintosh, is the most popular graphics program for the machine. It has been widely used both by design professionals who require free-form sketches or special effects and by novices who need presentation-quality business graphics quickly and easily. MacPaint 2.0 retains the ease of use associated with the original program, while offering significant enhancements over the previous version.

"MacPaint 2.0 extends the standard for painting software," said John Zeisler, vice president of marketing for Claris. "To include the most requested features and work dependably with new hardware and system software, we completely rewrote the program to make MacPaint 2.0 a great product for everyone from graphic designers and desktop publishers to first-time Macintosh users."

MacPaint 2.0 is compatible with the Macintosh 512K Enhanced, Macintosh Plus, Macintosh SE and Macintosh II models.

The "tear-off" menus allow users to take advantage of large Macintosh monitors by locating tool and pattern palettes anywhere on the screen, while users of the standard Macintosh screen may opt to keep one or both palettes hidden under the menu bar. Another benefit for small screen users is automatic scrolling of drawing and selection tools. An innovative new "Snapshot" feature lets users return any portion of a drawing to the way it appeared in a previous version. Used in conjunction with the "magic eraser", Snapshot can be a powerful retouching tool. To edit drawings more accurately and efficiently, MacPaint 2.0 now includes the capability to use all the drawing tools when viewing a document at 50, 200, 400 or 800 percent.

MacPaint 2.0 is designed to preserve existing software investments through a file format that retains the use of original files and is compatible with all Macintosh desktop publishing (DTP) programs, some MS-DOS packages, and thousands of "clip art" images. It provides full-size, 8-inch by 10-inch page display support on large-screen monitors.

Claris is supporting MacPaint 2.0 with a 170-page manual that includes Tutorial, Reference and Using sections.

MacPaint 2.0 is available in the United States at a suggested retail price of $125. Registered MacPaint owners who purchased the product after December 14, 1987 can receive a free upgrade. **Other MacPaint owners can purchase the enhanced version for $25.** To receive the upgrade, MacPaint owners will be required to send in their original disk. MacPaint 2.0 will be available through authorized Claris dealers.

This month, Claris will have English versions of MacPaint 2.0 available in over 40 countries including Britain, Canada, Australia and Japan. The French version of MacPaint 2.0 is expected in the first quarter 1988 with German, Swedish, Dutch and Italian versions to follow shortly.

MacWrite 5.0

Claris Corporation announced January 11, MacWrite 5.0, an enhanced version of the most widely used word processing software program for Apple Macintosh personal computers.

MacWrite has an installed base of more than 600,000 users. MacWrite has consistently pleased users because it is not only simpler than other word processors, but is also a versatile tool for defining how word processed

documents look. It is a straightforward and intuitive product that allows users to easily manipulate fonts and font sizes and to integrate graphics and text.

The new version features a built-in spelling checker with a 100,000-word dictionary, as well as the capability for users to build specialized dictionaries.

Other enhancements include keyboard shortcuts for cursor control and for frequently used functions such as inserting rulers, selecting text, and closing, saving and printing documents and files. MacWrite 5.0 also supports large-screen monitors, allowing full page display of documents. The new version continues to provide the easy-to-use interface which was the trademark of the original MacWrite.

"As Macintosh continues to build momentum and acceptance in all its markets, products are becoming more complex and specialized," said John Zeisler, vice president of marketing for Claris. "The enhancements added are the most frequently requested by users and will help us continue to serve general-purpose word processing needs."

MacWrite 5.0 is compatible with all Macintosh models from the 512K Enhanced through the Macintosh II, with System 3.2 or later, Finder 5.3 or later, and with MultiFinder and AppleShare.

Claris is supporting MacWrite 5.0 with a 135-page user manual that includes Tutorial and Reference sections.

MacWrite 5.0 is available immediately in the United States at a suggested retail price of $125. Any MacWrite owner can upgrade to Version 5.0 for $25. Free upgrades will be provided to users who purchased Version 4.6 after Dec. 14, 1987. To receive the upgrade, MacWrite owners will be required to send in their original disk.

This month, Claris will have English versions of MacWrite 5.0 available in over 40 countries including Britain, Canada, Australia and Japan. A British version of MacWrite 5.0 will also be available this month and will include in the spelling checker a British dictionary. A French version of MacWrite 5.0 is also expected in first quarter 1988, with German, Swedish, Dutch and Italian versions to follow shortly thereafter.

