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Washington Apple Pi

The Journal of Washington Apple Pi, Ltd.

Volume 9 December 1987 Number 12

Highlights

- IIGS Stuff: More Finder
- Tech Tidbits
- Print Shop For the Apple IIGS
- C and the Apple II
- HyperCard
- Softviews: Pict-O-Graph and Quick Keys

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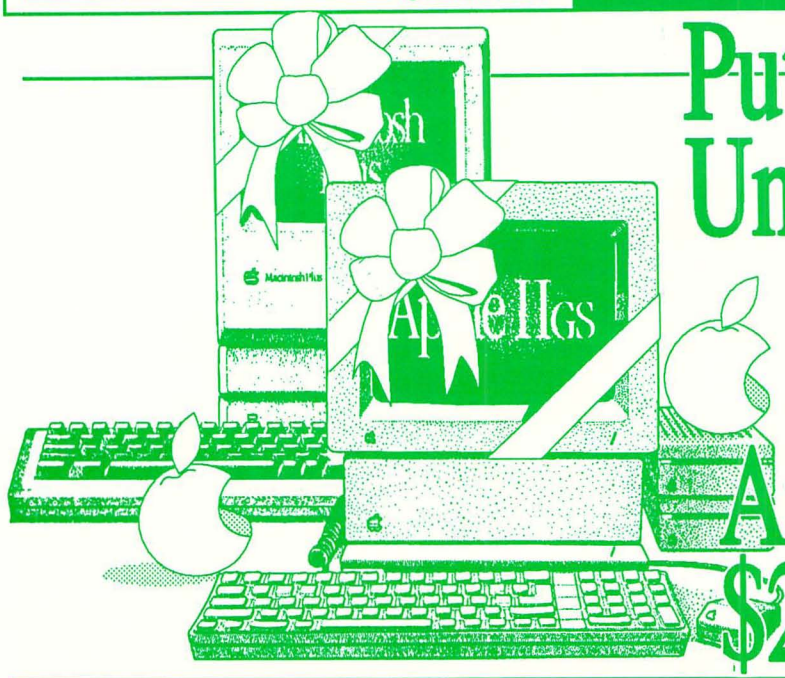

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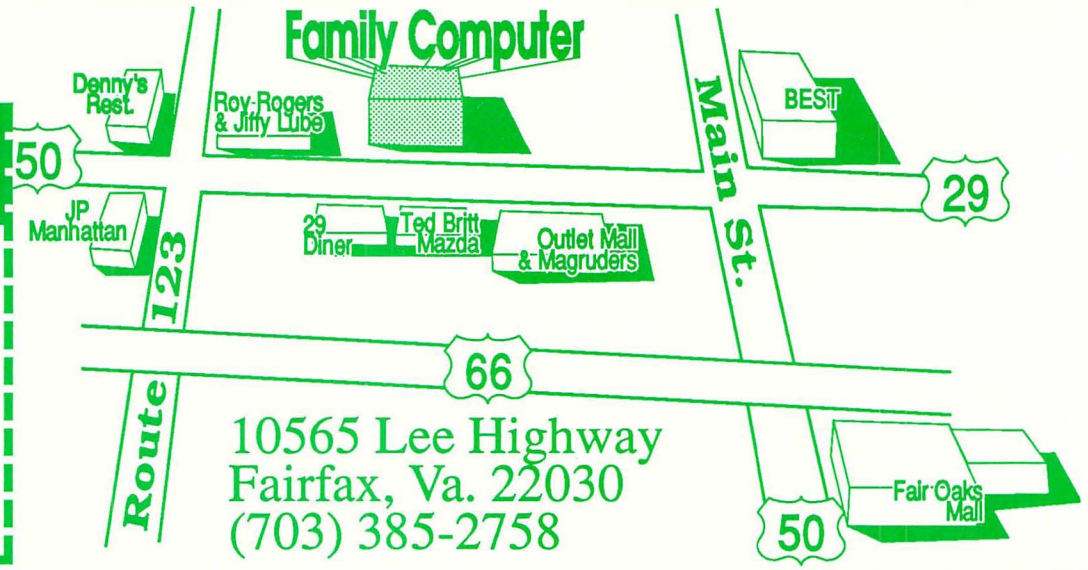

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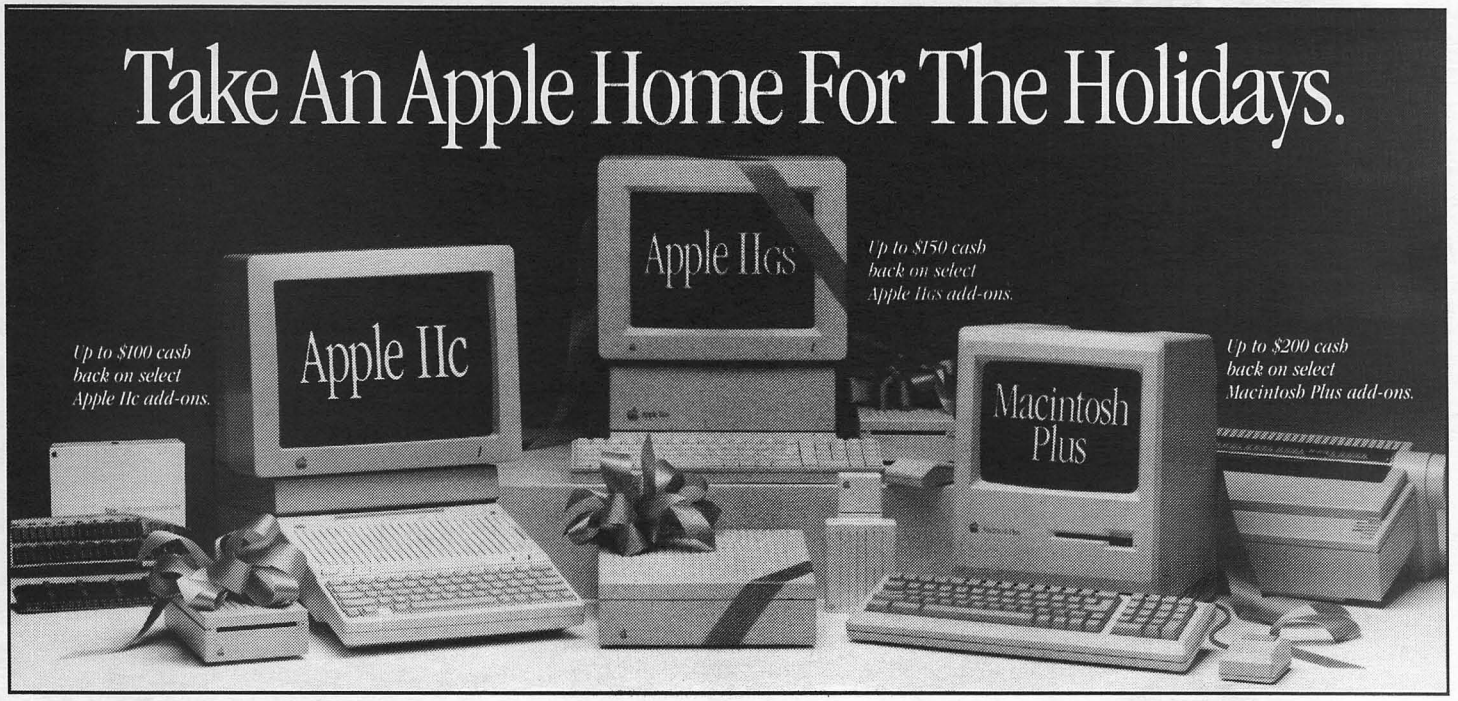

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EDITORIAL

Were you there? If not, why not? We were indeed fortunate to witness another excellent presentation by Bill Atkinson. We were overwhelmed in 1984 when he, in the company of Burrell Smith, Andy Hertzfeld, Randy Wiggington and the Woz, first exposed us to the wonders of MacPaint. We were fascinated by Bill this time as he put his latest work, HyperCard, through its paces. So for you Mac folks, we have a dozen pages of articles, commentary and photos on HyperCard. Thank you Cynthia Yockey, Rick Chapman and John Love for your articles, and thank you Robert Platt for capturing the Q & A session, and Bill Baldridge for also capturing the animated discussion on the WAP TCS. A special thanks to Peter Combes for his photos. Now, all you Apple II owners out there, wouldn't it be nice if some bright folks in Silicon Valley (or elsewhere) would fashion a card for the IIgs which could run all Mac programs including the HyperCard? Wooodn't that be lover-ly?

Let us know how you like the Tech Tidbits column. It comes out frequently and is, to us, a labor of love by Sue Goodin and others of Apple Computer in North Carolina. They also cover Mac topics as well. Do you want more? **Happy Holidays.**

PRESIDENT'S CORNER

by Tom Warrick

The *snows* of *Veterans' Day* are almost completely melted as I write these words, but the twelve inches that fell in mid-November serves to remind me to mention Washington Apple Pi's *policy on cancellation* of general meetings if there is snow. Generally, we do not cancel meetings for bad weather. (This probably has something to do with the fact that many of the club's officers come from places like central Missouri, upstate New York and northern Illinois, where no one would think of cancelling school or letting people off work early merely for *snow*. Can you imagine what the Soviet leaders must think when they hear that Washington, D.C. shuts down for a few inches of snow?) Occasionally, when the snow accumulation is too much for the area's road-clearing equipment, or when there is ice on the roads, we may have to cancel a meeting. If we do, we will contact these radio stations to ask them to pass the word: *WETA* (FM 91), *WMAL* (AM 630), *WRC* (AM 980) and *WTOP* (AM 1500). We will also try to post a message on Board 1, Conference 1 of the Telecommunications System (TCS). Do not rely on the answering machine at the Pi office—if we can't get to the meeting, we can't get to the Pi office to change the message, either. But most importantly, if you feel it would not be safe to venture out, please don't.

Special interest group meetings are somewhat more likely to be cancelled because of snow. In case of doubt, contact the Pi office, check the TCS, or contact a SIG officer.

Speaking of meetings, two other matters. We hope to *change* our *meeting location* beginning in January. We do not have the details completely worked out, and, indeed, may still be at USUHS in January. We will make announcements at the November and December meetings, and will, of course, tell you through the Journal.

Finally, I am pleased to report to those (few) of you who did not attend our special meeting on November 7 that *Bill Atkinson's* visit here to show off *HyperCard* was a spectacular success. Many people came up to me afterward to say that it was one of the best Pi meetings yet. Before the meeting, Bill asked us how much time he would have—he was prepared to trim his presentation to whatever time we had available. Well, that was an easy question to answer! But, alas, Bill would not stay for a month. Seriously, Bill, who has spent many of his working days on the road giving HyperCard presentations to user groups and others, was most gracious to spend the entire morning with us, and to stay afterward for a lengthy question and answer session. For those who were not able to attend, Pi member *Jim O'Brien's* video firm was kind enough to tape the meeting at no charge to the Pi. We are now working out the details as to how we can share this tape with our members and other user groups. Watch this space for further details.

On another subject, let me ask a question going around my house now: In the post-Black-Monday world, are people going to find a way to save up for one of Apple's new Macintoshes? The CD-ROM drive? New LaserWriters? Wait until January!

GENERAL INFORMATION

Apple user groups may reprint without prior permission any portion of the contents herein, provided proper author, title and publication credits are given.

Membership dues for Washington Apple Pi are $32.00 for the first year and $25.00 per year thereafter. If you would like to join, please call the club office or write to the office address. A membership application will be mailed to you. Subscriptions to the Washington Apple Pi Journal are not available. The Journal is distributed as a benefit of membership.

Mailing Notice: Change of address must be postmarked at least 30 days prior to effective date of move. Journal issues missed due to non-receipt of change of address may be acquired via mail for $2.50 per issue.

Current office hours are:

Monday - Friday	- 10 AM to 2:30 PM
Tues. & Thurs.	- 7 PM to 9:00 PM .
Saturday	- 12 Noon to 3:00 PM

Please note that the office is closed on all U.S. Government holidays. Members are asked to place phone calls to the office during the day hours Monday - Friday whenever possible, since only one person staffs the office during evening hours and on Saturday.

EVENT QUEUE

Washington Apple Pi meets on the 4th Saturday of each month (except December—3rd Saturday) at the Uniformed Services University of the Health Sciences (USUHS), on the campus of the Bethesda Naval Medical Center, 4301 Jones Bridge Road, Bethesda, MD. Disketeria transactions, Journal pickup, memberships, etc. are from 8:45-9:30 AM and during the Q& A sessions (times for these vary according to the main meeting topic). The business meeting is from 9:00-9:30.

A sign interpreter and reserved seating can be provided for the hearing impaired, but we need 5 business days notice. Call the office.

Following are dates and topics for upcoming months:

December 19*	- Garage Sale, Walt Whitman High School Cafeteria, 7100 Whittier Blvd. Bethesda, MD
January 23	- High-Tech Toys, tentative

* 3rd Saturday

The Executive Board of Washington Apple Pi meets on the second Wednesday of each month at 7:30 PM at the office.

* December 1987 *

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Apple IIgs Beginning Tutorial #1 7:30-9PM Office	2 Mac. Progmrs. 7:30 PM Office; dPub SIG 7:30 PM PEPCO	3 GameSIG 7:30 PM Office	4	5 Word 3.0 Tutorial 1-3 PM Office
6 Deadline for Journal articles is Tuesday, December 1.	7 PI SIG 7:30 PM Office	8 Apple IIgs Beginning Tutorial #2 7:30-9PM Office	9 Executive Board 7:30 PM Office	10 Stock SIG 8:00 PM Office	11	12 Frederick Slice Annapolis Slice Music SIG
13	14 Introduction to Macintosh Tutorial - Office 7:15 - 10 PM	15 Apple II Beginning Tutorial #3 (AW) 7:30-9PM Office	16 Apple /// 7:30 PM Office	17 Pascal SIG 8:00 PM Office	--> HyperTalk Tutorial, 1-4 PM Office, Dec. 19	19 WAP Garage Sale - Walt Whitman HS
20	21 Intermediate Mac Skills Tutorial - Office 7:15 - 10 PM	22 Mutual Fund Sub Group (Stock SIG) 8 PM Office	23	24 Christmas Eve Office Closed HAPPY	25 Christmas Day Office Closed HOLIDAYS	26
27	28 Productivity on Your Mac Tutorial - Office 7:15 - 10 PM	29	30	31		

* January 1988 *

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Office Closed New Year's Day Best Wishes for 1988	2
3 Deadline for Journal articles is Tuesday, January 5 -->	4 PI SIG 7:30 PM Office	5 Apple II +,e,c Beginning Tutorial #1 7:30-9PM Office	6 Mac Progmrs. 7:30 PM Office; dPub SIG 7:30 PM PEPCO	7 GameSIG 7:30 PM Office	8	9 WordPerfect for IIgs Tutor. 9-12 am Office; Music SIG
10	11 Introduction to Macintosh Tutorial - Office 7:15 - 10 PM	12Apple II +,e,c Beginning Tutorial #2 7:30-9PM Office	13 Executive Board 7:30 PM Office	14 Stock SIG 8:00 PM Office	15	16
17	18 Intermediate Mac Skills Tutorial - Office 7:15 - 10 PM	19 Apple II Beginning Tutorial #3 (AW) 7:30-9PM Office	20	21 Pascal SIG 8:00 PM Office	22	23 WAP Meeting. Location subject to change
24	25 Productivity on Your Mac Tutorial - Office 7:15 - 10 PM	26 Mutual Fund Sub Group (Stock SIG) 8 PM Office	27 Apple /// 7:30 PM Office	28 EDSIG 7:30 PM Office	29	30 Disk & File Recovery for Apple II Tutor. 9-12 am Office
31						

SIGNEWS

Apple IIGS SIG meets at 8:00 AM before the regular WAP meeting in the USUHS cafeteria. For information call Ted Meyer at (703) 893-6845.

Apple /// SIG meets on the 4th Wednesday at 7:30 PM in the WAP office. December meeting is Dec. 16 (3rd Wed.).

AppleWorks SIG offers two meeting options: 8:00AM before the regular WAP meeting and 12 Noon after the meeting. Attend either or both.

AV-SIG is the new SIG for arts and video. The next meeting is December 2, 6 pm, 1130-17th St. NW, Suite 600.

dPub SIG (Desktop Publishing) meets on the 1st Wednesday of the month at 7:30 PM in the PEPCO Auditorium at 1900 Penn. Ave., NW. The next meeting is on December 2.

EDSIG (the education special interest group) meets on the 4th Thursday of the month at 7:30 PM at the office.

Fed(eral) SIG usually meets on the third Wednesday of the month. Call the Chairman for details.

GameSIG meets on the 1st Thursday of the month at the office, 7:30 PM. The next meeting will be on December 3.

Mac Programmers meet on the 1st Wednesday of the month at the office, 7:30PM. Next meeting is December 2.

MusicSIG meets on the 2nd Saturday of each month. Call Bill Bittle (301) 236-9898 for details.

PIG, the Pascal Interest Group, meets on the 3rd Thursday of each month at 8:00 PM at the office. New and prospective users are welcome. The next meeting will be on December 17.

PI-SIG (Program Interface) meets on the 1st Monday of the month at 7:30 PM at the office. See their news elsewhere.

Stock SIG meetings are on the second Thursday of each month at the office, 8 PM. The next meeting is on Dec 10.

Telecom SIG meets after the regular meeting on the 4th Saturday of the month.

WAP HOTLINE For Use by WAP Members Only

Have a problem? The following club members have agreed to help other members. PLEASE, keep in mind that the people listed are VOLUNTEERS. Respect all telephone restrictions, where listed, and no calls after 10:00 PM except where indicated. Users of the Hotline users are reminded that calls regarding commercial software packages should be limited to those you have purchased. Please do not call about copied software for which you have no documentation. Telephone numbers are home phones unless otherwise specified. When requests are made to return calls, long distance will be collect.

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A	Peter Combes	(301) 251-6369
A,I	Jeff Dillon	(301) 422-6458
A	Leon Raesly	(301) 439-1799
A,I,M	John Love	(703) 569-2294
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Newsroom	Carol Thomas	(301) 424-1266
Spreadsheets	Leon Raesly	(301) 439-1799
	Walt Francis	(202) 966-5742
Sprdsht.2.0(MagicCalc)	Leon Raesly	(301) 439-1799
SuperCalc Ver. 2.0	Leon Raesly	(301) 430-1799
	Terry Prudden	(301) 933-3065
Word Processors	Walt Francis	(202) 966-5742
Apple Writer II	Dianne Lorenz	(301) 530-7881
	Leon Raesly	(301) 439-1799
Gutenberg	Harris Silverstone	(301) 435-3582
Gutenberg & Jr.	Neil Muncy Can.	(416) 298-3964
Letter & Simply Perfect	Leon Raesly	(301) 439-1799
Magic Window and II	Joyce C. Little	(301) 321-2989
Apple PIE	Jim Graham	(703) 643-1848
ScreenWriter II	Peter Combes	(301) 251-6369
	Gene Carter	(202) 363-2342
Word Handler	Jon Vaupel	(301) 593-3316
Word Perfect	James Edwards	(301) 585-3002
	Henry Donahoe	(202) 298-9107
Word Star	Leon Raesly	(301) 439-1799
	Dana Riel	(301) 350-3283

Apple IIgs

General/Finder	David Todd *	(301) 228-0237
General/Monitor	Neil Walter	(301) 946-4526
General/Paintworks Plus	Paul Tarantino	(703) 455-7670
//e Upgrade	Morgan Jopling	(301) 261-3886
APW	Andy Gavin	(703) 734-3049
	Jim Frison	(703) 525-9395
Deluxe Paint II	Rich Sanders	(703) 450-4371
Newsroom/Pinpoint	Chuck Ward (til 9 pm)	(703) 830-3720
Telecommunications	Dale Smith	(301) 762-5158
VIP-Pro/Multiscribe	Jim Frison	(703) 525-9395
816 Paint/Writr's Ch. El.	Andy Gavin	(703) 734-3049

Macintosh

General	Donald Schmitt	(717) 334-3265
Art and Video	Jay Williams	(301) 9398910
Data Bases		
Helix	Jim Berry *	(703) 662-0640
	Harvey Levine	(301) 299-9380
MS-File	John Love	(703) 569-2294
Omnis 3 and 3+	Paul Tabler	(703) 278-8657
	Jeff Alpher *	(301) 630-2036
OverVue	J.T.(Tom) DeMay Jr.	(301) 461-1798
	Tom Parrish	(301) 654-8784
Desktop Publishing & Graphics	Jay Rohr	(301) 655-0875
ReadySetGo	Jim Graham	(703) 643-1848
	Marty Milrod	(301) 464-5981
Graphics	Bill Baldridge	(301) 779-8271
Full Paint & SuperPaint	Bill Baldrige	(301) 779-8271
HyperCard	John Love	(703) 569-2294
	Holger Sommer	(301) 474-3467
	Rick Chapman	(301) 989-9708
Inside Mac	Jon Hardis	(301) 330-1422
LISA/Mac XL	John Day	(301) 621-7543
MacDraw	Tom Berilla	(301) 434-3256
	Tom Parrish	(301) 654-8784
	John Spencer	(301) 730-1084
MacLion (DBMS)	Mark Miani	(202) 333-0098
MacProject	Jay Lucas	(703) 751-3332
MacTerminal	Jon Hardis	(301) 330-1422
Magic	Joyce C. Little	(301) 321-2989
Power Point	Herb Schwartz	(301) 983-0534
Programming, MS-BASIC	John Love	(703) 569-2294
Spreadsheets	David Morganstein	(301) 972-4263
& Graphics	Bob Pulgino	(202) 797-0879
Excel	David Morganstein	(301) 972-4263
	Mark Pankin	(703) 524-0937
	Jim Graham	(703) 643-1848
	Dick & Nancy Byrd	(703) 978-3440
Multiplan	John Boblitz	(301) 356-9384
	John Love	(703) 569-2294
	Walt Francis	(202) 966-5742
Sidekick	Ray Hobbs (BBS)	(301) 490-7484
ThinkTank	Jim Graham	(703) 643-1848
	Tom Parrish	(301) 654-8784
Word	Marty Milrod	(301) 464-5981
WriteNow	Bill Baldrige	(301) 779-8271

General

Games - Apple II	Charles Don Hall	(301) 864-2715
Games - Mac		
IBM	Ray Hobbs (BBS)	(301) 490-7484
	Leon Raesly	(301) 439-1799
Lotus 1-2-3	Walt Francis	(202) 966-5742
& MS BASIC	Ray Hobbs (BBS)	(301) 490-7484
Math/OR Applns.	Mark Pankin	(703) 524-0937
Modems		
Anchr Mrk 12&BIZ Comp	Jeremy Parker	(301) 229-2578
Hayes Smartmodem	Bernie Benson	(301) 951-5294
Smartcom I	Harmon Pritchard	(301) 972-4667
Music Systems	Ray Hobbs (BBS)	(301) 490-7484
Printers - General	Walt Francis	(202) 966-5742
	Leon Raesly	(301) 439-1799
IDS 460	Jeff Stetekluh	(703) 979-8249
MX-80	Jeff Dillon	(301) 662-2070
Okidata	Michael Proffitt	(301) 874-2270
	Dan Robrish	(301) 530-4202
Stat. Packages	David Morganstein	(301) 972-4263
Stock Market	Robert Wood	(703) 893-9591
TCS	Eric Rall	(301) 596-0004
Time-Sharing	Dave Harvey	(703) 578-5621

* Calls until midnight are ok.

CLASSIFIEDS

WANTED: Apple //e/color monitor/disk drives. Our school's Special Needs Committee is optimistically searching for a donation for our special education students, both at the primary and secondary levels, of Apple equipment to enrich and enhance their learning potential. Such donations are tax-deductible and are immeasurable in terms of the benefits which will accrue to our students. Wont you please help? If you have the hardware, we can "bake-off" to buy our software. Call Laurice Redhead at 946-3321, day or evening.

COMPUTER DONATIONS WANTED: Non-profit Lafayette Afterschool Program (LAP) in Northwest D.C. would appreciate computer donations (][+, //c, //e, compatibles), monitors, drives, software, etc. for our kids (7 - 11 years old). We will provide a credit letter for tax purposes. Please call Ann Riviera, Director, 3-6 PM, M-F, at 364-8756, or Jodie/Jerry Nachison, evenings, at 966-8084.

FOR SALE: Applied Engineering Apple //c External Clock in mint condition with extra software. Asking $50 (negotiable). Call Howard at 460-5796, evenings.

FOR SALE: Comrex CR printer (ComWriter); Centronics parallel interface, 10 CPB "Brother" interchangeable daisy wheel wide carriage 16.5" 98 characters/line 15 pitch wheel; cut sheet friction feed—up to 50 copies; uses cassette ribbon, same as Selectric typewriter; 6, 4 or 3 lines per inch. Weighs approx. 35 lbs. Extra daisy wheels, complete with manual. Asking $275. Call Ed Case at 770-1827.

FOR SALE: Apple HD20 hard disk drive. Connects to external floppy drive port. For 128K and 512K macs which don't have SCSI ports. Transferrable Applecare service contract. $800 or best offer. Call Susan Weber (202) 870-3000 days or (301) 934-1230 evenings.

FOR SALE: New MacEnhancer. Expands one Mac RS-422 serial port to four ports: a Mac RS-422 serial port; two RS-232 ports; and a serial-to-parallel Centronix port for most IBS PC-compatible printers. Works with Mac 512, 512E, Plus and SE. Includes manuals, software, cables and warranty card. $145. Call 340-7043 after 6 PM.

FOR SALE: New Macintosh SE dual floppy, in the box with all documentation and registration. Includes all software: HyperCard, MultiFinder, Word 3.0, Excel/MacCalc, PageMaker 2.0, Illustrator, CricketDraw, SuperPaint, MacDraft, MacProject, and Mac II Copy. $2200. Call Curtis, home 244-5961 or work 686-9334.

FOR SALE: Microsoft Excel v 1.04, $200; "Excel, A Power User's Guide" (book) by J.S. Hodgkins, $10—list 19.95; "Hand-On Excel, Shortcuts, etc." by Danny Goodman, $13—list 21.95; Back to Basics Accounting System v 1.03, $100; "Microsoft Word Made Easy" by Paul Hoffman, $10—list 15.95. Call (202) 783-3639 daytime or (202) 232-7815 nights and weekends.

FOR SALE: *(1)* Mac XL with 2 MByte AST RAM Stack (memory) card and 10 MByte Hard Disk running Apple's HFS (courtesy of Sun Systems). Upgraded to Mac screen ROMs for square pixels. 12-inch wide screen. Many other extras. Original list price including RAM Stack over $5000; at $1295 it's a bargain. *(2)* Apple 512 KByte memory card for Mac XL. $149. *(3)* Mac Plus with 2 MByte memory (MacMemory) and internal fan. Power supply recently replaced. $1449. *(4)* Mac Plus with 1 MByte memory. Used by a little old Mac Disketeria Librarian from Derwood in evenings and weekends. $1349. *(5)* DataFrame (XP-20) 20 MByte Hard Disk with LaserWriter and ImageWriter print spoolers and Sentinel file encryption software. $695. Call Dave at 948-9646 to help support my passion for a Mac II.

COMMERCIAL CLASSIFIEDS

Everex products for sale! SCSI Hard Drives (20M, 40M, 91M, 261M !) - internal & external; 60M SCSI Tape Backups; Modems. *WAP member discounts!* Call Rusty at SUM DATA (301) 565-8007 (Silver Spring).

WANTED: Used LISA in good working condition. Call 332-3010.

Bring me your SIMM Chips to be installed in your Mac. Gaithersburg, MD. (301) 963-2879, 6-9 PM.

FOR SALE: Apple //e computer, 64K, Apple /// monitor, 80-column card, 2 Apple drives, Transtar letter quality printer, manuals, software. Rarely used. $1700/best offer. Printer alone—$500/best offer. 277-2526 evenings.

FOR SALE: Macintosh II, keyboard, 1 MB RAM, 800K drive. Like new, $2500/reasonable offer. 281-0227.

JOB MART

Volunteer Needed

Problems solving and troubleshooting a **6-station Mac Appletalk Network** with Laser Printer. Opportunity to work with a Neurology Team at NIH. For information contact V. Geoffrey, 496-7993 days, 243-7181 evenings.

Help Wanted

Omnis 3 Developer for helping to finish application for physicians (pathologists). Write M.S. Cockburn, P.O. Box 1970, La Plata MD 20646. Phone (301) 645-0255 or (301) 870-3725, D.C.

Macintosh Experts: Our client, a small but agressive SW devel. firm, has 20 openings avail. for Mac programmer/analysts & proj. managers. Projects involve the areas of database managment sys., text editing, educational SW, graphics/animation, and sound/synth. speech generation. Must have 3 yrs. exper. in Mac SW development, solid knowledge of HFS op. sys., Pascal, Mac Toolbox routines. Apple IIgs, IBM PS/2 exper. a plus! Call J. Wattenberg at (703) 790-1284 or send resume to: Staffing Consultants, 7700 Leesburg Pike, Falls Church, VA 22043..

The **Training Department** of Falcon Microsystems, Inc. is requesting Macintosh instructors for classroom and on-site training. Experience in Quark Express, SuperPaint and Cricket Graph desired. Curriculum and course development experience a plus. Call the Training Manager at 341-0100.

Individual for **entry level pre-sales and post-sales support.** Must have basic knowledge of Apple/Mac hardware and software. Position is for 4-5 weeks. Permanent position for **Apple/Mac Tech Manager** with both sales management and government contracting experience. If interested please send resume or contact Robert Burt at Mini-Systems Associates, 7620 Little River Turnpike, Suite 514, Annandale VA 22003, (703) 941-0266.

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IIGS Stuff: More Finder

by Ted Meyer

Last month I described the Finder, and showed how to make a duplicate of System Disk Version 3.1 so we could play a little bit without worrying about destroying our only copy of the disk. This month I'll show you another way to make a copy of your disk, talk about RAM Disks a little, and try a few of the simple utilities that can be accomplished using the Finder.

I mentioned that the Finder is a combination start-up program, disk utility, and organizer program. I showed you how to use the Finder to start up the "FASTCOPY.SYSTEM" program and mentioned that most ProDOS applications can be started in the same way from the Finder. If the application program is designed correctly, quitting from the application should return you to the Finder. Another function of the Finder is its ability to easily transfer text, pictures, drawings, and other data between application programs. Read this month's IIGS SIG Meeting Report about the WordPerfect GS program for more discussion on this subject.

Let's look at the Finder as a utility program. The Finder is great for copying files from one disk to another, copying disks, rearranging files within folders (directories), deleting files and folders, and renaming disks, folders, and files. Instead of starting the Utilities program or Fastcopy to accomplish these tasks, you can do them by using the Finder.

First let's try copying a disk. Boot System Disk V3.1 as we did last month. The icon representing the System Disk should be in the upper right corner of the screen. We'll make another copy of this just to demonstrate how it's done.

Once the boot process is complete, eject the System Disk. This is done by simply pushing the button on the front of your 3.5" disk drive. You can also eject your drive by first "choosing" the System Disk (by pointing at it and clicking once) and then choosing "Eject" under the "Special" menu on the desktop menu bar, just like you chose "Open" from the "File" menu last month. The System Disk will pop out of your drive and the icon representing the System Disk on the screen will turn grey.

Now, put a blank, unformatted disk into the disk drive. After trying to read the disk the Finder will ask whether the disk should be ejected or initialized. Move your mouse so the arrow is in box marked "Initialize" and click once. After initializing the disk, the Finder will ask you for a name for you disk. A box will appear with the disk name "BLANK" already darkened and chosen. Just type in the name you want to give the new disk, any name will do. Let's call it "ZORK." After typing the new name, point the mouse at the small box labeled "OK" and click. An icon of a 3.5" disk with the label "ZORK" should now be some where on the desktop.

Now comes the easy part. Move the pointer so that it is on the "grey" icon of the System Disk. Push the mouse button and don't let go (i.e. hold the button down). The icon should darken when you push the mouse button. Still holding the button down move the mouse. You should see an outline of the System Disk icon with the pointer in it move across the screen. Place this outline and your pointer on top of the icon of the "ZORK" icon. When done correctly the ZORK icon should turn black. When ZORK turns black, let go of the button. The Finder will ask you whether you are sure you want to completely replace the contents of ZORK with the contents of SYSTEM.DISK. Click in the "OK" Box. The Finder will ask you to place the System Disk in the drive. Use the button on your drive to eject ZORK. Put the System Disk back into the drive.

The Finder will spend some time copying some portion of the disk into RAM memory and then ask for you to put ZORK back in. Depending on how much memory you have available, you may have to swap the disks from one to many times. A box will show you how much left you have to copy at each swap. The efficiency of this process is completely dependent on how much memory you have and whether you have a RAM disk set up.

When the Finder is finished copying disks the ZORK disk will be in the drive. If it's not, eject the other and put it in. ZORK is probably not your first choice for a name for this disk. Let's change it. Use the mouse to point carefully at the label "ZORK" under the icon. Make sure the pointy end of the arrow is right in the middle of the word "ZORK." Click twice quickly. If done correctly a box should form around the label and the label should be black (chosen). Once you've done this, just type in whatever name you want to give the disk. Then hit return. The name should now be permanently changed.

The Finder requires more than 256K (but less than 512K) of RAM memory to run. If you have 512K of memory in your IIGS then there is little room remaining for storing disk data while copying. If you have 1024K of memory, and have a 800K RAM disk set up then there is even less available for copying. If you have 1024K and a small or no RAM disk the entire copy will be made very quickly in one pass. Extra memory can be very useful.

What is a RAM disk? RAM memory is the memory that resides inside your computer. Any program, in order to run, must first be moved from a disk into RAM memory. Any program or data that is in RAM memory when your computer is turned off disappears. If you have enough RAM memory to run your programs and still have some left over, you can treat that leftover as a data storage area. By having the right software available, you can treat that RAM memory exactly as you would a disk drive. You can copy files from your regular drive into your RAM disk and back just as you would with two regular drives. There are two differences between the RAM disk and a regular disk drive. First, when the computer is turned off, the files, programs, and data on the RAM disk disappear forever, so you don't want to save your data to a RAM drive without backing it up to a regular drive at some point. Second, the RAM disk is incredibly fast. Moving a program file from the RAM disk into the "working" RAM, where programs need to be to run, can be done in a fraction of a second. The RAM disk has no moving parts, doesn't need to spin, and doesn't need to send the file, bit by bit,through a cable.

If you have a RAM card in your IIGS you can set up a RAM disk very easily. Hold the control key and the open-apple key down and press the escape key. A desk accessory menu will be

contd. on pg 10

IIGS SIG Meeting Report

by Ted Meyer

I wish I could say that October's meeting went off without a flaw, but those that attended know that we played nomad for a little while before finally finding a meeting place. Once we got down to business though, a lot was covered.

Lee Cabana, one of the beta testers for the new version of WordPerfect GS, gave an excellent 10 minute demonstration of that software package's capabilities. WordPerfect GS Version 2.0 is a powerful word processor with a spelling checker and thesaurus that works in the GS's 16-bit mode. Lee pointed out the strong footnoting capabilities, pull-down menus and other professional features of this word processor. Walt Mossberg should be doing a review on this version of WordPerfect sometime soon. The thing that excited me most about Lee's WordPerfect demo was the fact that WordPerfect could actually make use of the IIGS Finder's clipboard. One of the big advantages of the Macintosh is the easy transfer of various types of data from one application program to another. Until this meeting, I had not seen any software that made use of this capability on the IIGS. As part of the demo, Lee started Wordperfect from the Finder, and copied a paragraph using the "Edit" menu in WordPerfect. When he quit from WordPerfect to the Finder and chose "Show Clipboard" from the "Edit" menu in the Finder, the paragraph appeared in the clipboard window! All IIGS specific software should have this capability, and not just with text. Pictures, drawings, and all types of data should be transferable in this way. If you want a picture that you created using your paint program inserted in the middle of your latest letter to Aunt Bessie, the Finder's clipboard should provide the medium of transfer. I call software that can do this second-generation IIGS software. WordPerfect does it, at least with text, and that is very promising. Jim Frison points out that Multiscribe GS also has this capability. So here are two programs between which text should be transferable via the Finder's clipboard. If someone has these two programs and could try the transfer out, I would enjoy hearing about it.

Programming languages were the main topic of last month's meeting and there are now quite a few available for the IIGS. We'll be reviewing two Pascal compilers and three Assemblers in an upcoming issue. But we have a lot of information from various software companies that I thought I would share with you now. We quickly reviewed much of this information at the meeting. At the end of the article I'll summarize prices and discuss sources.

There are several major assemblers available for IIGS specific processing. Apple Programmer's Workshop (APW) is a complete software development system with Bytework's 65816 assembler included as the standard programming language. APW includes libraries of pre-written assembly language utilities (macros) to help simplify the programmer's task. Byteworks's ORCA/M is a VERY similar product (APW was based on it), with only slight differences from APW. Both systems allow other languages, (i.e. Pascal, C, Basic) to be included within their environments. As long as certain conventions are maintained, any 3rd party developer can create additional languages for inclusion in these systems and link to subroutines written in other languages. Thus, using APW, you should be able to write a program using C, Pascal, and assembly language subroutines and have the whole program driven by a BASIC main program. Micol also has an assembler called Micol Macro for software development. Micol's system has its own environment which is different and incompatible with the APW standard. Also available is Roger Wagner's Merlin Assembler, although I am not certain of its 65816 capabilities and compatibility with the APW system. Micol Macro, ORCA/M, and APW will be reviewed, hopefully, in next month's Journal.

Three companies have produced Pascal compilers which are IIGS specific: TML Systems, Byteworks, and Pecan. Kyan is also planning on releasing a compiler by Spring of 1988. TML has two versions of their compiler using different "environments" or development systems. (Check Bruce Field's and Bob Platt's Q & A column for an explanation of "environments.") They originally released a version that required APW, which is a standard "type-in-the command-and-hit-return" type environment which makes no use of the mouse interface. More recently, TML released their stand-alone system which runs in the 640 resolution window environment with complete mouse control. Byteworks, which essentially wrote the APW system for Apple, has released ORCA/Pascal which can run by itself, with ORCA/M, or with APW. Running by itself, it uses a subset of ORCA/M's or APW's command set. Pecan has developed a IIGS version of their UCSD p-system (now called the Power-system) menu-based environment on which Apple's previous versions of Pascal were based. Both Bytework's and TML's systems can make extensive use of the IIGS RAM and ROM based tools. I am not aware of whether Pecan's system has an interface to the IIGS toolbox. ORCA/Pascal and TML System's stand-alone system will be reviewed next month.

Several versions of IIGS-specific BASIC are either available or soon to be available. Pecan has a BASIC compiler which runs in the p-system. Apple has released an Apple IIGS BASIC interpreter in a beta (pre-release) version. This BASIC, which is based on Apple II Business BASIC, has control structures such as DO/UNTIL and DO/WHILE, argument-passing subroutine and function capabilities, and access to the IIGS tools. TML and Byteworks are both releasing a compiler for Apple IIGS BASIC and Byteworks is releasing their own interpreter. TML's BASIC is supposed to be available on November 30th, 1987 and Bytework's should be available no later than February 1, 1988. Micol, which has had a BASIC compiler available for the II+/c/c for some time, is planning to release a IIGS version soon. The most available IIGS compatible BASIC is Applesoft. Applesoft comes with the GS, is easy to get to and use, but doesn't have access to the IIGS tools. Roger Wagner, I understand, is working on a set of "&" commands for Applesoft that will allow programmers to access the toolbox through Applesoft.

The C programming language is now available as a compiler for the APW system. Apple has released a beta version through Apple Programmer's and Developer's Association (APDA).

contd.

Manx Systems is also working on a version of their Aztec C compiler for the IIGS. They have stated that Spring '88 will be the release date for this software.

A Forth language sytem, GS16Forth, is available from GSF. Demonstration software from GSF, showing off the capabilities of this language, were distributed at the meeting. If you're interested in getting a copy of this demo software, give me a call.

Fortran and Modula 2 are available through Pecan as compilers within the UCSD p-System. Again, I have received very little information as to the 16-bit capabilities of the P-system.

Requirements, Sources, and Cost

Bob Leonard of TML Systems wants to use our SIG as a pilot study for responding to the needs of user's groups. TML is offering WAP members a discount on their products. By ordering more than four units of a particular product we can get the following discounts.

Product	List Price	WAP Price*
TML BASIC	$125.00	$85.00
TML Pascal	$125.00	$85.00
TML Speech Toolkit	$ 69.00	$45.00
TML Pascal Source Code Library	$49.00	$32.00

TML BASIC and Pascal require 512K of memory and a 3.5" disk drive for your GS.

Patty Westerfield of Byteworks has offered their products to WAP at a 40% discount. That works out to the following discount schedule.

Product	List Price	WAP Price*
ORCA/Pascal	$125.00	$75.00
ORCA/M 1.0	$ 69.95	$41.97
Utilities #1	$ 39.95	$23.97
Sub. Lib. Source	$ 39.95	$23.97
Merlin -> ORCA/M	$ 29.95	$17.97

* Plus sales tax

If you're interested in these discounts please contact me. ORCA/Pascal requires 768K RAM and a 3.5" drive. ORCA/M requires 512K and a 3.5" drive, but a second drive or a hard disk is recommended.

Steve Brunie of Micol has offered discounts to the club depending on the number of products ordered. Micol BASIC (8-bit Version) and Micol Macro for the IIGS both list at $69.95. If more than four are ordered we can get a 40%-60% discount depending on how many more than four. These products will work with a IIGS with 256K and a 5.25" drive.

If you are interested in any of these products please let me know. My number is listed in the Journal. Call me in the early evening.

APW and C are available through APDA. Membership in APDA is $20. APW is $100 and C is $75. According to APDA, APW requires 1024K Ram and 2 3.5" drives or a hard disk. C requires APW to work. APDA's address and phone number are: APDA, 290 SW 43rd St., Renton, WA 98055, (206) 251-6548.

Pecan sells the first p-system package for $99.95. Each additional compiler is $79.95. Pecans address and phone number are: Pecan Software Systems, Inc., 1410 39th St., Brooklyn, NY 11218, (1-800) 63-PECAN.

Finally, Warren Stone of GSF Inc. is selling GS16Forth in two configurations. With the manual on disk the package costs $29.95. With a hard copy manual the system is $39.95. Contact GSF Inc., 1529 Torre Ct., San Jose, CA 95120, Phone (408) 268-6136 for more information. The package includes an assembler and full screen editor, as well as source code for the editor and assembler, which makes this look like a pretty good deal for those interested in learning Forth. Only 256K RAM and one 3.5" drive are required.

Jim Frison is taking my place for November's meeting due to my impending fatherhood. Jim will be demonstrating and doing a Q & A on the Finder. The meeting location and time is in the SIGNews section of the Journal under the calendar. There won't be a meeting in December so we can all take part in the Garage Sale. January's meeting place, time, and subject is up in the air at the time I'm writing this.

IIGS Stuff contd from pg 8

displayed with three options: Control Panel, Alternate Display Mode, and Quit. Use the up and down arrow keys to choose Control Panel and hit return. Another menu will be displayed. Choose the RAM disk option and hit return. Now, if you have a working RAM card you will see the label "Largest Selectable:" followed by a number. This number represents the amount of memory you have on your RAM card. By using the the arrow keys you can alter the minimum and maximum RAM disk size. If you haven't done this before, they will probably be set to zero. If you have more than 256K, then set both the minimum and maximum RAM disk size to the same size. You might try 256K to start with. Hit RETURN. Then choose Quit twice and hitting return after both. You should be back in the Finder, if that is where you started from. Choose "Quit" from the "File" menu in the Finder. Turn your computer off.

Wait about 30 seconds and turn it on again with System Disk Version 3.1 as the boot disk. Now when the Finder is finished starting up, you should find a new icon on your desktop. It should look like a little RAM card, funny shaped, green with little black dots. This icon can be treated just like a disk icon. You can copy to or from it, usually much faster than you could copy regular disks.

That's enough for this month. Next month we'll talk about what we can do with this RAM disk, how to delete, move, and copy files, and we'll start going through the menu items in the Finder to see what they do. But be sure to experiment on your own. That's how you'll learn the most.

Job Mart contd. from pg 7

Product Manager Wanted: Will serve as the company's primary manager responsible for product coordination within Quantum. Reports to the Director of Marketing. Requirements: College degree. 5+ years experience in consumer, computer or entertainment-related product management. Experience with marketing Apple products and/or consumer online services helpful. Must be willing to travel. Interested applicants should send resume to Tom Oberlin at Quantum Computer Services, Inc., 8619 Westwood Center Drive, Vienna VA 22180 or call (703) 448-8700. Principals only.