MacProject II

Claris Corporation introduced MacProject II January 11, a significantly enhanced version of its best-selling project management program MacProject. Addressing the needs of project management professionals, MacProject II provides powerful capabilities, while retaining MacProject's easy-to-use graphic interface.

MacProject II is designed for project managers, planning consultants, architects, engineers and construction planners who must efficiently manage projects, regardless of their size. The program's intuitive interface enables users to concentrate their efforts on project deadlines, budgets and workforce availability.

MacProject II includes many new features that are optimized for managing intricate projects. These include the ability to manage an unlimited number of tasks per project. Subprojects can now be linked and consolidated with other projects. Multiple resource calendars (up to eight) allow users to customize work calendars according to resource availabilities. Planned and actual task status are displayed in the Schedule Chart, Gantt charts and in the Project Table. And Resource Histograms allow planners to graphically display resource usage.

"MacProject II includes many of the features most requested by users, making it a very powerful program," said John Zeisler, vice president of marketing at Claris. "Many project management programs are powerful, yet they're difficult to use. MacProject II offers the power to compete with the top project management programs, but with the ease-of-use of the Macintosh."

MacProject II is compatible with the Macintosh 512K Enhanced, Macintosh Plus, Macintosh SE or Macintosh II computer.

MacProject II uses color displays to highlight critical paths, milestone tasks, subproject links and cash flow, which makes important information accessible. Actual, planned and completion status for each task is graphically and numerically recorded and displayed. Learning time is reduced because of the easy and immediate visualization of activities in the Schedule Chart and Timelines.

Charts and reports are also easily customized and can be sized to fit output needs from a reduction to 25 percent of original to a 400 percent enlargement using Apple's Laser-Writer. Charts can be output to selected "E" size plotters from Hewlett-Packard or Houston Instrument for oversize printing and for color printouts, and to all of Apple's ImageWriter and LaserWriter printers.

Files created with MacProject are compatible with MacProject II, allowing users access to already existing MacProject documents. Multiple users can gain access to shared data through an AppleShare file server.

As part of its commitment to helping customers gain software proficiency, Claris is supporting MacProject II with a 350-page user

manual and beginning and advanced interactive training disks. In addition, Claris is providing 14-hour-a-day customer support telephone service, free to registered users. Claris also offers registered users a 90-day free disk replacement guarantee for any damaged software. Questions are answered by Claris' own customer support personnel.

MacProject II will be available this month in the United States for a suggested retail price of $495. MacProject owners can upgrade to MacProject II for $145. To receive the upgrade, MacProject owners will be required to send in their original disk. MacProject will be available through authorized Claris dealers.

This month, Claris will have English versions of MacProject II available in over 40 countries including Britain, Canada, Australia and Japan. The French version of MacProject II is expected first quarter 1988, with German, Dutch and Swedish versions to follow shortly.

Claris Corporation, formed in April 1987, develops and markets Macintosh and Apple II application software. Claris' product line includes software packages originally published by Apple Computer Inc.—MacWrite, MacDraw, MacPaint, MacProject and Apple-Works—as well as SmartForm Designer and SmartForm Manager. As Claris continues to make the transition from an Apple subsidiary to an independent company, it will direct its efforts toward developing, acquiring, publishing and supporting a broad portfolio of applications.

New LaserWriters from

LaserWriter II Family Printers

Tprinting capabilities. Each member of the LaserWriter II family is capable of producing a full page of text and graphics at a resolution of 300 dots per he LaserWriter IISC, LaserWriter IINT, and LaserWriter IINTX offer a broad range of inch (dpi). Also common to the family is a second-generation print engine, offering:

- Improved print quality
- Higher reliability
- Enhanced paper-handling capabilities

The LaserWriter II family incorporates a unique modular design that provides you with a full upgrade path. Each printer consists of a controller board and a second-generation print engine. The print engine is common to all three members of the family, making the controller boards interchangeable. As a result, customers can upgrade a LaserWriter IISC to a LaserWriter IINT or LaserWriter IITX, or a LaserWriter IINT to a LaserWriter IINTX, while preserving their original investment in the print engine.

The second-generation print engine has several features that are shared by the entire LaserWriter II family. All the new printers use a new toner cartridge that lasts 25% longer and provides darker blacks than previous cartridges. These printers are more convenient to use with features such as:

- Manual feed slot with guide for envelopes and labels
- Face-down output bin for collation of up to 100 pages
- Integral face-up output tray for heavy gauge paper
- Removable 200-sheet, letter-size paper cassette

Optional features include:

- 200-sheet, legal-size paper tray
- 15-sheet envelope tray

The original LaserWriter and LaserWriter Plus printers are no longer available, although Apple will continue to service and support them.