DISCOUNTS

APPLE

SPECIAL OF THE MONTH:

MAKE FILE INTERCHANGE EASY with our APPLE II and IBM COMPATIBLE COMPUTERS:

$929.00

MACINTOSH CORNER

- DS/DD DISKS, BOX OF 10 .. $12.00
- DS/DD DISKS, CASE OF 50 . $55.00
- 10 DISK STORAGE BOX $2.50
- 36 DISK STORAGE BOX $9.00
- IMAGEWRITER CABLE $19.00
- MODEM CABLE $19.00
- IMAGEWRITER RIBBON $9.00
- MAC + TO MAC CONVERSION CABLE $7.00

5¼ INCH DISKETTES & STORAGE

- SS/DD, BOX OF 10 ..... $5.00
- SS/DD, PAK OF 25 ..... $11.00
- SS/DD, CASE OF 100 ..... $39.00
- SS/DD, CARTON OF 500 ... $175.00
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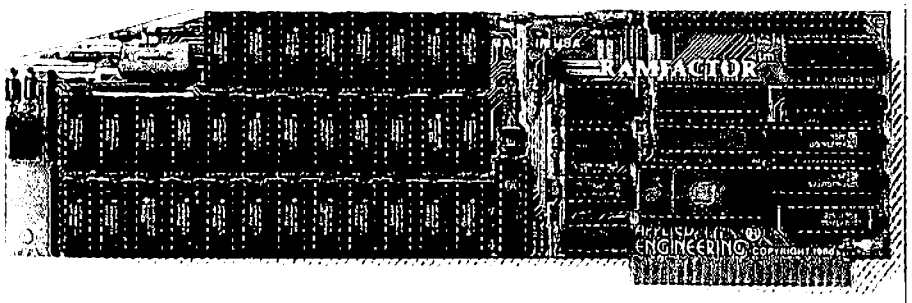

Very Compatible

All the leading software is already compatible with RamFactor. Programs like AppleWorks, Pinpoint, BPI, Managing Your Money, Dollars and Sense, SuperCalc 3A, PFS, MouseWrite, MouseDesk, MouseCalc, Sensible Speller, Applewriter IIe, Business Works, ReportWorks, Catalyst 3.0 and more. And RamFactor is fully ProDos, DOS 3.3, Pascal 1.3 and CP/M compatible. In fact, no other slot 1-7 memory card is more compatible with commercial software.

AppleWorks Power

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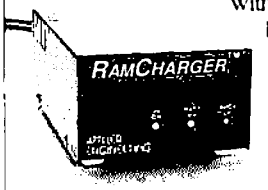
The "Instant On" Apple.



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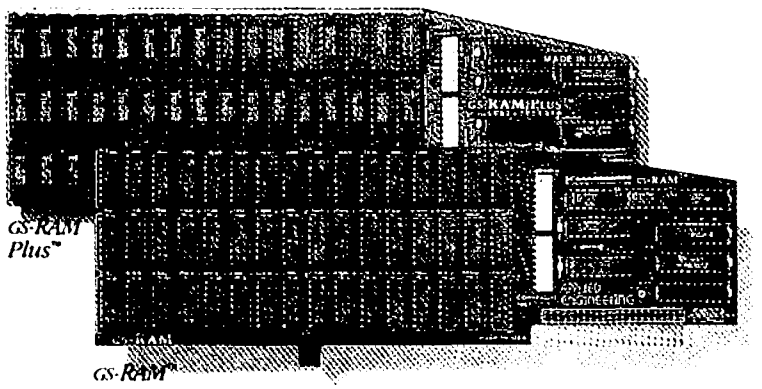

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Q & A

by Robert C. Platt and Bruce F. Field

Try to stump our experts with your Apple II and /// dilemmas! Send your questions to the WAP office.

Errata. The October Q&A column had a minor, but fatal typo in the question regarding CALL -868. To write a short message on a line and automatically erase the remainder of the line, we gave the example:

10 VTAB 3:PRINT"short message";:CALL -868

(The semicolon was missing from the above line in the October issue.)

Q. I own a IIgs and have a large collection of Applesoft BASIC programs. Should I convert them to Apple IIgs BASIC for execution under ProDOS 16?

A. That depends upon whether you need the special features of ProDOS 16 or the IIgs Toolkit. In general, there is no mechanical way to convert Applesoft to IIgs BASIC. You must go through the following steps:

Step 1: LOAD your Applesoft program.

Step 2: Add the following lines:

```
 1 D$=CHR$(4):PRINT D$;"OPEN MYFILE":
   PRINT D$;"WRITE MYFILE"
 2 LIST:PRINT D$"CLOSE MYFILE":END
```

where 'MYFILE' is the name of your new file. If you want to avoid these two lines appearing in your new program, add a range of line numbers to the LIST command in line 2. This creates a TEXT file version of your program.

Step 3: Use the ProDOS System Utilities to convert the TEXT file from DOS 3.3 to ProDOS if necessary.

Step 4: Run Apple IIgs BASIC. At the) prompt, type EXEC MYFILE (or whatever the pathname is of your text file.)

Step 5: Convert individual instructions. The instructions to be converted include: all PRINT D$ disk commands(e.g. OPEN, CLOSE, READ, IN#, PR#, etc.); all CALLs; and all Hi res graphics commands (e.g. HGR, XDRAW, etc.).

Step 6: Save your converted program (or even partially converted program in the internal format of IIgs BASIC.)

Q. I am trying to speed up the graphics in my Applesoft program by XDRAWing to both hi res pages 1 and 2 and flipping between them. However, my XDRAWs to page 2 aren't working. What am I doing wrong?

A. An XDRAW must be preceded by a HGR instruction to initialize the current hi res page. After you set page 2 as your active hi res page, add an HGR before you do the XDRAW on that page.

Q. An annoying high-pitched tone is coming from the Apple color monitor on my gs. Its pitch is somewhere between a dog whistle and the highest note on a piano keyboard. How do I stop it?

A. The switch back transformer in your monitor operates at that frequency and is probably loose. If under AppleCare, take it to your dealer. Otherwise, an experienced repairman can fix the problem with a drop of glue. (The high voltages involved should deter you from trying to fix it yourself.)

Q. What is the difference between an interpreter and a compiler?

A. Both programs implement a particular programming language. An interpreter will translate each program line every time that it executes while the compiler will translate the entire program once into machine language instructions which can be executed directly by your computer's microprocessor chip. For example, if a program repeats an instruction in a loop 100 times, the interpreter will translate that instruction 100 times, but the compiler will translate it only once. As a result, compilers will delay the time between editing your program and the start of its execution. But a compiled program will usually execute about 10 times faster than the same program running under an interpreter.

Q. What is a 'programming environment'?

A. This trendy buzz word refers to a set of programs and files which allow you to produce finished programs. It includes a way of typing programs into your computer and a format for saving these 'source programs' on disk. Also included are programs which translate your creation into the language understood by your computer (called 'object programs' or 'machine language'). Such translating programs are called 'compilers' if they translate languages like Pascal and BASIC or are called 'assemblers' if they translate assembly language. Because different parts of your final program may be translated at different times or might be written in different languages, a 'linker' is included to tie all the pieces together. Most programming environments also include a 'librarian' to store the program pieces in a systematic way.

A well-designed programming environment, frees a programmer from much of the busywork of writing, debugging and executing programs. In sum, the environment ties together all of the other programming tools.

Q. What programming environments are available on the Apple II family?

A. The first, and most primitive, is Applesoft used under DOS 3.3. The drawback to this system was the difficulty in linking program pieces together (e.g. the DOS 3.3 merge utility and the & hook for assembly routines). Next came the UCSD p-System which brought a powerful, integrated environment for programming Apple Pascal, Fortran and other languages. The p-System featured easy to learn menus and consistency across different types of microcomputers. The p-System is now available on the //e from APDA (as Apple Pascal 1.3, 800-426-3667) and on the IIgs from Pecan Software (as the Power System IV.2.2, 800-637-3226.)

The most recent environment from Apple is APW, the Apple Programmers Workshop (APW) for the IIgs. APW is based on Apple's Macintosh environment, MPW. It features

contd.

a command language and offers libraries which fully support the IIgs ROM tools and resources. When ByteWork's C compiler or TML's Pascal compiler are advertised as 'APW compatible' that means that they run as part of APW and store their object programs in a manner that will work with APW's libraries and linker.

Q. How do I run Integer Basic programs on my IIgs?

A. Integer Basic only operates under DOS 3.3 and is incompatible with ProDOS. Therefore, to run an Integer Basic program, use your control panel to set your Startup Slot to a 5 1/4 inch drive. Then boot a copy of the DOS 3.3 System Master Disk. The startup program on this disk automatically loads the INTBASIC file, which has a copy of the Integer Basic interpreter. Once loaded, you can switch from Applesoft to Integer Basic by typing INT. You will get a > prompt. To return to Applesoft, type FP.

Q. How can I copy a disk quickly on my IIgs?

A. Use the Fastcopy program in the utilities folder on System Disk 3.1. It will ask your permission to clear the RAM disk. If you have set the size of the RAM disk larger than the contents of the disk you are copying, it will copy the disk in one pass.

Q. I just bought a used Apple][+. What accessories should I get for it?

A. Consider purchasing a memory expansion card (such as the Applied Engineering RAMFactor) which does not require the //e aux slot. Buy a good 80-column card for slot 3 (such as Videx or Applied Engineering.) If you are interested in working with AppleWorks, RAMFactor comes with a program to patch AppleWorks so that it will run on the][+. The next big investment would be either a hard disk or a 3.5" disk drive. From this point, you can always add other accessories, such as an accelerator or coprocessor card which will speed up your programs or allow you to run CP/M on a Z-80 microprocessor. Fortunately,][+ add-ons abound at local user group garage sales. Sun Systems Remarketing (800-821-3221) also sells many][+ accessories.

Q. What implementations of the BASIC programming language are available on the IIgs?

A. First, your IIgs comes with an Applesoft BASIC interpreter in ROM. (Rumor has it that Roger Wagner Publishing will release an & utility to allow Applesoft to access the IIgs Toolbox.) Microsoft offered a DOS 3.3 compiler for Applesoft called TASC. Next, Apple has adapted its Business BASIC interpreter from the /// for release as 'IIgs BASIC.' A beta version is available through APDA. Both of these languages have the advantage of an extensive amount of already existing public domain code.

Second, TML has announced a compiler for IIgs BASIC to run as a stand alone windowed programming environment similar to its Pascal. ByteWorks is producing both a compiler and interpreter for the same language and will offer the ability to link to other programs generated under APW.

Third, Pecan Software offers a BASIC compiler as part of its p-System.

Finally, there are BASICs available under ProDOS 8, including Blankenship, Beagle Bros., Micol and Z-BASIC.

Q. Your earlier column described three types of ProDOS files for storing IIgs graphic images. Has Apple adopted an official standard for graphic file formats?

A. Yes. Graphic image file formats are identified by both ProDOS file type and a two-byte long RAuxiliary TypeS code. This table summarizes the information from Apple IIgs Tech Note #27:

File Format	Type	Auxiliary Type
PaintWorks File	$C1	$0000
Unpacked QD PICT File	$C1	$0001
Reserved	$C1	$0002-FFFF
PaintWorks Packed	$C0	$0000
PackBytes (gs MiscTools)	$C0	$0001
Apple Preferred Packed	$C0	$0002
Packed QD PICT File	$C0	$0003

The PackBytes and Packed QD PICT files are formed by the PackBytes routine in the Miscellaneous Tools. The QD PICT formats contain a series of codes to represent the quickdraw codes which generated the images. The other formats use bitmapped images. These formats also save the colors or patterns on the drawing program's 'palette' at the time the file was saved.

Q. You said in the October column that the new IIgs ROMs will not run with System Disks prior to 2.0. I've been running several programs with the old System Disk after my ROMs were changed. What's the problem?

A. You should try to keep the System Folders on all of your disks up to date. They contain small routines to patch bugs which have been found in the ROMs. For example, System Disk 3.1 has a patch to the FFStopSound routine in the new ROMs which is not needed for the old ROMs. The new ROMs incorporate corrections which make many patches on the older System Disks unnecessary. Although you can probably get away with using an old System Disk with the new ROMs, Apple didn't throughly test that combination and you run the risk of encountering some obscure bugs.

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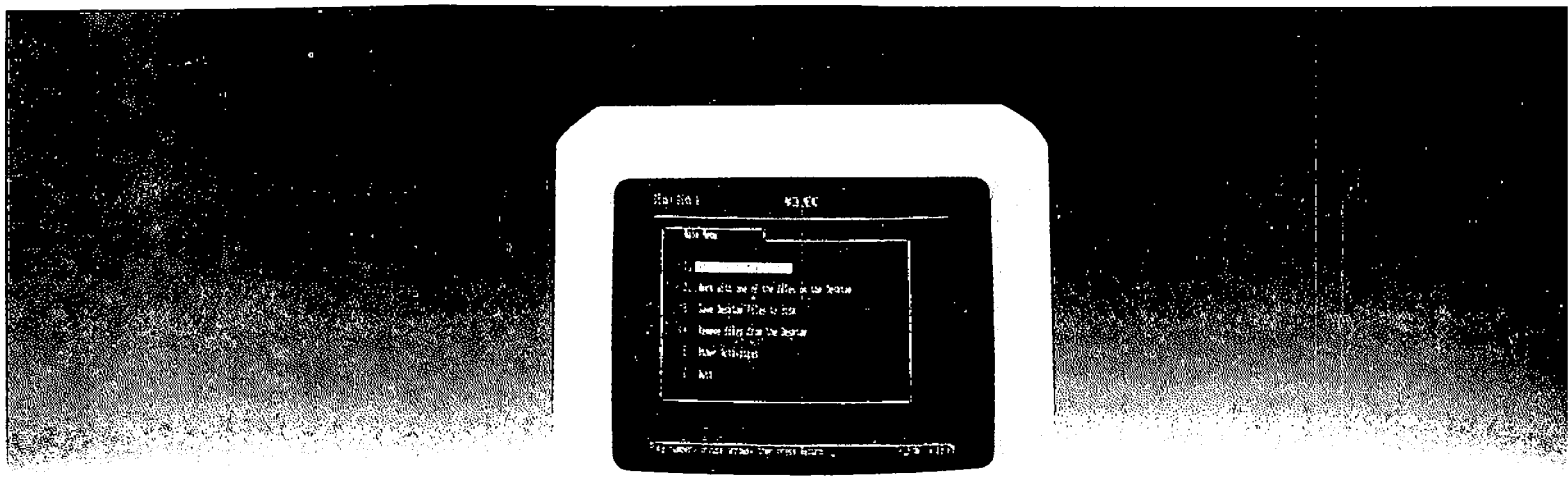

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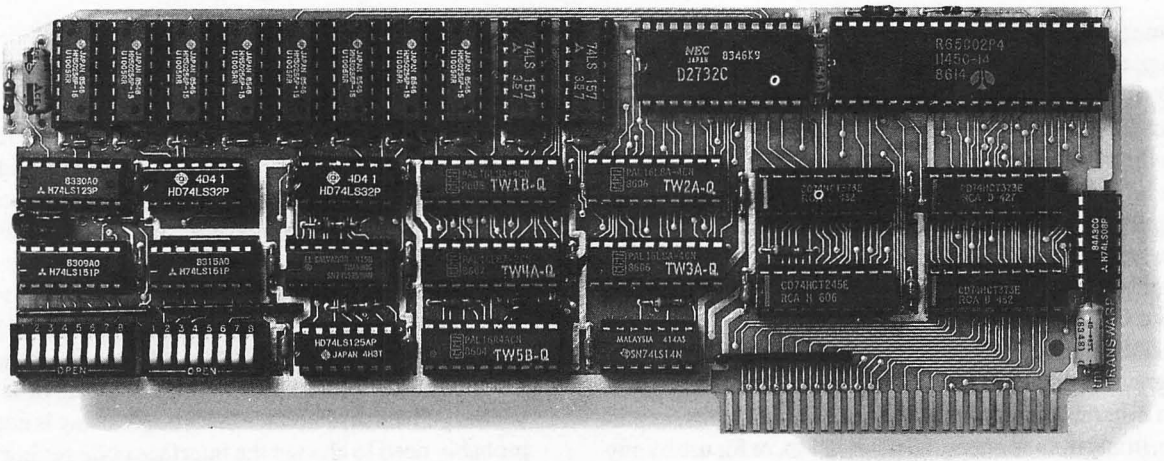

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TECH TIDBITS

Edited By Sue Goodin et al

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Welcome to Tech Tidbits! In the past, Tech Tidbits addressed a wide range of issues and topics, both Support oriented, in the form of Questions and Answers, and Services and Programs oriented, readdressing procedures, policies, guidelines and practices. The time has come for a change, however. Tech Tidbits is now reaching not only YOU, the Service Provider, for whom it was designed, but, in edited form, it is reaching User's Groups, Developers, and via the network of On-Line Services and networked Bulletin Board Services, a population in excess of 250,000 End Users.

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10/30/87

Apple II

MousePaint Won't Print in Color!

? Using an Apple® //c, MousePaint™ and an ImageWriter II, I am unable to print in color (and yes, I am using a color ribbon!). Who's at fault?

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

AppleWorks 1.3R Problems

? There are 700 records stored in the database. I am having problems with three of the records. The problems are 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.

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.

Keyboard Compatibility

? Can I use the Mac® SE keyboard with the II® gs?

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 MacII.

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

? 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.

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 Super Serial 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).

Pascal on RAM - a Pipe Dream?

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

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.

Hard Disks

Sharing a Common Hard Drive

? 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?

At the current time, 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.

contd.

—— Operant Systems ——

—— HARDWARE ——

DOT-MATRIX PRINTERS—
- Panasonic 1091i (160 cps, Epson-compatible "best buy"). 219
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- NEC P6 / P7 Pinwriter (24-pin high-quality)..... 475/675
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- Okidata 192-Plus (200 cps, NLQ mode)..... 339
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- Citizen Tribute 224 (200 cps, 24-pin, wide carriage)... 675

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- Citizen Premier 35 (35 cps, fastest for the money)..... 499
- Qume LetterPro PLUS (45 cps daisywheel)..... 595
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- Okidata Laserline 6 (6 ppm, H-P Plus compatible)..... 1495
- Toshiba PageLaser 12 (12 ppm, 512k, for heavy use).... 2695
- PS Jet (Postscript upgrade for Canon/H-P lasers)..... 2150
- AST Postscript TurboLaser (8 ppm w/Postscript)..... 3095
- QMS-PS 800 Plus (8 ppm, LaserWriter compatible)..... (call)
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- 30-meg external SCSI drive..... 649
- Infinity (10-meg cart, reads IBM).. 895
- Video Tech 800K external floppy..... 199
- Dove MacSnap & SIMM memory upgrades.....(call)
- SuperPaint / FullPaint..... 69/65
- Kensington Mac System Saver (fan & surge protector). 75

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11/06/87

APPLE II FAMILY

AppleWorksPatch 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.

IIgs Finder - Where's My Drive?

****

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

The //GS 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 3.25" drive, for example, you will have to double click the 5.25" drive's icon before it will be recognized.

IIGS VGC and ROM Upgrade Revisited

****

? One of my customers is in a quandary. Two of his favorite games are not compatible with the new GS 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 ROM. Is there any suggestion I can offer him on this latter?

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 commercially available 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 averse to doing so if asked.

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

****

In one of our earlier issues of Tech Tidbits we reported on Command.Com, a new PinPoint™ offering providing users with the capability of using MsDOS, 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). At present, Command.Com is available primarily through PinPoint Publishing and through a number of mail order houses, although PinPoint expects to be reaching dealers directly in the near future.

A.F.E.

AFE and Apple 5.25" PC Drive

****

? 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.

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

PRINTERS

Stencils on the ImageWriter

****

? 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?

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.

AND NOW, FOR SOMETHING COMPLETELY DIFFERENT

We've provided you with the clues...can you find the answers in this Word Search?

contd.

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

- Apple's new program for file conversion
- A 27-pin printer
- The code name for the AppleFax™ Modem
- A chip for A/UX™
- A file without which you'd get nowhere fast
- An application that manages and access your documents and applications
- A Macintosh Look-Alike - another way of saying "Work Environment"
- An Apple Mainframe Connectivity Solution
- An upgrade to make your GS look better
- A picture's worth a thousand words - but you need this to get it on paper
- Your first line resource for troubleshooting and technical answers
- A grimy substance that deposits on printwheels and causes a messy printout
- A socket to hook into to communicate with other devices, CPU's, etc.
- Your second line resource for troubleshooting and technical answers
- A way for your computer to "Reach out and Touch Someone"
- Gobblyedy-gook that may show up on your //e screen when running //c software
- An input device that likes cheese
- An Apple communications program providing VT100 emulation for the II family
- A runaway "three-time" best seller - well integrated for the II family
- If AppleShare™ is the brain, then this is the nerves

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Garage Sale - December 19

The December 19 Garage sale will be in the cafeteria of Walt Whitman High School, 7100 Whittier Blvd., Bethesda, MD. From the Beltway take River Road toward Washington DC. Go about 2 miles and turn left on Whittier Blvd. Walt Whitman is on the left. Plenty of parking.

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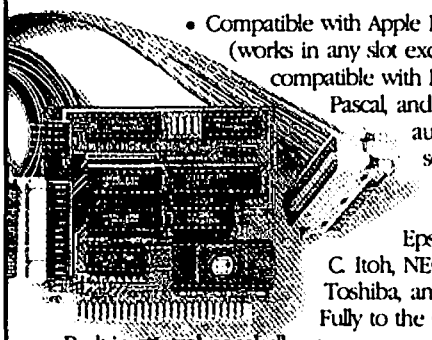
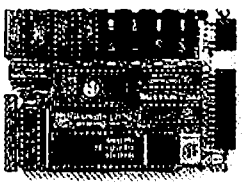


• Compatible with Apple IIe, IIGS, and II+ (works in any slot except 3). • Fully compatible with Pro-Dos, Dos 3.3, Pascal, and CP/M. • Works automatically with all software. • Supports almost all parallel printers including: Epson, IBM, Okidata, C. Itoh, NEC, Star Micronics, Toshiba, and more. • Conforms Fully to the Centronic Standard. • Built-in control panel allows easy access to set-up information • Automatic formatting of basic listings. • Built-in self test and Buffer Pro™ support. • Extensive graphics print capability for the hi-res, double hi-res, and the IIGS super hi-res screens • Buffer option available (see below). • Includes 6-ft. cable for connecting to your printer.

Buffer Pro™



Buffer Pro adds memory to Parallel Pro, freeing your Apple from running the printer. With Buffer Pro, you can continue to use your Apple while the printer is printing. To add Buffer Pro to Parallel Pro, simply unplug the cable on Parallel Pro and plug Buffer Pro where the cable was, then plug the cable onto Buffer Pro, That's it!

• Compatible with IIe, IIGS, and II+. • Fits in a IIGS with or without fan. • Adds 32 to 256 pages of printer buffering. • User expandable using 64K or 256K RAM chips one chip at a time and in any combination. Each 256K chip adds 32 pages (maximum of 8 chips). • Connects directly to Parallel Pro. • Works automatically with all software • May be paused or cleared with simple commands (unlike other buffers, you don't have to "shoot the computer" if you want to stop the print-out before it's done).

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Parallel Pro..... **$89.00**

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with 128-page buffer..... **$119.00**
with 256-page buffer..... **$139.00**

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PRINT SHOP FOR THE APPLE II GS: A Review

by Chuck Ward

PRINT SHOP for the Apple IIgs is a graphics program that allows the user to create greeting cards, signs, banners and letterhead (stationery) quickly and easily. The program comes on a copy-protected 3.5 inch disk which can be copied onto a hard disk drive. The program is very easy to use. I was able to load, configure the program for my hardware and make a simple sign about 15 minutes after first beginning to use the program. I am aware that an earlier version of Print Shop has been around for years for the Apple II, IBM and Commodore computers. I did not own the earlier version when I had an Apple //c so I cannot make very many comparisons with it.

I spoke to the manufacturer, Broderbund, on the telephone. They do not recommend purchase of the ancillary program, Print Shop Companion, because many of its features are included in the Graphics Editor that comes with Print Shop IIgs and they implied that they may eventually market a similar "Companion" for this version of Print Shop. Another difference, according to Broderbund, is that the older "Graphics Library" disks for the earlier versions of Print Shop, while they will work on the Apple IIgs (under DOS 3.3), they will only print in black and white. The graphics on the Print Shop IIgs disk will print in color on an Imagewriter II printer equipped with a color ribbon. I assume future graphics disks in the 3.5 inch format will also print in color.

The Program begins with a set-up menu that allows you to configure it to your system, including the choice of a black and white or color ribbon, the type of printer and its slot or interface card. The program runs under ProDOS 8 and requires a 3.5 inch disk drive (2 are preferable), a minimum of 512K of RAM, a color monitor (preferably RGB), a mouse and a dot matrix printer. I strongly suggest a 5.25 inch disk drive in order to use the thousands of graphics available from both Broderbund and third party manufacturers. There is also a set-up program to install Print Shop IIgs on a hard disk drive. Although the program is designed to be used most efficiently with a mouse, menu selections (for old timers) can also be made from the keyboard. This version will also run under ProDOS 16 if your Apple IIgs is equipped with at least 786K of RAM; then the program can be accessed from the Apple IIgs Program Launcher.

The main Program Menu has the following choices: greeting card, sign, letterhead, banner, graphic editor, setup and exit program. Choosing one will take you to sequential menus that allow easy creation of one of the above choices or design a graphic from scratch, using the Graphic Editor. The Manual focuses on the Greeting Card module to teach the novice how to use the program. The sequence includes choosing a background panel, a border, one or more graphics (by picture or number), choosing a font (type style), entering a message, and laying out the greeting card. There is even an option to give yourself credit, e.g., "designed by:" on the back of the greeting card you create. The program disk contains a choice of many (12) panel designs, 24 borders (half in color), some (64) graphics, and several (12) fonts. Or you can skip the panel, border and graphics, and just have a card with no background art. But then, why not just send a letter? The Program disk also contains 8 sample panel designs (in color) for letterhead and 8 panel designs for cards and signs. The greeting card is printed on one side of colored paper; my package contained bright orange paper, which almost obscured the letter and graphics printed on it. Other colors are available by mail order and at many local computer stores, including Crown Books. I like printing on white paper the best. There are similar menus for signs, banners and letterhead. All were easy and fun to use.

The Graphic Editor allows you to modify the graphics supplied on the Program disk or from other sources, as well as to create original designs. The Graphic Editor screen is a rectangle with design tools on the left border, color choices (both solid and patterned) at the bottom and a list of commands at the left. These latter include: print, load, save, clear, quit and undo. The Editor also allows black and white graphics from the Print Shop Graphics Library disks to be brought to the desktop and either colored and/or modified. The Editor tools are similar to some of the paint programs I have read about and allow you to draw freehand and straight lines, boxes, star patterns, and circles. They also allow you to color your designs, add text, and enlarge or reduce the size of any graphic you make. I was unimpressed with the Graphic Editor. I was able to produce only crude graphics, and was not pleased with any of them. I have also found no way to produce additional borders from some of the graphics, something I would like to do. Neither can I figure out how to produce additional panels, something I have no interest in—since I usually do not use a background panel.

The Program disk comes with 12 different fonts or type styles and will print both upper and lower case letters, as well as numbers and punctuation. Each will also print in one of the 8 colors supported by the Print Shop program. Print Shop IIgs supports most of the popular dot matrix printers, including the Imagewriter II, and printers from Epson, Okidata, NEC, C. Itoh and Star. It is designed to work best with printers having a graphics resolution of 120 by 72 dots per inch, but will work with printers of lesser resolution—but apparently not as well, according to the Manual. You can print in color (with a color ribbon) or black and white; backwards (to make T-shirt transfers); and full sized or reduced. The latter can be used for book marks, gift tags, mailing labels and labels for diskettes. There is also a "draft quality" print mode; you can also preview your design at any time on the screen, prior to printing. The Program will allow you to make multiple copies of the greeting cards, etc. that it produces.

I was not overly impressed with the quality of the greeting cards produced. The card is printed on one side of the paper and then folded to resemble a greeting card. "Resemble" is the word. No one will be fooled into thinking this is a commercially-produced card. But your mother, wife and your "tekkie" friends will love them. I would also be willing to pay serious dollars for a book of cute sayings to be included with the greeting card

contd.

option. I have found that I use the program to produce signs more than any other option. I was pleased with the quality of the letterhead produced. I think I could take the letterhead to a printer and have very attractive informal stationery printed for myself. None of the printing is of sufficient quality for business use, however. The print quality of my Imagewriter II printer may be a major part of that problem. If this program would run a laser printer, there might be no stopping it.

The Manual is 40 pages long and printed in black and white. It is nicely laid out and is easy to follow. There is a complete Table of Contents, but no index, which I found annoying at times. It also comes with a 6 page folded card that shows, mostly in color, the various graphics, printer fonts, panels and borders included on the Program disk.

Once I began using the Print Shop IIgs extensively, I soon began to hunger for more graphics than were included on the Program disk. Broderbund anticipated my wishes and offers a 3.5 inch disk specially priced at $5 and containing about 100 of the best graphics from earlier versions of its Graphics Library disks. There are 4 of the Graphics Library disks (5.25 inch format) currently available from Broderbund. Each contains over 100 new graphics and all are compatible with the IIgs version of the Program. The best of these was the Holiday Edition which included 10 new fonts, 14 new borders, over 60 new graphics and 12 new full panel designs. Other sources of Print Shop graphics include: Beagle Brothers, San Diego, California, which has 3 Minipix disks; BCI Software, Ringwood, New Jersey; Springboard Software, Minneapolis, Minnesota which publishes Graphics Expander, Volume I (presumably a collection of Clip Art for their program Newsroom); 1990 Software, Altoona, Pennsylvania, which publishes several disks of Print Shop compatible graphics; Davka Corporation, Chicago, Illinois, which publishes Judaic graphics and Hebrew fonts. Disk-based computer magazines like "Uptime" and "Softdisk" frequently include Print Shop graphics in their monthly offerings. S&D Software, Carmel, California, will make a Print Shop graphic from any size portrait photograph; the disk also comes with many other graphics images. The program, Clipcapture, published by William Miller, Racine, Wisconsin, allows you to convert Newsroom Clip Art disks (3 disks in all, each containing hundreds of graphic images) to Print Shop graphics; the Program disk for Clipcapture also contains many Newsroom graphics. It even allows a limited amount of editing and reduction in size. There is some distortion in the graphics when they are converted from one program to the other, but the results are acceptable. The Print Shop Users Club (Box 216, Mercer Island, Washington, 98040) offers over 1000 additional graphics, borders and fonts on several disks, plus a newsletter.

In summary, Print Shop for the Apple IIgs is an easy-to-use and fun program. The beginner can have it up and running in a matter of minutes. It is configured to take full advantage of the Apple IIgs including ProDOS 16, the RGB color monitor and the Imagewriter II printer and color ribbon. It is not a sophisticated program and will never be used commercially, but it does what it claims to do well—that is, it produces greeting cards, banners, letterhead and signs. It is fun!

Print Shop for the Apple IIgs is available from Broderbund Software, P.O. Box 12947, San Rafael, California 94913-2947, for $59.95. Other versions are also available for the Apple II+, IIe, IIc and Macintosh. Broderbund also sells 4 Graphics Library disks for $24.95 each. The Print Shop Companion disk, which also works on the Apple IIgs and contains an enhanced graphics editor as well as additional borders, fonts and graphics, is available for $39.95 A company called Connections (5221 Central Avenue, Suite 205, Richmond, California 94804) sells a notebook-type organizer for Print Shop disks and related documentation, as well as colored paper, envelopes and banners for use with the Print Shop program.

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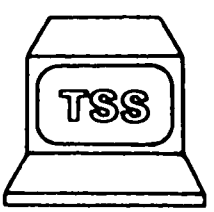

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SENSIBLE GRAMMAR (APPLE II): A Review

by Bob Oringel

In a writer's continuing search for perfection in the material turned out for publication, he/she very often uses spell-checking programs following, or in conjunction with, word processing. At least, that is what I do. I have used Sensible Speller, by Sensible Software, Inc. with AppleWorks for some time.

It is equally prudent for a writer to check sentence structure and for grammatical error, no matter how skilled the writer. That is what Sensible Software's "Sensible Grammar" does. It is a proof-reading program that lets the writer check a manuscript for common writing errors. It uses an internal "library of over 2000 commonly misused English phrases to identify pompous, informal, cliche, vague, wordy, repetitive, sexist, and other faulty phrases." It catches "punctuation, capitalization, and other typographical errors, such as repeated words." The quotes are from Sensible Software's description of its program. Said program has pull-down menus and it can be used with either a mouse or with the keyboard. I believe that Sensible Grammar does its proofreading job very well.

Just as with many spell checkers, the writer removes his text file disk from the word processor and submits it to Sensible Grammar. When "Grammar" sees what it perceives to be an error in grammar, it gives the user six choices on screen: SUGGEST (a suggested word change), IGNORE, REPLACE, MARK, ENTER and PRINT. If Suggest is chosen, the word or words supplied by the program are directly replaced in the manuscript without return to the word processor. When "Grammar" notes a punctuation error, three choices, IGNORE, MARK and PRINT are given.

Except for Suggest, where a direct replacement word, or words is provided, the program marks the error in the manuscript, and the user goes back to the word processor after the grammar check to make the changes. While this method is awkward, and one would prefer to make the changes immediately, it is an acceptable method of making changes, in my estimation. PRINT, permits the user to make a hard copy of the errors found, so that they can be more easily isolated and dealt with, back in the word processor.

The program reaches the user on one, two-sided 5.25" disk and is duplicated on a 3.5" disk, both in ProDOS format. The program is unfortunately copy-protected.

Some of the "errors" that Sensible Grammar catches are of course, not errors at all, but variations in usage. And this is where the human factor enters, and the user may choose IGNORE. Some of the choices offered under Suggest, on the other hand, are almost thesaurus-like, and expand the user's language capabilities. A prospective user should be aware that proofreading with Sensible Grammar, like spell checking, is time consuming, but well worth the time spent doing it.

Sensible Grammar's manual is bound in a 7X9" padded loose leaf binder. The tutorial part of the manual is concise and quite clear. The reference part of the manual discusses all of the menus in depth, as well as the other facets of the program.

Lastly, and almost as an afterthought, it's this reviewer's fond wish that Sensible Software, Inc., or some other software house would provide an up-to-date Thesaurus program and an Index-Maker for word processing users of Apple II.

PRINTRIX FOR THE APPLE II: A Review

by Bob Oringel

Printrix arrived at my home around mid-July, and I have been struggling to learn it ever since. Let me tell you why, but before I do, I want to begin this review with the bottom line: **I think that Printrix is an excellent program.**

Printrix is called Page Layout and Personal Typesetting Software by its software house. What Printrix does is to permit the user to type any kind of text, using one of the supported computers (//e, //c, GS), a supported word processing program, interface card and printer. And then Printrix prints out that text in over 180 currently available fonts, merging graphics into the text stream. 43 fonts and some Print Shop style art come with the Printrix package. 15 more packages of fonts are available through its sister program Fontrix, in the Fontrix Fontpax disks.

Printrix does all this by having your printer use its "graphics mode", instead of its usual "text mode". Some, like me, didn't think that my printer (Toshiba 1340) had a graphics mode, but it does, and it is slow.

One word of caution here. The Printrix package comes with a sheet that details just what word processors, what computers, interfaces and printers are supported. Please do BELIEVE IT! I tried to use my SERIALL, a very good interface, which is "just like" an Apple super serial card, but it did not work.

What took so long to do this review was the number of letters (and one phone call) to and fro with Data Transforms Inc. of Denver, CO, and one letter to the Fontrix/Printrix Club of Thornton, CO. This correspondence was mostly with Rod Nelsen, Chief Programmer for Data Transforms, also their excellent Apple Tech Support person, who wears the hat of President of the Fontrix/Printrix Club as well. The correspondence concerned the fact that while the beautifully printed and bound manual for Printrix leads one successfully through its tutorial, when it comes to the real world of printing the user's text, the manual falls woefully short.

It took a copy of the Printrix Club newsletter (Vol. 2, No. 9, Sept 87 edition), which has a step-by-step process, to lead me out of the wilderness. Further, I have been assured that the second edition of the manual will include that process.

I not only like and enjoy Printrix, but Data Transforms appears to have a fine tech support program for their products as well.

RAMUP 3.0 (Apple II): A Review

by Bob Oringel

RAMUP 3.0 is a great utility program, for those of us who have a large amount of non-volatile RAM. Version 3.0 is faster than earlier versions, and much simpler to set up, according to the president of Quality Computers.

Most Apple Two-ers these days have at least one Ramcard which expands the 64K or 128K computer to perhaps 512K or even a Meg—except perhaps the few who only use the Apple for gaming.

What you need for RAMUP to shine, is at least a Meg of RAM to be effective, and about a half-Meg of that must be in the form of a RamFactor or other similar card with an internal, separate, power supply included, so that when the computer is turned off, the Ramcard, and whatever is in its memory remains alive. If that is your case then, RAMUP provides you with a desktop in RAM. And upon that desktop remain all of the programs that you use daily (AppleWorks, Sensible Speller, Copy II Plus, etc.).

You can move between those programs as easily and as quickly as you can move between files on the AppleWorks desktop, without quitting one program, and swapping disks to get to another. What is more, you can return to the same spot in the program which you have left, and continue with your work.

The way in which all of your favorite programs, and even your text files, if you want them to, get onto the RAMUP desktop, is through a circuitous uploading routine, requiring advance preparation of the programs. This preparation is given ample tutorial assistance from two files: Program.Notes and Read.Me, in the Utilities part of the program, and in the very readable Introductory Guide. But thank heavens it need only be performed once. It takes a bit of time.

RAMUP comes on two sides of a non-protected disk, the program on one side and the utilities on the other. The program menus are clear, once you read the Guide. Reading the Guide, with its brief tutorial, is necessary because the RAMUP program uses double-escapes (ESC, ESC) which would not be evident from the menus. The Guide is 17 pages in length, clearly written and well printed. Both the guide and the program disk come in a very handsome plastic folder. RAMUP is a product of Quality Computers, of Grosse Pointe, MI.

Subject to your having sufficient non-volatile RAM, this is a very worthwhile utility.

Journal Authors Please Note

Because our December meeting is on the 3rd Saturday, there is an early deadline of Dec. 1 for Journal articles. Thank you for your cooperation.

PI-SIG NEWS

by Robert Golden

This month's meeting of the Program Interface SIG on Nov 2 in the WAP conference room was enlivened by the appearance of three additional WAP members, attracted by a great message about PISIG on the Telecommunications System. The work of the volunteers who made this possible is certainly appreciated. We welcomed Jim Winter, Jim Frison, and Jon Thomason, and missed a couple of our standbys. I personally marvel at the dedication of those who drive hours to get to meetings.

Without the Apple IIgs on hand this time, we turned to questions of what we wanted to accomplish in the short run, and how to do it. The diversity of the interests of the members became apparent when we became specific. Some of the subjects explored in some detail were dealing with the Toolbox, the choice of several systems for programming such as APW and Orca, using the TCS for obtaining specific routines useful in programming, and the use of Finder vs.the Launcher. An interesting idea was presented by Don Fortnum, who suggested that an expert on a particular aspect of the Toolbox, present at each meeting "the tool of the month" in greater than usual detail, thus sharing the expertise. When there is an Apple IIgs available at WAP, this could be much easier to do.

Changing gears from theory to nuts and bolts, we discussed hardware such as how to add 20 Megabytes to the IIgs, merits of different systems of expanded memory, and ways in which different disk drives could be connected for different types of computers in the Apple II series.

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C AND THE APPLE II

by John T. Bell

The C programming language has taken the microcomputing world by storm. Next to Basic and Assembler, C is the most popular language for small computer systems. It is very easy to find a wealth of information about C for computers like the IBM-PC or the Macintosh. However there has not been a lot written about C on the Apple II series of machines. This column will address the unique problems and experiences of C programming for the Apple II.

The C language is supported on the Apple II under DOS 3.3, ProDOS and under CP/M. There are at least two vendors of ProDOS C compilers for the Apple and many vendors of CP/M compilers. There is also a very affordable C compiler for DOS 3.3 available from Manx software. Manx has agreed to give Pi members a substantial discount on all of their Manx compiler purchases (Yes, that includes you Mac people too!) through the group purchase plan.

This column is not intended to be a tutorial on C but hopes to cover the specifics of C programming on the Apple. As interesting language features are used I will try to discuss them. I will also try to answer any questions that the readers may have with specific problems. I will attempt to discuss differences between the different compilers and under the different operating systems.

Working under three different operating systems sometimes has its problems. Besides writing this column I am also the CP/M and ProDOS librarian. One of the problems that I have run into is that of disk format conversions. Eventually I hope to design and develop through this column a Universal file copier. This file copier would allow easy and direct transfer of files from CP/M to DOS 3.3 and ProDOS. Keeping this long range goal in mind, my first offering is a program which reads the DOS directory from CP/M. This program should work on most of the popular CP/M cards.

The file bios.h contains descriptive MACROS for the CP/M bios functions. Keep this file handy for use in future programs. My system has a hard disk drive for CP/M disk's 'A' and 'B' so I have set the DRIVE value to 2, which is the "C' drive. Change this value as appropriate for your system. You may want to pass the drive as an argument to the program; however this is left as an exercise for the reader.

The short piece of Z80 assembler at the end of main() is to avoid the Aztec C exit() code. Under Aztec C, exit() is called when exiting a program to the operating system. Exit() sets up a CP/M FCB (file control block) and then makes a request to the BDOS FIND_NEXT function. This causes a disk error when reading a non-CP/M disk. So we avoid the code by doing a jump to 0 which is a CP/M warm start.

The structures, dir_entry and dir_blk define the structure of the Apple DOS directory entry and block respectively. These will also be used again in the future. For more information on the directory structure I recommend the book, *"Beneath Apple DOS"*, by Don Worth and Pieter Lechner and published by Quality Software.

Reading the Apple directory now becomes a problem of reading a particular Apple track and sector and then following the links until the end of the catalog. The function readsect() reads a particular CP/M track and sector and puts it into a buffer. The problem is that CP/M sectors do not correspond to Apple DOS sectors and CP/M sectors are only128 bytes long whereas DOS sectors are 256 bytes long. The solution is rd_asect() which does the CP/M to DOS sector translation and reads two CP/M sectors at a time.

The bios() and bioshl() functions are Aztec supplied functions which allow the setup and calling of CP/M bios functions. Other compilers should provide similar functions although they may have different names.

Finally, the Apple has this habit of setting the high bit of everything that stands still for long enough. The function fixstr() strips the high bit from each character in a string so that we can print it under CP/M.

Next month we will enhance this program to do Unix style wild card filename matching and then the following month we will make it run under ProDOS. Also I have just received the new HI-TECH C Compiler and will provide a review shortly.

Until then "C U later".

BIOS.H Listing

```
#define CBOOT 0
#define WBOOT 1
#define CONST 2
#define CONIN 3
#define CONOUT 4
#define LIST 5
#define PUNCH 6
#define READER 7
#define HOME 8
#define SELDSK 9
#define SETTRK 10
#define SETSEC 11
#define SETDMA 12
#define READ 13
#define WRITE 14
#define LISTST 15
#define SECTRAN 16  1
#define CONST 2
#define CONIN 3
#define CONOUT 4
#define LIST 5
#define PUNCH 6
#define READER 7
#define HOME 8
#define SELDSK 9
#define SETTRK 10
#define SETSEC 11
#define SETDMA 12
#define READ 13
#define WRITE 14
#define LISTST 15
#define SECTRAN 16
```

contd.