The Letter Cassette, Legal Cassette, and Toner Cartridge for the LaserWriter and LaserWriter Plus will continue to be available for ordering. The LaserWriter Plus Kit will still be available for upgrading a LaserWriter to a LaserWriter Plus.

Each new LaserWriter printer requires installation of its respective controller boards. However, due to the expense of the boards and their sensitivity to Electrostatic Discharge (ESD), Apple strongly recommends that only authorized Apple service providers install the LaserWriter II controller boards. Although the Apple Limited Warranty will not be voided by user installation, please be advised that ESD damage can cause degradation of the board at a later date.

LaserWriter IISC

The LaserWriter IISC is Apple's entry-level, single-user laser printer. It brings the individual Macintosh user full-page, high-resolution text and graphics at an affordable price.

The LaserWriter IISC features a 68000 microprocessor providing high-speed performance. A SCSI interface provides high-speed data transfer for faster printing.

Because it relies on QuickDraw in the Macintosh instead of PostScript to process documents, there are no fonts resident in the LaserWriter IISC.

The LaserWriter IISC is compatible with the Macintosh Plus, Macintosh SE, and Macintosh II computers, and connects through a SCSI port.

- *LaserWriter IISC with Toner Cartridge and Letter Cassette (M6200)*

LaserWriter IINT

The LaserWriter IINT is Apple's mainstream network laser printer that is ideal for producing sophisticated text and graphics. The LaserWriter IINT features a 68000 microprocessor, providing fast 300 dpi output. It also offers 2MB of RAM and 1MB of ROM, allowing you to store a wide variety of fonts. Eleven font families (35 typefaces) are included with the LaserWriter IINT.

The LaserWriter IINT features built-in support for the AppleTalk Personal Network, allowing up to 31 users to share the printer. The LaserWriter IINT works with any software that outputs PostScript-compatible files, offering unlimited flexibility in creating and manipulating text and graphics.

An RS-232 port provides easy connection to MS-DOS computers. The LaserWriter IINT supports the Diablo 630 Emulation Mode; MS-DOS users can access the printer by purchasing an AppleTalk PC Card or the appropriate RS-232 cable.

The LaserWriter IINT is compatible with Macintosh Plus, Macintosh SE, Macintosh II, and Apple IIGS, as well as the Apple LaserShare Print Spooler.

- *LaserWriter IINT with Toner Cartridge and Letter Cassette (M6210)*
- *LaserWriter IINT Controller CArd (M6009)*

LaserWriter IINTX

The LaserWriter IINTX is a high-performance, expandable network laser printer for individuals and workgroups.

The first laser printer from Apple to feature a 68020 microprocessor running at 16 Mhz, the LaserWriter IINTX prints significantly faster than previous LaserWriters. The LaserWriter IINTX is configured with 2MB of RAM and 1MB of ROM. Eleven font families (35 typefaces) are included with the LaserWriter IINTX.

The LaserWriter IINTX features several expansion options—up to 12MB of ROM. When expanded, its capacity for downloading typeface fonts is increased and page processing and printing is even faster. An external SCSI port lets users connect up to seven external hard disks for the storage of additional fonts. Font expansion cards, to be offered by third parties, can be installed directly in a single slot in the controller board, increasing the number of high-speed ROM-resident fonts in the printer.

The LaserWriter IINTX features built-in support for the AppleTalk Personal Network and works with any software that outputs PostScript-compatible files.

An RS-232 port provides easy connection to MS-DOS computers. The LaserWriter IINT support Diablo 630 and LaserJet Plus Emulation Modes. MS-DOS users can access the printer by purchasing an AppleTalk PC Card or the appropriate RS-232 cable.

The LaserWriter IINTX is compatible with the Macintosh Plus, Macintosh SE, Macintosh II, and Apple IIGS, as well as the Apple LaserShare Print Spooler.

- *LaserWriter II NTX with Toner Cartridge and Letter Cassette (M6215)*
- *LaserWriter IINTX Controller Card (M6004)*
- *LaserWriter IINTX 1MB Memory Expansion Kit (M6005)*
- *LaserWriter IINTX 4MB Memory Expansion Kit (M6006)*

Mac Tech Tidbits

Edited by Sue Goodin (Charlotte)

Tips, Hints and Techniques - Macintosh Windows

Did you know that you can close ALL the windows on your Desktop by holding down the OPTION key when you close any one window? [This will not work on a 128K Macintosh.]

Did you know that you can move an inactive window without first clicking on it to select it by simply holding down the COMMAND key while moving it?

Did you know that you can align your files and folders along the invisible grid on the desktop by holding down the COMMAND key while dragging them?

Did you know that there is an alternate way to clean up windows than simply selecting the "Clean Up Window" option under Special? Hold down the OPTION key when you choose Clean Up, and your files and folders will align themselves in neat rows from left to right!

Did you know that you could arrange your files/folders in alphabetical order without dragging them around manually and placing them in alphabetical order by ....

1. Selecting View By Name.
2. Select All.
3. Drag all selected files/folders to your desktop (do not deselect them).
4. Select View by Icon.
5. Drag all files/folders back to your folder.
6. Select Clean Up while holding down the OPTION key.

I'm Tired of Those Same Old Default Fonts...

Q: I would like to change the default fonts in a number of programs. How can I do this? Do I have to change the default font in EACH application, or is there some utility that I can use?

A: There is no provision provided for changing the default font. One workaround that you may wish to utilize to save you time in changing fonts all the time is to select the font that you want to use as the default, then save the otherwise blank worksheet/document, perhaps with margins, tabs, etc., preset to your particular need. Each time you now go to the application, instead of opening the application program, open the document with the font of your choice selected instead. When you save your document, use the Save As command and rename the document, and your set-up file will always remain intact.

Changing Default Fonts submitted by Mike Blumenthal, Blumenthals

It is in fact possible to change the default fonts on the Macintosh. The default font is controlled by a byte in the parameter RAM. There are two easy ways to control this byte: "Afonts", a Desk Accessory, and "PRAM" an application, both in the Public Domain, and available from a variety of bulletin boards and user groups. "Afonts" controls the default system font, and "PRAM" is a replacement for the control panel and allows you to change defaults for all the parameters controlled by the parameter RAM. Both work well and are particularly useful in a DTP environment. [Editorial Note: This may not apply in all cases, as the default font can also be application dependent.]

Times 9 Font Squeeze

Q: When I open a document typed in Times 9 or 10, then open it using a System file without Times 9 or 10 present and print it to the LaserWriter, the resulting print is vertically "squeezed." What's the explanation?

A: If the font or font size with which a document was originally created is not available on the current System Disk, the Mac will substitute another font so that it can display the text on the screen. This "recreated" font, of course, is extrapolated from the information the computer has available, and will not be an exact duplicate of the original font. The solution is to install the fonts you are working with in your System folder. Alternately, you can install fonts directly into your application program by holding down the Option key when using Font/DA Mover. This will permit you to install fonts and DA's, in fact, into applications. Since the font is attached now to the application, the System file has access to it, and you will not run into the problem you cite.

Command-Shift-4 is Fickle?

Q: I have two Macs. On one, when I use the Command-Shift-4 to print the active window to my printer, everything works fine. When I tried the same thing on the other unit, it prints the entire screen. Is it just being whimsical?

A: Command-Shift-4 has two modes. If the Caps-Lock key is up when this combination is depressed, you will get a print of the current window. If the Caps-Lock key is down, then this combination will produce a print of the entire screen. This option will not work at all when the current printer is a LaserWriter.

Disobedient AppleTalk Chooser?

Q: I'm having problems printing to an AppleTalk ImageWriter. I enter the Chooser, select the ImageWriter, then exit. When I try to print, the print box comes up, but then I'm told that no AppleTalk ImageWriter has been selected. Do I have to re-install the AppleTalk ImageWriter or am I experiencing an incompatibility with my FX40?

A: There are two steps to choosing an AppleTalk device. When you enter the Chooser, you first have to select the type of device you want to communicate with by selecting the icon in the left hand window. When you do this, the device name(s) are displayed in the right side window. You must now tell it which of those displayed you want to use by clicking on one of them. You must do this even if there is only one device listed. It sounds like you did not complete step two of the process.

Happy Mac, Sad Mac Schizophrenic or Playful?

Q: My drive is not recognized as initialized. Starting from the Hard Drive, I get a Happy Mac, then the "?" disk Icon screen. When starting from diskette or the chained HD20SC, I get the message "Disk Damaged...Initialize?" dialog box. The data is still resident but the rebuild directory option is not available.