ADOSDIR Listing

```
#include <stdio.h>
#include "bios.h"
/*-------------------------------------------------------*/
/* Note: drive 2 = CP/M drive C:                         */
/* Change as appropiate for your system.                 */
/*-------------------------------------------------------*/
#define DRIVE 2
struct dir_entry { /* Structure of Apple DOS directory entry */
                                        char track;
                                        char sect;
                                        char ftype;
                                        char fname[30];
                                        int  fsize;
};
struct dir_blk { /* Structure of DOS directory block */
                                        char xx;
                                        char track_lnk;
                                        char sect_lnk;
                                        char notused[8];
                                        struct dir_entry dir[7];
};
main()
{
                                        int err;
                                        err = dir();
/*-------------------------------------------------------*/
/* The following, skips the Aztec exit code.             */
/*-------------------------------------------------------*/
#asm
                                        .z80
                                        jp 0
                                        .8080
#endasm
}

/*-------------------------------------------------------*/
/* dir()                                                 */
/* This routine reads the Apple DOS directory from       */
/* a DOS 3.3 disk and prints it to the display.          */
/*-------------------------------------------------------*/
dir()
{
                                        char buff[257];  /* disk sector buffer */
                                        char fname[32];  /* space for filename */
                                        int i,err;
                                        int disk;
                                        int track,sect;
                                        struct dir_blk *dblk; /* pointer to directory block */

                                        dblk = (struct dir_blk *)&buff[0];
                                        setmem(fname,32,'\0'); /* clear the filename space */
/*-------------------------------------------------------*/
/* get VTOC sector                                       */
/*-------------------------------------------------------*/
                                        track = 17; /* VTOC begins at track 17  sector 0 */
                                        sect = 0;
                                        err = rd_asect(track,sect,buff); /* read the VTOC sector */
                                        if(err){
                                        fprintf(stderr,"error %d track %d sector %d\n",err,track,sect);
                                        return(-1);
                                        }
/*-------------------------------------------------------*/
/* get catalog track, sector links                       */
/*-------------------------------------------------------*/
                                        track = dblk->track_lnk;
                                        sect = dblk->sect_lnk;
/*-------------------------------------------------------*/
/* read sectors until no further catalog links           */
/*-------------------------------------------------------*/
                                        while(track && sect){
                                        err = rd_asect(track,sect,buff);
                                        if(err){        fprintf(stderr,"error %d track %d sector %d\n",err,track,sect);
                                        return(-1);
                                        }
/*-------------------------------------------------------*/
/* Print the directory entries                           */
/*-------------------------------------------------------*/
                                        for(i=0;i<7;i++){
                                        if((dblk->dir[i].track != (char)0xff)&&
                                         (dblk->dir[i].track != (char)0)){ movmem(&dblk->dir[i].fname,fname,30);
                                        fixstr(fname);
                                        printf("%s\n",fname);
                                        }
                                        }
/*-------------------------------------------------------*/
/* Get the next Catalog track and sector                 */
/*-------------------------------------------------------*/
                                        if(track||sect){
                                        track = dblk->track_lnk;
                                        sect = dblk->sect_lnk;
                                        }
                                        }
}
/*-------------------------------------------------------*/
/* readsect(drive,track,sect,buff)                       */
/* Uses the CP/M Bios to read the CP/M track and         */
/* sector specified form the indicated disk drive.       */
/* The data is put into the memory pointed to by         */
/* buff.                                                 */
/*-------------------------------------------------------*/
int readsect(drive,track,sect,buff)
int drive;
int track;
int sect;
char *buff;
{
                                        int skew;
                                        int tru_sect;
                                        int err;
/*-------------------------------------------------------*/
/* Get address of disk parameter block.                  */
/*-------------------------------------------------------*/
                                        skew = bioshl(SELDSK,drive,0);
                                        if(skew == 0){
                                        return(-1);
                                        }
/*-------------------------------------------------------*/
/* Select the track                                      */
/*-------------------------------------------------------*/
                                        bios(SETTRK,track,0);
/*-------------------------------------------------------*/
/* Select the sector                                     */
/*-------------------------------------------------------*/
                                        tru_sect = bioshl(SECTRAN,sect,skew);
                                        bios(SETSEC,tru_sect,0);
/*-------------------------------------------------------*/
```

contd. on pg 79

The Musical Apple

.....by Raymond Hobbs

GETTING SERIOUS ABOUT SYNTHESIS (Part 1)

At some time along the way, the casual hobby begins to acquire the properties of an avocation—it becomes serious. In music synthesis, the consequences may be staggering: the den which once housed a desk, computer and a keyboard now sports a six-foot rack with four tone generators, equalizers, reverbs, sound compressors/limiters, a drum machine, 8-channel mixer, 500-watt amplifier, boom with microphone and two sets of headphones; men acquire a new Kenny Rogers wardrobe; women buy a 12-volume library of audio engineering textbooks; the dog whines and yowls for hours, and the affected family member follows the poor beast around with a microphone to sample the sound. Chaos reigns.

I have no solution for this turmoil. I am currently trying to sample the sound of two black mollies mating.

I do have some advice on how to use some of the more sophisticated features of your synthesizers, however, so that you can get the most out of the equipment you have before you add more watts to the system.

Today's synthesizers offer a wide range of features beyond the basic transmission and reception of notes. Virtually all of them can send and receive data which changes instrument timbre (tone color). Most can play several timbres simultaneously, and can alter the pitch and vibrato of notes during performance.

There are two basic modes of play for synthesizers—*live* and *MIDI*. In live mode, what you play on the keyboard is what you get. There is no editing of sounds, no correcting tonal mistakes, and (in fact) nothing to write about. In *MIDI* mode, however, the synthesizer sends and receives musical data over communication lines known as *channels*. Normally, sixteen channels are used and channels may be assigned to communicate with the voices in the synthesizer. In *MIDI* mode, you may still play on the keyboard, but what you play is sent out over one or more channels (unless you deactivate the keyboard). Moreover, the synthesizer may send and receive *polyphonically* (all voices are set to the same timbre) or *monphonically* (each voice has its own timbre) on all channels (*omni on*) or selected channels (*omni off*). Written out, the process sounds more complicated than it actually is (there's less here than meets the eye). In a typical scenario, the synthesizer's MIDI interfacing may be set as follows:

OMNI: on - send/receive on all 16 channels or
OMNI: off - send/receive on channel(s) ___[you supply the channel(s)]

POLY mode: send/receive all voices with one timbre or
MONO mode: send/receive each voice with its own timbre

For example, on an eight-voice synthesizer, all voices could be assigned to communicate on channel one (omni off, poly mode), or each voice could be assigned to communicate on a different channel—say, channels one through eight (omni off, mono mode). Restrictions may apply. To take one case, my Casio CZ-3000 can have voices assigned to different channels, but the channels must be consecutive. You may assign voices one through four to channels three through six, for example, and the remaining voices will be available in *live* mode at the keyboard. BE SURE TO FIND OUT how voices may be assigned in mono mode. Many synthesizers are incapable of multi-timbral operation—and this is not restricted to the cheapest units, either!

The first stumbling block in a MIDI home recording studio (even for the hobbyist that's really what it is, after all) is getting comfortable with recording in mono mode, using several timbres. With more than one synthesizer, the operation is even more daunting. Using my own system as an example (since I use just about every kind of MIDI implementation there is), I will walk the reader through a setup to produce 37 voices sounding in 21 timbres. The equipment I use is listed below:

1 Ensoniq Mirage multi-sampling keyboard synthesizer
1 Ensoniq Mirage rack-mounted multi-sampling synthesizer
1 Casio CZ-3000 keyboard synthesizer
1 Yamaha TX81Z rack-mounted synthesizer
1 E-mu SP-12 sampled drum synthesizer
Southworth JamBox/4+ MIDI-SMPTE interface
Macintosh Plus computer

After turning on all of the equipment (with all of the audio equipment included, this takes about 3 minutes or so), I set the synthesizers as follows:

Ensoniq Mirage keyboard : OMNI off; send/receive on channel 1
Ensoniq Mirage rack unit : OMNI off; send/receive on channel 2
Casio CZ-3000 keyboard : OMNI off; MONO mode; keyboard on channel 10; send/receive on channels 3-10
Yamaha TX81Z rack unit: OMNI off; MONO mode; send/receive on channels 11-15
E-mu SP-12 drum machine: OMNI off; send/receive on channel 16

Here's what each one of those settings does:

The Ensoniq Mirage units, both keyboard and rack, have no MONO mode available. Since they are samplers, however, up to 8 different timbres can be assigned to non-overlapping note ranges—in other words, an 8-way keyboard split. Therefore, only 1 channel is required for each unit. After turning OMNI off (to keep the units from accessing the other channels), the keyboard is assigned to channel 1 and the rack unit to channel 2. When recording, I can write up to 8 notes at a time for output on

contd.

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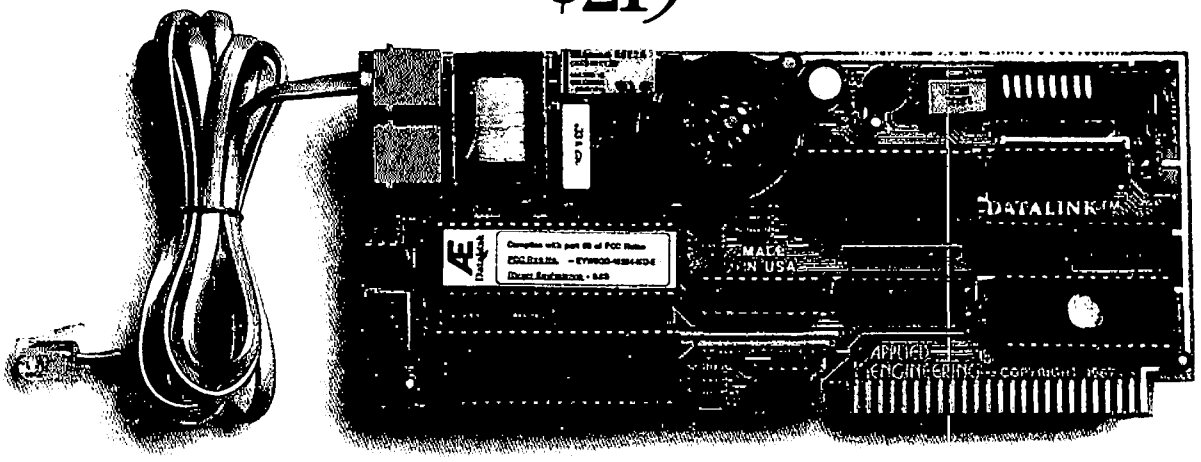

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both channels 1 and 2.

The Casio CZ-3000 accepts MONO mode for multi-timbral operation. Each channel assignment must be consecutive. Therefore, starting with Channel 3, I assign 8 channels to MONO operation—channels 3 through 10. When all 8 voices are assigned to MIDI input/output, the keyboard is silent, so if I need to hear what any particular patch sounds like, I can drop the top voice (which is assigned to channel 10) out of MIDI I/O, and channel 10 becomes the live keyboard. As with the Mirage units, OMNI is turned off in order to avoid channel spillover.

The Yamaha TX81Z is a third breed of cat. As with the others, OMNI is turned off and MONO mode is invoked. On the TX81Z, MONO mode is called "Performance" mode, and allows selection of any one of 24 preset patch files to be loaded into the synthesizer. Voice and timbre assignments to channels are parameters contained in these preset patch banks. Mine are all set to allocate 8 voices among from 1 to 5 timbres on channels 11 through 15. A typical TX81Z patch preset might be "Channel 11-2 voices-trumpet; Channel 12-2 voices-french horn; Channel 13-2 voices-flute; Channel 14-1 voice-clarinet; Channel 15-1 voice-chinese gong".

The E-mu SP-12, being a drum machine, is a special type of synthesizer. While I still must set OMNI off, the machine does not have a true MONO or POLY mode. Instead, different drum sounds are assigned to different notes, like a special kind of keyboard split. The SP-12 has 32 different percussion sounds available, each one with its own assigned note. I route all of this through channel 16.

After all of this has been done, the MIDI recording can commence. Since program (patch) changes can be sent and received as MIDI data, I usually start each composition by loading in patches for the CZ-3000 and a performance preset for the TX81Z. The Ensoniq Mirage patches are loaded manually from 3.5" disks on each synthesizer. The E-mu SP-12 has its drum sounds built in, but new ones can be loaded from disk if desired.

I try to have each recorded track correspond to an instrument, so I will usually have more than one track recorded for channels 1, 2 and 16 (since these synthesizers may each have more than one instrument sound per channel). However, if I have an instrument timbre with a long decay time (such as a harp) on the CZ-3000, I will have to assign that instrument to more than one channel, so that the attack of note 2 does not cut off the decay of note 1. (As a matter of fact, I usually do put my harp timbre on the CZ-3000, since the CZ has a very pleasing harp patch.)

After setting everything up, my orchestration may look like this:

Instrument	Track	Channel	Synthesizer
Violins	1	1	Mirage keyboard
Cellos	2	1	Mirage keyboard
Flutes	3	1	Mirage keyboard
Piano	4	2	Mirage rack unit
Bells	5	2	Mirage rack unit
Chimes(a)	6	3	CZ-3000
Chimes(b)	7	4	CZ-3000
Harp(a)	8	5	CZ-3000
Harp(b)	9	6	CZ-3000
Solo voice (Sop)	10	7	CZ-3000
Solo voice (Alt)	11	8	CZ-3000
Oboe	12	9	CZ-3000
Trombone	13	10	CZ-3000
Trumpet 1	14	11	TX81Z
Trumpet 2	15	11	TX81Z
French horn 1	16	12	TX81Z
French horn 2	17	12	TX81Z
Clarinet 1	18	13	TX81Z
Clarinet 2	19	13	TX81Z
Bassoon	20	14	TX81Z
Tympani	21	15	TX81Z
Bass drum	22	16	E-mu SP-12
Trap drum	23	16	E-mu SP-12
Snare drum	24	16	E-mu SP-12
Crash cymbal	25	16	E-mu SP-12
Triangle	26	16	E-mu SP-12

Total: 21 timbres, 26 tracks, 16 channels, 37 voices, lots of fun!

In the above configuration, the Mirage keyboard has been split into three sections (lower notes play cellos, top notes play flutes, notes in between play violins), the Mirage rack unit has been split into two sections (uppermost notes play bells and everything else plays piano) and the E-mu SP-12 plays five percussion parts. The Casio CZ-3000's chimes and harp, both of which have long decay slopes require two separate channels each and so the chimes and harp are split into parts (a) and (b), which play alternate notes. The two solo voices, oboe and trombone require only one channel each. The Yamaha TX81Z uses two voices each for trumpet, french horn and clarinet. The TX81Z allows these two voices to be sent over only one channel, but I used separate tracks to simulate separate orchestral parts for each instrument. The tympani was added because the E-mu SP-12 does not have this percussive instrument in its patch banks.

The resulting orchestra has a string section (but no solo strings), two trumpets, two french horns, a trombone, a flute section (again, no solo flute), two clarinets, bassoon, harp, piano and full percussion—roughly the equivalent of a 40-piece orchestra.

At some point along the way, we may even begin to get serious about synthesis!

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Our October meeting was held at the Dolly Madison Library in Falls Church, Virginia. Yamaha's latest synthesizer, the TX81Z was demonstrated, showing off a few of the musically sophisticated features of this year's crop of synths, including such things as multi-timbral polyphony, selectable scales, microtuning, user-selectable preset performance patch groups and independently controlled pitch blend and modulation.

The next meeting will be held on Saturday, December 12 at 1:00 P.M.

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Smart Computer

The Generic PC: An Enduring Classic

by Bud Stolker

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BEST OF THE APPLE ITEMS FROM THE TCS

by Alexander Barnes

Printer Busted

WALT MOSSBERG ON 10/25

I have an urgent printer problem. My 11-month old ImageWriter II has stopped feeding paper correctly. What happens is that after 3-4 sheets of pinfeed—sometimes even fewer—the paper goes lopsided with the right-hand tractor (as viewed from the front) continuing to feed while the left-hand one is jammed. The paper just stops and the holes and pins, especially on the left rear, get out of line. I THINK the problem lies with a jam-up under that curved, slim metal piece on the left rear of the roller (platen)—the one connected by a (ground?) wire to the metal chassis. But I can't figure out what this is (someone suggested it might be the end-of-paper sensor). I have already tried loosening the clear plastic guide that is attached to the printhead carriage, but that didn't help. PLEASE. If you have any experience with this, let me know: A. If there's a way to remove the curved metal piece (The $20 IW2 Tech Ref manual is useless on this subject) or... B. If there's any other solution to the paper feed jam-up, short of bringing it to a dealer, where there's a high chance they'll screw it up.

KIM BRENNAN ON 10/25

I've encountered something similar to this problem. As near as I can discover the real problem seems to be that the Imagewriter II performs very poorly when feeding the paper IF the paper is not free to feed into the printer. Even the simple weight of the paper (of 6 or 7 sheets) can be enough to cause paper feed problems. Another (possibly related) problem can occur if the spacing of the pinfeed tractors is just slightly too wide. This can cause the side pinfeed portion of the paper to separate (if you use that type of paper) or to bind causing the paper to jam up. The solution then seems to be a combo of narrowing (just slightly) the spacing between the pinfeed mechanisms and of arranging the paper so that it has very little drag on it. Hope this helps. Walt, one other thing. If the paper supply is not in a direct line with the pin feed tractors this can also be enough to cause the misfeeding problem.

BRETT PARKS ON 10/26

Another way to keep a tractor feed printer from jamming up is to let the tractor on the right hand margin "float". That is, lock down the left hand tractor to keep the paper where you want it on the printer, but let the right hand tractor remain unlocked. This will allow the right hand tractor to move slightly to correct for any variation in the width of the paper.

Mouses

RAY COOPER ON 10/26

Is there a difference between a //e mouse and a //c mouse? Are they interchangeable?

STEPHEN WYATT ON 10/27

NO! A //e mouse and //c are NOT the same—at least, I have a //e mouse, and it won't work on my friends laser 128. (on which the //c mouse does work perfectly.)

RAY COOPER ON 10/28

Thanks for your reply, Stephen. I was basically wondering if the mouse purchased for my //e will work properly on my //c. I have plugged the sucker in, and it seems to work ok; however, not being a rodent expert, thought I would check for complete compatibility!! Who knows a place and good price on a mouse pad?

KIM BRENNAN ON 10/28

Ray, I've used (with no problems) a //e mouse on a //c. In fact they are the same device. The difference in price is due to the controller board for the //e (the //c interface is built in). Program-wise of course, they work differently on the two machines (though you wouldn't know it if you're just a user). I suspect the problems that Steve Wyatt had were due to the Laser 128 not the mice. BTW there is also a mouse called the A+ mouse with will work on the //e or //c (on the //e you still need the controller card). This is an optic mouse and seems very smooth—it comes with its own (required to use) pad. No difference in price between it and the //c mouse. For Apple type mice pads (what English!) the Pi Office has some. don't know what the price is offhand. (Ed. Note: $7.95 + tax). Oh, and of course, the mouse used on the Lisa and early Macs is interchangeable with the //c and //e mice. The SE and Mac II mice are only interchangeable with the GS mice.

WALLACE RIDLEY ON 10/29

Best mouse pad I've ever used is the last piece of heavy duty paper from a pad of paper. When it wears out after about six months, I just get another. The price is right and they seem to be the right size. I tape them in place next to the cpu.

Color on a Franklin

GEORGE KOELSCH ON 10/25

I need a solution to a problem. I own a Franklin 1000 that I'd like to use in a color mode. It's one of the original Franklin's before the mods resulting from the lawsuit. I've tried two different RF modulators connected to a color TV. Neither one worked with the computer. The color TV worked with one of the RF modulators with a C64. So they are not the problem. I also have an Epson color monitor. I checked with Applied Engineering and their ColorLink RGB option will not work with Franklins. Is there anything I can use that will allow me to use color? Are there any cards that will allow me to use my Epson monitor, even though it is an IBM-type system?

EUCLID COUKOUMA ON 10/26

Finding out what is happening is a matter of divide and conquer. The first question I'd ask is, "Is the Franklin putting out video that approximates NTSC Video? (I am assuming that your TV is giving good color on off air or cable TV.) There are many color standards. US broadcast TV is NTSC. The original Apple][‘s also were designed to work into an NTSC monitor or a TV set if you used a RF Modulator. They put out "composite video" that is close enough to NTSC to slide by. All the Apple][‘s through

contd.

the //e have this mode. I assume that the IIgs does also. Its advantage is that you can use an RF modulator (cheap) and the TV that you already have. Its biggest drawback is horizontal resolution. NTSC systems are limited to about 40 characters per line. As specialized monitors became common and cheaper and as the][series grew and added printers, disk drives, 64K or more of memory, etc. until it became a machine for serious work, 40 column text was replaced by 80 column as the main video mode with the //e, and later RGB monitors became cheaper and RGB cards common.

Your Franklin almost certainly has composite color. Try feeding it directly to a composite color monitor (the type that gives nice color pictures from the Video output of a VCR instead of the TV Antenna type output that you connect to the TV antenna terminals). The output connector is probably an RCA connector—the same one used on most green and amber screen monitors. Make sure the cable makes good contact on both ends. RCA connectors are cheap but they have problems with good contact. (RCA connectors are also called Phono Plugs and are the most common connector on most hi fi sets).

Not all programs are designed for color. Be sure the program gives good color on an Apple][with a composite monitor.

JON THOMASON ON 10/26
I've set a few people up using their TVs for color by running the RCA plug over to the VCR and pretending it's a camera. Works fine—IF you have a VCR.

JON THOMASON ON 10/26
My][+ needed a small board inside the case with a four-pin connector to the video pins on the motherboard. I don't remember why this was, but I can find out, if you wish. I'm also not using it.

COUKOUMA ON 10/27
I just pulled out my 1978 red Apple][Reference Manual. It shows a video output on an RCA (Phono) jack and a four pin connector that was intended for the use of an RF modulator. This jack has video,+12V,-5V and Ground on it. This is described on page 112-113 of the red book and page 9 of the 1979 Apple][Reference Manual. If the output of the little card went to the antenna terminals of an ordinary TV set then it was an RF modulator, a device used to convert video signals to the RF (Radio Frequency) TV signals that ordinary TV sets need. (An RF modulator is a miniature, very low power TV transmitter.) "Composite NTSC video signals are what you find running around inside TV stations, at the back of VCR's on a phono jack marked "VIDEO", and what "Composite Color Monitors" want as an input. Ordinary green, amber and black & white monitors will also display a "Composite Color" signal well, but the color information shows up as a fine pattern on the screen. One day I must connect my VCR video out to one of my green screens. That should bug someone else around the house. I've only done it with black and white monitors so far.

Zip Chip?

LEE RAESLY ON 10/08
Does anybody have any info on the Zip Chip? Where was it advertised? How much? Who makes it? Where can I order some? How fast? Does it really run everything?

PAUL SCHLOSSER ON 10/08
Lee, for info on the Zip Chip, check the October issue of Nibble, page 47. They have a 800 number, 1-800-628-FAST. It goes for $129, with a 30-day money back guarantee.

DALE SMITH ON 10/08
Check the last issues of A+ and Nibble. I think I've seen ads in both.

BRETT PARKS ON 10/12
Just what -is- a Zip Chip?

KIM BRENNAN, ON 10/12
The Zip Chip is a CPU replacement, that is 'supposed to' speed up the //e (or even //c) by 400%. I'm somewhat suspicious of this currently—it sounds too good to be true. This is NOT an accelerator card—it is JUST the CPU chip. The idea is that you will remove your 65C02 and replace it with the Zip chip. [Comment: at $129 I'd like for MY Zip chip to be gold plated at least!] The company has mentioned that they are ALSO working on a GS Zip Chip (that would operate at effectively 10Mhz—4 times the current GS speed.—but 10 times faster than a //e!) As I said, it sounds too good to be true. (But, I'll buy it if it IS!).

DAVE HARVEY ON 10/12
As I understand it, Novapple and WAP are going to try to get a group buy together. Shelley will be talking to Rich.

DALE SMITH ON 10/12
It is a single chip accelerator for //e and //c that replaces the 65C02 chip. It runs at 4 MHz and has 256K of fast RAM on board that allows acceleration of Main and Aux RAM and ROM. See the ads in the latest issues of A+, Nibble, InCider, etc.

JERRY OPPENHEIMER ON 10/13
Dale, will it run with a Z-Ram installed in the //c? I assume, for the //c, it's similar to AE's Transwarp card.

JON THOMASON ON 10/13
Does this mean you send your "old" CPU back to them? I don't remember seeing that in the ad. If you don't have to, that's not that expensive a deal. It doesn't make much sense to keep an old 6502 lying around, but it's not very expensive as a replacement, anyway.

DALE SMITH ON 10/13
So far I only know what has been said in the ads. There are lots of questions about compatibility with other boards/peripherals, etc. that have to be answered before I would say, "Go for it".

BILL SANDERSON ON 10/17
From what I understand it's a re-engineered 6502 processor that has a clock speed of 4 MhZ. Therefore, it's faster at processing data, etc. Sounds to me like it would be better than a slot card—gives you another slot to fill with something better.

contd.

GS SoftSwitches

RAY COOPER ON 10/19
Jon, which issue of NIBBLE are you in? And what did you write about? Congratulations. Are you mailing copies of the magazine out, or do I need to go buy one? [Tightly holding on to his empty wallet ...]

JON THOMASON ON 10/19
November '87. GS SoftSwitches. All in all, this is a really good issue, me notwithstanding. Go get a copy. If you'd rather not, you can check the Office copy. I'll be autographing copies at the meeting next Saturday..

LEE RAESLY ON 10/21
I did buy the issue, Jon. It looks like a great article! And featured on the Cover, as well! Congratulations!

VT100 Emulation

GLEN HUMPHREY ON 10/10
Do any of you know of a communications program for either the //e or the IIGS which will emulate a VT100 terminal? ASCII Express, which I'm presently using, doesn't; and I need VT100 emulation to access a DEC mainframe I'm using at work.

SKIP MORGRIDGE ON 10/10
I've gone thru this myself. SOFTERM II will do the VT100 on a //e now. Supposedly, the next upgrade to ProTerm (Ver2.0) will have it too. I'm also advised that ASCII Express Pro will be upgraded soon to handle VT100. I can't believe the scarcity of that feature considering the proliferation of the VAX/DEC mainframes.

ALLAN LEVY ON 10/10
This is the latest update on VT100. DCOM 3.3 in the disketeria will run on your //e - shareware. Apple Access will (I believe). Proterm is scheduled to shortly. Mousetalk is promised to shortly. DCOM 3.3 runs on //c, will not support GS serial yet (promised). Softerm will—but tends to be confusing.

STUART SPRANSY ON 10/13
The upcoming ProTERM v2.0 will do VT-100 emulation. Supposedly it's almost ready for release.

DALE SMITH ON 10/13
The Pre-release test version is going out late tonight or tomorrow night. I'll let you know how the VT-100 works (if it's not one of the features being inhibited in this test version).

DALE SMITH ON 10/17
No, ProTERM is not copyprotected. I should be getting the test version Monday or Tuesday (given no more little "adjustments") and I'll have a chance to check the VT-100 on our VAX.

Hard Disks

KIM BRENNAN ON 10/08
ProAPP has been acquired by PLA (I think that's their name), an IBM Hard disk manufacturer. They still make and sell ProAPP drives under the name ProAPP. This info was in the November issue of A+. I noted with interest that the CMS SCSI drives are NOT interfaceable with the APPLE SCSI interface card (and vice versa). ProAPP SCSI Hard Disks, and Hyperdrive Hard Disks ARE interfaceable with the APPLE SCSI interface cards. Siders use an SASI interface (I'm not sure WHAT the Mac Sider uses). The SASI interface predates the SCSI standard—this standard is what CMS uses. Apple (in their wisdom) cuts out half of the lines (all ground lines) and makes the SCSI connector smaller than the real standard. Standard stuff for Apple.

EUCLID COUKOUMA ON 10/09
Has anyone here ever studied the differences between the hard drives used on IIs and Macs, and those used on PC Clones. There seems to be a de-facto standard for both floppies and hard drives that allows the IBM PC and its clones to use the same or similar drives (although the drive controller card varies a lot) as a lot of other computer based equipment. What are the differences inside the II/Mac Drives? I am particularly interested since I bought a 30 Meg drive for my Greifkit (no Greif - Its better built than IBM!) for $399 a few months ago. That's much less than any Apple hard drive that I know of! I love keeping my programs on the hard drive. Its so much faster and more convenient than using floppies. I want something similar for my //e but not at more than $599!

BRETT PARKS ON 10/09
The simple but unfortunate fact of the higher prices on Apple—anything—just about is Market size. The overhead involved with the production of the hardware is the same if you sell 10,000 (to Apple type people) or if you sell 1,000,000 (to IBM types). As those start up costs are not trivial, they add a substantial premium to the Apple equipment.

WALLACE RIDLEY ON 10/09
I own a Proapp and love it. It used to be noisy but after a recent accidental jolt while moving my computer desk, it is very quiet. The people I've dealt with at Proapp have been great. Clinton sold me the drive they were testing about 18 months ago. They had lost the operating manual so I called Proapp. Within two days, I had a new manual, new software, and notification of warranty registration. The drive supports the //c along with the other IIs. It also is supposed to work with the Mac. When I saw it at Clinton, it was connected to a Mac. I have sectors set up for Apple Pascal V1.3, ProDOS, and DOS 3.3. Proapp provides the software to switch between systems. I use Mouse Desk and an operating shell. When I turn on my //c, the system boots from the Proapp and loads Mouse Desk. From there, I can choose any system or any program to run.

LEE RAESLY ON 10/09
Also, all of those IBM drives are internal, thus no casing, and no power supply.

SHERMAN LEWIS ON 10/09
I know a guy who can take a Seagate HD and convert it so it's able to be used with Mac and Apples. The total cost with SCSI card is like $499 for a 30 meg. His name is Scott Sidely on the TAP and Starport board. I might get him to convert one for me. It can

contd.

be used with Mac and Apples.

Telecommunications Software Advice

GARY LARSON ON 10/25
Telecommunications novice seeks advice. To wit: the software I'm currently using (Terminus, from Quark) lacks error checking and has frustrated my efforts to download binary files. AE Pro seems to be the weapon of choice, but are there any others I should consider? Any advice would be appreciated.

BOB COSGROVE ON 10/25
I bought MouseTalk when I began telecommunicating five months ago. If you've got a mouse, I can't see where you can go wrong. To get started, there's not that much to learn; you really just have to point and click!

ALLAN LEVY ON 10/25
A quick summary is:
1-AE Pro is not for beginners.
2-AE Mousetalk is very nice is you have a mouse.
3-Proterm is very suitable for beginners.
4- PTP is very good and looks like AppleWorks.

DALE SMITH ON 10/25
Consider any of the following: AEPro (ProDOS), MouseTalk, ProTERM, or even the shareware Talk Is Cheap which is on the system. All have very good features. I think MouseTalk and ProTERM are at the top of the heap for full featured communication programs.

BRETT PARKS ON 10/26
Another one worth looking at is ProTerm for the Apple. It's ProDOS based and has a lot of nice features, but does lack the very nice TEXT editor you get with AEPro. I have used both, and would have a hard time deciding on which one to have if I could only have 1. ProTerm may be a bit easier to use, however.

JON THOMASON ON 10/26
Dale Smith would have you eat your words. The newer ProTerm versions have the largest, most full-featured text editor you could imagine. BUT, it's not out in full-release form yet.

DALE SMITH ON 10/26
I am now testing the next edition of ProTERM (to be Version 2.0). It has a VERY nice text editor which takes a lot of inspiration from Apple Writer but brings it up to date. It also has a procedures language which I can't comment on at the moment since we haven't gotten any info on the keywords that are used to automate the functions of the communication program. The editor is FAR FAR FAR better than AEPro (which I used to use). It is in the same league as the MouseTalk editor, though ProTERM does not use the mouse. The ProTERM editor is much closer to a word processor than the MouseTalk editor. PT has formatting commands for your printing (a la Apple Writer). More after I get the next test version (the last one has only been out a week, and here comes the next update—that's the reason for testing.)

BRETT PARKS ON 10/27
Well, if it ain't released yet, then—if you want an answer for a problem you have today, you can't sit by and wait for a solution that is due to be available "real soon now ....". But, I will admit that that is the only real fault I could find with ProTerm as opposed to AEPro. I guess I just got spoiled having that Editor resident there and all ready to go. Was real handy for a quick edit of msgs from MCI mail and the like so I could remove the (press return to continue) lines and such before I printed out mail to be delivered.

ALLAN LEVY ON 10/27
ProTerm is in true Beta. Dale, Harvey and I are testing it, so it is not real soon now.

GARY LARSON ON 10/28
Many thanks for all of the ideas concerning my search for telecommunications software. It seems that ProTerm wins this informal poll, and I must confess that I'm unfamiliar with the product. Is it available locally, or is it best to mail-order it? Again, any advice would be appreciated.

DALE SMITH ON 10/28
The last VF Associates ad in the Pi Journal shows that they are carrying ProTERM. Check it out.

BRETT PARKS ON 10/28
ProTerm should be available locally, but it would probably be cheaper to mail order it. The only real advantage I could see to a local purchase would be the time saved, cause it sure won't get you any $ savings.

DALE SMITH ON 10/28
ProTERM at VF Associates is the same price as many mail order places, $79. Programs Plus might have it for $75, and AZ Tech Computers in Arizona has it for $69. But shipping costs may reduce or eliminate the advantage. I'll have to check on the address/phone number for AZ tech, if you're interested.

Monitor Flickering (Ctd.)

MOHAN PAUL ON 10/03
I have an Apple //c with a monochrome monitor, and every now and then the screen flickers, sometimes for as long as a minute. It seems to happen randomly. Some days I have no problem with the flicker, then on other days it seems to happen all the time. Has anyone had the problem and is there something I can do about it short of buying another monitor?

HARVEY KAYE ON 10/04
About a year and a half ago I was having a similar problem with the identical equipment. Finally, I discovered that the male phono plug from the monitor to the //c had a loose fit into the socket, and I very slightly pressed the circular flange which surrounds the central pin on both sides with my fingers to slightly tighten the fit of the plug around the socket. This corrected the problem for me and it has not occurred since. Hope your problem is as easy and inexpensive as mine was.

contd. on pg 36

ON-LINE OFFERINGS Apples Leave the Teacher's Desk, or Rather, Bring the Teacher to Your Home or Office

by Patricia Kirby

Down with lengthy commutes! Away with the clock! Learning and training for adults is becoming more and more common on-line. An increasing number of courses are available for those who dream of sitting at home or office gaining new knowledge and skills, rather than driving to a local campus several times a week. Any time of day or night.

Toasty warm on a bitter day, feet up and relaxed, coffee in hand, you face your computer in a whole new relationship as it becomes a channel of instructional delivery. However, the computer's role in on-line instruction is not like a children's software program, drilling and practicing, rewarding right answers. Instead, it's a learning tool—and a link between real live teachers and students.

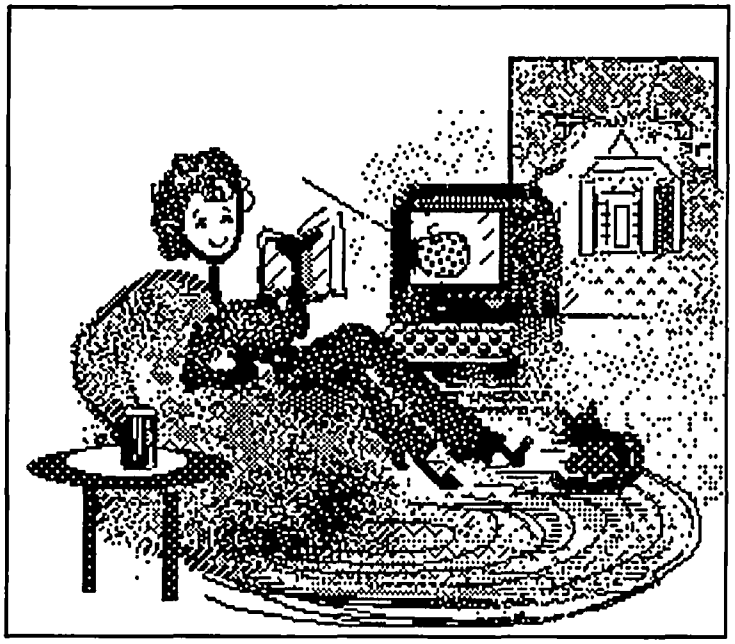
Courses can often lead to certificates or full graduate and undergraduate degrees (often at far less cost). Or they may be taken on an ad hoc basis. All that's needed is a computer and a modem, not even computer literacy!

However, courses often take advantage of a wide range of computer technology, such as electronic mail and computer conferencing. Depending on the "mix" of such adjunct technologies, your course may bring you into contact with just your instructor or other students in other areas.

For those deciding to pursue a degree, occasional "live" class sessions or exams may be required at the parent campus or some local site. In the case of some campuses such as NOVA in Florida, you can combine a vacation with study!

There's no one personality style that shines in on-line learning. It doesn't matter whether you're quiet or talkative, analytic or global. There's something in on-line learning that challenges and engages all types of students—of all ages.

BYTE Magazine urged colleges and universities (editorial, September, 1986) to expand credit courses on-line, as well as to combine on-campus and on-line instruction, especially through



computer conferencing. With its own offices located in a rural area, BYTE staff knew of what they spoke when they touted the advantages of on-line learning for professional and personal growth.

Corporations often pay for employees to take on-line courses in the same way as they do for regular courses. In some cases, employees may have a better chance of convincing management to do so when they point out that they will not have to lose time or energy traveling to a campus!

Look on the Education Bulletin Board (Board 22 of the General Conference) for details of some of the on-line courses, forums, and bulletin boards presently available (under "On-line Offerings"). The list will be periodically updated.

SPECIAL EDUCATION SOFTWARE AVAILABLE

The following is reprinted from a recent edition of the newsletter of the Association for Children with Learning Disabilities:

Using computers can be a terrific learning experience for children, who unlike many of their parents and teachers, don't find the machines intimidating. They can work at their own speed, and the computer will repeat the same exercise as often as necessary. Yet finding appropriate software can be a problem.

Help is now available from the Special Education Software Center, a data base funded by the Department of Education. If given a student's particular handicap, age, reading level, type of computer, and subject area to be studied, the Center will advise what software is available, how much it costs, and where to get it. You can call the Center toll free at (800) 327-5892.

Best of Apple TCS contd from pg 35

EUCLID COUKOUMA ON 10/09

Harvey Kaye is right. It may be a poor connection due to the use of phono plugs (RCA plugs) for the video connection. These plugs often cause problems in audio as well as video. They are common because they are so much cheaper than Canon connectors in audio and good BNC's in video. I occasionally encounter the same problem with the green screen monitor that I use on my Heath H-150 (Zenith PC Clone). It could be other problems. If it is the connectors or something that affects the video circuits of the monitor or computer the intensity will vary but the letters will stay in fairly good focus . If you have problems in the high voltage/horizl sweep or power supply circuits of the monitor the focus will vary and the size of the picture will often vary.

JON THOMASON ON 10/09

And if they're tight enough, you might try gently scraping the connections with a knife or sand paper or something, as they can build up residue.

"COMPUTER LEARNING MONTH"
OCTOBER MAIN MEETING WRITEUP
by Patricia Kirby

EDSIG is very pleased with the response to our first-ever Main WAP meeting drawing on an educational/training theme, held October 24. Especially gratifying were all the messages received on the new Education/Training BBS (Board 22 on the WAP General Conference), set up the very day of our meeting!

Of course, we could offer only a "tasting" of the many wonderful DC-area Apple and Macintosh possibilities in education and training.

A minor carnival flavor was afforded by co-sponsoring Clinton Computer Co., who had set up tables in the corridor to show off software from Apple and other selected suppliers. This was one WAP meeting from which nobody left empty-handed—not with Clinton's gaily-colored pom-poms and copies of Everything You Need to Know (But Were Afraid to Ask Your Kids) About Computer Learning.

Until organizing this meeting, we had no idea how resourceful Clinton (i.e., Ginny Stange and Mary Ann Heurcle) could be in awareness of what local educators were doing what with which Apple products. Nor had we any idea of the variety of non-software educational resources that Apple itself had, such as *"Access,"* a film on ways that the handicapped are using Apples.

David Kreisberg of Thomas J. Pullen Magnet School (Prince Georges County) discussed some of the exciting programs in which his school and district are involved. Beating BIll Atkinson to the USUHS podium by two weeks, David intrigued the audience with original Hypercard-driven applications.

Karen Rosenbaum, founder/director of the only remaining local summer computer camp, showed a film of the children in a variety of computer and sports activities. TIC Camp sets up on the grounds of Mt. Vernon Jr. College in NW DC, summers only. Karen's goal is for the children to develop love of constant discovery on the computer as well as healthy bodies—and from the bright young faces in the film, that's happening. She credits success to her carefully-selected staff, one counselor to every four campers.

George Washington U Assistant Professors Bill Lynch (Education) and Rachelle Heller (Computer Science) discussed their innovative jointly-offered graduate course in developing educational software for the Macintosh. As an expression of what can be done in university-based educational computing, their student Lucy Moran demonstrated her program in Object LOGO. (At least one veteran programmer in the audience later confided that for him the high point of the meeting was an unexpected "aha!" experience at Lucy's presentation in grasping hitherto unfathomable mysteries of Object LOGO.)

Finally, in *"Access,"* a truly heartwarming film, persons with a wide range of handicaps and ages gave new meaning to Apple's claim to offer empowerment to be one's best. Brief but compelling, the film shows blind, paralyzed, retarded, and palsied users gaining access to the world via Apple computers despite and through the unique set of needs presented by their handicap.

Due to time constraints stemming from a slight scheduling mishap, I did not talk about Apples and Macintoshes in industry training, as planned, but will write about this topic in the Journal and on the Education BBS. I have already posted information on the BBS about some available on-line course offerings, and welcome comments and additions from anyone who has studied on-line. For any of you who might be in the field of training, let me mention an evening devoted to "Distance Learning" for the Natl. Society for Performance & Instruction, Potomac Chapter, March 23. Watch for details or contact me.

The presenters each received one of the "teachers' apples" that had decorated the podium. We hope to give out apples to even more presenters next year in another education/training extravaganza, and widen the spectrum of presentations. Meanwhile, for those who may wish some contact numbers for this year's program participants:

- David Kreisberg, Thomas J. Pullen Magnet School, 336-6500
- Karen Rosenbaum, TIC Camp, 241-5542 (Arlington)
- Bill Lynch, Rachelle Heller, Lucy Moran, 994-6862 (DC)
- "Access" is available through Marie Zwickert, Account Executive, Education, Apple Computer, Inc. 301-730-2255 (Columbia)
- Myself - c/o WAP Office or P.O. Box 90227, DC 20090

A limited number of brochures were available at the meeting from "Software for Kids," a group which assists parents choose educational computing software—especially programs that encourage creativity and higher-level thinking—through home demonstration parties and discount prices. To contact this group, call 301-279-2975 (Rockville).

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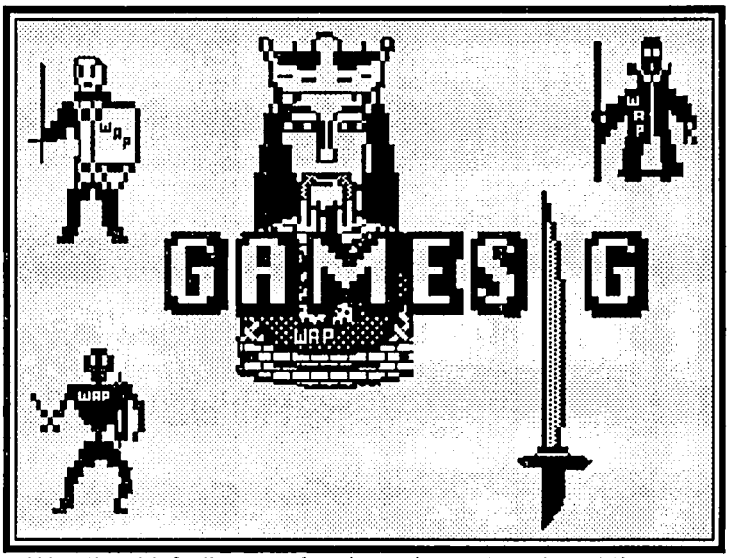
GameSIG NEWS
by Steven Payne



The regular GameSIG meeting on November 5th featured the return appearances by both of our former leaders, Thomas Johnston and Ron Wartow. After a demo of the opening credits from **Wizardry IV**, current chairman Charles Don Hall announced the indefinite extension of the WAP World Builder Contest, until there are at least as many entries as prizes offered! Charles also mentioned a number of new programs coming out in time for the Christmas season, including: **Beyond Zork** (Infocom); **Legacy of the Ancients** (a follow-up to **Questron** from Electronic Arts, for the Apple II series with 64K); **Dark Lord** (Datasoft, Apple II with 64K); **Alternate Reality: The Dungeon** (Datasoft, Apple II series); **Infiltrator II** (Mindscape, Apple II with 64K, joystick required); **Xevious** (translation of arcade game, Mindscape, Apple II with 64K, joystick required); **Shiloh: Grant's Trial in the West** (SSI, Apple II with 64K); **Halls of Montezuma: Battle History of the Marine Corps** (SSG, Apple II with 64K); and **Video Title Shop** (Datasoft, Apple II with 64K), which allows you to add subtitles to your home videos. Some of these programs were handed out for review in future issues. Next, the group compiled its annual list of suggested software buys for December gift-giving (see accompanying article).

Ron Wartow, who had driven down the same day in his shiny new red Porsche, shared some of the details of his recent mid-life career changes. He now lives in Ithaca, NY across from Robert Woodhead (of **Wizardry** fame), serving both as king of Sir-Tech and as manager of design and development. At present he helps with company management and the design of new **Wizardry** scenarios. He will soon be featured in an upcoming *MacWorld* article, with accompanying photos, which could pave the way to a brilliant future as a model. Ron also distributed some free souvenirs from Sir-Tech.

The meeting ended with demos of **Thexder** and **Maniac Mansion.** Sad to say, none of the promised reviews were completed in time for the deadline, so the GameSIG contribution to this issue of the journal is smaller than usual. The next regular GameSIG meeting will take place on Thursday, December 3rd at 7:30 PM in the WAP Office. See you then!