A: The problem you are having is caused by a damaged/missing directory on the hard drive. The reason you get the Happy Face is that good boot blocks are present. The ? mark comes up when the Mac can't find the directory and drive information. There is no Apple solution to recover from this type of a problem. You will need to reformat your hard drive.

Kanji Macintosh ROMs

John Murata of Apple Technical Communications was kind enough to pass on this information about a question on Kanji. Says John, "There is a difference between the Kanji Macintosh ROMs and the US Macintosh ROMs that goes beyond the Fonts and Fonds. The Kanji system accepts typed Katakana

Mac Tech Tidbits, concluded

characters (an alphabet of Japan) and replaces it with a Kanji character (a character for an entire word or phrase). This is embedded in the system software available through APDA. The Kanji system software patches the ROM routines of the US Macintosh. By patching, I mean it loads the new routines and sets the ROM vector table in memory to point to the new routine. A Katakana keyboard is not available for sale in the US by Apple." Although there may be a third party vendor who has Katakana keyboards for sale in the U.S., we have been unable to locate such a source to date.

SCSI and HyperDrive FX submitted by Herb Philpott, General Computers

It has come to our attention that HyperDrive FX/20 owners are able to reformat and load the Apple hard disk driver onto our product using the HD Setup SC utility making our software cease to function. Here is our workaround for getting out of the situation:

1. Boot from the HyperDrive FX Installation disk (3.10 is the latest) with the FX turned OFF. (Note some versions of Mac ROM will not allow you to boot with a connected SCSI device turned off in which case boot the Mac with the FX disconnected from the SCSI cable.)
2. At the desktop switch on the HyperDrive FX. (If you had to disconnect it above, reconnect the SCSI cable VERY CAREFULLY. Ground yourself before touching the cables by touching metal on the back of the Mac. Any charge you impart to the SCSI bus could reset the Mac. When the FX is connected, power up.)
3. Wait 15 seconds for it to spin up.
4. Double-click the FX/FI Manager 3.10.
5. The Manager will inform you of the improper format and allow you to correct it.

Note that if the user only did an "Update" in the HD SC Setup application, then it will not be necessary to reformat the drive (lose data) with the Manager—you will be able to update the drive again with the HyperDrive software.

MacTerminal Problem - Downloads OK, Then Turns Into Garbage

Q: One of our Macintosh users has an intermittent problem with MacTerminal, version 2.2. Occasionally when she scrolls back through material she has received, it will appear to be badly garbled, even though it looked OK when it was received. Any suggestions?

A: There is an option in MacTerminal to permit you to save screens before clearing. This option should be turned on. Some online services use a system that has a clear screen function which may be creating the corruption you describe.

Error Code 8133

Dennis Brennan of Cricket Software has just advised us that they have tracked down the mysterious Error Code 8133 which will occasionally haunt a Cricket Draw user, then seemingly disappear, never to be seen again.

THE FIX: Once you have copied your Cricket Draw program onto your hard disk, enter the Page Set Up section, and even if you change nothing, be sure to click on the "OK" box. This will permit Cricket Draw to correctly identify the LaserWriter, and the 8133 Error Code will not be displayed. Our thanks to Dennis and Cricket Software for sharing this information with us, and for their continued support in providing us with timely items for Tech Tidbits.

Apple File Exchange and Apple 5.25" PC Drive

Q: Help! We finally got PC Drive and card. Installation went well; it was actually easy! Upon booting, however, we found out that the Finder does not recognize or provide an icon for the PC 5.25" Drive.

A: The PC Drive Card does not see any icon for the 5.25" PC Drive. It will only sees files and folders (directories) on the drive during a transfer operation using Apple File Exchange.

Out of the primordial soup, another MacGroup!—HyperCard SIG

by Tom Edwards

Y ou didn't notice, did you? The months now have 32 days. They must have. That's the only way that I could squeeze in another Mac meeting during a month! And I did it in January, so there must be 32 days in a month now!

You say "What's left for another Mac SIG? Knitting with your Mac? Skateboarding with your Mac? A Zen auto repair Mac SIG?" No, it's one of the hot programs talked about in all of the Mac magazines... and even some of the non-Mac publications, too!

HyperCard!