GameSIG SUGGESTIONS FOR SANTA
by Steven Payne

True to our reputation as hide-bound traditionalists, GameSIG members have decided once again to compile our annual list of the best electronic entertainment buys for the holiday season. Most of these programs were released within the last 12 months, and represent the "personal favorites" of at least those who shouted loudest at the November meeting (in accord with our always rigorously scientific polling procedures):

All-Text Adventures
- *Hollywood Hijinx*
- *Stationfall*
- *Bureaucracy*
- *The Lurking Horror*
- *Beyond Zork*
- (a clean sweep for Infocom, available for most computers)

Graphic Adventures
- *ShadowGate* (ICOM Simulations and Mindscape, Mac 512K)
- *Maniac Mansion* (LucasFilm, Apple II series)
- *Tass Times in Tonetown* (on IIGS, for teenagers)

Children's/Educational
- *EOS: Earth Orbit Stations* (Electronic Arts, Apple II series with 64K)
- *Spy's Adventures* series (Polarware, Apple II series)

Arcade
- *Thexder* (Sierra On-Line, IIGS)

Sports
- *Mean 18 Ultimate Golf* (Accolade, IIGS)

Wargames
- *Rebel Charge at Chicamauga* (SSI, Apple II series)
- *Battles in Normandy* (SSG, Apple II series)
- *Ogre* (Origin Systems, Mac 512K)

Fantasy/Role-Play
- *Might and Magic* (New World Computing, Apple II series)
- *Legacy of the Ancients* (Electronic Arts, Apple II series)
- *Wizardry IV* (Sir-Tech, Apple II series)
- *Ultima IV* (Origin Systems, Apple II series)
- *AutoDuel* (Origin Systems, Apple II series)

Finally, one of our health professionals waggishly nominated *Leather Goddesses of Phobos* (Infocom) for a special "safe-sex" category, and all agreed on *Pixel's HyperRevenge 6.5* (Macintosh with at least 5 MB of RAM) as their all-time favorite.

ON THE TRAIL OF THE APPLE ///

by David Ottalini, Apple /// SIG Co-Chairman

HAPPY HOLIDAYS!

Well...another year has come and gone. I don't know about you, but the older one gets, the quicker each year seems to fly by. With a new baby in tow this time around, that feeling has really hit your /// SIG Co-Chairman. I must admit that the time I was able to spend on this venture in 1987 was considerably reduced from the past couple of years. But I still think we can point to a number of accomplishments for 1987 and look forward to the upcoming leap year with a little extra "quickness" in our step.

ON THE HARDWARE FRONT

We have added two more Apple ///'s to our SIG's inventory, including a ///+. Both 256K machines were donated by Future View, a Video Rental and Production company headed up by David Hanrahan. Our thanks also go to Tommy Thompson of Science Applications International Corporation for arranging the donation. We plan to keep the ///+ in the office and will hold the second Apple /// in reserve, for the use of any SIG member who has a machine go down. This way, if you have a problem, you can continue working while getting your own machine fixed. Many thanks, by the way to /// SIGer Jim Salerno, who went over our new ///+ to make sure it was working properly!

That ///+ will be hooked up to our Profile in the office as a standalone unit for use by SIG members and for WAP tutorials. Paul Koskos is currently conducting the AppleWorks tutorials, and I have provided him with a copy of 3EZPs for use in the /// + (the program will also be installed on the Profile). The original Apple /// donated to WAP by Apple (through Sun Remarketing) will become part of the a-building Corvus network being put together in the WAP tutorial room by the Telecom SIG folks. The network will include our ///, an IBM, IIGS, //e and Mac as I understand it. Also this year, the WAP board as you know authorized the purchase of an outboard disk drive, which is currently in operation. We are still looking for the donation of a ///+// card and a joystick. We'd also love to get a //e mouse for our /// as well.

ON THE SOFTWARE FRONT

Our Public Domain library has more than doubled in size this past year. We started out with five disks and at this reading offer 12 disks. The latest is our Sketchpad and Slideshow disk which I discussed last month. Disk 1013 is already finished and will be available shortly. It is called "Apple /// Diagnostics" and has the Apple /// Confidence program on it. A tutorial is provided on Side One, with the program itself on Side Two. In the future, look for the first disks from Taylor Pohlman's Softalk articles on Business Basic.

I'm also happy to announce that /// SIG Co-Chairman Tom Bartkiewicz is working on a Pascal version of our Menu.Maker program. I saw a demonstration during our October meeting and it looks like a real winner. Tom says he plans to have it be able to read not only ASCII text files, but Pascal text and 3EZP text files, as well as run Pascal programs. This would be a great addition and will really increase our ability to offer a wider range of disks. Any of you who are familiar with another language like Forth who might be interested in taking on a similar project please let Tom or me know.

I am also interested in finding a volunteer who would be willing to prepare a disk that would include a catalog of all our offerings and provide a description of each program (it would be disk 1000). I'd also be interested to know what PD disks you would like in the future. When Al Lambert and I started putting these things together, our goal was to have PD disks that worked and were unique from what other clubs, like TAU might offer. We are the only group that attempts to make every disk we offer self-booting and provide a menu program that will not only run a program but also read text files. Anyone who knows how to use Business Basic to read a 3EZP text file, by the way, please give me a call.

Finally, new to our library offerings this month is "The Apple Interface Manual" compiled by Dave Glawson and donated to the SIG by Ivan Munson of Palm Desert, California. It includes information on how to hook up all varieties of Apples, including our /// to various interface cards, printers, etc.

QUICK NOTES FROM ON THREE

On Three's Bob Consorti has confirmed that he has decided to go forward with a project to develop a new Backup program for Apple /// hard disks. He says the new program should be ready sometime early next year. Also, look for a new flyer from On Three shortly, that will highlight, among other things, your /// Sig Co-Chairman's own ThreeWorks disks...

AND FROM MAUG: A TRACKBALL INSTEAD OF A MOUSE

/// SIGer Ed Gooding posted this note on CompuServe recently from Charles Sykora about a replacement for the //e Mouse—at a very reasonable price!

Hello, ///'ers! I thought everyone might be interested in something I found and developed for the ///. How would a Mouse-compatible TrackBall sound? Would it sound any better at $51 (+$3 shipping)? Well, I found some at a good price and bought up a bunch of them. I have tested them with many programs, and the TrackBall works with all Mouse-driven programs that I have tested except for Graphics Manager.

The TrackBall is the easiest Cursor Device I have ever used! It is smoother-operating than most I have seen on the video machines and is made by Wico. It is very sturdy, built from injection-molded black plastic and a Phenolic ball. It comes with optically-encoded interface card and 5' long cord. The card will work in any of the ///'s slots. I wrote the Driver to have both Mouse-emulation and TrackBall modes. Since the TrackBall has two buttons, I wrote the Mouse-emulation Mode to use the second button for a Sensitivity Button. With a simple click of this button you can double, halve, or normalize the motion sensitivity of the cursor to the TrackBall. New programs can disable Mouse-emulation mode using one of the fourteen Device Control Requests to read the status of the second button.

contd.

The TrackBall liberates you from the MouseTrap in which you have been caged by the Mouse. No more need to have 4 square feet to roll around the Mouse! It works great with Draw On ///. Phone (12PM-11PM EST, please) or write. To order, send a check for $51+$3 shipping to the address below, and I'll get you one off. I don't know how long I can do this, because On Three may buy them from me and sell them. TRACK ///, TrackBall for the Apple ///, $51 + $3 shipping. Charles D. Sykora, 39 Ibis Lane, Groton, Ct 06340, 203-448-0867.

I LOVE APPLE /// MUSIC

Gary Hayman's excellent series in the Journal on making music with the Apple II got me digging a little to find a few programs that will make music on our Apple ///. Unlike the II, where you must Peek and Poke your way through the notes, we have a device driver called, appropriately enough, ".AUDIO" that will provide you with most of what you need to plink a tune or two. It is opened like any other device, and as explained by Stan Miastkowski in his "Guide to the Apple ///" you: "send data to the .AUDIO driver in the form of special characters. After the tone or succession of tones is generated by the speaker, the .AUDIO driver immediately returns control to the Business Basic program."

Mode, Volume, Count and Time are all variables you must deal with in any music program you put together. Mode tells the driver you are requesting a tone and must be 128. Volume is how loud the tone will be, up to 64 (which is very loud!). Count is the pitch of the tone, ranging from 18383 to 100. The higher the count, the lower the pitch. Miastkowski gives this formula for figuring count: frequency = 50900/count (18383 to 100). He says this will give you a seven octave range, from C three octaves below middle C to E-flat four octaves above middle C. Time is the final parameter and is the length of the tone. The range here is from 0 (no tone) to 300 (about 5 seconds). Here's Miastkowski's formula for determining the duration of tone in seconds: duration = time (0-300)/60.

MAKING MUSIC

Now, how about some programs to put all this great information into practice? In the Guide to Your Apple Three, there were a couple of examples, which are also included on our WAP Basic Games disk 1001. You'll also find a program called "Piano Plinker" that was originally published in issue number one of InCider and which turns your /// into an electronic keyboard of sorts.

I'm reprinting one example below, along with the Piano Plinker program. By the way, the Medley song on PD disk 1001 fits right in with the Holiday spirit. Any additions or comments to these programs would be welcomed. If there's enough interest, we could put together a whole disk of songs!

AUDIO DEMO PROGRAM

```
5   REM THIS IS A DEMO OF THE .AUDIO
    DRIVER AND THE AUDIOSUB  PROGRAM.
7   REM MAKE SURE YOU HAVE THE .AUDIO
    DRIVER IN YOUR DRIVER FILE!
10  VOL%=30
20  FOR X=1 TO 8
30  READ TIME%,CNT%
40  DATA 25,15564,5,7782,15,3891,5,1946,30,973,20,
    486,1,243,100,122
50  GOSUB 500
60  NEXT X
70  END
490 REM THIS IS A PROGRAM FROM THE
    OSBORNE/MCGRAW HILL GUIDE TO THE
491 REM APPLE ///. IT WILL CREATE ANY TONES
    YOU WANT IF YOU PLUG
492 REM IN THE RIGHT NUMBERS. SEE PAGES
    182-185 FOR MORE INFO.
500 OPEN#1 AS OUTPUT,".AUDIO":MODE%=128
510 PRINT#1;CHR$(MODE%);CHR$(VOL%);
520 PRINT#1;CHR$(CNT%-256*INT(CNT%/256));
    CHR$(INT(CNT%/256));
530 PRINT#1;CHR$(TIME%-256*INT(TIME%/256));
    CHR$(INT(TIME%/256));
540 CLOSE#1:RETURN
```

PIANO PLINKER

```
10  HOME
20  PRINT"The Piano Plinker ":PRINT"": PRINT
    "APPEARED IN inCider issue #1":PRINT
30  PRINT:PRINT"This program emulates a one octave
    piano."
40  PRINT:PRINT"MEDLEY is a song that is on WAP
    disk 1001!!!"
50  GOSUB 610
60  OPEN#1,".audio":PRINT"Place a disk with the file
    REQUEST.INV in drive 1 then press
    <RETURN>":GET a$
70  INVOKE".D1/REQUEST.INV":DEVICE$=
    ".CONSOLE"
80  BUFFER$=CHR$(0):PERFORM CONTROL
    (%4,@BUFFER$)DEVICE$
90  DIM k$(12),p$(12),n(12),r(9000):r=0:v=60:m=0:l=1
100 FOR j=0 TO 12:READ k$(j):NEXT j
110 FOR j=0 TO 12:READ n(j):NEXT j
120 FOR j=0 TO 12:READ p$(j):NEXT j
130 HOME
140 PRINT"Z)speed M)load N)save X)home C)clear
    P)play X)delete Q)quit"
150 PRINT"2) add one volume level 1) subtract 3) normal
    volume"
160 PRINT"Notes: C  C#  D  D#  E  F  F#  G  G#
    A  A#  B  C"
170 PRINT"Keys : A  W  S  E  D  F  T  G  Y
    H  U  J  K"
180 PRINT"SPACE bar produces a rest."
190 WINDOW 1,5 TO 80,24
200 GET a$
210 IF a$="1" AND v>0 THEN v=v-1:GOTO 200
220 IF a$="2" AND v<60 THEN v=v+1:GOTO 200
230 IF a$="B" AND r>0 THEN r=r-1:PRINT"X
    ";:GOTO 200
240 IF a$="3" THEN v=60:GOTO 200
250 IF a$=" " THEN PRINT"/";:GOTO 370
260 IF a$="P" GOTO 450
270 IF a$="C" THEN r=0:HOME:GOTO 200
280 IF a$="X" THEN HOME:GOTO 200
290 IF a$="N" GOTO 670
300 IF a$="M" GOTO 790
310 IF a$="Z" THEN PRINT:INPUT"Speed  (1=FAST,
    20=NORMAL,  300=SLOW)  ?";l: GOTO 200
320 IF a$="Q" THEN PRINT CHR$(1):HOME:
```

contd.

```
    CLOSE#1:GOTO 920
330 FOR j=0 TO 12:IF a$=k$(j) THEN 390
340 NEXT j
350 IF a$="1" OR a$="2" OR a$="3" THEN GOTO 200
360 GOTO 200
370 r(r)=0:r=r+1:IF r=299 THEN PRINT CHR$(7);:
    r=0:GOTO 200
380 GOTO 200
390 r(r)=n(j):r=r+1:IF r=299 THEN PRINT CHR$(7);:
    r=0::GOTO 200
400 PRINT#1;CHR$(128);CHR$(v);
410 PRINT#1;CHR$(n(j)-256*INT(n(j)/256));CHR$
    (INT(n(j)/256));
420 PRINT#1;CHR$(l-256*INT(l/256));
    CHR$(INT(l/256));
430 PRINT"(";p$(j);") ";
440 GOTO 200
450 vol=v
460 PRINT CHR$(14)
470 FOR x=0 TO r-1
480 IF r(x)=0 THEN vol=0
490 PRINT#1;CHR$(128);CHR$(vol);
500 PRINT#1;CHR$(r(x)-256*INT(r(x)/256));
    CHR$(INT(r(x)/256));
510 PRINT#1;CHR$(l-256*INT(l/256));
    CHR$(INT(l/256));
520 GOTO 570
530 FOR j=0 TO 12:IF r(x)=n(j) GOTO 560
540 NEXT j
550 IF r(x)=0 GOTO 570
560 REM
570 vol=v
580 NEXT x
590 m=0
600 GOTO 200
610 RETURN
620 END
630 DATA A,W,S,E,D,F,T,G,Y,H,U,J,K
640 DATA 1946,1836,1733,1636,1544,1457,1376,1298,
    1226,1157,1092,1031,973
650 DATA "C","C#","D","D#","E","F","F#","G","G#",
    "A","A#","B","C"
660 END
670 REM      SAVE SONG
680 HOME:INPUT"SAVE Name: ";n$:IF LEN(n$)>15
    THEN GOTO 680
690 IF n$="PIANO" THEN PRINT CHR$(7):GOTO 680
700 CREATE n$, DATA
710 PREFIX$=".d1/":OPEN#2 AS OUTPUT,n$
720 WRITE#2;r
730 FOR t=0 TO r-1
740 WRITE#2;r(t)
750 NEXT t
760 CLOSE#2
770 HOME
780 GOTO 200
790 REM      LOAD SONG
800 HOME:INPUT"LOAD  Song (MEDLEY is on this
    disk) : ";n$
810 OPEN#2 AS INPUT,n$
820 READ#2;r
830 FOR x=0 TO r-1
840 READ#2;r(x)
850 NEXT x
860 CLOSE#2
870 HOME
880 m=1
890 GOTO 200
900 IF l<1 OR l>300 THEN l=l:GOTO 200
910 GOTO 200
920 BUFFER$=CHR$(128):PERFORM CONTROL
    (%4,@BUFFER$)DEVICE$
```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A HISTORICAL CHRONOLOGY OF THE EVOLUTION OF THE MODERN-DAY COMPUTER

by Joseph A. Hasson

The computer must undoubtedly take its place alongside the great inventions in the history of technology. Like the steam engine, the discovery of electricity, the construction of the transcontinental railroad, the internal combustion engine and the automobile, the splitting of the nucleus of the atom, it will constitute a watershed in the chronicle of Mankind. The computer will exert a great influence with those great innovations. An innovation—distinguished from an invention is characterized by revolutonary effects on the social, economic and political structure of society and, indeed, the world. An innovation is characterized by what has been labelled "creative destruction." "Destruction" in that it displaces and destroys on a broad scale the old or 'ancien regime'. "Creative" in that it opens up new possibilities that were never dreamed of before and the full implications of which are not immediately recognized nor, in fact, adequately foreseen.

Ideas will have been conceived; but it may not be possible to translate them into concrete and practical form for a number of reasons. Other technological changes may first be required. These latter open the way for the "big change" which meets the criteria of innovations. In brief, it may be the confluence of conditions and events that makes possible the innovation.

The idea of the modern-day computer has its antecedents in the ideas and works of many earlier people. Some of those works were successful; others were not. It seems relevant, however, to take note of some of those earlier efforts and who were the scientists, engineers and creative individuals who worked in the vineyards to bring about change. We are their beneficiaries today. By taking note of these early pioneers we do not detract from the considerable contributions that are being made by creative individuals today. We see rather that human progress occurs on a continuum and that each generation adds its unique increment to the total stock of Knowledge. It has been said that "the computer is not just any machine. It may look like a machine but it belongs to another species altogether. The difference between a computer and an ordinary machine is as vast as the difference that separates invertebrates from primates. It extends and enhances the potential of human intelligence." (Jean Louis Gassee "The Third Apple—Personal Computers and Cultural Revolution." Translated from the French; [Harcourt, Brace, Jovanovich, New York, 1986], p. 16.)

In the following tabulation, a chronology of the stages of evolution of the computer is presented. The chronology is as complete as it has been possible to develop. It is possible that some particular computers that should be included may have been overlooked.

Name/Computer (Date Built)	Where Built	Designer	Character	Purpose
Arithmetic Machine (1642)	France	Blaise Pascal	Mechanical	Add subtract
Stepped Reckoner (1694)	Germany	Gottfried Leibniz*	Mechanical	Add, subtract, divide, multiply, take sq.roots
Difference Machine (1834)	Sweden	Peter Scheutz	Improved version of Babbage Difference Machine	Solve mathematical functions, trig., probability
Difference Machine (1853)	Sweden	Peter Scheutz	Improved version of preceding machine	Solve math. functions
Babbage Analytical Machine (mid-1800)	Great Britain	Charles Babbage	Mechanical	General
Hollerith** Tabulator (1880's)	U.S.A.	Herman Hollerith	Electro-mechanical	Automatic tabulation of census data.
Kelvin Differential Analyzer (Late 1800's)	Great Britain	Lord Kelvin	Mechanical	Solve differential equations
"Millionaire" (1895)		Otto Steiger	Mechanical	Direct multiplication
Analyzer (1898)	U.S.A.	Albert Mechlsow; Samuel Stratton	Analog	Can graph sum of a Fourier series
Zuse Z-Series (1930-40)	U.S.A.	K.Zuse	Mechanical; electro-mechanical	General
Bush Differentl. Analyzer " (Integraph) (1930's)	M.I.T.	Vannevar Bush	Mechanical	Solve differential equations

contd.

Name/Computer (Date Built)	Where Built	Designer	Character	Purpose
Bell Lab. Model I (1930's)	Bell Labs.	George Stiblitz	Electro-mechanical	Calculator
Mark I (1939)	Cam-bridge, Mass.	Howard Aiken	Electro-mechanical	Aid in calculations complex nos.
Bombe (1940's)	Bletchley Park,U.K.	A.Turing, et. al.	Electro-mechanical	Decipher German codes
EDVAC (1940's)	U. of Pa.	Brainard, Eckert, Mauchly	Electronic	General; hi-speed integration
Colossus (1940's)	U.K.	Thomas Flowers, et.al.	Electronic	Decipher German cryptog-raphy
ENIAC*** (1940's)	U.of Pa.	Brainerd, Eckert, Mauchley, et. al.	Electronic	General
Heath Robinson (1940's)	U.K.	Thomas Flowers, et. al.	Electronic	Decryption of codes
BINAC (1940's)	U.of Pa.	J.Mauchly, J.Eckert	Electronic	In-flight navigation
EDSAC (1940's)	Cam-bridge U.K.	Maurice Wilks, et. al.	Electronic	General
SEAC & SWAC (1940's)	U.S.A., Natl. Bur. of Stds.	Samuel Alexander, et. al.	Electronic	Test of computer construction
Pilot Automatic Computing (1940's)	U.K.	A.Turing, et. al.	Electronic	General
IAS Computer (1940's)	Prince-ton, N.J.	J.von Neumann, et.al.	Electronic	General
UNIVAC (1951)	U.S.A.	Wm.Eck-ert, John Mauchley	Electronic	Business Programs
Altair 8800 (1975)	Calif.	Steve Jobs	Electronic	General

* Leibniz was among—perhaps, the first—to use a numbering system based on (0,1). It was not until George Boole (English) invented Boolean algebra, about 1850, that the formal system of logic was developed for use in modern-day computers. The logic of Boolean algebra is based on certain rules which can be expressed through the electrical system of circuitry found in computers. The logic is based on the set-theoretic system of unions and intersections. This system can then be manipulated in a manner that bears some resemblance to that of classic algebra. The result is a powerful tool of analysis that permits the computer to perform in the manner that it does.

** Hollerith proceeded on a suggestion of John Billings. This led to a partial automation of census taking. The 1880 census had taken eight years to count and was not published until 1902. The 1890 census with more questions census-takers took less than three years to compile. The information was punched directly onto 80-column cards. These cards became known as the Hollerith cards. Hollerith left the Bureau of the Census to join a company which eventually became the IBM Corporation. I.B.M., then, became the sole distributor. Data were punched on the cards and run through main-frame computers, performing calculations and manipulations according to programmed instructons.

*** This machine weighed 30 tons, had 18,000 vacuum tubes and was 3000 cubic feet in size. It was was capable of performing nuclear physics calculations in two hours that would have taken 100 engineers one year to complete.

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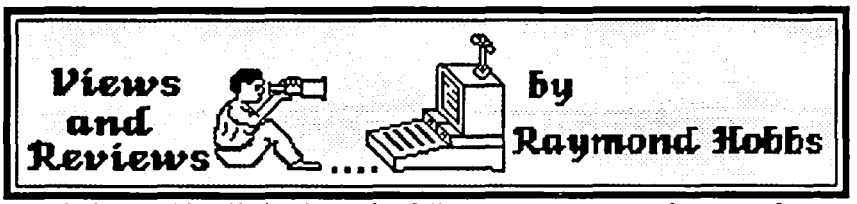

This month's offering is a pair of diverse programs, one for the Apple IIgs and the other for the Mac. However, before I begin the reviews, I need to make two corrections to October's review of Performer, from Mark Of The Unicorn.

First, I had indicated that it was necessary to go through two menu selection processes in order to enter each note into the track editor. This is true only for the first note entered. Subsequent notes may be entered by selecting "Reinsert" from the edit menu, which will default to the last type of information entered. Therefore, only one menu need be invoked when entering a series of notes. The second correction is really an addition to the review, and centers around the same type of operation. The first version of Performer entered information in a track at the selected insertion point and updated the screen accordingly. For some unknown reason, Performer version 2 now *scrolls* the screen when inserting, thus obscuring all previous data. This is a real inconvenience when entering a series of notes, since one must continually scroll the screen backward in order to see what has been done previously. The two corrections, in my opinion, really cancel each other out—although entering a series of notes does not require two menu trips, it frequently requires a menu and a scrolling operation. One new feature of the package is quite useful, however, and I failed to mention it before: with Performer II, you can now change tempo and meter within a sequence - a neat feature for "naturalizing" a sequence.

Now on to the current reviews:

AST-VisionPlus (AST Research Inc.). [for Apple IIgs]

AST-VisionPlus is a firmware/software video digitizer for the Apple IIgs. I can't think of a single *legitimate* reason to get a video digitizer for your Apple IIgs—except to have fun. Actually, there are probably some business or personal uses for a video digitizer, but I rather think that there may be cheaper (in terms of time plus expense) ways to get the same things done. But not as much fun as pulling video images into the IIgs directly from your camcorder or VCR.

VisionPlus consists of a video digitizing board which plugs into any slot (I use slot 7—the former home of my now-defunct Z-80 card) and accompanying software. The board fits easily into the slot, and isn't so long that it gets in the way of anything else. A cable connects the board to a back panel-mounted RCA jack for video signal input. The cable detaches from the board, allowing the board to be pulled out without dismantling the entire thing.

The software which accompanies the board allows you to capture a video image from the camcorder or VCR in either color or black-and-white. If it's a color image, you may select either *Palette Adjust* or *Color Dither* mode to capture the image. The Palette Adjust mode performs a statistical analysis of the image to find the 16 most common colors in the image to create a palette for the display. The Color Dither mode blends colors by using combinations of 1 pixel each of red, green and blue, each of which may be any of five intensities. In practice, Color Dither produces the best results if the viewer is standing at least several feet away from the screen and if the subject does not require a lot of detail to be distinguished. Otherwise, Palette Adjust mode will work better, and also allows more "tinkering" around with the image later. When editing a color image, both modes allow zoom in/zoom out, color inversion and changing the aspect ratio of the image. Palette Adjust mode allows changes to the colors used in the image as well.

A black-and-white image may be captured in either 320 of 640 mode resolution. Contrast and brightness may be controlled, and up to 16 gray levels may be employed to improve definition. When editing a b&w image, tinting the entire image or coloring an individual gray level may be employed, in addition to the usual zoom in/out, invert and change aspect ratio operations.

Whether in color or in b&w, in order to capture an image, the user must first select the type of image (b&w/color Palette Adjust/color Dither) to be captured, tell VisionPlus to start digitizing, then, at the appropriate moment, press the space bar. Digitized images will appear on the monitor continuously. Pressing the space bar captures whatever is currently coming through the monitor (there is a lag caused by the transfer of screen data from memory to the screen I/O area). Color images come in at about one frame per second, while b&w is three to five times faster (320 resolution comes in faster than 640). Captured images may be saved and edited at the user's convenience either by using the included AST VisionEffects software or by a regular IIgs paint program, such as Paintworks Plus, 816 Paint, or DeluxePaint II.

The quality of the digitized images is subject to several variables. Naturally, the less action on the subject's part, the less distortion caused by the digitizing process. Good contrast and adequate lighting is important in producing good resolution as well. Finally, the user should gain some proficiency in setting the brightness, contrast and color parameters, as well as to learn the "knack" of hitting the space bar at the right instant to capture the best image.

AST has brought a good product to market, with few (if any) bugs, at a reasonable price (about $280). As to whether or not you can get enough use out of it to justify the purchase, it depends upon the value that you place on the fun that the family can have cranking out pictures.

JamBox 4+(Southworth Music Systems, Inc.). [for Macintosh]

Even without its ability to read and write SMPTE (Society of Motion Picture and Television Engineers) timing code, the JamBox 4+ would represent a significant achievement and good value for Mac-MIDI systems. With four inputs and four outputs, the JamBox 4+ can handle some pretty impressive MIDI music rigs, and several other features of this interface keep MIDI traffic jams to a minimum.

As it comes out of the box, the JamBox 4+ will work just fine. You can plug it in and play. The device carries its own power, and plugs into the Mac's modem port for data transfer. Output cables default to omni mode on (all cables transmit everything

contd.

that the JamBox receives), but this can be reconfigured, as discussed below. Input cable 1 controls timing, otherwise all input cables are the same, and also default to omni mode on.

The real power of JamBox (apart from SMPTE) comes from the accompanying software. Installed on your boot disk as a desk accessory, the JamBox configuration may be altered at will. Internal battery RAM saves your configuration so that you do not have to reconfigure each time you start up. Running the JamBox desk accessory will install a JamBox menu on your menu bar. This menu allows you to enable/disable MIDI channels on each individual input and output cable. Used in this way, the JamBox becomes a MIDI filter as well as a MIDI patch bay. Also under the JamBox menu are functions for synchronization to timing devices, including SMPTE.

SMPTE timing code is used in the motion picture and television industries to synchronize multiple video and audio devices. Unlike MIDI, SMPTE code is different for motion pictures, b&w television and color television. Europe also uses a different SMPTE code (there are about five commonly used video timing codes worldwide, ranging from 24 to 30 frames per second). JamBox handles them all. A test tape that I stripped using JamBox 4+ performed flawlessly on video equipment I borrowed, and even the home hobbyist can produce videos with SMPTE/MIDI audio using a JamBox-equipped MIDI rig, two VCRs and a PCM digital audio adapter (like the Sony F1). Those interested in SMPTE applications should contact MusicSIG.

On the MIDI side, I hooked up my two Ensoniq Mirages, a Yamaha TX81Z, a Casio CZ-3000 and an E-mu SP-12 through JamBox 4+. The two mirages do not use patch changes or aftertouch, the CZ-3000 does not send or receive aftertouch and cannot receive velocity or controller data, the SP-12 does not use aftertouch and patch changes, and the TX81Z receives everything but sends nothing but system exclusive. Moreover, one of the two Mirage units is used for playback only. The JamBox 4+ was able to sort all of this out, route data only to and from the right synthesizer and filter out all irrelevent data. Harry Truman would like this box—it lets a three-ulcer musician work with a five-ulcer system.

This unit would get a perfect rating except for one quirk: when using my system "live", there was some loss of response with JamBox turned on. Turned off, everything was OK, and no MIDI data was lost in the send/receive operations when it was turned on, so it is no serious objection (since JamBox does not *need* to be turned on for "live" mode at all). It just made me nervous for a day or so, until I discovered the workaround.

There are two other caveats. The first is that in order to install JamBox on your menu bar, you should have about an inch and a half free on the bar. Otherwise, you get a menu-mess. This should be no problem if you are using a sequencer program; however, some music editors get pretty crowded on the menu bar (but then, why would you want a SMPTE-enabled interface with just an editor?). The second is that in order to use JamBox 4+'s SMPTE capabilities, your sequencer must be able to understand SMPTE timing code. This is no problem with Southworth's MIDIPaint or Mark Of The Unicorn's Performer version 2, but I don't know about the others.

Overall, this MIDI/SMPTE interface, available at music stores locally for about $325, is a heavyweight at a middleweight price.

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STOCK SIG NEWS
by Andrew D. Thompson

The October Stock SIG meeting took place on October 8, eleven days before "black Monday" took many members by surprise. Although technical analysis of market cycles had turned at least one SIG member bearish as early as December of 1986, and a few others had recently left the ranks of the bulls, no members spoke of a one-day decline of such massive magnitude in excess of 500 DOW points.

1. CHARLES SCHWAB EQUALIZER

WAP member Ed Shepherd shared his experience with a recently acquired communication system offered by the Charles Schwab brokerage company. In conjunction with a modem, the Equalizer provides a communication disk that allows users to download research data, update stock portfolios and conduct stock transactions electronically. Shepherd said he found the Equalizer helpful and other members confirmed the usefulness of these systems which access services such as Warner Communications, Dow Jones News and Telenet.

2. ELECTION OF NEW CHAIR

Peter Kasper was nominated and elected Chair for the 1987-88 year. Members expressed their gratitude to Ron Grognet and Ben Fogle for the service and leadership they exercised as co-chairmen during the prior year.

3. OPEN INTEREST AS MARKET INDICATOR

Troy Klein conducted a mini-seminar on how open interest functions as a short-term indicator of stock market moves. By means of an article in Futures magazine, July, 1987, Klein shared his extensive research which indicated open interest figures for one week, as found in Monday's Washington Post, are a relatively reliable indicator. "If open interest rises consistently in one week, the following week will be bullish," Klein said. "If, during that same week stock prices are declining, then that's doubly bullish," he indicated.

Systematic and clear in presenting his professional trader's perspective, Klein nonetheless fielded members' basic questions to help distinguish elementary matters such as between open interest and the volume of contracts.

4. TRIN AS MARKET INDICATOR

Among the many actively followed indicators of stock market moves, members then discussed the ten day moving average of the "trin" or Arms Index. Participant Harley Wilbur was cited and credited by market guru Peter Eliades in the September 22 Barrons as having generated the 10-day trin, a most helpful indicator. Wilbur said that because the trin bounces up and down during daily trading, he, 3 years earlier, published an article arguing a 10 day moving average should be used to smooth out this product of two ratios, the number of advancing and declining stocks, and the up and down volume of those stocks.

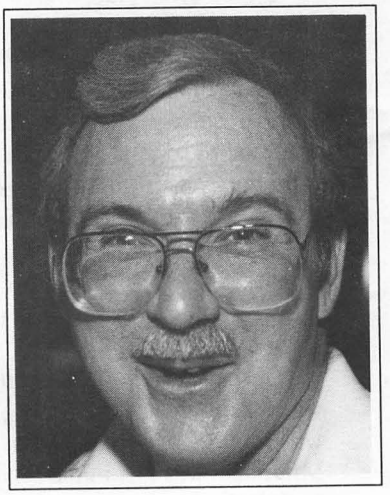
5. CAUTION FOR THE FUTURE

WAP member Jack Upper presented the group with a comparison of two long term charts, those for the Japanese Nikei DJ average and the U.S. Dow Jones Industrial Average. Upper said this research suggested the U.S. market would fail sometime between mid-April of 1988 and January of 1989 although other technical factors had recently encouraged him to get out of the market immediately. Members were very interested in the Japanese technical analysis and requested that a future WAP meeting examine the Japanese "candle method" of analysis. Upper agreed to make a presentation at the November 12 meeting.

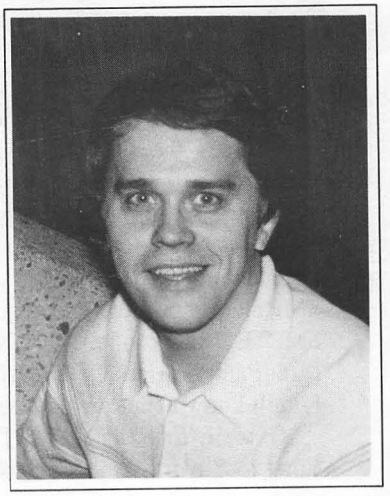
Stock SIG meets at the WAP office at 8 p.m. on the second Thursday of each month. A sub-group concerned with mutual funds meets on the fourth Tuesday of each month.

VOLUNTEER PROFILES
by Peter Combes

Continuing our feature of recognizing members who have made major contributions of time and effort to WAP, this month we are featuring two "unsung" heroes.



Name: David Weikert
Occupation: Engineer
Residence: Derwood, MD
Computer: Macintosh SE
Favorite Drink: Cherry Slice
Favorite Software: Any Business Software
Service to WAP: Head Librarian, Mac Disketeria. Always looking for new volunteers—especially to do telecommunications disks. Appreciative of the volunteer duplicators who really make it work.



Name: Dana Schwartz
Occupation: Electronic Engineer
Residence: Laurel, MD
Computer: Mac and Apple][(not Plus!)
Favorite Drink: Cherry Coke
Favorite Software: WAP Acrostic Generation Program
Service to WAP: Membership Chairman, Former Secretary, Treasurer, and Vice-President.

Photos by Peter Combes

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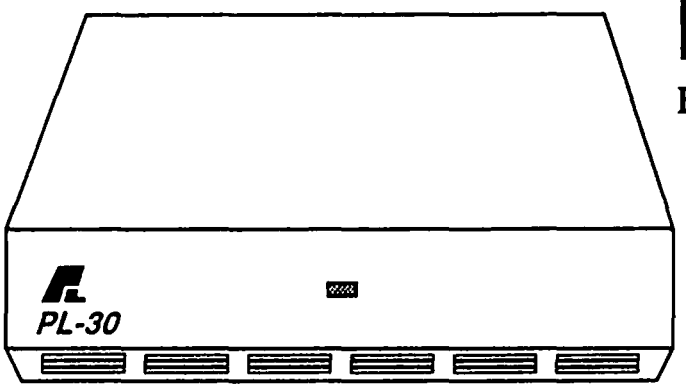

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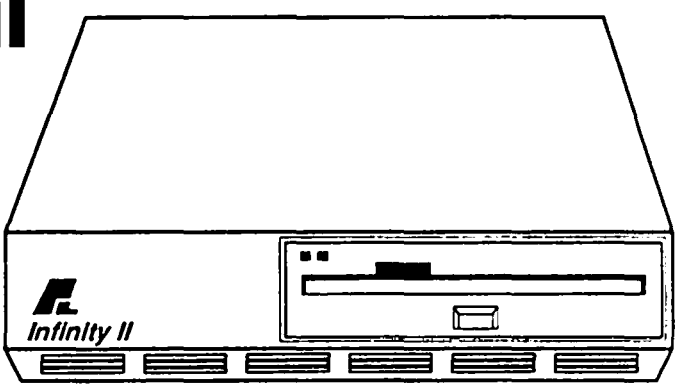

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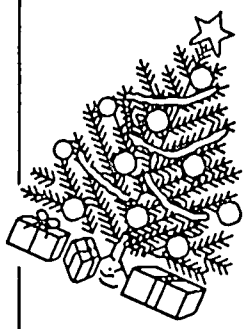

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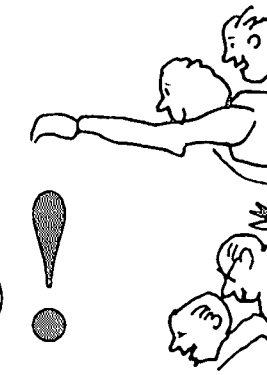

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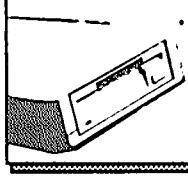

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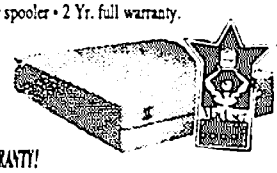

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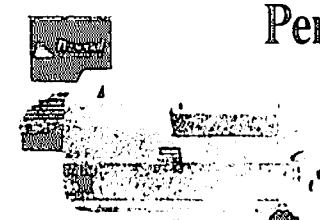

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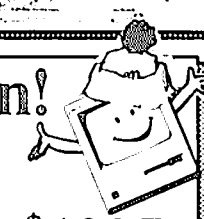

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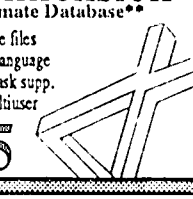

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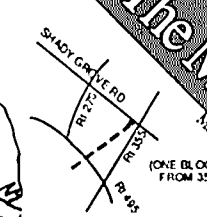

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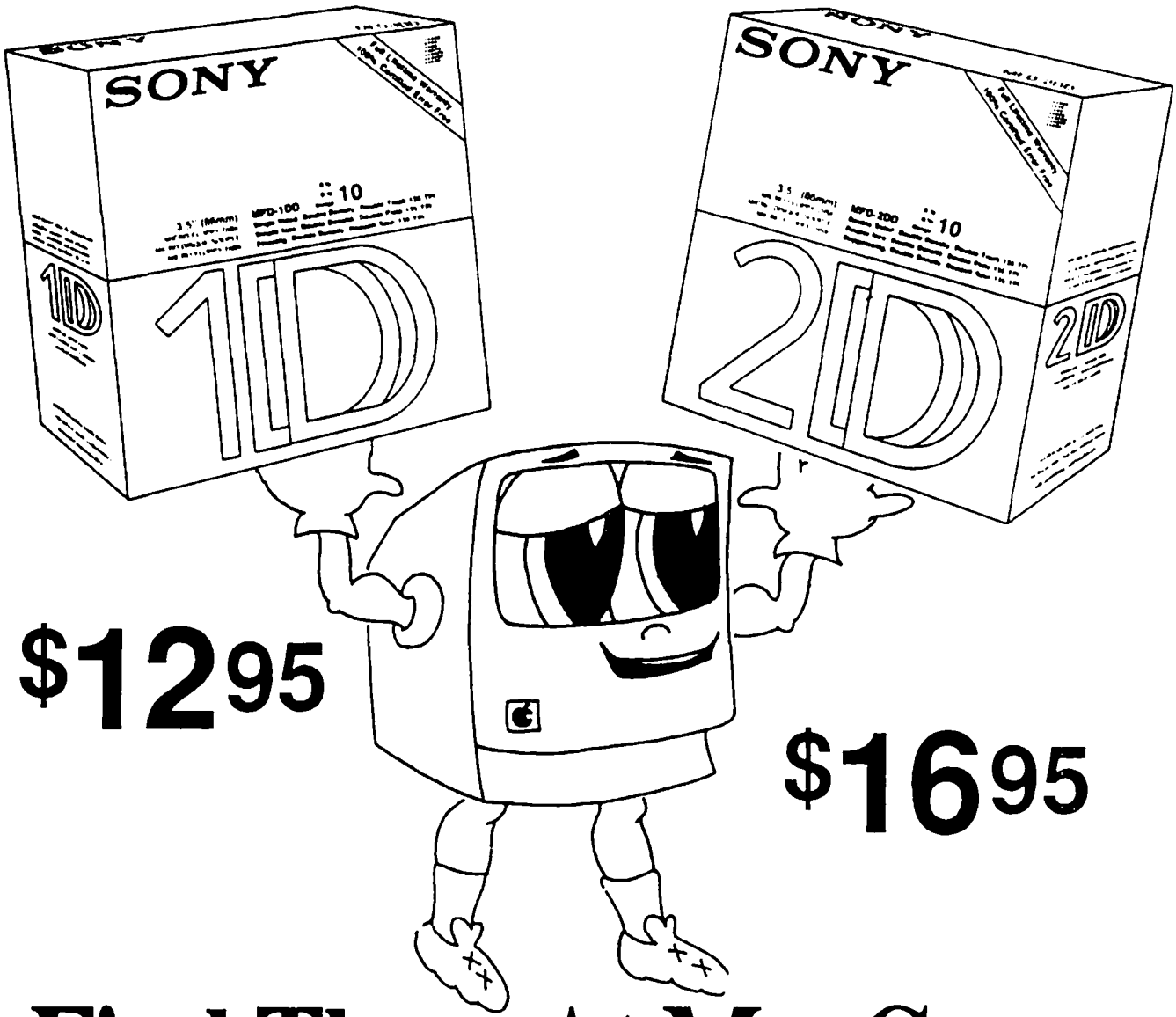

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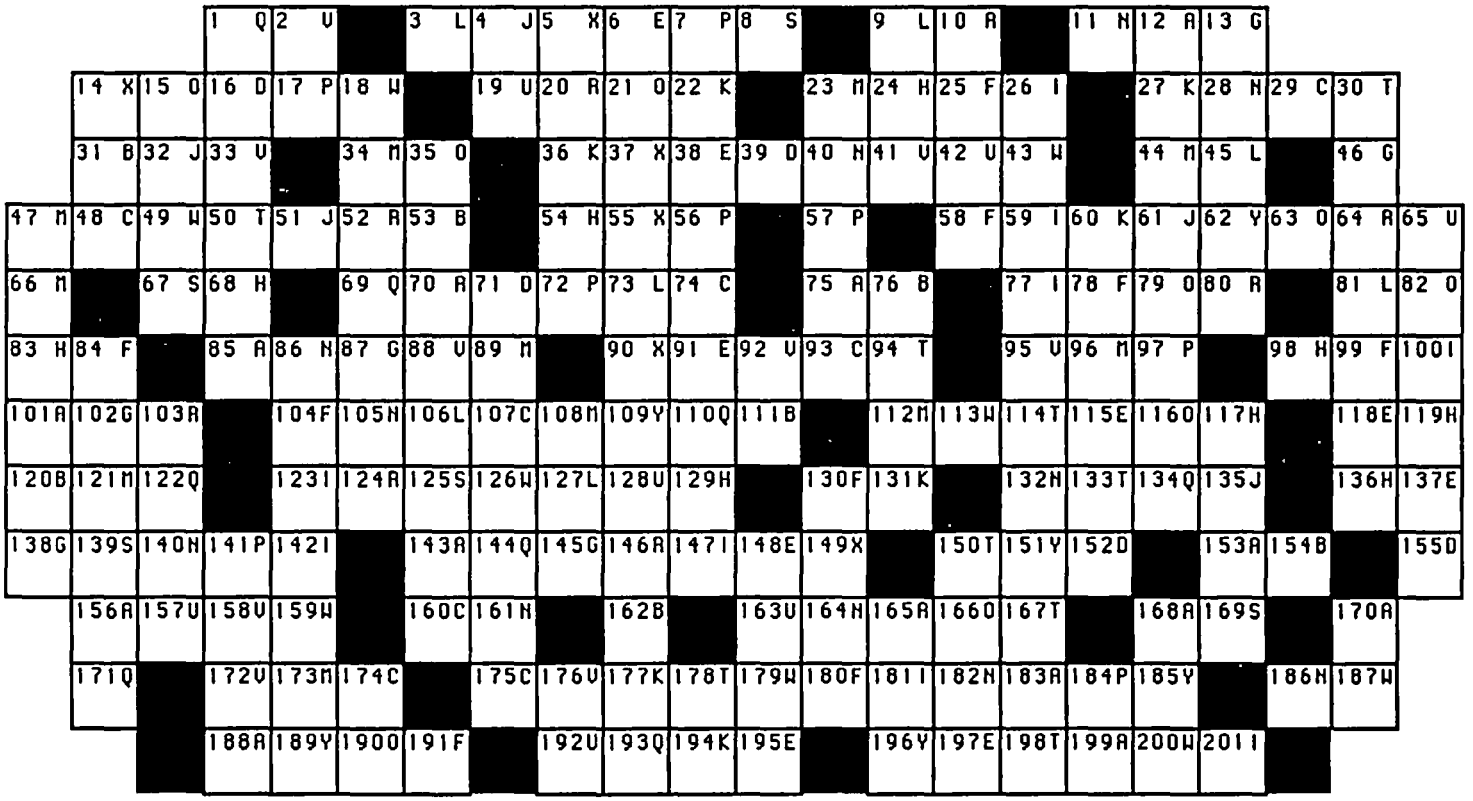
WAPACROSTIC
by Dana J. Schwartz

Using the Definitions, fill in Words. Transfer each letter into the corresponding square of the grid. The resulting quotation will read across. The first letters of the Words column spell out the Author's name and the Title of the work, reading down.



Definitions	Words
A. New Setup	183 70 101 10 170 188 153 65 199 143 165 / 75 168 156 12
B. Cushioned Seat	76 154 111 120 31 162 53
C. Deprived of Hope	160 174 29 107 48 175 93 74
D. Oil Footy	71 155 39 16 152
E. Runoff Pathway	6 197 91 148 195 118 137 115 38
F. Loquacious	84 130 191 25 99 180 104 56 78
G. Artillery Piece	46 102 138 13 87 145
H. Immobility	98 54 119 63 136 129 117 21 68
I. Flexible	77 147 142 123 181 100 59 201 26
J. Entertain	32 51 61 135 4
K. Emotional Troublings	22 27 36 194 60 177 131
L. Staggers	106 127 9 81 73 3 45

Definitions	Words
M. Blustering (al)	96 44 66 108 121 23 69 47 34 173 112
N. Pottery	140 20 66 166 164 182 105 132 11 40 161
O. Roadway Material	79 35 116 82 21 190 63 15 166
P. Dead	56 7 17 184 57 141 97 72
Q. Stock Type	134 144 110 193 122 171 1 69
R. Breathed	124 146 20 52 103 64 80
S. Presents	139 67 169 8 125
T. Sweet as Honey	94 167 198 30 133 50 114 178 150
U. Resign Core Of	65 42 19 120 157 163 192
V. Growth Process	2 92 172 158 88 95 41 176 33
W. Going Around	159 18 126 187 200 113 49 179 43
X. Holiday Drink	37 149 90 55 14 5
Y. "_____ Cassidy"	185 151 196 189 62 109

ANSWERS TO LAST MONTH'S WAP ACROSTIC

It was a cross between going to an intellectual carnival and a frantic product convention for "unreal people". Could it be that in prehistoric days the first users of fire gathered by the seashore to display new ways of making fire faster?

Author: Chuck Sicard
Work: On Boston MacWorld
Source: Washington Apple Pi—Oct 87—p50

Words

A. Chateau	H. Cogs	O. Obeyed	V. Cutoff
B. Hebrew	I. Acceptors	P. Stowe	W. Wastes
C. Uplift	J. Rarity	Q. Thirstier	X. Outcry
D. Clefts	K. Defensive	R. Orphans	Y. Rotator
E. Kindergarten	L. Opinion	S. Naughtier	Z. Lowlihead
F. Stroll	M. Neapolitan	T. Messes	a. Defying
G. Inland	N. Banana	U. Affricative	

DESKTOP PUBLISHING SIG MEETING—Nov. 4

by Cynthia Yockey

Representatives from Interleaf, an electronic publishing systems company headquartered in Cambridge, Massachusetts—that now has a local office in Vienna, Virginia—brought a Mac II to the November 4 meeting to demonstrate *Interleaf Publisher*, an integrated word processor, graphics editor and automatic page layout program just released for the Mac II for $2,495 (with discounts for additional copies).

Interleaf Publisher is aimed at the high-end market of corporate publishing and has the power to handle anything from short documents to multi-volume strategic plans—but is mostly intended for long documents. Based on the demonstration, it handles tedious jobs like repagination in a flash. Originally designed for a mainframe and mini-computer environment, it has now been ported onto the Mac II, where it requires 5 megs of RAM to operate and 8 megs of disk storage just for the program. One of its advantages for large corporations and government agencies is that it is designed to run on IBM, Sun, Apollo, DEC, and now Apple equipment, and allows these workstations to be networked and to share documents.

Interleaf Publisher looks like the kind of program you must have if you produce long documents, especially ones with illustrations, and if you also have a Mac II with lots of RAM and hard disk space. This seemed to be the premise that moved the discussion away from listing the features of the program—which would have been appropriate for comparison shopping if it had any competitors in its niche—to a number of questions about its compatibility with the current crop of programs used in Macintosh desktop publishing. Most of the answers seemed to be detailed in a handout of a preview of the program written by Tony Bove and Cheryl Rhodes and published in *Macintosh Today*. According to Bove and Rhodes, *Interleaf Publisher* can import *MacWrite* and Microsoft *Word* Rich Text Format (RTF) text files, *MacPaint* and PICT I and II graphics files, and *Excel* spreadsheets for producing charts and graphs. Future releases will import encapsulated PostScript files (EPSF) and tag image file format (TIFF) files. Some surprising features that the program lacks are spacing controls and kerning, however, it is reasonable to expect that they will soon be added.

In other news . . .

Announcements included the following:

• Aldus *PageMaker 3.0* will be available in January. Updates from 2.0 are $75.00. New features include style sheets and the ability of text to flow around graphics automatically.

• Laser printing by modem and mail is available by calling a Virginia BBS at (703) 989-0980. The charge is a dollar a page, and less for quantity orders.

• A new sampler of laser typefaces is available for $29.95 and is called *Desktop Publishing: Type & Graphics*. It was called less complete than the one produced locally by MacTography, but does include information on where to buy the typefaces and when to use them. A HyperCard stack is also available from the same people for $15, or $10 with the book. Call 1-800-553-1666.

• The LaserWriter ROM upgrade to version 47 is available now and is said to increase the machine's speed.

• The Publisher's Service Bureau in Bailey's Crossroads, Virginia, has a list of hints for file preparation for use of their Linotype and laser printing services. Call (703) 824-8022.

• Peter Bednarz of PB Technologies in Falls Church, Virginia, does laser cartridge refills *and delivers!*

A SUCCESSFUL GRAND OPENING OF AV-SIG

by Jay Williams

A group of a dozen people met on October 29th to form the new and exciting Arts and Video SIG (AV-SIG). All were inspired by the sharing of knowledge in areas such as art creation, archiving, video inputting and animation using Macintosh Plus and Apple II equipment. Some proposed concepts are to have an "Apple Pi Art Scrapbook" of members' creations (already started at the first meeting), a possible annual art exhibition for the entire membership, making a permanent slide show, field trips (i.e., U.S.A. Today graphics department, the "Mac-Newspaper") and the creation of joint animation projects for demonstration at some of the Apple Pi's monthly meetings. This is not as general as a desktop publishing group, but more focused on the creative and fine art aspects of developing art and video works.

Of the pioneers who attended, interest included educational, archival, animation and illustration applications. All those interested are encouraged to join in the second meeting of what appears will be a fast growing AV-SIG. The next meeting will be held Wednesday, December 2, from 6:00 - 9:30 PM at the Jay Williams Design Company, 1130 - 17th Street, NW, Suite 600, Washington, DC 20036. For more information call 728-1009.

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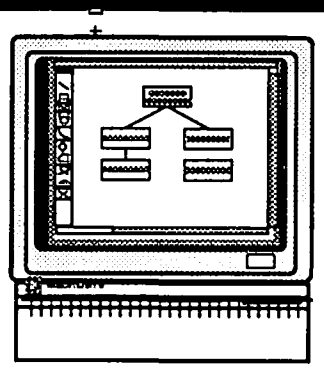

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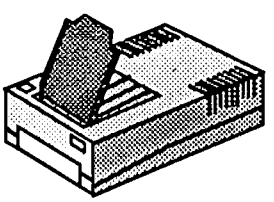
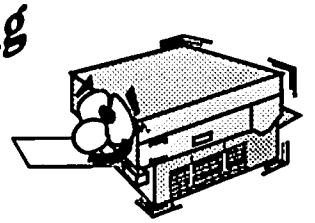
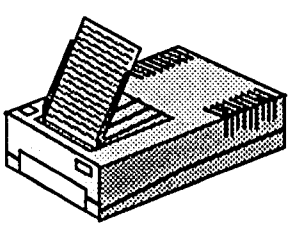
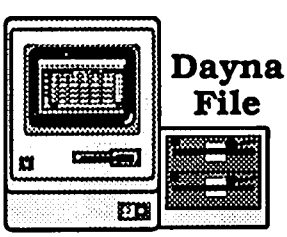


LaserPrinting Service





OCR Service
Mac & IBM
PC Scan Plus (Dest)
MacScan (NIT)



IBM to Mac File Transfer
360 KB
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MacNovice Column

by Ralph J. Begleiter

Macintosh Filing Maze: Part 1 or "Nesting Habits"

One of the most perplexing problems MacNovices seem to face is figuring out how to use the Macintosh filing system to store and find documents they create. It wasn't *always* perplexing. The Mac's original filing system was simpler. But the advent of floppy disks which can store up to 800K of data and hard disk drives with much larger capacities created a filing nightmare for the old system. So the Macintosh "Hierarchical Filing System" (or "HFS") was born.

And that's when the trouble began for many MacNovices. I've seen Mac users who simply store all their documents and programs right on the desktop, or in the open disk window. They never use file folders. That's not a big deal when all you've got is a dozen or so documents and programs on your disk. But imagine trying to wade through it all to find a certain piece of correspondence—if there are a hundred documents on the disk. What clutter!

The Hierarchical Filing System was created to solve that filing problem. And learning to use it efficiently can help you find your work faster, and can help you avoid costly mistakes such as losing important files.

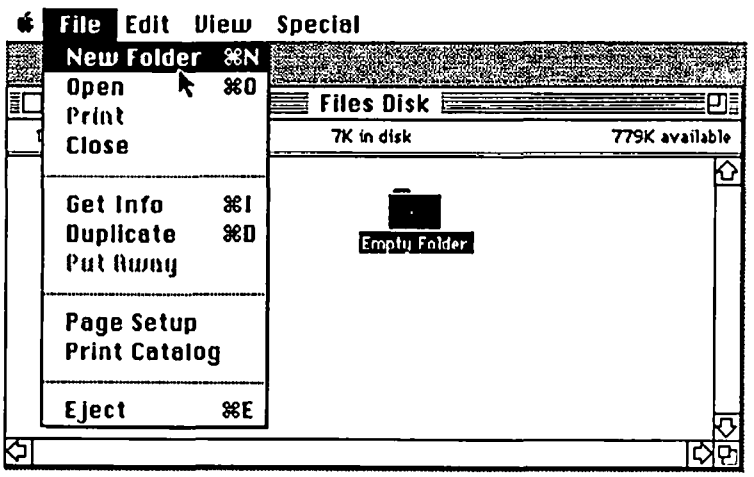
You may be asking right now, "Who *cares* whether I file things away neatly? What difference does it make?" On your Macintosh, it makes a big difference in the ease of locating documents later, especially if your disks grow to include dozens, or even hundreds, of files. *The Macintosh system is set up to work fastest when the computer is required only to keep track of a few items at one time, rather than keeping track of everything all the time.*

To take best advantage of the excellent filing system built right into your Macintosh, always keep in mind that your computer disks are similar to file cabinets in your office. Individual documents (each with a unique name) are stored inside folders (which also have names). In a large office (such as your computer's enormous filing space) folders are grouped together into categories, especially if they have similar characteristics. Sometimes, these folders are *themselves* placed within larger folders, to keep similar files together.

For example, letters you wrote to your accountant in 1987 might be filed in folders labeled for each month of the year. These "monthly" folders might be grouped into "quarterly" folders, which in turn are probably stored inside a large folder labeled "Correspondence." The Correspondence folder itself might be nested with other items within one huge folder (or file drawer) marked "1987."

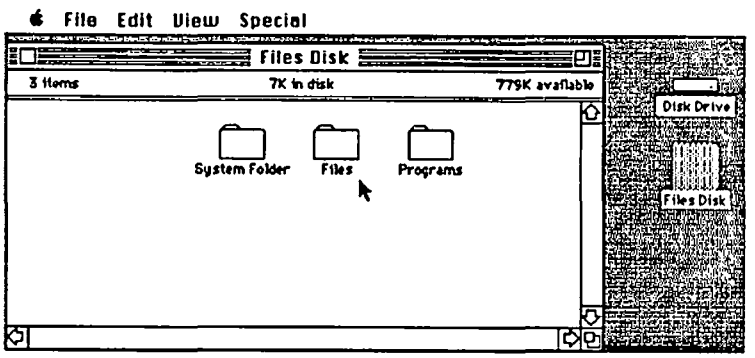
The important concept here is *not* the labels or even the number of folders. The key concept is the idea that letters you write can be found quickly and easily by following the trail of *nesting* within folders in your filing system. It's the concept of *nesting* which is the key to keeping track of your documents and programs on your Macintosh. In the next MacNovice column, you'll see why understanding and remembering the concept of nesting is so important when you're using your Mac.

On the Macintosh desktop, the filing system takes the form of files and folders, of course. That's easy. Don't forget that *folders may be nested within folders.*. This becomes very important later on, when you're desparately trying to find a document to make some revisions. And the *nesting* feature is crucial to remember when you're no longer working on the desktop level—but are working within a Macintosh program, writing, spreadsheeting or creating pictures. Because *when you're working within a program, the folders and files are presented to you in a different visual manner.*



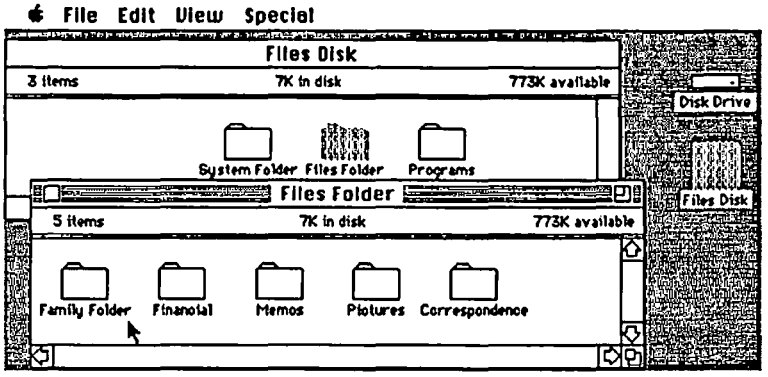
So get started by creating a few basic folders. You can always make new ones later as you need them. Choosing "New Folder" from the FILE menu creates a new empty folder. As soon as it appears on the desktop, give it a name.

Here is a sample desktop, to give you an idea of how to begin.



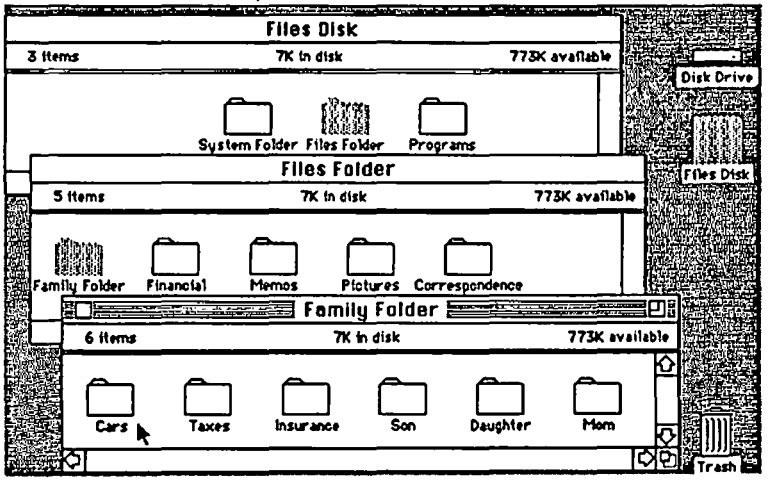
Now, take the time to create a system of *nested* folders within the ones you just created. For example, inside the "Files" folder, create several additional folders:

contd.

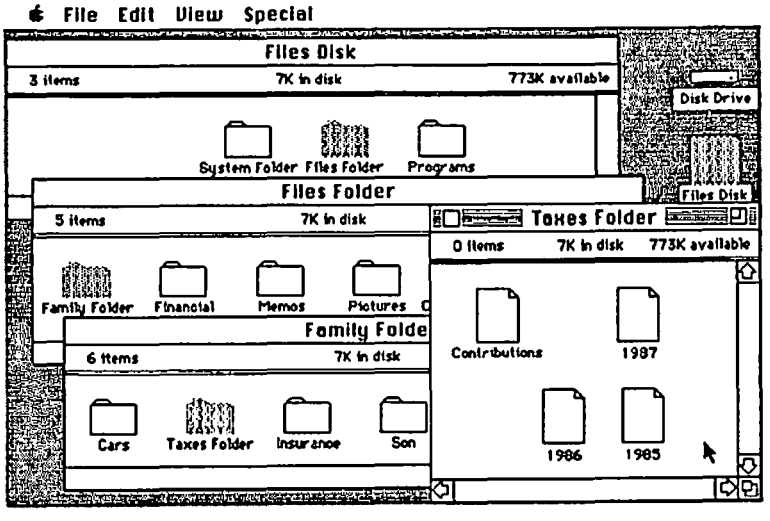


And within each of *those* folders, create a nest of still more. You might imagine this as the nesting of kitchen bowls of different sizes. Each bowl holds a smaller one. Each folder contains smaller ones. The smallest folders contain only a few documents, usually related very closely to one another.

Another example: Within the "Files" folder, create a "Family" folder. Within the "Family" folder, you should create folders for each member of the family, and for important categories within the family, such as "House," "Cars," "Insurance," etc..



Also within the "Files" folder, you might have a "Taxes" folder. Within that "Taxes" folder, you might have a folders for "1987," "1986," and "1985." Within each of those folders, you could create folders for letters to your accountant, for tax forms, for a database of contributions, etc.



The importance of this is that when you're later actually preparing your tax return, your Macintosh will have all of the documents it needs within a very short distance of one another in terms of the filing system. It won't have to search among everything in your "Files" folder just to locate the items related to "Taxes." It will only have to keep track of the relatively few items nested in the "Taxes" folder.

The same thing will be true, of course, when you're working with documents grouped together in another category. The Mac won't be forced to keep track of your taxes information when you're not working with it.

Another advantage of creating all these folders is that it'll keep your desktop uncluttered. Your eyes won't have to search through hundreds of icons or names on the screen to pick out the one document you want to work on. (In a future MacNovice column, we'll see how advantageous it can be to use the Mac's built-in database system of displaying items on your desktop in different ways.)

And next month, after you've reorganized your desktop, we'll discover how this effort will make it easier to find what you want when you're working within a program (application). We'll explore and explain the most difficult part of the Macintosh filing system, the dialog box you see when you choose OPEN from the FILE menu within an application. The dialog box which presents you with all the files on your disk, categorized by folders.

That's when all the *nesting* you're doing with your folders will pay off!

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HYPERCARD'S AUTHOR AT SPECIAL WAP MEETING

by Cynthia Yockey

HyperCard author Bill Atkinson demo'd his new creation at a special WAP meeting on November 7 attended by over 500 persons. Atkinson is well-known in the Mac community as the author of both MacPaint and the QuickDraw routines that give the Mac its graphic interface. His presentation was videotaped so that it could be made available to Mac user groups around the country.

In order to size up his audience's familiarity with HyperCard, he quizzed us on our familiarity with the program's features, from browsing to scripting, and found that at least 20% of the audience had already been using the program at its highest level. Then he said, "OK, so you all know what HyperCard does. Now tell me what it is."

That stopped us cold. And we laughed.

Then he told us.

"HyperCard is a software erector set," said Atkinson. "The dream that Apple has been after is putting the power of the computer in individual people's hands. HyperCard does this. HyperCard uses a metaphor of cards, each of which can contain text, graphics and sounds. Cards are grouped into stacks. Stacks are a unit of exchange (of the information stored on cards). We expect one of the largest functions of user groups is getting shared stacks out.

"You can get a lot of the power of HyperCard just by cutting and pasting. So other people's stacks become resources to you. For example, all the buttons people have made become resources. Whenever you get a stack, all the buttons, all the pictures, all the scripts are open for you to see what they did and you can copy off them. Each one is a new parts kit. I don't doubt there will be button libraries with documentation on what this button does and when to use it. Even if only 20% of the people who use HyperCard go on to scripting, they'll make a nice library for the rest of us."

According to Atkinson, there are over 300 public domain stacks out already. Samples that he showed included *Laura's Letters*,which he created to teach his daughter the alphabet; an AIDS information stack; a demo of VersaCAD; and teaching tools for students of electronics, mathematics, and American Sign Language.

HyperCard was developed over a three-year period, Atkinson said, and is not even finished: he released the product when he felt it was two-thirds done and had reached the stage of stability. Major breakthroughs that Atkinson cited were creating the ability to search quickly and to compress bitmaps. He will continue to work on the product and add some 60 additional features for at least two more years, but declined to say what the new features will be—although he admitted that getting the program to run in color would make it very slow due to memory requirements and is therefore quite low on his list.

Atkinson promised to fix all HyperCard bugs that can be duplicated and asked that bug reports be made to Mike Holme at Apple in Cupertino, California. The program is very soft on memory and can easily run in one megabyte of RAM, Atkinson said, but noted that he could not get HyperCard small enough to run on 512K machines and said that it won't be of much use to MacPlus owners who don't have hard disks due to its storage requirements and the amount of disk space most stacks will require. As for undocumented features, Atkinson said there are very few because the on-line help was kept updated constantly as HyperCard evolved (so check the on-line help if the documentation can't tell you what you need to know).

Something that HyperCard will do over the next year, Atkinson said, is change how the Mac interface is used by opening it up to non-programmers. This is necessary, he maintained, because advances like the enormous amount of information that can be stored on CD-ROM disks will open up new opportunities and require new approaches in using computers and manipulating information.

Atkinson does not plan a version of HyperCard for the IBM world because, he said, "You've got to have some reason you bought an Apple." He estimated that in six months or a year that programmers in the IBM world would have "claim-alikes," but that they would find it very difficult to duplicate HyperCard. What's more, he added, they will find out it's a moving target.

Audience reaction to HyperCard was nothing short of enthusiastic. Several features elicited gasps of amazement, then applause. And Atkinson was given not one standing ovation, but two: the first after his demo, and the second at the end of the question and answer period.

Cynthia Yockey is a freelance Macintosh consultant and trainer. She is also a writer and editor with experience in journalism, public relations and advertising.

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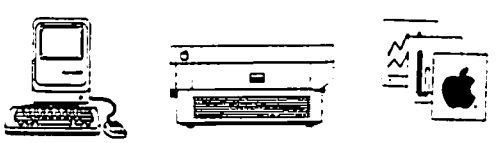

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Q & A WITH BILL ATKINSON

by Robert C. Platt

WAP was honored to have Bill Atkinson as our guest on November. Bill is noted for three major achievements at Apple: 1) He interested the two Steves in the UCSD p-System and personally ported the system onto the Apple II. Apple Pascal, Apple Fortran and Apple PILOT were the result. 2) He invented MacPaint, the pioneering paint program and the MacUs ROM QuickDraw routines and 3) He created HyperCard. [In recognition of these achievements, WAP presented him with 1) a copy of Perfect Pascal Programs, 2) a WAP pin, and 3) a subscription to the WAP Journal, which is as non-linear as a HyperCard stack.] Bill's talk is summarized by Cynthia Yockey in this issue. Yet, a highpoint of Bill's visit was the question and answer session which is summarized below. These are not exact quotations, but rather a summary of the session.

Q. How was HyperCard designed?

A. It was developed over a 3 year period. A prototype was ready after one year. It looks fresh because I kept my mouth shut while working on it. Major breakthroughs were 1) how to search quickly and 2) compressed bitmaps. Thirty people worked on it, including 10 fulltime testers. The code is 10 times bigger than MacPaint and QuickDraw. For me, working with code is kind of like 'sculpting' in that it involves a lot of iterations. HyperCard is only two thirds done. Many features are yet to come. 60 new features are planned which will probably take two more years to complete.

Q. Will a multiuser version become available?

A. Stacks stored on a file server can be opened by only one person at a time now. Will add card lockout to allow 'bulletin board' type stacks.

Q. Will cards bigger than the original Mac screen be supported in future?

A. No. This is not a document preparation program. MacPaint's drawing size was governed by the available printer. HyperCard is for generating index cards to larger documents which might have larger sizes.

Q. To make HyperCard more hypertext like will you support scrollable windows?

A. HyperCard is not designed as a hypertext system. However, card fields are presently scrollable.

Q. Will it be possible to change card backgrounds on the fly?

A. No. But you can overlay them. The possibility of changing style within a text field would lead to a range of text having a script associated with it.

Q. Is it possible to link by card name rather than by ID number?

A. Yes. ID numbers are position dependent and will change when you add cards. It is preferable to link by name.

Q. Can you input files from other applications?

A. Yes. See p. 384 of Goodman's book. Can import any text file.

Q. Can scrolled text be printed? Any length limit?

A. 30K limit on scrolled text field from TEdit ROMs. HyperCard supports two kinds of printing: 1) printing with graphics—will show visible portion of field at current scroll position and 2) report printing—will print entire field.

Q. What opportunities and challenges does bundling HyperCard with the Macintosh pose for software developers?

A. At first some developers were afraid of the competition, but many are now using it for program preparation. HyperCard is a part of Apple's platform technology. It doesn't hurt application writers. It does break open the priesthood.

Q. Can you extend the HyperTalk language with your own machine language routines?

A. Yes. Can take any native 68000 code, save it as a resource in your stacks using ResEdit and the code will automatically become a HyperTalk command without any further linking. Documentation for this is available from APDA.

Q. How long did it take to convince Apple to bundle HyperCard with the Mac?

A. About 4-5 hours. Mostly with John Sculley.

Q. Has HyperCard now made it so easy to design and implement your own user interface that it has destroyed the common Mac interface?

A. So, is this a plea for facist design? Good user interfaces are designed by example, not legislation. About a year from now, it may be appropriate to issue a style manual for stack design. A lot of current Mac design features which are useful would have been supressed by the Lisa interface guidelines. Just as the first Mac documents were poorly designed from using too many fonts, some stacks people will share will suffer from overuse of the freedom to implement your own interface. It comes down to a fundamental faith in the people who use HyperCard. It's like putting out MacPaint, people worried about giving the Mac a toy image and that people would play at work. Companies that had faith in their employees benefited the most from the freedom which the Mac gave to those employees to design more effective documents.

Q. What are HyperCard's hardware requirements?

A. 750K RAM. (It has 13 22K buffers.) 128K ROM or better. Hard disk is preferred as soon as you want to launch other applications or use clip art.

Q. Will there be a HyperTalk Compiler to speed up performance?

A. The language's performance will improve, but not with a

contd.

compiler. HyperCard does pre-lexical parsing and heavy caching to make it go faster.

Q. Regarding HyperCard's performance limits, when should you use HyperCard or Pascal?

A. Applications requiring significant floating point calculations are better in native code. If your project is like the examples on the HyperCard disk (e.g. calendar, to do list) or is user interface intensive, then use HyperCard. If the application is too slow under HyperCard, use Xcommands to handle hot performance situations (activities which are frequently repeated). Relational data base programs may be better suited for certain applications.

Q. Are there plans to burn HyperCard into the Mac ROM?

A. Some pieces may work their way into ROM. HyperCard has a layered design: a virtual memory manager, a data level and a user interface. Apple will identify what becomes standardized and what could be used by other applications.

Q. The ability to support multiple windows would be useful for hypertext applications.

A. Hypertext is supposed to have multiple windows. Never envisioned HyperCard to have very much to do with hypertext. Apple could not get the name 'wildcard' so they renamed the program HyperCard. HyperCard will support multiple windows in the future. True hypertext is 10 to 15 years away.

Q. Can HyperCard be used as a front end to Fourth Dimension or Omnis 3?

A. Yes. One guy has an SQL front end for mainframes and another has a HyperCard front end to DIALOG.

Q. Are Boolean AND and OR available with the find command?

A. A space serves as an AND operator, but the OR operator is on the list of improvements. You can write your own OR HyperTalk script.

Q. What techniques did you use to achieve such dazzling performance?

A. To get good performance, think through what's going on. Stop doing stupid things. A lot of performance measuring tools were built into HyperCard as it was growing up. It's more important to use a smart algorithm rather than smart coding. An algorithm will speed up execution by a factor of 10 to 20 while smart code will speed up by a factor of 3. HyperCard timings were measured on a Mac Plus. Don't get lulled into faster times using a Mac II.

Q. When will the first revision be out?

A. Version 1.1 will have international support and a few bug fixes. If you purchase HyperCard, you will not have to pay for it again.

Q. Any known problems using HyperCard under MultiFinder?

A. We are changing what launch does so that it does not quit HyperCard under Multifinder. Instead, it will do a multi-launch and keep running.

Q. How can you work with color images in HyperCard?

A. 1) Access a videodisk with color images under HyperCard control, or 2) use Xcommands to bring up your color image. You can't edit color images with the painting tools.

Q. When will MS-DOS versions of HyperCard be available?

A. You can expect claim-alikes or look-alikes as soon as possible, within a year. It is doubtful that the real thing will ever be on an IBM PC. The real thing is a moving target. You got to have something to say for owning a Mac!

Q. How can you limit user access to your stack?

A. You can select Protect Stack from the File Menu to limit the user level. However, there is already a stack to crack this protection. In general, most stacks are shipped open. Selling the scripts for use in other stacks is an intended part of most products. Protect Stack mode is to prevent kids from messing up the stack borrowed from the town library. To completely protect a stack, use an encryption program on the stack between uses.

Q. Any limitations built into HyperCard?

A. 16 million cards per stack; 0.5 gigabyte limit on total stack size.

Q. Any tips on improving performance?

A. Use 3 or more characters to search. Try to put as much bitmapped graphics into background rather than repeat on each card. For animation, do flip cards. To move an object, just select the object and drag. Sounds have not been compressed. Hopefully, future sound managers will play compressed sounds. Each second of sound uses 22K of disk space. When few cards are named, accessing cards by name is as fast as accessing cards by ID number.

Q. Are there undocumented features in HyperCard?

A. Very few. Check the on-line help stack.

Q. Would you recommend that an average user set HyperCard as his startup program and launch other applications from it rather than the finder?

A. Yes. You can make your own minifinder using open command scripts for each icon. 'open field-name with app-name' allows you to launch the correct program when the icon of a document is selected.

Q. Since your talk emphasized building on other people's programs, what is your reaction to the new painting programs?

A. I haven't kept track. I understand that there are some really nice painting programs out.

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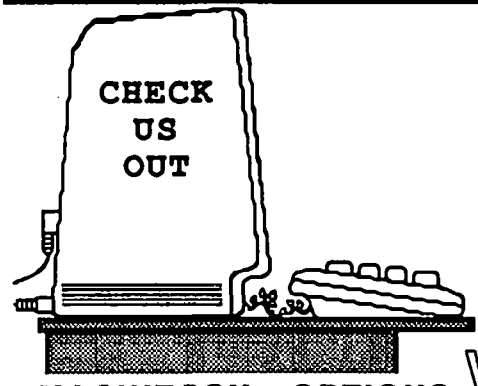

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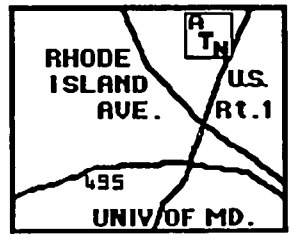

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A SIMPLE SCRIPT FOR HYPERCARD

by Rick Chapman

I use the address stack that comes with HyperCard to keep my phone lists both at home and at work. Recently this has become somewhat of a problem, as I'll often add a new name and number to one list, but I'll forget to update the other.

I thought I'd share with you a short little script that I wrote to combat this plague by keeping both of my address stacks at home and at work up-to-date. Even if you don't find this script particularly useful, I hope that you may learn a little about HyperTalk by studying this example.

Before discussing the script, a word to beginners. If you want to learn how to write scripts be sure that you first know the other aspects of HyperCard such as painting and authoring. If you do, then I recommend that you study the online help system. While Danny Goodman's book is good, I found the interactive nature of the HyperTalk online help to be a great way to learn about HyperTalk. When you do use the online help, be sure to open up the buttons and fields to see exactly how they work. Tearing apart the HyperTalk help stack is one of the best ways to learn HyperTalk programming. Now back to the script.

My general idea was to provide a way of moving new or updated information from one address stack into another. I decided to implement this by adding a single button to the first card of the address stack to be updated. I call this the import button. So as to avoid confusion I'll refer to the two stacks we'll be working with as the source stack and the destination stack. The destination stack is the stack that you are in when you push the import button and is the stack that grows in size.

Before writing a single line of code, I had to decide on an algorithm, or method, for performing the update. My original idea was a simple one. I thought I'd get one card from the source stack and compare it with all the cards in the destination stack. If I didn't get a match or if the source card was updated more recently then the matching card in the destination stack, I'd insert that source card into the destination stack. I'd then repeat this procedure for all of the cards in the source stack.

While this procedure would work, it would be insufferably slow for a large address stack. The problem is that the procedure requires HyperCard to jump back and forth between the two stacks once for each and every card in the source stack. This all adds up to a significant amount of time not to mention wear and tear on your disk.

So I wanted an alternative that would avoid needless stack switching. My first alternative was to jump to the source stack, record all of the data in that stack into a set of variables and then jump back into the destination stack. Having the source data in the variables would make it available for comparison and updating within the destination stack. This would be much faster than my original algorithm, but it would require that HyperCard hold the entire contents of the source address stack in memory at one time. Even with the HyperCard's virtual memory system, this did not seem like a wise choice.

I settled upon a compromise solution which will serve to illustrate a number of aspects of HyperTalk. My solution was to record just the first line of the Name and Address field along with the date of each of the source cards in variables. Then I return to the destination stack and determine which cards are to be updated. Finally I update just those cards that need to be updated by jumping back and forth between the stacks. This is a compromise algorithm with memory requirements and speed somewhere between the previous two algorithms. The general outline of the routine is given below:

```
on mouseUp
    get name of source stack
    go to source stack
    record all names and dates
    return to destination stack
    perform comparisons of source names and dates with
                destination names and dates marking those cards
                that need to be updated
    loop thru all of the cards that need to be updated, copying
                them from the source stack into the destination
            stack
end mouseUp
```

Let's go through the implementation of this algorithm section by section. The first job is to get the name of the source stack (remember that we are in the destination stack so we know what its name is). There are two ways to do this. The easiest is to ask the user to enter the name of the source stack:

```
on mouseUp
    ask "Enter the name of the source stack:"
    put it into stackName
```

Notice that we begin with an on mouseUp command since we want this script to be activated by a button. Within the mouseUp message handler we use the ask command to obtain the name of the source stack. While this approach will work, it is not very Mac-like. A better solution is to use an external function that implements the standard Macintosh file box. Versions of this function are available on several bulletin board systems.

```
on mouseUp
  get fileName("STAK")
  if it is empty then exit mouseUp
  put it into stackName
```

This will put up a standard file box listing only stacks. The user can then select the source stack by scrolling and clicking. Notice that an exit feature was added to the script. If the user does not select a stack but instead hits the cancel button, the fileName function returns an empty string. In this case the button will do nothing.

The next step is to jump to the destination stack and scan through all its cards, recording the first line on each card and its date. Before jumping to the card we'll need a way to get back to the destination stack. We could get the destination stack's name, but an easier way is to just push the card that we are currently on onto the stack. We'll then be able to return by executing a pop card command. We want to skip the first card of the source stack

contd.

since it has no information, so we'll go to card 2 of the stack. Finally we'll have to loop through all of the other cards recording name and date. This is all accomplished by the following code:

```
put "Scanning cards of source stack..."
push this card
go to card 2 of stack stackName
put the number of cards into nSource
repeat with i=2 to nSource
    put line 1 of field "Name and Address" into line i of
            names
    put field "Date" into line i of dates
    go to next card
end repeat
pop card
```

The opening put is designed to tell the user what the function is doing. The loop runs from card 2 to the last card of the stack which has number nSource. While sitting on each card we record the first line of the name and date fields into temporary variables. At the end of this sequence we return to the destination stack by popping a card from the stack. Simple.

You should note the use of a variable as an array. In this case we are putting data from the i-th card into the i-th line of the variables "names" and "dates". HyperTalk's ability to store and retrieve data chunks by line and item number allow you to store information in one and two-dimensional array-like structures. In this case we are wasting the first line of each variable, but it seems like a reasonable price to pay to make the program simpler to read and understand.

The next step is to check for duplicates and superceded cards in the destination stack. This time we'll loop through all of the lines in the "names" variable looking for a match in the source stack for each one. If no match is found then that card needs to be added to the destination stack. If we find a match then we need to check if the source date is more recent then the destination date. If it is then we need to update that card. Otherwise, the destination card is the most recent and we do nothing.

So we have three possible outcomes: do nothing, update card or add card. This can be reduced to two outcomes if we delete any card in the destination stack that needs updating. Then all we have to do is add cards from the source stack.

Looking ahead a bit, we need a way to tell the copying section which cards should be added to the source stack and which should be left alone. In this routine I choose to delete the line in the "names" variable if that corresponding card was not to be updated. The entire comparison section is implemented in the following code.

```
put "Checking for duplicates in destination stack..."
repeat with i=2 to nSource
    find line i of names
    if the result is empty then
        put field "date" into destDate
    convert destDate to seconds
    convert line i of dates to seconds
    if line i of dates <= destDate then
    put empty into line i of names
        else
    doMenu "Delete Card"
        end if
    end if
end repeat
```

First, note that you should always make use of as many of HyperCard's built-in commands and functions as possible. In this case, we use the find command to find the name of the individual in the destination stack. If the name is not found then the string "not found" is placed in the result. This search has some danger to it, in that it will find the first occurence of that name anywhere in the stack, even if the name appears in the phone field. We could limit the search to the Name and Address field, but even that does not guarantee that a false match won't be found if you list a person's name multiple times. If you require a more accurate (but substantially slower search) then you'll have to search through the destination cards one by one.

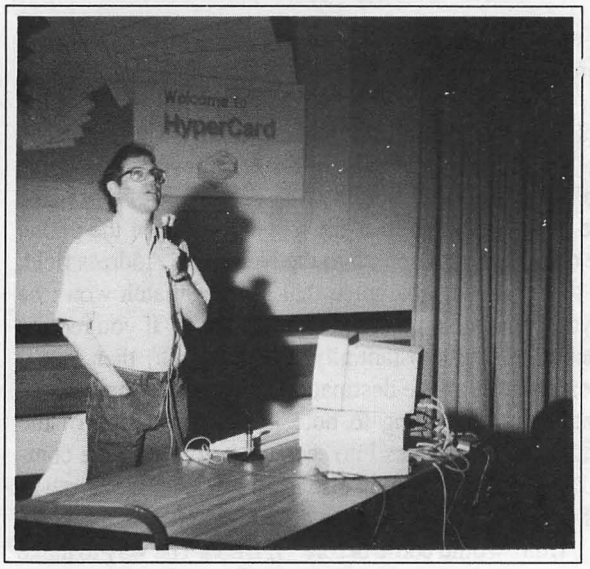
Another important thing to note is the conversion of the source and destination dates into seconds before the date comparison. Dates, like everything else in HyperCard, are stored as text. This means that according to a standard HyperCard comparison "1/1/88" would come before "7/1/86". The way to make accurate date comparisons is to convert the dates into seconds (actually the number of seconds from Jaunary 1, 1904 to that date) before performing the comparison.

The final section of code actually does the updating of the address stack. Again we loop through all of the lines in the "names" variable—this time though we only act on those that are not empty. The non-empty lines correspond to the cards that need to be copied from the source to destination stack. There are at least two ways of actually copying the cards. I originally chose to use the doMenu command to perform the copy and paste card functions. This appears to work fine, but it creates a new background for the cards that are pasted into the address stack. While the pasted cards appear to be the same as the existing cards they are not. If at some point in the future you want to modify the background of the cards to add another field, you'd have a tough time. Instead, I ended up using the new card function to create new cards in the destination stack. This function preserves the background of the existing cards. The copying is straightforward.

```
    put "Updating destination stack..."
    repeat with i=2 to nSource
        if line i of names <> empty then
        push this card
        go to card i of stack stackName
        put field "Name and Address" into nameAndAddress
        put field "Phone Number" into phone
        put field "Date" into date
        pop card
        doMenu "New Card"
        put nameAndAddress into field "Name and Address"
        put phone into field "Phone Number"
        put date into field "Date"
        end if
    end repeat
    put "Done..."
    wait 3 seconds
    put empty
end mouseUp
```

I combined these snippets together into a single card button script. I put the button on the first card of the address stack so it would be available for future updates. Now, I won't claim that this is the "optimal" algorithm or even the best way of imple-

contd.



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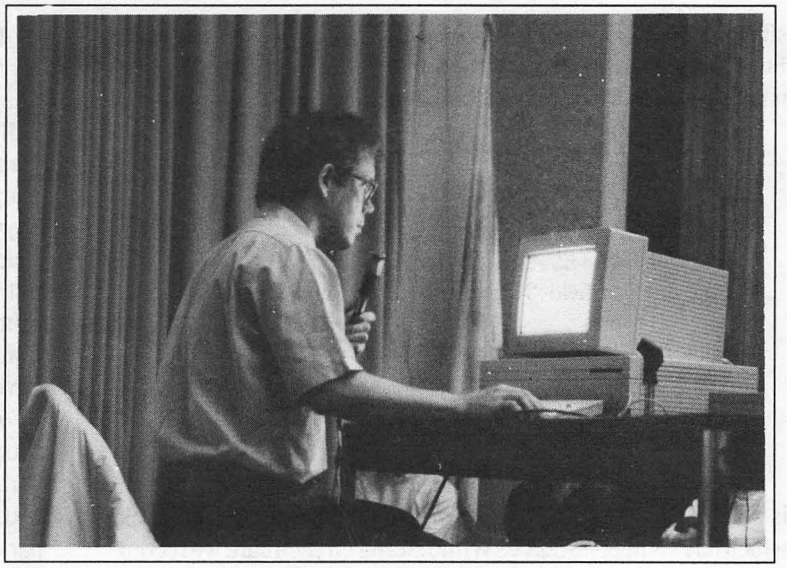
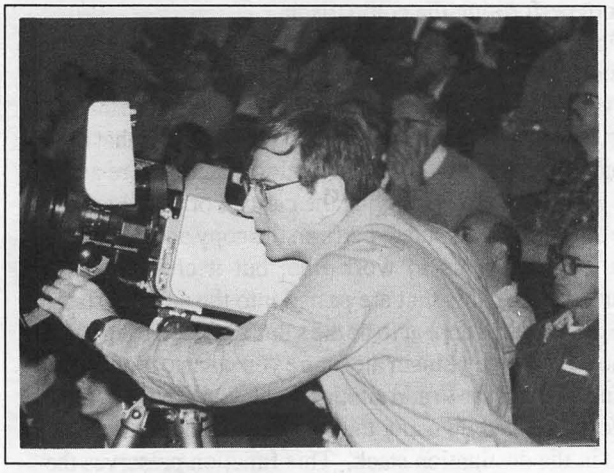


The magic of Hypercard



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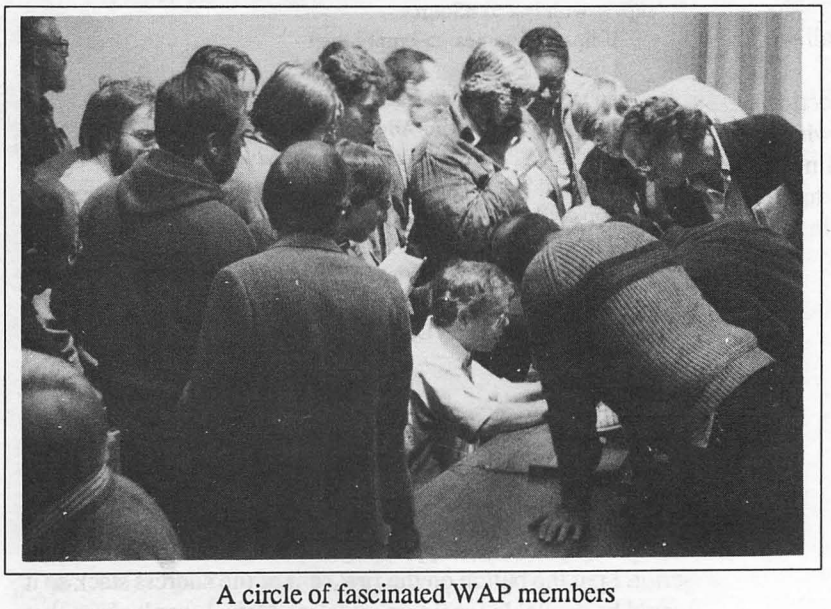

A circle of fascinated WAP members

All photos by Peter Combes

menting this particular algorithm. To me the beauty of this script is threefold: it works, it is fast enough for most purposes, and it only took me 30 minutes to write and debug. In a way I see this as the underlying beauty of HyperCard. It may not give me full access to the entire Macintosh interface. It may not be faster than a dedicated database or spreadsheet. It may even force me to buy some more memory. But it works, it works resonably fast and it is very easy to use and customize. Happy scripting.