Mike Carlson extended an invitation, on behalf of **Hagen Office Equipment**, to host the first Mini'app'les meeting devoted to HyperCard. About 35 folks took him up on the invitation, swelling the classroom at Hagen's for this January meeting. After some initial organizational discussion, we were ready to get to the heart of the meeting, learning about HyperCard, the Mac erector set. By necessity, and interest, we quickly divided into a "novice" and an "advanced" group; about a 2 to 1 ratio. That eased the bulging walls a bit, as the "advanced" group headed for a second, smaller room outfitted with a Mac II.

Having just composed my first "stack", I figured that I would be most comfortable with the "novice" group... a wise decision as it turned out. Even within this group, there was a wide range of interests and accomplishments. Some of the questions and objectives were pretty heady, yet there was a tempering with refreshing, but totally needed, questions like "what's a 'button'?"

After thinking that the first meeting was destined to not run long, I was surprised to find that after 2-1/2 hours of questions, answers, definitions and experiences, the group grudgingly called a recess until next month. There were promises to bring specifics next time. The group will tackle the task of actually designing a stack, from start to finish.

Well... "finish" might be the wrong word, when it comes to HyperCard. Maybe "temporary pause" would be more appropriate. After my first try at stack building, it's very obvious that as soon as you hit the power-off switch, something pops to mind to add or change in your stack. So on comes the power one more time... and soon it's 2:30 in the morning.

Ah, heck. Why bother heading for bed. The alarm will be going off in just four hours anyway. Maybe if I just changed the script this weensy, tweensy bit...

More bytes later...
TWE

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"Valentine Memories"
by Steve George

Remember those little candy, valentine hearts that you'd give to all your friends, back when you were in grade school? Well, a recent purchase of said candy confirmed that many of the phrases have remained true, while some words/phrases have been added, trying to keep them up-to-date. These shorter words can make this month's Word-Finder Puzzle more difficult than many. Good luck! And, happy Valentine's Day, pal(?).

There are 32 words/phrases here - Can you find them all?

Here are the ones to look for:

A OK	FAIR BOY
ATTA BOY	FAR OUT
BE MINE	FOR EVER
BE TRUE	GOOD BYE
CHA CHA	HI LOVE
CUTEY PIE	HONEY BE
DROP IT	HOT LIPS
DROP ONE	HOW NICE
	HUG
	IT'S TRUE
	KISS KISS
	KISS ME
	LOVE YOU
	MY HONEY
	MY LOVE
	MY MAN
	MY PAL
	NICE GIRL
	SUPER
	SWEET DOLL
	TRUE LOVE
	WHAT?
	WHO?
	YOU BET

Solution on Page 13

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Y A R N B G P S E N E J E N H F A E X K
T D H Q Q W O O P M T V Y O X R V L I T
O I D C X C K A   S O E W R S O U U Y H
M G   C   O R S I L T     B P L V T E O R
R Y J P H A S E   W N F I   O G V X B J
D L   X O I H I U I A L Y A U O N R   S
C O X M K R H C C R   M   S L O N W A K
O V A F A D D E U T T O W   U B Y E T Y
I E Q A G N J F O M K   E B F P Y N T A
K   H I N H A H C J L U S J F B E W A Y
W Y U R V K Y Q Y I R W Y `   I C R E T
H O G   V B X Z X T R Z M D T E T N K U
A U H B E N I M   E B E O H J I O I D O
T L L O D   T E E W S O V Z G H S R W
? I R Y N S B C F U G V X E   S O F H R
L R I G   E C I N C U T E Y   P I E O A
L A P   Y M Y W K P Z B M K   R X Y ? F
Q E I L D R O   J T M D I O E R O Q M J
L K S O W B X D B S E S N P L X A F Y U
R M U U Q N S A X E S E R V A F B O O E
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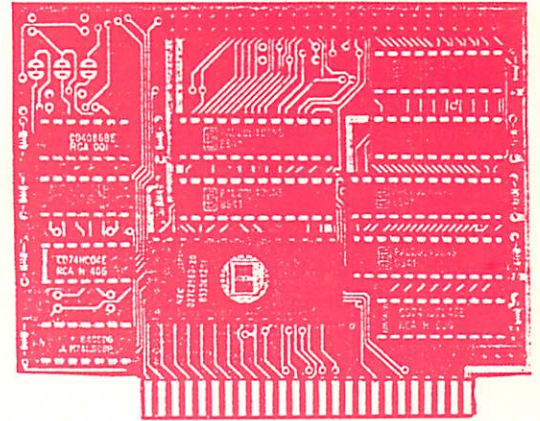
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