LETTER TO THE EDITOR

Following is my covering letter for my Shareware check to C C C:

Gentlemen,

I am sending this letter as a formal warning that I intend to file suit against your firm for loss of consortium with my Macintosh. One day some weeks ago I picked up your shareware solitaire product Canfield (Washington Apple Pi Disk 80) and explained the rules to the woman with whom I have been sharing my household for some thirty-five years. In a few hours, she, who had never bothered to look at my computer previously, was moving little cards around like mad. Since that time I have had to beg, threaten and cajole to get to the keyboard. Furthermore, my scores for some reason rarely get above 900, while she regularly gets 3000 and more, which I find most humiliating. And she plays the game all hours of the night (which might give me an additional cause for suit). I just want to let you know well in advance that you are in a lot of trouble as soon as I find an honest California lawyer.

ArthurBaron

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A Long Word Wiser

by

John A. Love, III

BASIC AND ASSEMBLY LANGUAGES W.A.P.

OR, ... are you HYPER ??

I'm going to assume that you kind folks have:

- read the Users's Manual provided with "HyperCard".
- read Danny Goodman's heavyweight masterpiece on the subject.
- & **then**, after many hours of practice, became very knowledgeable about the effective use of this excellent software.

But, since I am a program developer, I simply **cannot** stay away from **HyperTalk**, the Pascal-like programming language that Dan Winkler and Bill Atkinson built into HyperCard for the detailed manipulation of Stacks, Backgrounds, Cards, Fields & Buttons.

There are many, many HyperCard Stacks within the Public Domain. There are several that are really **very good.** These include among others:

- "Script Report" which prints out **all** the Script inherent to **each** field, button, card and background within the entire Stack. This capability is absolutely **invaluable**, even **mandatory**, since even Danny Goodman's heavyweight book falls light in delineating specific **and** lengthy examples of HyperTalk Script code.
- "Yet Another MiniFinder {Y.A.M.}" which you will recognize shortly.

In addition, even for those Stacks that don't particularly inspire you, **at least** open them up using "ResEdit" & look for HyperCard—specific Resources such as **SNDs, WCMDs, XCMDs & XFCNs.** But, more on these in a little bit. Be patient, folks !!

With respect to **Y.A.M.**, interject at the very beginning two Cards, as follows:

The **new 1st** Card in your Stack = "Y.A.M.". This Card (Figure 1) is **pure** graphics consisting of your Company's Logo. The Card has **NO** buttons. **But,** the script for this Card permits the **entire** Card to be **<u>one</u> huge** button. Let's see what I mean:

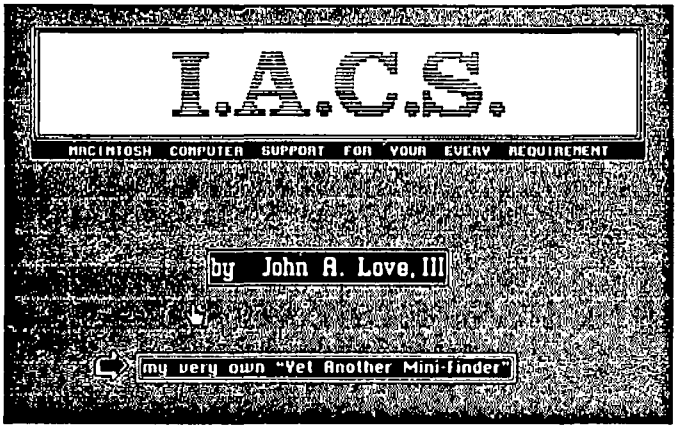

Figure 1

<u>Script for the above 1st Card in your Stack "Y.A.M."</u>

This Script goes onto the next Card in either 5 seconds or upon your clicking the mouse, **whichever** occurs first:

```
on openCard
    repeat for 5 times
        wait for 1 second
        if the mouseClick then exit repeat
    end repeat
    go to next card — named "Application Categories".
end openCard
```

This **next** Card, the 2nd Card you interject, displays an array of Icon Buttons depicting all sorts of Application Categories, for example, "Word Processing" or "Painting" or "Stack Development". Naturally, I name this 2nd Card = "Application Categories" (see Figure 2):

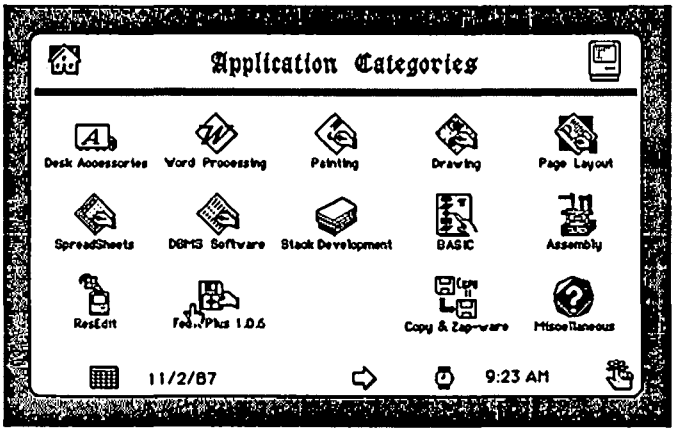

Figure 2

By the way, before I totally forget, the calendar-like **picture** on the bottom left of the above card has a "Date" field to its right (guess what the field on the bottom right is called—there'll be a quiz in the morning). Anyway, these two fields are <u>actually</u> on the background which is controlled by the following script:

```
on idle
    put the date into background field "Date"
    put the time into background field "Time"
end idle
```

Pressing on...

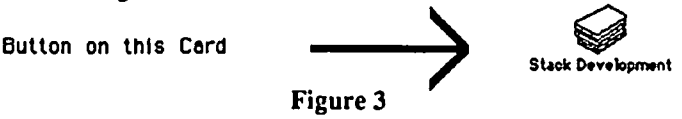

Figure 3

contd.

When you click on one of these category Icon Buttons, you proceed onto another Card [in the same Y.A.M. Stack] that shows other Icon Buttons depicting specific applications within the given single category. For example, on my (single) Category Card entitled "WordProcessing", I have Icon Buttons for "MacWrite" & "MicroSoft WORD". Let's take a look at what I have residing on my Category Card entitled "Stack Development".

Script for the above Button

```
on mouseUp
   go to card "Stack Development" — my Category Card.
end mouseUp
```

The "Category Card":

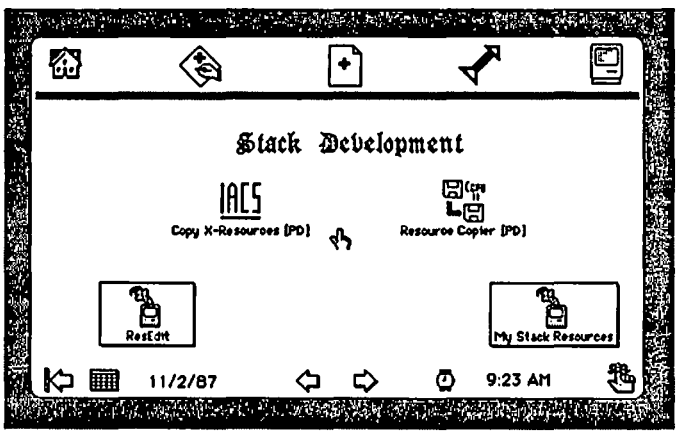

Figure 4

It's been kinda easy, folks, so far. Now, let's get really serious. All HyperTalk's going to do shortly is execute a command that's in a string which we construct. It's still simple—we stuff a series of words into a dummy string, a series of words that HyperTalk will recognize as a legitimate command. Then, guess what ?? We do the filled—in string. Do not worry about XCMDs or XFCNs [EXternal CoMmanDs & EXternal FunCtioNs]. I'm saving this really painful stuff until last.

The core of what follows comes from two existing Public Domain Stacks, for example, "Copy X—Resources" and "Resource Copier". However, I have supplemented and streamlined alot of the original author's Script. I hope everyone enjoys my improvements:

By the way, you have to cheat and use "ResEdit" to copy just three Resources over to your Stack——the one named "FileName", the one named "CopyHyperXRes" & finally "ResCopy". After that little truancy, you won't need "ResEdit" any more for copying pertinent Resources to your Stacks.

Script for the Icon Button "Copy X-Resources [PD]"

```
— command string : CopyHyperXRes "source stack",
— "destination stack"
— [Note: will NOT copy itself, UNLESS you re-name it !!]
on mouseUp
   — record your existing whereabouts before you
   — go any further:
   put (longname of this card) into cardName
   — First, the XCMD that does the copying goes in
   — front of a local variable which we will fill out as
   — we go & then execute ("do").
   — Follow the bouncing ball, folks:
   put "CopyHyperXRes" into commandString
      — the 1st word.
   — get the source Stack:
   beep
   Answer "First, select the source Stack..."¬
   with "Cancel" or "Select"
   if it is "Cancel" then exit mouseUp
   get fileName("STAK") — This XFCN generates 'it'.
   if it is empty then exit mouseUp — you clicked "Cancel".
   put it into sourceFile
   — back to our command string, proceeding left to right:
   put (space & quote & sourceFile & quote)¬
   after last word of commandString
   put "," after last word of commandString — separate
         parameters.
   — get the destination Stack next:
   beep
   Answer "Next, select the destination Stack..."¬
   with "Cancel" or "Select"
   if it is "Cancel" then exit mouseUp
   put fileName("STAK") into destFile
   if destFile is empty then exit mouseUp — you clicked
   "Cancel".
   — XFCNs already there, so don't bother to copy:
   if sourceFile = destFile then exit mouseUp
   — the last part of the command string:
   put (quote & destFile & quote) after last word of
         commandString
   — finally, do the blessed thing !!
   set lockMessages to true
   set lockScreen to true — freeze the screen image as you go
         Stack hopping.
   go to stack sourceFile — position yourself correctly !!
   do commandString — "we dun dude it !!"
   — Here, you return to where you started:
   go to cardName
   set lockMessages to false
   set lockScreen to false
end mouseUp
```

Button Script for "Resource Copier [PD]"

```
— command string : ResCopy "source stack",
                   "destination stack",
                   "type","name"
on mouseUp
   — record your existing whereabouts before you
   — go any further:
   put (long name of this card) into cardName
   — First, the XCMD that does the copying goes
   — in front of a local variable which we will
   — fill out as we go & then execute ("do").
   — Follow the bouncing ball, folks:
   put "ResCopy" into commandString — the 1st word.
   — get the name of your source Stack:
   beep
   Answer "First, select the source Stack..."¬
   with "Cancel" or "Select"
   if it is "Cancel" then exit mouseUp
```

contd.

```
get fileName("STAK") — 'it' from this XFCN.
if it is empty then exit mouseUp — you clicked "Cancel".
put it into sourceFile
— back to our command string, proceeding left to right:
put (long name of stack sourceFile) into tempSource
delete first word of tempSource — "Stack".
put (space & tempSource) after last word of commandString
put "," after last word of command String — separates
      parameters.
— get your destination Stack's name next:
beep
Answer "First, select the destination Stack..."¬
with "Cancel" or "Select"
if it is "Cancel" then exit mouseUp
put fileName("STAK") into destFile
if destFile is empty then exit mouseUp — you chose
      "Cancel".
— Resource already there, so don't bother to copy:
if sourceFile = destFile then exit mouseUp
put (long name of stack destFile) into tempDest
delete first word of tempDest — "Stack".
put tempDest after last word of commandString
— place another comma to separate additional parameters:
put "," after last word of commandString
— next, the Resource Type:
beep
Ask "Now, specify the Resource Type..."
if it is empty then exit mouseUp — "Cancel".
-- add trailing spaces until Type is 4 characters long:
repeat while (number of chars in it) < 4
put it & space into it
end repeat
put it into type
put (quote & type & quote) after last word of
      commandString
— almost there, but last, the name of the appended
— Resource:
beep
Ask "Now, type the name of your Resource..."
if it is empty then put "Untitled" into it
put it into name
put "," & quote & name & quote after last word of
      commandString
— finally, folks, finally do the blessed thing !!
set the cursor to 4 — tick-tock !!
set lockMessages to true
set lockScreen to true — freeze the screen image.
go to stack sourceFile — position yourself correctly !!
do commandString—returns something in "result".
— just some error checking, folks, before we
— part company !!
if first char of the result = "E" then
    if last char of the result = "1"
    then put ("Wrong # of parameters were passed")
        into text
    if last char of the result = "2" then
        put ("Source file" && quote & sourceFile &
          quote &&¬"couldn't be opened.") into text
    end if
    if last char of the result = "3" then
        put ("New destination file" && quote & destFile
          & quote &&¬"couldn't be created.") into text
    end if
    if last char of the result = "4" then
        put ("Resource type" && quote & type & quote
          &&¬"wasn't found in source file.") into text
    end if
else
    if last char of the result = "1"
    then put "OK : Resource copied to an existing file."
        into text
    if last char of the result = "2" then
        put "OK : New destination file or resource fork
            was created."¬into text
    end if
    if last char of the result = "3"
    then put "OK : Existing resource replaced by copied
        one." into text
end if
put text into message box
— Here, you return to where you started
go to cardName
set lockMessages to false
set lockScreen to false
choose browse tool
end mouseUp
```

I'm on a roll, so let's not stop now. Next, let's look at that Button "My Stack Resources". This Icon Button (see Figure 4) on the {single} Category Card = "Stack Development" has the following Script:

```
on mouseUp
    go to stack "Stack Resources"
end mouseUp
```

The purpose of this new Stack is to dynamically present to the program developer the correct syntax that is used by each specific Resource. The developer opens this Stack, clicks on the Resource whose syntax is temporarily forgotten, & voila!! the appropriate syntax Card pops up.

The first Card in this Stack has 4 scrolling text fields, one for each Resource, for example, SNDs, WCMDs, XCMDs & XFCNs, just four of many types of resources that are generally attached via executing "ResEdit", Copy X-Resources" or "Resource Copier". These scrolling text field would appear as follows:

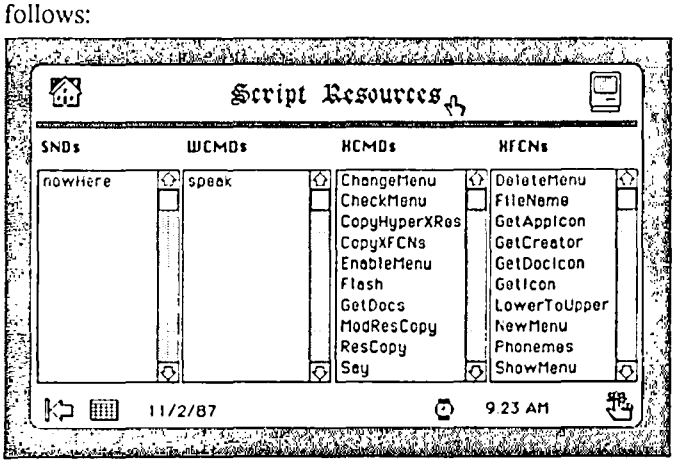

Figure 5

Now, given that these text field have to be locked, how in the world do I determine what Card I should go to [be careful] when I click on the line Flash, for example? It's very simple, folks:

contd.

Field Script for XCMDs

```
on mouseUp
    global nbrSNDs,nbrWCMDs,nbrXCMDs, nbrXFCNs
    get scroll of card field "XCMDs" √√√√√
    put it + (item 2 of the clickLock — (item 2 of the rect of
        the target)¬ into Goal
        — item 2 is the vertical coordinate
    put (Goal DIV textHeight of the target) into Goal
    add 1 to goal — can't go to Card #0 !!
    if goal > nbrXCMDs then exit mouseUp — down too far !!
    visual effect scroll up
    push this card
    — take into effect the 1st data Card is #2
    — as well as all Cards in previous fields.
    go to card (Goal + 1 + nbrSNDs + nbrWCMDs)—√√√√√
end mouseUp
```

Okay, I give up—where did I generate the above globals?? Very simple—when I opened up the stack whose first Card contains the above four text fields, the following Script was executed:

```
on openCard
    global nbrSNDs,nbrWCMDs,nbrXCMDs, nbrXFCNs
    put number of lines in card field "SNDs" into nbrSNDs
    put number of lines in card field "WCMDs" into nbrWCMDs
    put number of lines in card field "XCMDs" into nbrXCMDs
    put number of lines in card field "XFCNs" into nbrXFCNs
end openCard
```

By the way, the above HyperTalk logic **demands** that you create each of the destination Cards in the precise order you've listed them in each successive scrolling text field, starting with the scrolling text field "SNDs", then "WCMDs", "XCMDs" & "XFCNs". In short, left-to-right, & within each, top-to-bottom. Another important note—the above HyperTalk script lines highlighted by √√√√√ require slight changing as you go from text field to text field. This exercise is left to the wisdom of the student [boy, how I hated to hear that in Graduate school]. ☺

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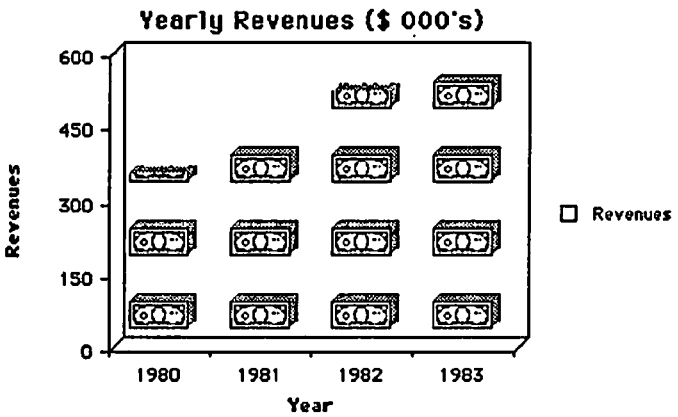
Softviews by David Morganstein

Pict-O-Graph. If you use your Mac for creating descriptive presentation graphics, you will want to try Pict-O-Graph from Cricket. Using an interface that is similar to Cricket Graph's bar charts, Pict-O-Graph adds a fresh approach to otherwise standard graphics. (I'll admit that what has become commonplace today drew rave reviews only a few short years ago!) Take a look at the following graphic which uses the icon of a dollar bill to enhance the appearance of a graph of revenues.

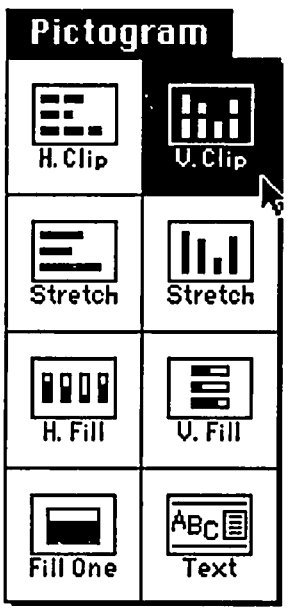


What It Does. This package allows you to select plotting symbols for bar charts from among dozens of icons provided in libraries that come with the disk. What is more, Pict-O-Graph contains an icon editor permitting you to easily create and store any symbol whatsoever. You are limited only by a 32 by 32 grid and your imagination. Let's take a look at the program features, ease of use and documentation.

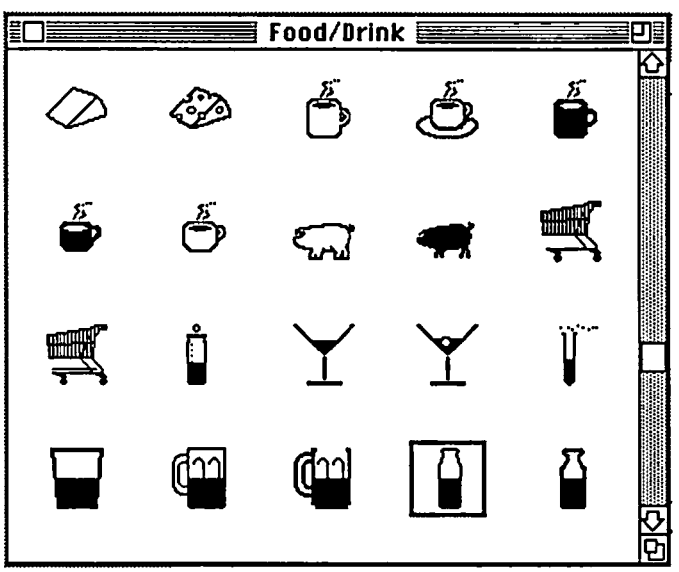
Pict-O-Graph offers the same easy to use data entry and editing window found in Cricket Graph. While the window is not as flexible as many spreadsheet windows, it does serve the purpose. (For example, you can not change the column width or the type style). Perhaps my only complaint is that backspacing too far in one cell moves you upward into the cell above it, often erasing text not meant to be changed.

Before plotting your data, Pict-O-Graph allows you to sort it, transform or recode it, or smooth it. If you have continuous data, you can obtain frequency counts of the unique values. In this manner you can prepare a histogram by first recoding the data into cells and then doing a count. The program also allows you to do simple math computations between two variables to obtain a third or to locate alpha codes in the middle of numeric data.

Features. When you are ready to plot, you will find that Pict-O-Graph offers several graph styles. Horizontal or vertical bar charts may show a series of icons as seen above (labelled H.Clip or V.Clip in the menu) or a stretched version of a single icon, the degree of stretch indicates the magnitude of the scale. Alternatively, you can request a filled version (H. or V.) of the selected icons. In addition, you can create a chart containing only a single icon or you can use Pict-O-Graph to do simple graphical editing of text. It seems to me that the most practical of the options are the clipped and filled choices. Most icons do not look very good when stretched.

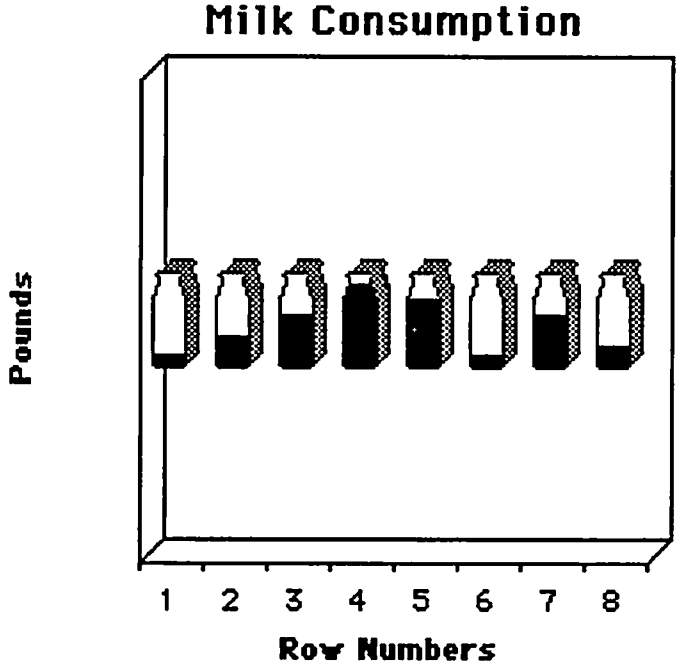


After selecting the type of plot and the variables you want plotted, Pict-O-Graph asks you to identify an icon for use as the plotting symbol. You are presented with a mini-finder window which you use to open an icon library. Below you can see part of the Food/Drink library that comes with the distribution disk.



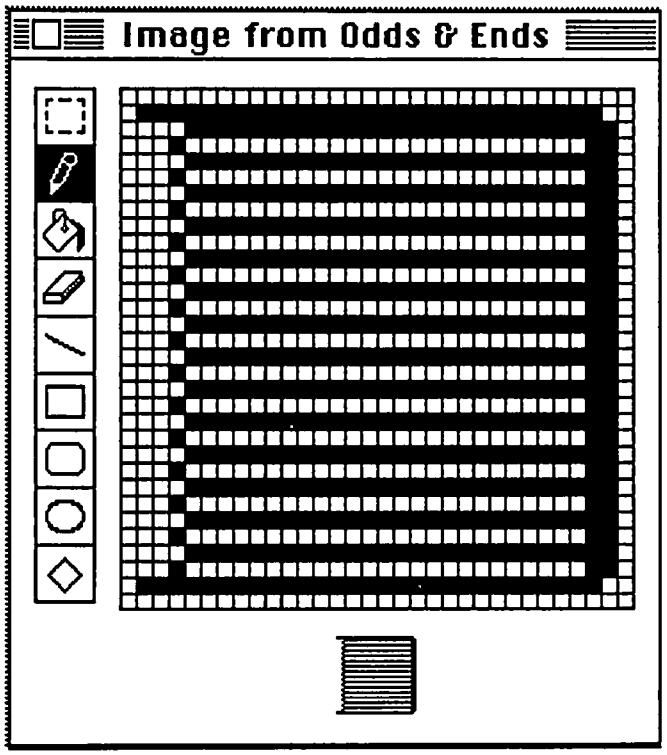
The fill options produces an easily interpreted display. Here you can see partially filled milk bottles which tell a story of varying consumption. Icons which can be used for "fill" graphs appear as partially filled in the library window. You need to do a little extra work when creating an icon for use in the filled graph option.

contd.

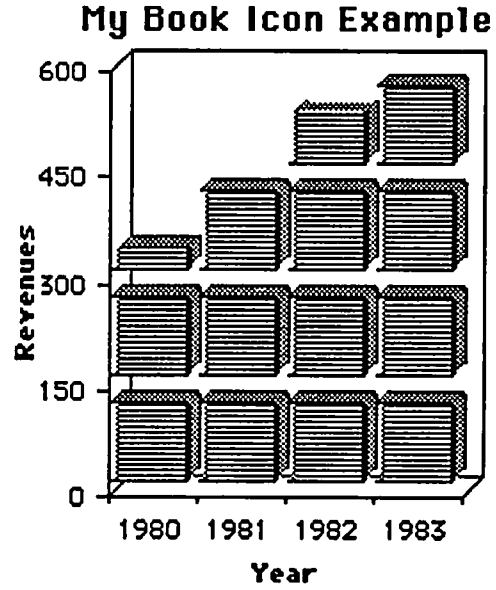


The icon editor couldn't be easier to use. It offers several tools all of which will be familiar to a MacPaint user. On the left of the window, you see the selection rectangle, pencil, paint can, and eraser as well as the line and shape drawing tools. To aid in editing the contents of the icon edit display can be shifted, flipped or rotated.

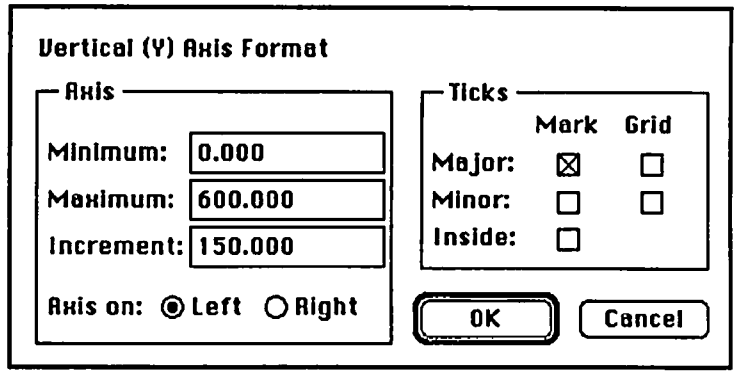
Below you see my rendition of a book. Notice that the icon appears at the bottom of the icon edit area as it will look on the screen. Your completed icon can be saved into one of the fifteen or so libraries provided or placed in a new library which you initiate.



Using this newly created icon is as simple as it could be. Since it is stored in a library, you can choose it just as you would any other icon when Pict-O-Graph asks you to select the library containing the plotting symbol.



Pict-O-Graph allows you a lot of flexibility when determining the plotting parameters which modify the appearance of the display. For example, by clicking on the vertical axis, the following dialog box appears. Using it, you can change the axis to suit your taste.



Pict-O-Graph offers Cricket's Graph's clever Print window in which multiple plots (up to eight) can be re-sized and positioned on a single page before printing. On the down side, this window does not offer a grid which would allow you to line up the various graphs using a "snap to" function. Thus, multiple images on the same page may not be in perfect alignment. (Note, there is a visual grid option, but the images are in a "greeked" or miniaturized form and the visual grid just doesn't provide the necessary help.)

Documentation. The manual is well written and easy to read. It begins with a quick example allowing you to see how the program operates. It moves on to discuss each menu choice. There are six handy appendices which cover topics such as "Creating Effective Graphics", "Working with MacDraw" and file expor and import. The index contained every topic I could think of.

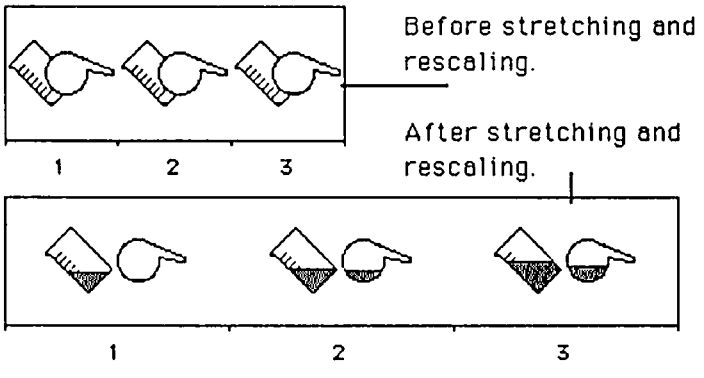
Miscellaneous Gotcha's. Pict-O-Graph supports color both on screen for those with Mac II's and color monitors and on paper using the Imagewriter II with a color ribbon. Much to my dismay, the program does not work with plotters, a natural output

contd.

for color charts. This is a real disappointment since Cricket Graph does such a nice job in supporting a variety of plotters. You can not import a Pict-O-Graph into cricket and plot it there either. You must save the file in PICT format (or in the scrapbook) and use one of the specially designed plotting programs.

To change the size of the gap between the icons, you can resize the plot frame. Icons are a fixed size (in pixels) and the only way to change their spacing is by stretching the display area As far as I can tell, you can not change the color of individual icons. Pict-O-Graph does not let you select specific rows for plotting. You can select, then copy, open a new data entry window and paste in the rows of choice, but it would be easier and quicker if the program would simply graph the selected rows.

To get the filling option to produce useful graphs for two or more variables at a time, again you may have to resize the plot frame. In the initially displayed graph (an example is shown below), the symbols are likely to overlap. Also, unless the data you are plotting are already in percents you will probably have to change the scale used in the filling process or else the symbols will all appear empty or all full. Fortunately, this is easy, to do. Just click on the legend as if you wanted to change the plot symbol. If you are doing a fill, Pict-O-Graph will provide a dialog box for re-scaling the fill range. To stretch the plot frame, just select it and drag.



A menu which neither Cricket Graph nor Pict-O-Graph offer is Window. You may be familar with this choice if you use Word or Excel. It allows you to select a window to be moved to the front of the screen. This can be very handy if you have a multitude of windows open at once.

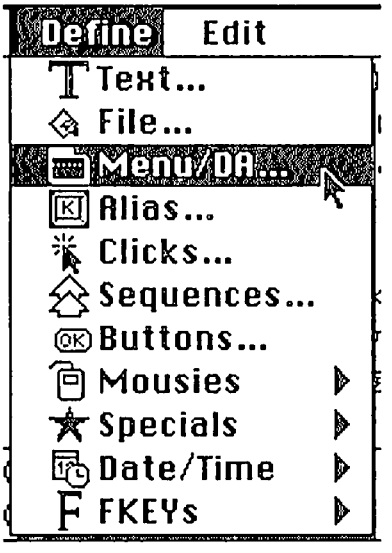
Summary. For now, the program is certainly unique; though, in the Mac market nothing remains static for long. It easy to use and produces an attractive chart. You can create just about any icon you want to enhance your graph. Cricket Software, 30 Valley Stream Parkway, Malvern, PA. 19355. Phone (215) 251-9890 Price $175.

Quick Keys. Once you have become comfortable with the Macintosh operating system, you may reach a point where you would like to shorten and speed up the steps needed to take various actions, such as launching an application or typing a common phrase. This is especially true for hard disk owners who are used to moving from one program to another. One of the strengths of the Macintosh operating system is that it is easy to learn and does not require memorizing keystroke patterns in order to use it. However, there are definite advantages, once the basics have been mastered, to using a multi-key stroke to replace a longer sequence of mouse movements. (By multi-key stroke I mean a combination of the control-shift-option-command keys followed by a single letter, number or symbol). If you own a keyboard with function keys, QuickKeys can connect macros to them, allowing single keystroke operations.

As a simple example, consider launching a program that is buried one or two levels into folders, then quitting that program and launching another that is buried elsewhere. Using Quick Keys, the first program can be launched by typing something like command-option-X. When you are ready to quit and launch the second, type command-option-W. The process is much faster (no returning to the finder, no opening and closing folders.)

CE software, distributors of some of the very best, low cost utilities, have released an excellent program which allows you to re-define lengthy processes into one or two keystrokes. This procedure is often called writing a "macro". Using QuickKeys, there is nothing to "write". Generally, you select the type of macro you want and QuickKeys will record the keystrokes needed to repeat your action. The only thing you need to do is decide what short-cut keys you want to strike to tell QuickKeys to repeat the sequence and then remember them later

The following QuickKeys menu lists all of the types of macros available in QuickKeys.



Text is any text sequence. For example, I have built a quick key macro for the string "QuickKeys" which is typed whenever I hit option-Q. Even though Microsoft Word offers a glossary for doing such things, I find QuickKeys easier to use. The **File** option allows you to launch a program using a single multi-keystroke. You can eliminate hunting through folders to find the required application and you can leave one program and go directly to another without returning to the desktop. (If you use Disktop, another excellent product from CE software, you will find QuickKeys easier to use for launching programs. You don't have to open the Disktop DA in order to select the program to launch!) Next on the list are **Menu/DA's**. Use this option to assign the opening of desk accessories or the selection of a menu item to a keystroke. For example, while many program support the command-Q combination to quit a program, some do not. You can use QuickKeys to make this selection in any program that uses the word Quit (but not some other term such as Exit). The **Clicks** option lets you define a key clicked in a particular place. **Sequences** allows you to string together a series of already defined QuickKeys. **Buttons** is similar to **Clicks** but permits you to perform button clicking with the keyboard. You might often embed a click as a part of a longer sequence, say open a menu item and click on a certain button.

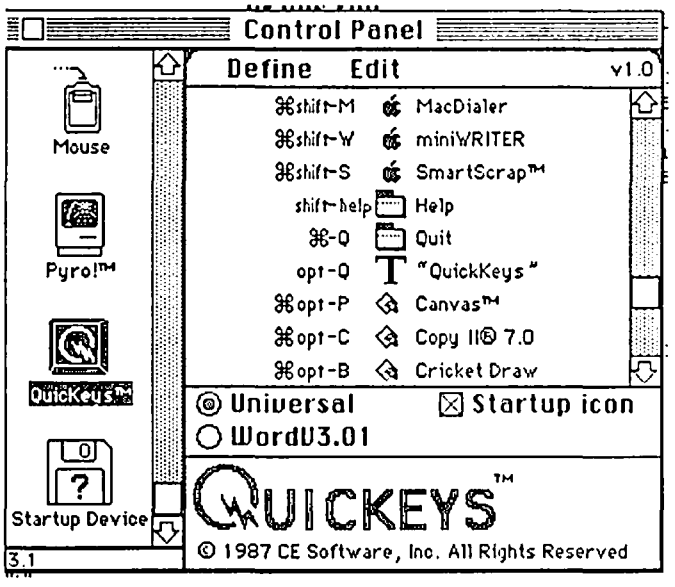
contd.

Mousies allows for special mouse actions. Date/Time is a way of entering either in a text document. You choose the format from a list of options.

QuickKeys come in two forms: a universal type which can be activated at any time and a program specific type which is only available when running that particular type. Clearly, there are things you want to do in your word processing program that are irrelevant to a drawing program, etc. In this way, you can define a myriad of keystroke short cuts. The accompanying utility program, Quick Access, allows you to edit and install sets of macros in either the universal category or a program specific one.

Installation and use. There is really nothing to do to install QuickKeys. There are two files, one is an INIT file which you place in the system folder. This type of file is activated by the Mac when you turn on the computer. The second file, Quick Access, is a utility which I will describe later. (Basically, it allows you to create and mix sets of keys and to print out these sets.)

You access QuickKeys from the control panel. A new resources, highlighted on the left in the screen shot below, will appear. When clicked, the display on the right is offered. You use the control panel to create new and delete old quickkeys. To create a new key, just pull down the define menu (shown earlier) and select the type of key you want. QuickKeys will offer another screen appropriate to the type of key. If you are defining DA's it tells you to select a DA. If you are defining a File, it offers a minifinder window in which you identify the file. After creating one or more QuickKeys, a symbol and a new name will appear in the scolling list. To their left will be the word "undefined", indicating you have not yet entered the short cut keystroke. Just select the line and enter the abbreviated key strokes you want to use when initiating that QuickKey. That 's all there is to it.



In this control panel, you see several QuickKeys. At the top are three DA's. By typing command shift W, I can bring up the miniWriter desk accessory. By typing command-Q, the Quit command is activated (only needed for programs like MacWrite that do not offer a command-Q equivalent). Option-Q will generate the text "QuickKeys". To help remember which keys are which, I reserve command-option sequences for launching programs. You see Canvas, Copy II Mac and Cricket Draw at the bottom of the scrolling area.

Quick access utility: Earlier, I mentioned a utility, Quick Access, that comes with the QuickKeys. This program permits you to form collections of QuickKey sets. The program also comes with several sets containing handy keystroke short cuts which you may want to use in Excel, Hypercard and MacDraw. QA also lets you print a list of all the keystrokes, a very handy item, to hang near your keyboard!

Problems. When defining keystrokes, you must take care to remember what short cut key strokes are used by the programs you run. I inadvertently used the command-shift combination for several keys used in Microsoft Word. People in my office found themselves opening Smartscrap instead of activating a style sheet. It only took a few seconds to redefine the keys to something that Word didn't use.

With any INIT program, you risk the possibility of interactions with other INIT's. On some machines, the Suitcase program (described by Marty Milrod last month), did not work properly when QuickKeys was operating. It did not allow you to open new, uninstalled DA's. However, this combination of utilities does work on some machines.

Documentation. The manual is thorough, perhaps too much so. It begins with a simple example that gives you the flavor of what QuickKeys can do while taking you through the steps that are needed. After that, all you need is to understand what each type of macros is used to do. There are many sections of the manual that appear to me to be somewhat redundant. However, it does contain the needed information.

Summary. Not every new utility is a "must have" program. QuickKeys most certainly is. If you have an extended keyboard, QuickKeys will allow you to use those high priced function keys you paid extra for! The price, $99, is a bit higher than CE software has charged in the past. The product works well and offers many very useful functions.

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Excelling on your Mac
Part 16
by
David Morganstein

Two problems this month. One came in by modem from Deacon here in D.C., and the other by air mail from George in Denmark. (Ron will never believe this...)

Deacon's problem was a very practical one. He wants to keep a schedule of who is working when. He wants Excel to tally the total hours worked by each person so he can easily see who has too many hours assigned and who has too few. Let's begin by designing a simple sheet that shows the hours down the left column and the days of the week across the top. Each employee will be assigned a unique code. To keep it simple we will use single letters A, B, C, etc. When an employee is to be scheduled into a particular time slot, just enter their letter into the appropriate cell. Here is a completed table for a week.

	A	B	C	D	E	F
1		Deacon's Example				
2	Time	Mon	Tue	Wed	Thu	Fri
3	9:00	A	B	A	A	C
4	10:00	A	B	A	A	C
5	11:00	A	B	D	B	B
6	12:00	B	D	D	B	B
7	1:00	B	D	E	D	D
8	2:00	B	E	E	D	D
9	3:00	C	E	E	E	D
10	4:00	C	E	E	E	D
11	5:00	C	E	A	C	E

Now, how do we get Excel to tally the number of hours for each employee? Let's take this in two steps. First let's see how to count the number of A's, then we will show how to set up a one-way table that contains counts for each employee. As the entries are changed, the table will be updated.

To obtain the count of A's, we will use an array operation that includes the SUM function. You may recall that an array operation works on areas, not just individual cells. The statement B3:F11="A" returns a lot of true/false results, one for each cell in the area B3:F11. This is how we ask Excel how many cells contain an "A". Unfortunately, Excel can't add up true/false values. If we multiply the previous expression by one, however, we get an area filled with ones and zeros (one when true, there is an "A" and zero when false, there is not an "A") The nice thing about array operations, is that you don't have to place these ones and zeros into actual cells in your spreadsheet. Excel uses computer RAM to store all of them for you. Next, we can sum up the ones and zeros using the SUM function. The only thing that remains is to hold down the command key when entering the expression to let Excel know that we are performing an array operation.

The complete answer to count the A's is:

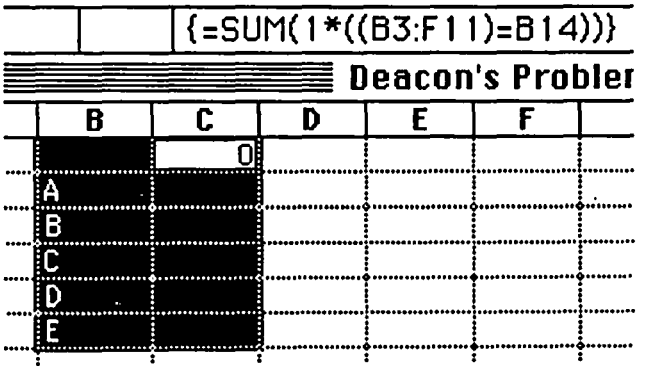
{=SUM(1*((B3:F11)="A"))}

(Remember Excel enters the "{}"'s in response to your holding down the command key, not you).

All right. We've got our answer for one employee. Where do we go from here? Of course you could type in this formula many times, one for each employee code. But that is tedious and certainly no fun. As Ed Myerson always says, "That's a perfect job for a computer!" Excel offers the Table command for just this purpose. Move the expression to a cell below which you want the answers for all employees. Type in the unique codes in the column to the left of the one with the formula, starting in the row just below the formula. In the following example, the formula is in cell C14 and the employee codes in B15:B19. Now change the formula so that instead of testing for the value "A" we test the contents of cell B14 (the cell just to the left of the formula and above all the employee codes). That is:

{=SUM(1*((B3:F11)=B14))}

Select all of the cells from B14 to C19. You should have something like this:



Now choose the Table... option in the Data menu. Excel will ask you to provide one or two entries (the Row Input Cell and/or the Column Input Cell) depending on the nature of the table. We are creating a one-way table so we need to enter a single cell into which the column B15:B19 can be fed one cell at a time. This step is about as complicated as it gets so let's see if we can wend our way through it. We want Excel to fill in a number of cells (C15:C19) using the formula in C14. We intentionally made the comparison in that formula a referenced cell, B14, instead of a constant, such as "A". Type "B14" or click in cell B14 in the Column Input Cell entry.

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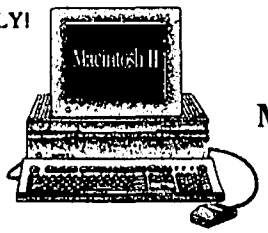

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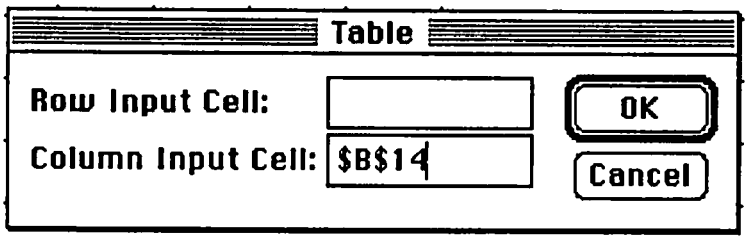


By making cell B14 something like a variable, we can use the formula in C14 in a general way. The one-way table command will be used to feed a column (it can do the same thing with a row) into cell B14. The cell C15 will be filled using the formula in C14 and the contents of B15 (an "A"). Continuing on, Excel will fill C16 using the same formula but inserting in the comparion part the contents of B16, a "B", and so forth on down the column.

	B	C
14		0
15	A	8
16	B	10
17	C	6
18	D	10
19	E	11

As you can see, we have a count of the number of A's, B's, etc. Change an entry in the schedule and Excel will recompute the counts. Just as easy as 1-2-ooops!!!! Forgive me Bill Gates, I almost slipped there...

On to Mr. Buch of Copenhagen. (Hi, George!) George is keeping his accounting data in Excel. He has four columns of information, the date, a description, a four digit code containing the account and voucher number and the amount of the voucher. He wants to total the amounts for specified dates and accounts. By defining his data as a database, George can use the DSUM database function and a two-way table to obtain the required results. However, given that he wants to select on the month (the first four characters out of the date column) and the account number (the first two characters of the Acct field), life will be easier if he adds two more fields, one containing the month and the other containing the required two-digit account #. These new columns of data will be used as criteria to define which cells appear in each computation. First, let's review the available input and the desired output.

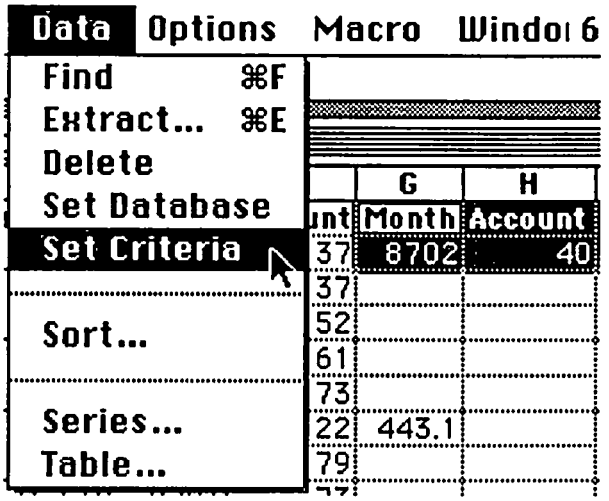
His input:

	A	B	C	D
2		George's Problem		
3				
4	Date	Description	Acct	Amount
5	870101	HUSLEJE	37.01	1414.28
6	870101	HUSLEJE	37.02	1414.28
7	870101	LEASING	52.01	510.00
8	870101	RENGORING	61.01	495.00
9	870101	BENZIN	73.01	187.66
10	870105	BELYSNING	22.01	690.50
11	870123	PETROLEUM	79.01	1020.00
12	870124	BENZIN	73.02	157.30
13	870125	BALTICA	76.01	577.00
14	870127	BREVORDNERE	40.01	48.00
15	870127	KALENDORE	40.02	48.00

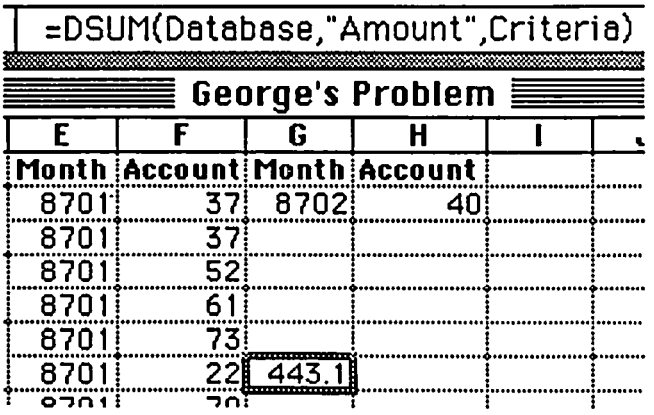
I'm going to add two more columns, one containing the first four characters of the date and one containing the 2-digit account number. Let's call these fields, Month and Account. To turn this into a database, select all the rows and columns, including the titles across the top row and choose Set Database under the Data menu. To obtain use of the DSUM function, we must also create Criteria, cells which are used to select the records used in the computation. To do this, you might type another row of titles which exactly matches row four. (It may be easiest to copy and paste the current row). You may not need all of the variables for a specific problem, but re-entering all of the titles may be easier. We need to use only the newly added Month and the Account fields to select the specific records for summing. For convenience you will see only these two fields in what follows.

The criteria we will use will be that the data falls in a certain month and a specific Account. To do this we enter the following equalities to select the month of 8702 and the account 40.

Select the titles of the Month and Account fields and the cells below them. Now select Set Criteria under the Data menu. I have already entered a specific month, "8702", and account , "40", as you can see.

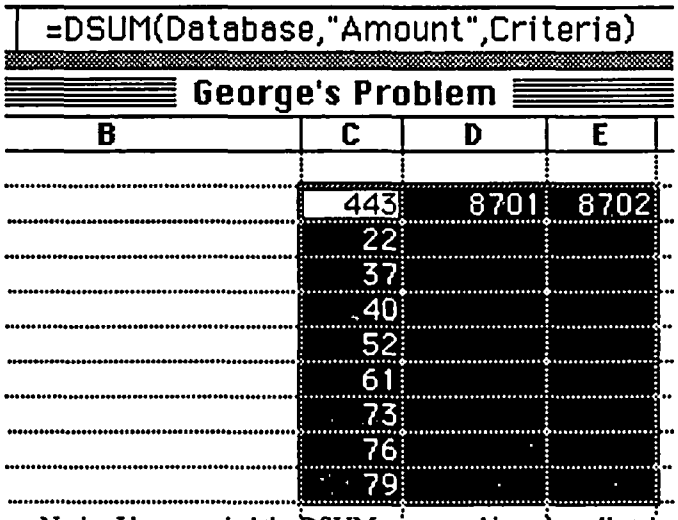


Now to obtain a total for the the variable "Amount", enter into a cell, the DSUM formula as shown in the title bar below. The word Database was defined when you did a Set Database to be the area of your entries, from the field titles to the last line of data. The word Criteria was defined when you did a Set Criteria to be the 2X2 area containing the words Month and Account and the two cells beneath them. You can see these names and the areas to which they apply by doing a Define Name command in the Formula menu which lists all named cells. To complete the DSUM command, remember to enclose the name of the variable you are summing (or averaging, or taking the standard deviation, etc.) in quotes. If you don't Excel will be looking in the name list table (the one containing the words Database and Criteia) for the entry, and not using the one of the database fields.



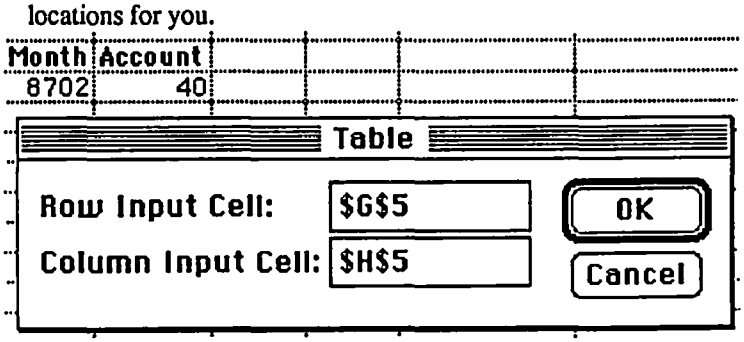
The only thing we have left to do for George, is generalize this procedure into a two way table. The rows will be different accounts while the columns will describe the months. Now here is where I can use a little help. Can anyone think of a way to get Excel to determine the unique account numbers and list them down the left side of an area, while repeating this for the months, listing them across the top? Please write or call me if you can. A similar step could be used in Deacon's problem to determine the unique employee codes and list them down the left side of his one-way table.

Doing this by hand (sorry, Ed) we get the following:



Notice I have copied the DSUM command into the cell at the cross section of the column of accounts and the row of months. This is intentional. In the two-way table procedure this cell supplies the formula that will be spread throughout the table, using the column below it and to the right to supply parameters for each cell. Think of a multiplication table, which you could create easily with the two-way table command. Each cell in the table is a function (the function found in the upper left hand corner) of the leftmost and topmost entries. **(Homework problem, use Excel to create a multiplication table!)**

After issuing the Table... comand, you must tell Excel where to feed the column (of account numbers) and row (of months). Do you see where? What is missing? What varies for each cell in the table? The Database is staying the same. We are always summing "Amount". What is different for each cell? The account number and the month. The Criteria. We are feeding the column of account numbers and the row of months into the two cells in the Criteria area. This is what must be entered into the Table window. You can type in the cell location, or you can just click in the appropriate cells and Excel will enter the cell locations for you.



Excel fills in the table and gives George his answers. Formatting the numbers as dollars and cents, ends the problem. As new entries are added to the database, Excel will automatically update the table. When a new month or account is entered, however, the table must be expanded to include them. Best of luck, George!

	C	D	E
28	443	8701	8702
29	22	$690.50	$280.21
30	37	$2,828.56	$596.54
31	40	$96.00	$443.13
32	52	$510.00	$879.52
33	61	$495.00	$48.98
34	73	$344.96	$481.50
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36	79	$1,020.00	$637.65

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BITS AND BYTES
by Lynn R. Trusal

Editorial

As an avid reader of much microcomputer literature, I like to read editorials in such publications as *InfoWorld*. The August 24-31, 1987 issue contained an editorial entitled, "The View From Planet MacWorld: Perhaps It's Time For Apple To Grow Up," by William F. Zachmann and I felt it needed a reply.

To be fair to Mr. Zachmann, he did say many nice things about the Macintosh and felt that it had "a great deal to offer the serious business user." He had just returned from the Boston MacWorld Expo and felt somewhat out of place by the atmosphere he encountered and felt that Macintosh "zealots" were hurting Apple Computer in its efforts to be taken seriously in the business community. He feels the "cult-like" atmosphere surrounding the Macintosh has hurt its acceptance and that Macintosh zealots often think IBM users are "idiots" and the Macintosh is infinitely superior to MS- and PC-DOS systems. He partly blames Apple for fostering the zealot atmosphere which is embodied by its "evangelists."

Well some of what you say Mr. Zachmann is true but I think you missed the point. I am a supporter of Apple Computer and the Macintosh in particular but I have never considered myself a zealot. Most Macintosh users are very enthusiastic about their computers because they realized the potential of the Mac when being a Mac "fan" (apologies to Steve Jobs and Barbra Mandrell) wasn't cool. They resisted the big blue corporate image which said that if IBM made it it must be good and what is good for IBM is good for America (apologies to General Motors). They thought for themselves instead of listening to nameless people who said you have to be MS-DOS compatible or you don't have a REAL computer. You'll have to forgive our enthusiasm because we do productive and creative things, but above all else, we have FUN and this spills over into a MacWorld Expo. We rejected the corporate doctrine that implies that if a 4-year old can do something productive on the Mac or if the Macintosh world doesn't need consulting empires based on teaching MS-DOS applications, we aren't using a REAL computer. No, Mr. Zachmann, I never felt MS-DOS users were idiots but I have felt sorry for them because they don't know what REAL computing is. I have seen uninformed MIS directors make uneducated corporate decisions based on the theme, "You won't get fired if you buy IBM."—directors who were not willing to be open minded and educate themselves, but merely dictated the corporate philosophy while users had to be satisfied with their decisions. It is time "users" became full partners in corporate computer decisions and not just step-children. IBM has never tried to woo ordinary "personal users" of microcomputers even though they adopted the term "personal computer" (PC) to refer to only their machines. They have forgotten what individual users are and made their pitch directly to the MIS Directors of the Fortune 500 companies who ultimately make the decision on what computer to place on the users' desks. We individual users are often more computer literate and open minded because we are not burdened with the mainframe mentality of the past. We are willing to examine new alternatives and fresh ideas.

Yes, when the Macintosh first came out it was not a suitable business computer but it did make the computer world sit up and take notice and they learned to look behind them for the past three years. Well, the lack of software, small screen, no slots, etc, is behind us and the corporate world is starting to wake up and smell the "Apples." Apple worked to make the Mac more MS-DOS compatible because of the realities of the business world but IBM made MS-DOS more Mac like because their corporate users demanded it. Apple Computer and the Macintosh are not perfect and they must continue to listen to users groups and the corporate world. While IBM is abandoning user group support (*InfoWorld*, Aug 24, 1987, p. 43) Apple is reaffirming its importance to the future of the company. While MS-DOS users have to wait 3 years to take advantage of their new machines, Macintosh users are taking advantage of Apple's technological advancements now and having FUN doing it!

Yes, Mr. Zachmann, you'll have to excuse us devoted Macintosh users for, being overly enthusiastic because we have reason to be. I'm glad that you too like the Mac but do I sense a bit of jealousy because in many ways you wish the corporate world would loosen up a bit and catch the Macintosh enthusiasm! You'll even have to excuse the zealots who helped keep Apple alive and preserved the faith when MS-DOS users said Apple Computer was dead. If Mac zealots and mere enthusiasts felt that strongly about the Mac when they were thought foolish, you'll just have to accept their wearing their pride and joy on their sleeves.

Yes, Apple probably could stand to make some positive changes to make it easier to penetrate the business world, but IBM also needs to make some changes. It needs to come down off it high horse of superiority and sell computers to the "user" and not just to MIS Directors who force their decisions on the poor masses of individual corporate users. After all, who really uses microcomputers anyway? The day is over when IBM can design anything good or bad and put the magic blue letters "IBM" on it and expect people to buy it. There is room for Apple, IBM and MS-DOS clones in the marketplace but all companies need to get back to the "user's needs" or suffer the lessons of the marketplace. In the meantime, Apple and the Macintosh will continue to change corporate thinking "one person at a time."

Another editorial by Jim Seymour in the September 15, 1987 issue of PC Week was entitled, "The Macintosh: Ignore It at Your Own Risk." He recently attended both the Boston Mac World Expo and the PC Expo in New York. He contrasted the slow paced, uncrowded, lack of new products PC Expo with the enthusiastic, jam packed, full of new products Mac Expo. He also commented on the increased attendance of MIS and corporate buyers (i.e., three piece suits) who were at the Mac Expo for the first time because their customers were making too many inquiries about the Mac that they couldn't ignore it anymore.

WAP Election Results

I wish to thank all those who voted for me in the recent Board of Directors voting. I could not help but notice Tom Warrick's

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comment about most of the people who made comments about not enough women running for the Board voted for me. I'll take votes any way I can get them but one of the reasons I use the digitized photo of myself in the "Bits and Bytes" Column was to attest to the fact that I am indeed a male. Before that, I used to get a lot of "pregnant pauses" when I received telephone calls from WAP members. I agree with Tom that WAP needs more women members and also more female representation on the Board. I encourage and welcome more female participation in WAP.

I could not help but laugh when one of my former female coworkers told me how she got Macintosh hardware and software purchases past her husband. I have heard dozens of similar stories from men getting approval from their wives to buy computer equipment and it was kind of nice to hear the reverse story. I guess one advantage of being single is having only to consult the checkbook.

New Macintosh Programs For The Scientist:
ChemIntosh

This is a new program by the SoftShell Company (Henrietta, NY, 716-334-7150, $295). They describe it as a desk-top publishing DA for drawing chemical structures. It can be used in conjunction with a word processing program and is accessed as a desk-accessory. Its chemical formula structures are compatible with MacDraw and SuperPaint. It presents pallets containing common chemical back-bone structures, types of bonds and arrows. Any font, style or font size may be used for the construction of the chemical structures. It looks like an interesting program on the order of ChemDraw.

The Molecular Editor

The Molecular Editor is a 3-D molecular graphics application developed at Drexel University and marketed by Kinko's Graphic Academic Courseware Exchange, Santa Barbara, CA, 800-235-6919. It is billed by the company to be a construction kit for building molecules, crystals or other structures which can be represented by interconnected points or spheres in three dimensions. Structures may consist of all atoms, all bonds, atoms only or bonds only. A portion of the molecule may be rotated independent of another portion and the viewing perspective or angle may also be changed. Created molecules can be saved to disk and printed with either the ImageWriter or LaserWriter.

MacΣqn - The Equation Processor

MacΣqn is a desk accessory that provides an environment for generating equations for inclusion into technical documents written with Macintosh word processing programs. It understands the format of technical equations and provides the ability to include such constructs as integrals, summations, products, fractions, and super-subscripts into a document without having to exit your word processor. An equation can be created by merely activating MacΣqn and typing into the computer. MacΣqn stores equations in the standard Macintosh picture format and supports the clipboard for equation transfer. Printing supports the LaserWriter and its standard font set. MacΣqn is available from Software for Recognition Technologies (Rochester, N.Y., 716-359-3024) at $44.95. It looks as though it would be excellent for a mathematical or a physics thesis.

Macintosh Power Supplies

At lease one author feels that the Macintosh power supplies have been getting a bum rap. Loy Spurlock, President of Computer Quick, Inc. of La Mirada, CA says that the Macintosh power supply is a "switching power supply" and not a "frame transformer". It is designed to produce a certain current at each of the various voltages. It costs more and is more advanced than the frame transformer type. He feels that Apple was clearly ahead of its time. Why the bad rap? Since his firm repairs Macintoshes he says that 9 out of 10 failures are the "video circuitry" which also resides on the power supply board. Furthermore, 8 out of those 9 failures can be traced to the "flyback transformer". About 25% of the non-video circuitry failures are caused by the cold solder joints which leaves 1 out of 20 power supply board failures caused by the "actual power supply" part of the board. Apple has apparently corrected the flyback transformer problem by changing suppliers. He also feels that third-party upgrades often get a bad rap for causing power supply problems when in actuality it would probably have gone bad without the upgrade. He concluded by saying that a fan would have probably prevented many of the transformers from failing so Apple can be criticized on that account. (Source - *MacTutor*, March, 1987, article by Loy Spurlock).

Molecular Chips of the Future

It may sound farfetched but some computer scientists are actually proposing and doing research on molecular chips as the basis for future computers. Eric Drexler of MIT has proposed building CPUs of the future from organic molecules rather than from silicon wafers. Such a procedure would allow computers to be made on a much smaller scale than possible today. The molecules might be produced and modified by bacteria in much the same way that bacteria are used today for genetic engineering of new products. Forrest Carter of the US Navy Research Laboratory estimates that a molecular-gate based computer should be able to duplicate the power of 1000 Cray supercomputers in the space of a cubic centimeter. If possible, that's impressive! Since all computers are based on the two digit binary code of 1 or 0, and CPU transistor circuits use gates to switch between the "on or off" state (i.e., 1 or 0), molecular circuits might duplicate this process on a much smaller scale.

Robert Birge, who is the director of the Center for Molecular Electronics at Carnegie-Mellon University, has proposed using rhodopsin as the molecule of choice. Rhodopsin is the light sensitive pigment found in the retinal rods of the eye. This eye protein is activated when struck by a light impulse and an electrical response is triggered through the optic nerve to the brain for interpretation. After the impulse is sent, rhodopsin returns to its inactive state awaiting the next light impulse to be reactivated. Birge sees this cascade as a potential gate (open or closed, 1 or 0) for his molecular computer. In essence, unexposed rhodopsin might be assigned a value of 0 and after exposure to light a value of 1. A laser could be used to expose a rhodopsin coated chip to light impulses that would be translated as a 1 in the binary code. He further postulates using bacteria produced rhodopsin for disk memory storage. Since the rhodopsin molecule is only 50 angstroms by 50 angstroms, and each molecule could hold 1 bit of data, one 5.25" floppy disk coated

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with rhodopsin could potentially store 200 million megabytes. That is on the order of current optical disk technology. This is only theoretical since current laser technology is not capable of being focused on such a small molecule. He also states that the stability of such a protein coated onto the surface of a disk would be on the order of years.

I will stop there, but I wanted to give the reader a glimpse at where the future of computer technology may be heading! (Source - *"The Tomorrow Makers - A brave new world of living-brain machines"*, by Grant Fjermedal, Macmillan Publishing Company, New York, 1986).

Erasable Optical Memory Disks

A recent WAP meeting featured two WORM (i.e., write once, read many) optic disks. Until now, optic memory disks were "read only" or "write once." Within months, several manufacturers may release the first erasable optical disks. There are several types competing for dominance in the market place. They bear such names as "Magneto-optics", "bubble-bumps" and "phase-change." Matsushita and IBM have licensed the phase-change technology and IBM has already introduced a WORM drive manufactured by Matsushita. This drive was introduced with the new IBM System 2 computers and is able to be converted to the erasable format. With phase-change technology, a high intensity laser melts small spots on the crystalline surface of the optical disk. The melted areas are interpreted as nonreflective dark spots by a low power laser. The reflective and nonreflective spots are interpreted as 0 and 1 of the digital binary language. To erase the melted spots, a diffuse, low power laser raises the surface temperature of the disk which permits the dark, nonreflective spots to recrystallize and recreate a smooth surface for later storage of new data.

In the fall, Sony and Verbatim are expected to release erasable optical disk based on the "magneto-optics" technology. A laser beam is used to change the magnetic field on certain areas of the disk and another low-intensity laser is used to detect these areas for interpretation of the binary code. The magnetic changes can be erased by use of high-intensity laser. The technique is slower than "phase-change" or floppy disks. The developers of "phase-change" CD's feel this is a much cheaper technique but the problem of disk degradation must be solved first.

Regardless of which technique becomes the industry "standard", the promise of large, erasable memory storage will be a big plus for the entire industry.

Cauzin Strip Reader

I had been having an intermittent "reader failure" problem with my Cauzin Strip Reader and finally called the company using their 800 telephone number. I was greeted by a pleasant and helpful voice in customer service. She suggested a potential problem but transferred me to Mr. Kerry Lanz who suggested the problem might be my Mac Plus adapter cable. I transferred the reader cable to a second Mac Plus adapter cable and the problem was still not resolved. Cauzin then volunteered to send me a new Mac Plus cable, free of charge. After getting the cable, the reader still failed to read strips on two different Macintoshes. I then called Cauzin back and explained the continued trouble. Without a hesitation, they offered to mail me a new Cauzin reader. The customer service rep told me that I would get instructions and a pre-paid mailing envelope to return the defective reader. I was not asked to provide a serial number or proof of purchase date. They made the offer without being asked, free of charge, and before the old one was returned. What more can you ask from a company! Quite frankly, I was shocked and not used to such great service from a computer peripheral company. I think they are to be commended for their pleasant and helpful attitude. I would give them my "Customer Support Award" for 1987. I only wish other companies were as consumer orientated as Cauzin Systems. I would also like to point out that the Cauzin reader comes with a 1 year limited warranty and not the 90 day warranty standard in the computer industry.

I also asked about the Laser Stripper software that will enable users to print Cauzin strips at a higher density on the LaserWriter. It has been advertised in the Macintosh Buyers Guide. It was still in beta test at that time but may be available now. I was told it would retail for about $80 but the ad states $99.95. It will have two density settings for printing of 1 or 2.5 K of data per strip when printed on the LaserWriter. Their ad suggests that you would be able to print up to 3.6 K per strip so I don't know if they are having trouble packing that much data capability into the software.

Birth of an IBM Clone

This is not a Macintosh story but interesting nonetheless. On April 2nd when IBM publicly announced their new System 2 PCs, various companies went to work beginning the cloning process. They were not the genetic engineering companies working in sterile safe labs but third-party manufacturers dissecting the guts of the new machines. Chips and Technologies, Inc. bought six IBM machines and began stripping them chip by chip. They used electron microscopes to photograph the multiple layers of the chip circuity and make large blowups for later study. Another company totally disassembled the new IBM computers and wrote a 65-page report on their findings by 6 PM of the day of the announcement. Even Taiwan companies got into the act by flying to Los Angeles, buying the new machines the same day and then flying back to Taiwan.

The real hero in the cloning process is Phoenix Technologies of Norwood, MA which is credited with developing a clone of IBM's original ROM BIOS (i.e., Read Only Memory-Basic Input Output System) without violating IBM patents. In a similar manner they are hard at work on developing a new BIOS for the System 2 clones. Phoenix examined the ROM BIOS in the new IBM machines and determined that the model 50 and 60 were not significantly different. One employee was assigned to each new BIOS and it was their job to analyze them and prepare a report on their findings. This is followed by hiring a new programmer who is not experienced in writing IBM programs. This is essential since they must write code based on the BIOS report and if it is too similar to IBM's code they open themselves up for a suit. These so called "virgin" programmers are less likely to write code similar to IBM. Their code will eventually be burned into new ROM chips that will be continually debugged until they are compatible with IBM software. Evidently the task will not be as difficult as feared since IBM did not drastically alter the BIOS code. When the entire task is completed, Phoenix Technologies

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will sell the ROM BIOS chips to the clone makers for about $50 each. Most predict success and plan to have competing clones on the market within 6 months to one year (Sources - article in *USA Today*, May 6, 1987). Chips and Technologies has already (July 1987) introduced the first set of semiconductors which will enable IBM clone manufactures to design microcomputer systems based on the IBM System 2/model 30. Volume production will not start until October and sets will be priced at $51.30 in large quantities.

Use of MORE and Cricket Draw

I recently had the need to make a series of view graphs with a company logo on the top and the briefing material below it. The logo was done by someone else using Cricket Draw. Cricket Draw was used because he wanted to use the "bind text" feature to wrap text inside a circle. The results came out very nicely. I then modified the logo by adding some additional lines and text and printed it out. I could have used Cricket Draw for the rest of the briefing text but I wanted to use MORE to jazz it up a bit. I composed the bullet chart material in MORE and positioned it on the page so that there would be enough room for the logo at the top.

You can use the original Cricket Draw output or xerox multiple copies depending on how many view graphs you need to make. I did find that xeroxed output did tend to smear slightly when it went through the LaserWriter. Perhaps the carbon based toner is smeared by the hot rollers of the the LaserWriter. This can be avoided by using only Cricket Draw originals but that could be wasteful if you need to make a lot of visuals.

The end result was a very professional looking view graph with the company logo at the top and the MORE text below it. It is possible to use Microsoft Word as a common vehicle to combine Cricket Draw and MORE output but I was not impressed with Word's decreased flexibility of handling graphics and decided to use the MORE/Cricket Draw combination. Part of the FUN of using the Macintosh is seeing which programs can be combined to produce the desired result. I would like to see other readers submit to the Journal their ideas on how various Mac applications can be combined to produce a better result.

TurboMouse for the Mac II and SE

Since I had become very used to the Kensington Turbo Mouse, I bought another one for the Mac II at the Boston World Expo. The only difference was the cable which uses the new Apple DeskTop Bus (ADB).

I have <u>not</u> found the mouse to be as useful on the Mac II for two reasons. First, it is requires much more movement to traverse the 13" screen. I suppose I'm being somewhat picky since there are undoubtedly many readers who would like to have such a problem. Second and perhaps most annoying, is the relative jerky movement of the arrow on the screen. It often seems to jerk around the screen and positioning it can be relatively tedious in a word processing program. I have positioned the mouse sensitivity icon in the control panel to one of the less responsive settings and that appears to have helped but it is not a solution. I have also noticed that it appears to function relatively smoothly at times and erratically at others. It has also locked up and did not permit movement of the cursor on the screen even though the regular Apple mouse did function. I don't know if the problem is related to the Apple monitor, the Mac II or the Turbo mouse!

Lynn R. Trusal may be reached at 301-845-2651 to answer questions about material that appears in the Bits and Byte Column.

C and the Apple II contd. from pg 27

```
/* Assign destination address (DMA Address)      */
/*-----------------------------------------------*/
                                        bios(SETDMA,buff,0);
/*-----------------------------------------------*/
/* Read the sector                 */
/*-----------------------------------------------*/
                                        err = bios(READ,0,0);
                                        if(err)
                                        return(-2);
                                        else
                                        return(0);
}
/*-----------------------------------------------*/
/* The following is the sector conversion table  */
/* for converting DOS sectors to CP/M sectors.   */
/*-----------------------------------------------*/
int dos2cpm[] = {0,15,9,3,13,7,1,11,10,4,14,8,2,12,6,5};
/*-----------------------------------------------*/
/* rd_asect(track,sect,buff)                     */
/* This function reads an Apple DOS sector and puts */
/* it into the buffer pointed to by buff.        */
/*                                               */
/* NOTE: CP/M sectors are 128 bytes but DOS sectors */
/* are 256 bytes. This function also does sector */
/* translation.                                  */
/*-----------------------------------------------*/
int rd_asect(track,sect,buff)
int track;
int sect;
char *buff;
{
                                        int dsect;
                                        int err;
                                        int i;
/*-----------------------------------------------*/
/* Do DOS 2 CP/M sector translation              */
/*-----------------------------------------------*/
                                        dsect = dos2cpm[sect]*2;
/*-----------------------------------------------*/
/* Read 2 CP/M sectors and copy into buff        */
/*-----------------------------------------------*/
                                        for(i = 0; i < 2; i++){
                                        err = readsect(DRIVE,track,dsect,buff);
                                        if(err < 0)
                                        return(err);
                                        dsect++;
                                        buff+=128;
                                        }
                                        return(0);
}
/*-----------------------------------------------*/
/* Fixes Apple strings for display under CP/M    */
/*-----------------------------------------------*/
fixstr(s)
char *s;
{
                                        while(*s)
                                        *s++ &= 0x7f;
}
```

VIEW FROM THE HILL - Book Review: John Sculley's Odyssey

by Rich Norling

If you are wondering why you see Apple President John Sculley on the cover of almost every major magazine, it is because he is promoting his new book which was published on October 15. The book is titled Odyssey: Pepsi to Apple... A journey of adventure, ideas and the future.

A few days after the book was released, I visited a bookstore and found Odyssey on a shelf of business books, located between World Class Manufacturing and Making Successful Presentations (I also bought the presentations book, but I'm not ready for World Class Manufacturing yet).

Odyssey presents a story, but it is more than just a story. The story part is the autobiography of John Sculley's business life in PepsiCo, his move to Apple, and the events that ensued. The more-than-a-story part is the sections on such diverse subjects as business philosophy, societal trends, new wave marketing, managing creativity, handling crises, and planning for the future information age. Perhaps not too surprisingly, most of the magazine excerpts tend to present short portions of the story such as, "Why I Fired Steve Jobs," instead of the deeper parts of the book.

First, the Story

The story part of Odyssey includes people, emotions, products, marketing coups, conflict, turmoil and pathos—perhaps not enough to make Hollywood scramble for the movie rights, but enough to make the story interesting and captivating, particularly to anyone who cares about Apple Computer and the effect its technology can have on our future way of life.

Before I read this book, I had heard that John Sculley was tremendously successful at Pepsi, but I knew none of the details of what he did or accomplished there. The first part of the book describes the Pepsi situation in interesting detail, and lays the groundwork for understanding how Sculley reacted as he moved from a very structured, old-fashioned corporate environment into the looser, more creative environment at Apple Computer.

Parts of the Apple story have been very public for a long time, such as how two young men—Steve Wozniak, technician, engineer, brilliant inventor and Steve Jobs, dreamer, mystic, visionary—created the company that rose so quickly to Fortune 500.

What becomes obvious from the details of John Sculley's story is that the two young geniuses did not do it alone. The third cofounder was A.C. "Mike" Markkula, an experienced businessman who wrote Apple's first business plan, recruited the venture capital, and stayed out of the limelight. Mike Markkula still acts as the overseer of Apple's business, intervening only when necessary such as during the crisis that led to the departure of Steve Jobs. Markkula is the only one of the three Apple founders still on Forbes Magazine's list of the 400 richest people.

So Apple started with engineering by Steve Wozniak, vision by Steve Jobs, and business acumen by Mike Markkula. Apple's second successful act, the Macintosh with its design driven by Steve Jobs, was a revolutionary machine that changed forever the way people think about computers.

What was missing? Apple was still primarily a technology company, designing great products and then hoping to sell them. The Macintosh was the machine Steve Jobs wanted, not the machine the customers wanted. While the Apple II and Macintosh have been phenomenal successes, Apple's success with major products was really only 2 for 4 (remember the Apple /// and Lisa?).

Was there a way for Apple to increase its rate of success with new products? Absolutely. It's called marketing—getting to know your present and potential customers, researching and responding to their needs, predicting what their needs will be in the future, consulting them while new products are still in the design stage, etc.

Marketing is the essential ingredient that John Sculley brought to Apple Computer. Apple ran some great marketing campaigns before John Sculley arrived, but John Sculley turned the entire company from a technology-driven one into a market-driven company that makes technology products. The zeal for technology and creativity is still there, but the major decisions on direction are made with a new awareness of what the customers need and want.

One might argue that great products are what build new companies, but that once the companies become large, marketing is what keeps them surviving and growing. If that is the case, then the departure of Steve Jobs was inevitable because of his style and approach to product design.

Two specific things that appear to have helped catalyze the crisis that led to the departure of Steve Jobs were the fact that the already-announced Macintosh Office file server was still months behind schedule, and that someone in Steve's division supposedly "forgot" to order parts to manufacture the XL, forcing Apple to drop the former Lisa as a product.

While those two situations were traumatic for Apple in their own right, I suspect they were symptoms of the change in orientation Apple was undergoing from a technology-driven to a market-driven company and Steve's resistance to that change. If those specific events had not happened, there probably would have been other events causing the same result.

Because I spent ten years working in the political arena (politics, government, and political campaigns) I am acutely aware that each participant in a major event takes away a slightly different view of what happened. The different memories are shaped partly by each person's unique role in those events, and partly by the fact that a single event often has different emotional impact on different people.

It would be interesting from a historical point of view to hear Steve Jobs' view of events, but so far he has apparently refused to discuss them with anyone who might make his view public.

Seriously,...

The serious parts of Odyssey are mostly short essays placed between sections of the story. I suspect I did not fully absorb all the serious sections during the first reading because of my eagerness to get to the next part of the story. The next time I take the book off the shelf I think I'll read just the serious sections. Each one is fairly short and sticks to a single topic. Some of them are specifically designed as "learn from my mistakes" lessons.

The section on managing creativity struck me as particularly

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interesting. I have always been interested in how a company like Apple succeeds in fostering and increasing creativity among its people, because most large institutions seem to stifle individual creativity so thoroughly. The subject has special personal interest to me because of the two years I spent in a Federal bureaucracy.

Before I decided that I enjoy designing and writing Macintosh software more than I enjoy writing words, I had been planning to interview some of Apple's managers for a magazine article about the kinds of things a large corporation like Apple can do to encourage creativity. Now I don't need to.

An epilogue at the end of the book discusses a vision of the future information age, some of the trends leading to it, and some of the ways our uses of technology and computers may evolve. The specific examples include a description of Apple Fellow Alan Kay's idea of the Knowledge Navigator and a discussion of how Bill Atkinson's HyperCard contributes to the evolution.

What Manner of Person?

Odyssey is also an interesting book because it lets us get to know more about the person who runs a major corporation. I met John Sculley only once, in a situation that allowed for only a brief exchange of platitudes before he conducted a press conference.

During the press conference itself I was impressed by John Sculley's ability to deliver polished remarks, including technical data and descriptions of other companies' products, without looking down at notes or pausing to choose words. In Odyssey I learned that he acquired that skill with great effort and practice to overcome a severe childhood speech impediment. Knowing that makes the performance seem even more impressive.

The impression of John Sculley I get from the book is of a shy person, career-driven workaholic, avid reader of nonfiction, fascinated by technology partly in its own right, but more for what people can accomplish using it. He is clearly a man who has succeeded in changing events, both at Pepsi and at Apple. He knows he shapes events and displays the confidence born of that, without any hint of false humility.

The narrative describes decisions and events, but I did not get a real feel for how John Sculley analyzes problems and arrives at decisions. Perhaps that will be included in a future book.

In Odyssey, John Sculley forthrightly describes mistakes he made and learned from, and lets us see the emotions he felt during tryiny times. I had the feeling that disclosing his emotions was a hard thing for him to do, but that the story of his relationship with Steve Jobs could not be told without the emotional component.

Summary

Some books, even some excellent ones, are the type of book you read once and then discard. In contrast, other books have several levels or have so much depth to them that you want to keep them to read again. Odyssey is a book I want to keep.

Rich Norling is coauthor of Cricket Graph and StatWorks™, and the author of Pict-O-Graph™, a recently-published Macintosh application that draws picture graphs. He wrote the book Using Macintosh BASIC, published by Osborne-McGraw/Hill. Rich is Chairman of Language Systems Corp., a Macintosh software company.

CMS SD-80 GROUP BUY

by Eric Rall

System 4.1 and Finder 5.5 require an unreasonable amount of space. After a few months of doing the floppy disk shuffle with our SE, Karen and I decided to move into the world of hard drives. OK, I decided and then I talked Karen into it!

We wanted a drive that was reliable, fast, quiet, had lots of capacity, and, most importantly, inexpensive. So we scoured the pages of most of the Macintosh magazines. We followed the conversations on the TCS and other BBS systems. It looked like the Jasmine was the winner. Fortunately, I was talking to Bernie Urban about this and he suggested the WAP group buy.

So I checked out the group buy and found out that they were selling CMS hard drives. Group purchase offers CMS drives in 3 sizes: 20, 40 and 80 Meg. I didn't really pay attention to the 20 Meg prices. The 40 Meg drive was $995. For only $200 dollars more, an SD-80 Meg hard drive could be mine. That came to $1195 plus tax. That was cheaper than the Jasmine! For you techies, it has a 29 msec access speed. It all sounded good. So I wrote up a check and dropped it off. About one week later the drive arrived.

Being the model of patience, I waited until the end of my work day before I drove down to the office to pick it up. I rushed home, bumped Karen off of the computer, and set it up.

Included in the box was a platinum CMS SD-80, one disk, a 20-page manual, an AC cord, a one foot SCSI cable, the registration card, and a one page addendum.

The SD-80 has the same footprint as the SE and sits under it. It raises the Mac up by about 3.5 inches.

The one page addendum informed me that the drive was already set up for a Mac Plus and that SE and Mac II owners would have to format the drive, install a new driver and initialize the drive. The manual instructed me to fill out the registration card and mail it in before I began. Like any experienced user, I ignored that one. There would be plenty of time for mailing postcards in the morning.

The instructions are straightforward and easy to follow. So, a few minutes later, the SD-80 was up and running. After formatting, the drive had 75 Megs. It is quiet for a hard drive. I can hardly hear it under the noise of the SE fan, but that is another subject altogether.

The SD-80 will park heads automatically upon shut down. I thought that was a nice feature. The disk that came with the drive had the utilities that I used to format, install drivers and initialize the drive. This same application has a few standard diagnostic tests within it. They aren't glamorous, but all worth having.

Also included on this disk is zapPram. This may prove itself useful, should I mess up the parameter RAM again. (That, too, is another subject having nothing to do with this review.) Disk First Aid and Teach Text are also included.

The included backup utility is HDBackup version 1.0, the same thing that you have on the latest Apple System Utilities disk. It is simple and functional. HDBackup does most of what you should require. It will 1) Back up all files, 2) Back up

contd. on pg 83

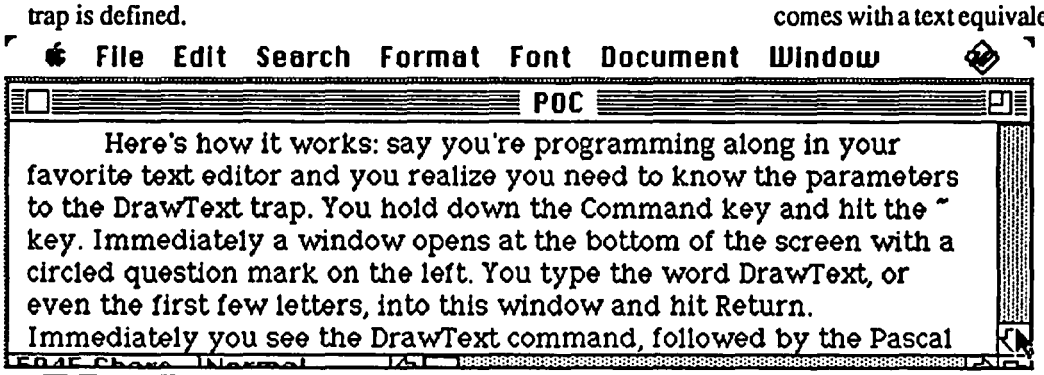
DEVELOPER'S VIEW... Programmers Online Companion.

by Bill Hole

Programmers Online Companion

We don't have enough copies of Inside Macintosh to go around, so I have frequently found myself wandering from office to office looking for The Book so I can find the arguments or the trap number of some obscure trap. Well, it looks like those days are over, thanks to Steve Capps' little $35 gem, the Programmers Online Companion. This is a tiny program, installed in the System file as an INIT, that makes a database of Inside Macintosh information instantly available to the programmer.

Here's how it works: say you're programming along in your favorite text editor and you realize you need to know the parameters to the DrawText trap. You hold down the Command key and hit the ~ key. Immediately a window opens at the bottom of the screen with a circled question mark on the left. You type the word DrawText, or even the first few letters, into this window and hit Return. Immediately you see the DrawText command, followed by the Pascal parameter declaration, an indicator as to whether the heap is changed by this command, the trap number, and the volume and page number in Inside Macintosh where this trap is defined.



With just a few keystrokes, you can copy the trap name, or even the trap name with parameters, directly into the file you're editing, thus minimizing effort and the chance for error.

Programmers Online Companion doesn't contain the text describing the traps, data structures, etc., so you'll still need to keep a copy of Inside Mac around for reference. In addition, it only covers volumes 1-4 at this time. Even so, I've found it to be an incredible timesaver—this tool (or one like it) should be on every programmer's disk.

Programmers Online Companion isn't the only product offering convenient access to Inside Macintosh documentation. The October 1987 issue of MacTutor contains an ad for a DA called IMBlaise from M'Gosh Software (really!) that claims to put the Pascal interfaces of the toolbox at your fingertips. It is a true DA and covers Inside Macintosh volumes 1-5. It costs a mere $28.95.

In addition, the same issue of MacTutor has an article with source code on building an Inside Macintosh reference DA in C. If you purchase the source code disk for this issue of MacTutor you get the source files plus the Inside Macintosh data files accessed by the DA. MacTutor source code disks cost $8.00 each — ask for #25, October 1987.

I can't tell you which of these solutions is best as I've only used Programmers Online Companion, but I can make some guesses. I think the non-DA format of Programmers Online Companion might be very useful in two circumstances: if you are programming in an environment that does not support DAs, or if your DA menu is getting cramped. Otherwise, one of the DAs might be more usable. They look like they follow the Mac interface more faithfully than Programmers Online Companion, and you can feel reasonably confident that they aren't doing anything unusual, which Programmers Online Companion certainly is.

At any rate, we are using Programmers Online Companion every day and it works and seems reliable. I can definitely recommend it. I'd like to hear from programmers who have used the DA reference programs so we can get some comparisons.

Modifying Programmers Online Companion

One of the beauties of Programmers Online Companion is that you can modify the database to suit your own needs (IMBlaise can also be modified, according to their ad). The program comes with a text equivalent of the specially-structured database file used by Programmers Online Companion. You can modify this text file and process it with the installer utility, and as long as you followed the format conventions, you'll have your information available at a keystroke.

For example, I recently wrote a program for use at Micro Dynamics that scans our source code files and produces tab-delimited text files indicating the names, parameters, and descriptions of all procedures and functions defined in the source, along with their location. It also captures the names and types of data structures and keeps track of what source files are utilized by other files. I have in the past imported this data into Helix or 4th Dimension. More recently I built a HyperCard stack to handle this information. But it's a pain to have to leave my programming environment to use HyperCard or 4D in order to look up a procedure.

My solution was to use an editor to reconfigure my data files to meet Programmers Online Companion conventions and to merge them with the Programmers Online Companion text file. The one drawback is that in order for the search function to work properly, I had to sort my commands and data in with the Inside Macintosh data so that they are intermingled, but hey, I'm not complaining!

Here's how I did it: I first used a text editor to globally replace all carriage returns with the vertical bar character (|) followed by a return (Programmers Online Companion uses the vbar as a record delimiter). Then I replaced all tabs with returns. I used Word 3.01 to merge my data files with the Programmers Online Companion Textbase file. I then imported the whole thing into HyperCard, one record per card, and sorted the list (I used modified versions of the Import and Export scripts given on

contd.

pages 477-479 of Danny Goodman's *Complete HyperCard Handbook*).

I exported to a text file, fixed a few formatting errors by hand, and moved all records starting with ASCII $5B to $60 to the end of the file just before records starting with $7E in order to correct a disagreement in sort order between HyperCard and Programmers Online Companion. Finally I ran the install utility. Voila! I now have the description of every module and data structure used in my project available from within any program.

Any type of information could be accessible through Programmers Online Companion in the same way. I just hope our support staff doesn't get wind of this and ask me to put their Rolodex files into Programmers Online Companion!

Bill Hole is the author of PostHaste™ and has served as lead programmer for Micro Dynamics MARS™ and other major software products. He is a system analyst for Micro Dynamics, Ltd., the largest Macintosh development firm in the Washington, DC area.

PASCAL NEWS
by Robert C. Platt

PIG. The October Pascal Interest Group meeting focused upon Lightspeed Pascal. The PIG meets on the third Thursday of each month at 8 p.m. at the WAP Office. Newcomers are welcome. Mike Hartman is retiring as our Chairman and we are looking for a volunteer to replace him. However, Mike is continuing on as librarian and is working on two new PIG disks.

TML Pascal 2.5 has finally shipped! Here are the release notes that came with it. Required Hardware: Macintosh 512, Plus, SE, II with 512Kb, 1Mb recommended. Minimum versions of other required software: for the Macintosh 512K: System 3.2/Finder 5.3; for the Macintosh Plus, SE, II: System 4.1/Finder 5.5 (or later).

TML Pascal is now shipped on double sided disks in order to accomodate the new larger system files and Macintosh Toolbox interfaces. Those requiring TML Pascal on single sided disks may obtain version 2.50SS (version 2.50 on (S)ingle (S)ided disks) by returning their master disks to TML Systems.

Version 2.50 of TML Pascal provides the following new features:

- Known and reproducible problems with the software have been fixed.
- Complete interface to the Mac SE and Mac II Toolbox is provided.
- Direct access to the 68881 is available with the MC68881 unit.
- A new version of MacinTalk is included which works on the Macintosh II.

Version 2.50 of TML Pascal has the following limitations:

- The Linker still has the limit of linking 1000 modules.
- Object Pascal problems are still present thus MacApp cannot be compiled.
- Does not work well with MultiFinder. For example, the Linker adds the name of the linked application to its Transfer menu. If you keep the Linker active under MultiFinder, the menu is not reset, and it just continues to get longer.

TML is also advertising a Modula compiler, and I would be interested in hearing from anyone who has tried it.

MACMONEY™ Part 3: Version 3.0
by Chuck Sicard

In the September 1987 *WAP Journal* we alerted you to improvements planned for MacMoney's version 2.03, scheduled to have been released by now. The word is that Survivor Software Ltd. is going to skip directly to MacMoney's version 3.0, which they claim is a "major upgrade" targeted for release for the middle of December.

In addition to changes mentioned in the September article we can look for reporting enhancements showing running balances. There will be a void option to zero out a transaction, still leaving a record of the void. There will also be a delete option which zeros out a transaction and completely removes any record of the entry.

Accounts ("categories"), names and ID codes can now number up to 250 each (an increase from 100), improving its value to small businesses. A new transaction cloning function will make it possible to copy and paste a form for a re-occurring transaction rather than implementing the automatic function. These and other slight improvements, including better "bullet proofing", are what apparently makes the changes worth a completely new version number.

If you bought MacMoney on or after August 1, 1987 you will be able to obtain version 3.0 for no charge. If you bought MacMoney prior to August 1st you will be entitled to version 3.0 for $25. But get registered if you haven't. The new increased full list price for MacMoney 3.0 will be $119.25 (it was $74.95). It will be less at discount prices. The new version will have a new manual.

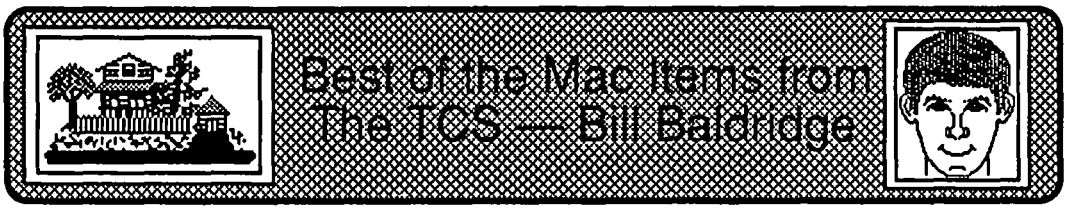
If you are still shopping for an accounting software package, MACazine's November 87 issue reviews MacMoney, Dollars & Sense, In-House Accountant, Rags to Riches, Plains and Simple, Back To Basics Accounting Systems (Peachtree Software), Accountant, Inc., Turbo Maccountant, and Insight, with more reviews to come in later issues. MacMoney was rated in that review as the best all-around program for home or small business purposes. That's especially nice since it is also the least expensive program. Indeed, MacMoney is still a very excellent value.

Users of MacMoney will need the newest version by December 87 if they are going to use it to prepare their 1988 financial plans before the year begins. Hopefully they won't delay any longer.

CMS SD-80 contd. from pg 81

changed files, 3) Back up a single file, 4) Restore all files, or 5) Restore a single file. One nice feature is that it allows you to backup to 3.5 inch disks a file that is larger than 800K. This will come in handy as Karen keeps adding fonts to the system file.

Although we haven't had the drive very long, it does get 8-10 hour workout every day. So far there have been no problems.So, if you're looking for a hard drive, give the WAP group purchase a call. There are 20 and 40 Meg versions available, but 80 seems to be about right. (Ed. Note: Giving away coupons, are you?)



C Programming

ROBERT DOHERTY on 10/20
There is a file in the Hypercard DL section called XCMD which contains, inter alia, the MPW C code for an XCMD resource, along with the proper switches to compile it under MPW. At a guess, the requirements for WDEF's and XCMD's are probably the same. BTW, the file is a Packit format file, so you'll need Packit or Stuffit to unpack it.

Data Bases

STEVEN PAYNE on 10/16
I'm new to this board, but have been using Microsoft FILE to compile a yearly bibliography of English-language books for an international publication which comes out of Rome. They're using dBASE II, I believe, and so I've never figured out how to make my files fit their system (my brother has converted some over to an IBM format, but I always end up with extraneous characters, etc.). I'm wondering if anyone has any suggestions. Would the forthcoming dBase Mac solve my problems? Can you transfer files back and forth between the Mac and IBM? Is there another program that would do the same thing and be less expensive? I'm a novice in this field, and would appreciate any help.

DAVID GURSKY on 10/16
You can exchange dBase III data files with dBase Mac, but I would recommend you look into a package called McMax, which will not only read dBase III data files, but the command procedures as well (or so I'm told).

MIL TRATENSEK on 10/16
Steve, take look at a program called MacLink+ which supposedly will allow you to accomplish those transfers both ways.

STEVEN PAYNE on 10/17
Thanks to you and Mil for your suggestions. The main concern is tranferring my data over to their IBM dBASE II format; I doubt they'll need to send me any data. In any case, I appreciate the suggestions, and will look into the programs you mention. Any other advice is also gratefully accepted.

STEVEN PAYNE on 10/19
One more question: where do I find McMax and MacLink+, and how much do they run? (I've only seen an ad for one of these, and it wasn't very helpful.)

JERRY WALZ on 10/19
MacLink Plus is put out by DataViz and runs about $150 as I recall. If you are a TOPS user, DataviIz is packaged with the new TOPS with about every conversion that is available on MacLink Plus. Absent the direct modem to modem or direct connect to an IBM PC unless you have that on TOPS too.

DAVID GURSKY on 10/20
McMax is available at MacCorner, but I don't know the price. MacLink+ is something I've never heard of.

JOHN CONNAUGHTON on 10/27
I need recommendations for Mac database programs which can easily handle a mailing list on an SE. I am not sure if I need a high power DB program but I also don't want a puppy dog with limited capabilities. Ideally, I would like something which initially does not require any programming and is menu driven. It should also support printing of labels 3 across, not just single labels ala AppleWorks. LaserWriter compatible output is a must. Also import export of several data formats ASCII, DIF, etc. Sorting both alpha numeric A-Z Z-A 0-9 9-0 etc on selected fields. Minimum of about 2000 records per file. Any ideas?

BILL BALDRIDGE on 10/27
I can recommend Record Holder Plus. RH+ will do all you ask (I don't know about importing DIF files, though), and I currently have a multi-field file with over 4000 records, so it fits the last criterion you state. On top of this it's fast and inexpensive (under $60 mail order). For flat files and ease of use I don't think it can be beat. If you absolutely need to import DIF, you may have to go upscale quite a bit pricewise.

JOHN HARE on 10/27
My in-laws are using OverVUE for some fairly large mailing lists. It definitely has the sorting capability that you need, and I'm fairly sure that it will import and export. (Just checked in the manual: It handles DIF and ASCII.) I'm not so sure about AppleWorks and LaserWriter, though.

Desk Accessories

MICHAEL LOCKWOOD on 10/23
I found that the Talking Moose (v1.2) no longer worked after switching to System 4.1. To get it to work, use FEdit or MacTools and search for the hex string D3C0 2211 6700 and change it to D3C0 2211 6000. This bypasses the part of the code that causes it to bomb.

Desktop Publishing

KEN PEEL on 10/16
Anyone out there who has RSG4, Get Info on the application and check out the creation date. If it says August 24, run, do not walk, to the Letraset toll-free number (800-634-3463), and fill them in. If you have August 25 as your creation date, thank God that you didn't respond as quickly as I did to the RSG upgrade offer. Here's the scoop. For flyers or extremely short docs, you might not notice any problem with the 24th doc. Anything approaching 12 pages or so, however, is in deep kimshy. The longer you work on any medium-to-large doc, the more inevitable will be your inability to save the damn thing. If all you want to do is create, print, and never save, fine. Anyway, I am assured that the 25th version is just fine, and Letraset is supposed to be in the process of sending out usable versions to all those they sent the 24th versions to. They claim to know who is who. I called the tech support line (tel# above) twice about this, and found the help to be prompt (I got through both times immediately), knowledgable and very helpful. I was told that if I didn't get my update by next Thursday, to make another call, and it would be put immediately in the mail for me.

contd.

DAN HUGHES on 10/17
Two questions about RSG4. Will it directly import WriteNow files and if I am a registered owner of RSG 3, will Letraset automatically send me the update, or do I have to get on the horn and bug them about it.

KEN PEEL on 10/17
Yes, RSG4 directly imports WN files. No, Letraset will not automatically send you an update from RSG3 to RSG4. That update costs $75, though it is worth it if you got your RSG3 at anywhere near the price that I got my RSG3. Yes, you will have to bug them, as the records on RSG3 owners seems to have been garbled from the transfer from Manhattan Graphics to Letraset. Call them at the following toll free number: 1-800-634-3463.

MARK OSTROFF on 10/29
Anybody heard/seen/know anything about Scoop. Supposedly, it is out now.

KEN PEEL on 10/30
Macintosh Today had a review of Scoop in this week's issue that was not all that favorable. Apparently the program has some interesting twists, but is much too slow.

Entertainment & Education

BILL BALDRIDGE on 10/08
FROM THE GRAND MASTER FLASH GREATNESS HIMSELF, THE GREATEST OF GREATS, MASTER OF THE VORTEX, GRAND SMURFINESS, I PASS THESE GREETINGS AND WISHES OF HEALTH, LONG LIFE, PROSPERITY, AND ABOVE ALL...GOOD CHOCOLATE!!! GameSIG Chairman Emeritus, Ron "The Valve" Wartow, called the office yesterday to convey his greetings to all his Pi friends and relatives (past and present). He was in town on a short "official" visit, in between bit-busting sessions at his new locale in upstate New York at the Sir-Tech laboratories (home of nefarious code of the Wizardry kind). Cheers...

The ** MAC ** Union

DAVID GURSKY on 10/30
Snippet of a conversation I had yesterday...

"Right now, my mind feels something akin to Macaroni and Cheese."

"You should get some sleep."

"Sleep? What's sleep?"

"Sleep is the transitory state your mind is in between Macaroni and Cheese and Nachos."...Deep.

Graphics & Design Software

KEVIN HARRIS on 10/17
A friend of mine just bought a Mac SE and also purchased some software with it, one package was FullPaint. Since he doesnt know anything at all (and I mean it) about Macintosh, he had me install everything on his 20 Meg HD. Well, when I went in and tried out FullPaint, everything worked fine, except there was no expand the window boxes on the bottom of the left palette—you know the ones that hide the menus and make the entire screen your picture area. Then I thought, well, maybe it's his version of FullPaint, maybe its faulty. So I brought over my FullPaint Master and tried it out, not using the HD to boot up, but the FP disk itself. It still had the same problem, but when I got home my FP worked fine on my Mac Plus. Any idea what the problem is??

BILL BALDRIDGE on 10/17
Yes—this is a problem with FullPaint on the SE. When your friend sends in his registration card, make certain he indicates he is running it on an SE—Ann Arbor Softworks has a fix for the SE (either in the works or coming soon), and should provide it free of charge. If he has already sent it, he should write them and ask about the fix.

Hard Disks

ROBERT BOYLE on 10/29
I have a Mac+, actually a 128K Mac I upgraded first to a fat, then just before Apple introduced an SE, a '+' Mac. I juggle so many applications at once that I really need a hard drive—and the faster the better. Since I paid through the nose for Apple upgrades, price IS a relevant factor for me. I have spent too much on my system as it is! My local dealer recommends a Rodime 20MB drive. Has anyone had any problems with these? Is there a consensus opinion on the 'best' 20MB drive, in terms of reliability and speed?

DAVID GURSKY on 10/30
Rodime makes the drive mechanisms for many of the disks currently on the market, and enjoys a reputation for reliable mechanisms and as a "premium" drive. My advice is to bag it, and go buy the Peripheral Land 30 at MacCorner. Its also a reliable mechanism (I believe the Peripheral Land series are similar, if not identical to Jasmine. I'm not 100% sure though.) and costs less than the Rodime.

DEACON MACCUBBIN on 10/30
My advice would be to go for a Jasmine. They've proved themselves fast and reliable and the 20 megger is still only about $620-650. Of course, I'd also advise you to mortgage the farm and get at least a 50 megger (about $1150 from Jasmine, I think). You'll be amazed at how fast you can fill 20 megs!

HyperCard

CHARLES REILLY on 10/10
I need to have an automatic date put on each card as created/modified. ADDRESS in home stack has this feature. However, how can I copy this single feature into my existing stack background? Tried to Copy Field but only the field size and shape comes over—not the auto date stamping. Can't find answer to this in Hyper manual. Guess I gotta get the Hypercard Book?

LLOYD SWIFT on 10/11
According to the Goodman book you write a script line such as 'put the date into field "date".'

BILL AMON on 10/23
If you are using SuperLaserSpool (or probably any other print spoolers) be advised that good old independent thinking Bill Atkinson, never one to follow the Apple party line, has violated LaserWriter printing conventions with the "Faster Bitmode Printing" option that is preset when you do an HC print. You MUST turn this option OFF if you spool. Otherwise you end up with spool files that fill up all available memory then crash the system! In trying to print the help stack, I had a spool file of 15 megs!

MARK ROVNER on 10/23
I am experiencing a fair number of crashes while using Disktop 1.0 and HyperCard. Disktop is crucial to the 1 meg weenies among us (myself included) so that routine file maintenance can be performed without quitting HyperCard and rebooting with a

contd.

sys/finder disk. Help!!!

LLOYD SWIFT on 10/25
Get Disktop 2.1. I t seems to work fine with HyperCard.
LLOYD SWIFT on 10/25
I have a series of Genealogy stacks which I am working on. Basically each family surname in the family tree has a stack. When you click on the mother's family button it switches to the stack for that surname. There is also an index stack which enables you to click a button to see the stack for any family listed. For a reason I cannot fathom, the buttons on the index work perfectly (each one has a script line which reads "got to stack card field #___" which selects the stack which has a name the same as the surname in the field associated with the current button) but when one is browsing through the stacks there are a couple of stacks which the damn thing will not access. I get a question "Where is Smith?" when Smith is right there in the list big as life and twice as natural. It has clearly identified the stack it is to search for—else how would it ask "Where is Smith?". And there is "Smith" right on the list and accessible by opening it from the list. Why doesn't the button script work to access the script (it does most of the time but not with a few of the surname stacks)? Any suggestions?

BILL BALDRIDGE on 10/25
Double check the fields which are causing you problems. It's possible there is/are hidden tab/CR characters. Try click-dragging through the field and either Backspace or use Clear from the Edit menu, and then re-enter the name. It should not be necessary to 'show' HyperCard where a stack resides more than once, unless you've moved it since last access.

LLOYD SWIFT on 10/27
Your advice about my possibly having something extraneous in the fields, which were not behaving properly, was correct. I never found out what was there but I DID discover a way to find out that there was something extraneous there. If you click-drag in a field to highlight only the visible message there, then hit the backspace key to erase that, then use the "tab" key to tab through the fields until you hit that particular field, IF THERE IS ANYTHING LEFT IN THAT FIELD (even if it doesn't show) THE FIELD WILL HIGHLIGHT (turn black). You can then strike the backspace key again and the field will be cleared. If you then retype the proper field text, the field will contain ONLY that text and nothing else.

JOHN CONNAUGHTON on 10/27
Can HC be used to create a mailing list type data base? Is it menu driven or does it require programming? I don't have HC but I am interested in its potential.

BILL BALDRIDGE on 10/27
Yes, HyperCard can do mailing lists easily. However, there is apparently a major bug in the Print Report routine, which skips the last two lines of the first record of each page. You would use Print Report for doing mailing labels and/or columnated reports from a stack of records. Hopefully, a fix is in the works.

MARK ROVNER on 10/28
Here's what seems to be a small bug or at least a discrepancy between Goodman's book and reality: The DO command. Contrary to what he says and invites readers to attempt at page 428 of his book, I could find no way to execute a DO command from the message box. DO lets you store script lines and other commands in hidden fields, etc. and then execute them by telling HyperCard to "do" that field. It works fine in a button script but NOT from the message box. Goodman's advice seems to be wrong about 25% of the time. Grrr... By the by, has anyone had any luck pasting sound resources into scripts, using SoundConvert, ResEdit or whatever? Are HCard scripts doomed to a silence broken only by boing, beep, and harpsichord?

BILL BALDRIDGE on 10/28
You are correct on the first count, Mark. You cannot execute a DO command from the message box—it must be in a field or script. This, along with other errata are covered in the sheet of changes handed out at the meeting on Saturday. On the second count, you're half right. It's currently a PAIN to try to get sound resources into a stack (you cannot as far as I know put sounds in a script). You'll have to use something like ResEdit to swipe sounds from other sources (games, sound inits, etc.). I uploaded MiniServant to the utilities section—it can be used to move sounds from source to destination.

WICK WICKRAMASINGHE on 10/29
Does anyone have a simple stack to print out a preselected choice of cards? Also looking for a stack to import individual paragraphs into consecutive cards from an MS WORD document. Will appreciate any feedback.

BILL BALDRIDGE on 10/29
I don't know of any way to print out a selection of cards—a RANGE of cards, maybe, but not a scattered selection. And therefore I know of no stack that does so. Also, there is currently (to my knowledge) no stack which will import a Word document. The document must be saved as a text file and then imported, or if it isn't TOO big, it could be pasted into the Scrapbook and then cut and pasted into your stack.
P.S. I guess you could create a temporary stack, and then cut and paste the selection of cards in the order you wanted, and then just print the temp stack.

MARK ROVNER on 10/30
Every time I use SoundConvert I get a script error message that says, "expected comma between args." I have looked at the script and have not been able, given my rudimentary programming skills, to fix it. I'm wondering, though, whether it matters if the source files are SoundCap or SoundWave, which is the latest generation digitizing software. I have been trying to convert sounds obtained from the recent WAP disk issues, and am not sure what their source is. What is the type/creator of the source files you have been using successfully?

KARL WOLF on 10/30
I took a look at my SoundConvert stack (version 1.0, downloaded Sept 10). I tried it again, and it worked everytime. The SoundCap/SoundWave files were type "FSSD" with at creator of "FSSC" or "JOSH". I think your problem may be that you are using it incorrectly. I do the following steps: 1) Click on the Set Source button and select a SoundCap/SoundWave file. 2) Click on the Set Destination button and select a destination stack. 3) Click on the SND Name field and enter a name for the new resource. 4) Click on the Do It! button. 5) Try it with the Test-Return or Test-Stay button. 6) you can also go to the stack where you put the snd resource and type: play "xxx" —into the message box. Give this a shot and let me know how you come out.

contd.

Other Hardware

JAMES FAHS on 10/11
Does anyone know of a source for extra long (15 ft) cables to connect Mac to Imagewriter or Modem, other than paying to have them custom made? Does anyone make an extension cable to have straight through connection with a DIN-8 male on one end and a DIN-8 female on the other? Am I the only one who does not want the noisy printer close to the working area? With the early Macs it was easy. They had R-9 connectors and you used a Radio Shack paddle extender cable.

HOLGER SOMMER on 10/11
You can use the Radio Shack cable with adapter (DIN8>DB9) to connect the IW II to a long cable. I built my own long extender cable using telephone cable and modular DIN 8 connectors.

JAMES FAHS on 10/20
Where do you get the modular DIN 8 connectors?

HOLGER SOMMER on 10/21
My source for DIN 8 connectors is Electronic Plus just inside the Beltway at Route 1 in College Park, MD. They sell them for about $3.50 each. I think I saw Apple Talk plugs there too. BTW this place carries a large variety of electronic basic parts but also some specific computer parts primarily for COMMODORE (VIC, C64) computers. They also have sometimes some second hand equipment like monitors,terminals and modems (the 300 BAUD accustic coupler type). PS: If you don't have soldering experience get some practice with some other miniature soldering first—these plugs are a pain to solder.

Pascal Programming

CARL MYERS on 10/20
Help! I'm using MPW Pascal 2.0 and am fairly new at this game. I create a dialog and everything works fine until I change the control panel to Color or more than 2 shades of grey. At that point all the text (Stat Text and Control titles) in the dialog. Everything still seems to work and the controls are still there but without text. I have checked for such things as strange color tables in the system, but everything seems in order. Is this MPW or is it me? I've checked everywhere I can in the documentation. It would be a shame to have to run this thing in B/W. Will appreciate ANY advice.

RICH NORLING on 10/21
Is your dialog a Modal dialog? If so, the ROM runs the StatText and Control titles. I do Modal dialogs all the time from MPW Pascal on Mac II with no problems, so the difficulty is not likely to be MPW Pascal. Do you perhaps have the Klutz module installed in your Control Panel, maybe played with it one day and left the colors a little funny? If so, open up Klutz and tell it to change everything back to the defaults. Frankly, it sounds like a color problem that has nothing to do with either the Dialog Manager or MPW Pascal. If the problem won't go away, try describing it in more detail.

CARL MYERS on 10/21
My dialogs are Model and I have suspected the system, to the point that I have completely redone the system file. None the less, I'll go back to work and get back to you. Thanks for the assistance—the dialogs work only when in two colors or two shades of grey.

KEN KNIGHT on 10/22
I am having trouble with the linker in MPW. I have written a couple of Pascal Units to help me with applications design—basically they handle basic initialization and similar functions. They compile fine. However, when I try to link (I have compiled them with a test program) I get Undefined entry point errors for both routines that the particular program makes use of. Can someone possibly suggest a solution?

RICH NORLING on 10/28
Ken, it sounds like you need to add a description of the two routines to the INTERFACE portion of the Unit. The Linker only gets the names for routines in the Unit's INTERFACE. Just copy the lines that declare the procedure or function (i.e., PROCEDURE FOO(a:integer);) and paste the copy before the line that reads IMPLEMENTATION. That should do it.

ROBERT EFROYMSON on 10/23
I am wondering if anyone has used any of the various shell programs out there. I know of MacExpress by Alsoft and some others. I have the Lightspeed compiler which is great, but I have been spoiled by Object Logo. I want to know if there is somewhere I can turn to to get the mundane stuff done for me so I can concentrate on the code. I also would like to know if anyone has used MidiPascal. It sounds good. I would od all my programming in Logo, but I cannot get stand alone applications, and even though it is compiled it is sloooow. I hope my praise of Logo is not heresy on a Pascal board.

RICH NORLING on 10/28
The king of shells is MacApp (short for "Macintosh Application"), which was written by Apple. MacApp is written in MPW Object Pascal and is sold through the Apple Programmers and Developers Association (APDA).

RICHARD BROSNAHAN on 10/29
Just to clarify, for my sake, what is a shell? Is this a number of routines already written, that include such things as windows and pull down menus and other basic Mac user interface stuff? If so, how compatible is it with compilers such as Lightspeed Pascal? Is it object code or source code? Thanks, in advance.

RICH NORLING on 10/29
The way I was using it "shell" means an environment. For example, the Finder could be called a shell for running applications (especially now that with Multi-Finder, the Finder hangs around while the applications are running). The Macintosh Programmer's Workshop is a programming environment that contains a powerful editor, script language, linker, assembler, and compilers for languages such as Pascal and C. MPW is just like any Macintosh application with its own windows and menus, except it lets you run all those other things inside it without leaving the MPW environment. Lightspeed Pascal provides its own environment, and you would run into difficulty trying to run Lightspeed Pascal inside MPW, particularly with the Lightspeed debugger. Hope this helps

Printers

DAVID BERNHARDT on 10/08
Has anyone heard about the Seikosha SP 1000 AP Printer, on page 19 of the Icon Review Fall Catalog? The ad copy says it "works just like the Imagewriter" at half of the cost. My brother needs a printer, it's his birthday, and if we all gang up, we could possibly come up with the $230 they want for it. Of course I'm

contd.

also a little nervous about this thing. It's a nine pin head, both pin and traction feed, and 2 year warranty. Any input would be appreciated.

LARRY STEDMAN on 10/09
I talked at length with both the Seikosha technical folks and with Midwest Micros about this precise printer—it is a clone of the Imagewriter I and is much slower. It has an okay NLQ mode but you cannot access this from the Macintosh!! Or at least so they finally decided—The same thing is true of the Panasonic 1080 AP printer. Panasonics are wonderful printers, and their NLQ is without comparison (much better than IW II), but again you cannot access the NLQ from the Mac (what happens is that no spaces are printed between the letters) again the Panasonic and the Seikosha both can do graphics printing and thus can reproduce what's on the screen.
JERRY OPPENHEIMER on 10/13
Dave, I have a Panasonic 1091 working perfectly with my Mac. I have also used a 1080i with the Mac. The software driver is Epstart and any serial to parallel interface will do. I dont know what you mean when you say the NLQ cant be accessed—maybe on the 1080AP but not the ones I mentioned.

HOLGER SOMMER on 10/24
Printer Novelties: Orange Micro is offering a $99 Printer cable, called the "Grappler", that (according to Orange Micro - ed.) will connect the Macintosh to almost any parallel printer, without a change in software (including Color Printing). The "Grappler" works also with the Apple IIGS and //c and comes with a one year warranty—(MacWorld 11/87 p.11).

BERNIE URBAN on 10/26
Got my LaserWriter+ upgraded at Clinton last week and it delivers as advertised. Dana Schwartz's Wapacrostic used to take approx 20 minutes, now only about 6. They only promised 40% improvement in printing bit-mapped graphics so the further improvement must be due to the Radius accelerator in my Mac+ (also added last week). Anyone upgraded their LaserWriter with one of the 3rd party 68020 upgrades?

Tech Notes

TIM LEE on 10/31
I've now taken my original 128K Mac to 512KE (512 by MacDoctor and E by Clinton). I'd like to go on up to 1 Meg with SCSI. What's the most cost effective way to go ? I've seen what sounds like a good price from Dove but does Dove hardware require dealer installation? Who is a dealer for Dove in the DC area? Other options?

BILL BALDRIDGE on 11/01
That's the very (almost) upgrade I'm planning. I'm looking at either a Levco upgrade (if I can get a SCSI port with it) or Dove 548S, which is 2 Mb with a SCSI port. Seeing as the Dove is available via mailorder, I would assume it is user installable (Dove also sells a tool kit for defrocking the Mac—but just try to get one!). I'll be interested in exchanging info with you—if you post your experiences here, I'll post mine (not to be confused with "If you show me yours, I'll show you mine").

Telecommunications

NANCY SEFERIAN on 10/15
My brother lives in Idaho and has a //c, but no modem. I have a Mac. If he sends me a disk, is there a way to transfer the stuff on it so my Mac will read it?

DAN HUGHES on 10/15
If he can send you a ProDOS textfile on a 3.5" disk you can convert it to a Mac file with Apple File Transfer. I got the program free from Frederick computer to transfer my Apple II files to my new Mac. But he has to have a 3.5 inch drive or you have to have an Apple II with 5.25 and 3.5 to convert. You can also transfer textfiles by modem but I think a 22 cent stamp is cheaper.

LEE RAESLY on 10/16
Yes. Have him send it to you on a 3.5 disk formatted in ProDOS. Then you get the program called "Interfile." With it, you can transfer that ASCII file from ProDOS to your Mac. Or the other way around, as well. Also, it will go from IBM to Mac. But only on 3.5 disks. Another way to do it is for both of you to get a Cauzin Stripper. This will allow him to print it on paper from his //c, and mail that to you. You then read it with your stipper directly into your Mac. Works like a charm! And you can actually Xerox the paper print, and send that to anyone else, and it still be readable by the Cauzin Stripper!

HOLGER SOMMER on 10/24
Apple, DowJones and MCI Mail have developed a program called "Desktop Express" which offers the same quality and user interface Apple dealer and Macintosh user groups know from AppleLink. This program provides simplicity in communication with text and graphics and can be used for all telecommunication functions. (MacWorld 11/87 p.12)

RICK STICKLE on 10/30
Just thought I'd post this to keep others from finding out the hard way. Due to an easy "direct" connect mode and a strange (Rolm) phone system I chose Smartcom software for my office. I just found out that I can NOT print from the screen because Smartcom doesn't recognize Appletalk! A call to Hayes tech support confirmed this and I was told that version 3.0 (release date unknown) just MAY be able to find a LaserWriter. So, if you need screen printing and use Appletalk, find a different comm package.

Word Processors

JERRY OPPENHEIMER on 10/17
I am a journalist and a writer. I have worked with Word 3.01, 1.05, MacWrite, Mindwrite et al for the Mac. I still think the best productivity deal in Mac computing today is Microsoft Works. The word processing module, which I will deal with here (I won't get into the great spreadsheet, database and telecomm functons) is fantastic. Tie it in with Tempo (for macros), a good spell checker and thesaurus and you can't beat it. Unless you absolutely require the aility to generate an automatic index or table of contents, you have to look no further than Works. I'm writing a non-fiction book now for a major pub using Works. My wife just finished a biography for a major publisher using Works. What more can I say.

LLOYD SWIFT on 10/22
Does Microsoft Works' word processor handle footnotes well? I have been using Word 3.01 for several books etc. and am not happy with some aspects of it but it does handle footnotes.

JERRY OPPENHEIMER on 10/25
Works does NOT do footnotes. But there is now a 3rd party program that patches Works and does footnotes and indexes, etc.

contd.

MARK OSTROFF on 10/27
I've heard several things about the major new WP packages that are on the horizon. Here's the lastest, some of which is in the rumor catagory.

WORDPERFECT - Don't look for this to be particularly Mac-ish. The word (ouch!) is that WordPerfect on the Mac is designed mainly to capture the Mac market for people who use a Mac AND a DOS PC with WordPerfect. The files will (supposedly) be totally compatible, so all you need do is transfer the file from one machine to the other.

FULLWRITE - Rumor has it that, by the time this program is finished, it may take a Mac II to get any kind of decent speed out of it. Deacon, what wasthe demo you saw at MacWorld running on? At any rate, FullWrite will almost definitely require a hard disk to run effectively.

WORDSTAR 2000 - First of all, hold onto your keyboards!! WordStar 2000 is NOT the same program as WordStar. MicroPro is just using name recognition to enhance its market. At work, I use WS 2000 on the PC-compatables and am very happy with it. It is the only program in MS-DOS land that PROPERLY handles proportional fonts on a Laser Printer. I was talking with our local Micropro rep about what I'd like to see, and asked when they were coming out with a Mac version. Her reaction was to pale and say "Where'd you hear that?" Hmmm. The next moment, she was saying wait about 3-4 months. Sounds to me like they've got something in the works (ouch, again!).

Mac II/SE

FRED PUHAN on 10/21
HELP HELP HELP !!! After waiting almost three months to get my order in for my new SE, I'm now being fuddled by the (B'Land) vendor! Here is my order: Mac SE - 45 Meg Internal Rodime HD - extended keyboard - 2 Meg RAM - current SYSTEM, FINDER, HYPERCARD, MULTIFINDER. My dream system, OK? Here's the rub: Above said vendor (a) was worried that one internal 800K drive had to be removed in order to install HD. OK, no heartburn there... (b) stated that upgrade to 2 Meg Ram was going to cost twice the quoted price, (c) Software upgrades aren't "usually handled" by said vendor. Can anyone help? First: If the SE comes with 1 Meg RAM, why should I have to have the 1 Meg removed in order to get 2 Meg RAM installed. And if I should, why shouldn't I get a rebate on the 1 Meg being de-installed? Second: As an authorized Apple vendor, why doesn't said vendor honor software agreements? Third: Since I am having serious doubts about the quality service and support that I am going to receive in the future from this vendor, how can I verify which HD they actually have installed in my machine? A final note: I am purchasing this machine through said vendor (not of my choice) because my wife's company's employee purchase plan offers the only path to purchasing my dream machine. OK, hey, I program on BLUE machines all day long, my Mac is my toy (relief?). But I belong to the Pi, and GRAMA, subscribe to MacUser and MacWeek—I ain't no dummy! If this is the way an authorized Apple dealer treats its customers—SHAME SHAME!!! Any response would be sorely welcome!!!

JERRY WALZ on 10/21
Fred, are you getting your SE with two 800K drives? It's nice to have an extra floppy but I'm not sure it's worth it. Apple's list price for the 2 Meg upgrade for the SE is $599. The Federal GSA price is $452 so you shouldn't be paying too much more than $450 or so. Actually, you should end up with 2.5 Megs, only two of the 256K SIMMS have to be removed. The SE has four memory slots as I understand it. It is full with 256K chips in the stock 1 Meg version. Two are removed and replaced by 1 Meg SIMMS for the upgrade which leaves a total of 2.5 Megs. I've heard mixed answers to the question whether or not the upgrade price is based on the dealer keeping the removed chips. I'm not too sure what you would do,with them except save them up to add to a Mac II except there is a problem there too as the SE 256 Chips are not as fast as the Mac II chips. 150 nanoseconds vs 120 nanoseconds I think. What do you mean about software upgrades? Most upgrades seem to come directly from software publisher rather than dealer except for things like system software. Also, from my very limited experience with BL, I would not touch them with a 10 foot pole. You can probably tell if the Rodime is installed, assuming you don't get a chance to eyeball it, from the software. Rodime usually has their own format software.

DAVID GURSKY on 10/22
Hard disk: Call Rodime and ask them. I know the ProAPP (I think its the ProAPP) does not require one of the internal drives to be removed. On the other hand, that is the exception, not the rule. Apple software: Apple Dealers are REQUIRED to provide FREE OF CHARGE upgrades to Apple software for lines they carry. No service charges, no copying charges, no nothing. You bring in a master disk and they must make the copy. I don't recall anything about how timely the copy must be made. Do no leave a master disk with them unattended for any period! Finally, call Apple in Columbia and complain! This is one of the things that will get Apple annoyed, and if enough people call to corroborate the allegations, they WILL give the dealer hell. 1 Meg to 2 upgrade: You must have the original chips removed because RAM in the Mac consists of 4 256kb SIMM chips. The 2 Meg upgrade consists of taking out the 256kb SIMMs, and replacing them with two 1mb SIMMs. As part of the upgrade, Apple keeps the old SIMMs (who knows what they do with them?) If the dealer is back peddling on the upgrade price, go shop around. The upgrade I seem to recall is only a couple hundred dollars, and can be had from just about any area Apple dealer (Frederick Computer, HLA, Clinton, Family, Bethesda come to mind immediatly. There are others.) More on HD: Short of opening the machine, you can't.

PAUL CHERNOFF on 10/22
Let me try to answer some of your complaints. It aint so much B'land as it is Apple being responsible for what's happening. Despite complaints from buyers, Apple only sells 1 meg Mac SE's. This may change with the need for more memory for Multifinder. Also, Apple's memory upgrade policy does not allow you to keep the old chips; dealers are supposed to return removed chips to Apple. Consider giving up the old chips to be part of the price of the Apple memory upgrade. I found this out when I had my Mac upgraded at Clinton Computers.

FRED PUHAN on 10/22
Thanks to all! When all else fails, turn to WAP!!! (I certainly have gotten my $6 worth!). I don't have a lot of heartburn about dealing with a vendor I personally wouldn't have chosen, but it amazes me that as a national corporation the people at said vendor DON'T KNOW WHAT THE HECK THEY ARE TALKING ABOUT!!! Needless to say, I am getting the 2 Megs come hell or high water!!! Again, thanks to all who responded to my plea. Viva WAP!!!

WAP TUTORIALS
by Robert C. Platt

WAP's tutorial program provides a chance for members of varying levels of expertise to gain 'hands on' instruction on the Apple II or Macintosh. Our tutorial program has two parts: regular tutorials which repeat each month and tutorials on specific languages or applications that are offered as necessary. The continuing popularity of these programs attests to the amount of time that instructors spend in preparing for class and the useful training that participants gain from them. Because space is limited, we request that you reserve a spot by calling the office or using the mail order form in the back of the Journal. A nominal fee is charged to assure your interest and to defray club expenses. Please let me know if there are any topics you would like to see added to our offerings.

Regular Apple II tutorials.

We are reorganizing the introductory Apple II tutorials to reflect the special needs of new IIgs owners. In December and February, the first two tutorials will be oriented toward IIgs topics. January and March will focus on //e and //c topics. If interest warrants, we will continue to alternate between the two sets each month. The AppleWorks tutorial applies equally to both machines.

These tutorials are offered on the first, second and third Tuesday of each month at the WAP office from 7:30 p.m. to 9:00 p.m. You are urged to bring a computer to provide hands-on experience. WAP does not have equipment for you to use. (WAP can supply a black and white monitor to the first five registrants—please call the office.) If you bring your computer, please arrive 15 minutes early to allow for setup. If you bring your computer, please also bring your ProDOS Utilities Disk or Systems Disk and also a blank disk. If you have a copy of AppleWorks, please bring it to the third Session. The cost is $10 for each session.

Session #1: Welcome to the World of Apple - for //e and //c.

A. Overview of a computer
   CPU, memory, input and output
   Differences between //e, //c and //gs
B. Using floppy disk - care and handling
C. Running an Application program
   Booting a disk, Ctrl-Open Apple-REset
D. CATALOG - what's on the disk
E. Other important DOS 3.3 commands:
   LOAD, RUN, LOCK, UNLOCK, DELETE and BRUN.
F. Making Copies of disk
   Using the ProDOS formatter, DOS COPYA
   What are copy-protected disks

Session #1: Welcome to the World of Apple - for IIgs.

A. Overview of a computer
   CPU, memory, input and output
   Differences between //e, //c and //gs
B. Using floppy disk - care and handling
C. Booting a disk.
D. Different Operating Systems: ProDOS 8, ProDOS 16, DOS 3.3, p-System
E. The Control Panel
F. The RAM Disk

Session #2: How to use your Apple Software on the //e and //c.

A. Initializing a disk - what it does
   143K (5.25") or 800K (3.5") of information
   Different Operating Systems: ProDOS 8, ProDOS 16, DOS 3.3, p-System
B. Introduction to ProDOS
   Pathnames, - (smart run), CONVERT
C. Using ProDOS Filer and DOS FID to copy files.
D. Disk recovery programs.
E. Selected programs from the New Member Disk.

Session #2: How to use the IIgs Finder.

A. Understanding the desktop.
B. Copying a disk.
C. Copying a file.
D. Creating a folder.
E. Desk Accessories.
F. Launching an Application.
   Switching to ProDOS 8 and back.
   The FASTCOPY program.

Session #3: AppleWorks (for //e, //c and IIgs combined)

A. Word Processing
   Entering and correcting text.
   Search and replace
   Special printer features - underline, boldface, etc.
   Spelling checkers
B. Spreadsheets
   Entering numbers, texts and formulas
   A simple example
C. Database management
   Setting up a mailing list.

Introductory Macintosh Tutorials

These tutorials repeat each month on the second, third and fourth Mondays. Each session has a different prerequisite level, so jump in at the appropriate point. See the October WAP Journal for descriptions.

Special Tutorials - $15 fee ($20 for non-members.)

"Introduction to HyperTalk" - Rick Chapman

Saturday, Dec. 19, 1 - 4 p.m. at WAP Office.

HyperTalk is the programming language used by HyperCard. Prerequisite: know how to paint, to author text, and to cut and paste buttons and fields. Topics to be covered are: messages; message handlers, properties, individual commands and functions. Please bring your Mac, a copy of HyperCard, and a blank disk.

"Word Perfect 2.0 for the IIgs" - Lee Raesly

Saturday, Jan. 9, 9 a.m.-12 noon.

WordPerfect is one of the most popular word processing

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MAC DISKETERIA NOTES

by Martin Milrod and David Weikert

On behalf of the entire Disketeria crew, permit us to take this opportunity to wish you a joyful holiday season and to extend our best wishes for a happy, healthful new year. Happy "MACing", one and all, in 1988!

Desk Accessory Series Now Available!!!

This month marks the issue of the Desk Accessories series, a tribute to the efforts of William Jones who tested and annotated them. All DAs in the current library along with new DA acquisitions have been grouped into one series of ten 400K disks, representing some 245 DAs, arranged alphabetically.

To celebrate the issuance of this comprehensive DA collection, we are offering a special package price of $35.00; that's $3.50 per disk as compared to the normal price of $5.00 or $6.00. The DA series may be distinguished by the attractive red, white and blue label (which have also been used for the Apple II GS disks). The disks come with a catalog in an easily readable format containing the program notes and catalog listing. Because the catalog is included in the package and due to the number of DAs involved, the Program Notes will not be published separately in this column as we usually do.

Most of the latest DAs included in the DA series (but not previously in the library) had been issued on disks 116, 122 and 126 (Desk Accessories XII, XIII and XIV respectively). Thus, it is not necessary to purchase the new DA series if you have acquired all 12 of our numbered DA disks to date (5, 33, 58, 65, 66, 67, 88, 98, 107, 114, 122 & 126). However, if you want any of the current DA disks, buy them within the next two months. After the first of the year the new DA series will replace *all* of the DA disks in the Disketeria. **Even if you have previously purchased all or many of the DA disks, you may still want to purchase the new series to take advantage of the superior organization and notation, the elimination of redundant DAs and removal of DAs that do not work with the newer versions of the System (4.1) and Finder (5.5).**

Disk Catalog Available

The Summer, 1987 Mac Disk Catalog containing comprehensive information about the entire WAP Disk collection (through Mac Disk 109) remains available. The catalog costs $4.25 at the office or general meetings or you may order it by mail for $5.75 to cover postage and handling. The catalog lists disks by (1) disk name, (2) description of disk contents, (3) alphabetic listing of files across all disks and (4) by "type of file" listing across all disks.

Help Requested, Help Received

Rick Chapman responded to our request for help on the Mac II. Although he did not offer us the loan of a Mac II so we could (at great personal sacrifice) work on these disks, he has volunteered to test, assemble and annotate Mac II material for the Disketeria. Mac II disks will be issued in the 800K format. Mary Hockmeyer has also joined our staff as a duplicator and program annotator. Thanks, Rick and Mary.

As was stated in this column last month, the HyperCard Stack disks will also be presented in 800K format—and, boy, are we swamped with them. Some 60% of our current downloads are now HyperCard stacks, and we have some 18 800K disks now in hand. The HyperCard SIG people are working on producing the Mac Disks in the very near future.

Help Still Wanted

We still need volunteer help in two areas; library restructure and Telecommunications as follows:

1. We need volunteer help in assembling, testing and annotating the Fonts, FKeys, System Utilities, Programmer/Hacker Utilities and miscellaneous Utilities disk series.

2. A volunteer with a working knowledge of telecommunications programs is needed to test, assemble and annotate Telecommunications disks for the Mac.

If you can write, have a fair knowledge of the Mac and can spare 10 to 30 hours a month please contact Dave Weikert at (301) 948-9646 (metro area) or the telephone number listed in the masthead (suburban Maryland).

New System/Finder Release

Apple has released a new four-disk set containing, among other things, System 4.2, Finder 6.0, Laser Print Driver 5.0, Multifinder 1.0, Font/DA Mover 3.6, and a Background Laser Printing Spooler. You may optionally use the Multifinder environment or the standard Finder. Multifinder and Background Laser Printing really need more than 1 meg of RAM in which to work and will permit you to have several applications "co-processing" and available for use at the flick of a mouse. Most Apple dealers can upgrade your Plus, SE or II with 2 1-meg CMOS SIMMS's for about $459, using your WAP membership card.

This is a significant upgrade and WAP will sell the four-disk set for $20 ($5 per disk) beginning 11/28/87. The four-disk set plus documentation retails for $49.95 when bought at a dealer.

This Month's New Disks

Folder information, where appropriate, is parenthesized, programs and files are printed in bold with shareware price information printed in bold italic print. Once again we remind you that our current issuances have not be tried out against the newest System 4.2/Finder 6.0 and MultiFinder environments. So, be patient if you have this latest system and "problems" develop; newer versions are anticipated to be compatible with the latest Apple System/Finder.

Mac Disk 125: Sounds IV

Sound, sounds, sounds and sounds. These are large files so there was room on the disk for only four of them. Other sound utilities are on Mac Disk 102 (SuperPlay, SoundPlay and SoundPlay.da) or you can make them into beepsounds or startup sounds with the INITS on Mac Disks 99 (BeepInit), 109 (SoundInit) and 120 (BeepInit, a SoundInit).

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Apollo 11 - The Eagle Has Landed From the Apollo 11 mission, the full version of the communications that we all waited to hear (it still brings tears to our eyes).

Apollo 11 - Short Landing The short version of the Apollo Lunar mission communications.

Burp Another startup sound or beep sound.

Larry's StartupSound Larry Halff recorded this startup sound with SoundCap (now SoundWave) for his own use but was convinced (actually conned) to donate it to the library.

Mac Disk 126: DAs XIV

(Printer Wheel *f*) **Printer Wheel** A calculator which helps you figure the percentage enlargement or reduction necessary to fit a graphic into a specific space. **Printer Wheel docs** tells you all about it. Printer Wheel is a Desk Accessory that installs itself when you open it.

(QDial 1.6 *f*) **QDial 1.6** Redials in the background up to 5 BBS' polling them continuously until one is reached. **QDial Docs** is a comprehensive eight page description of the DA and its use.

(reset.DA *f*) **Reset** Sends a software reset command to the LaserWriter. The **reset.doc** describes why you may want to do that.

(Rolodex *f*) **Rolodex** A DA phone list like Bill Atkinson's QuickFile (Rolodex) application. **RoloHints** are docs. ***Shareware - $5; $25 for source code.***

(SafeLaunch 2.2 *f*) **SafeLaunch 2.2** Allows direct transfers between applications without first returning to the finder. The **I'd Read This If I Were You!** file updates the version 2.0 documentation ***Shareware - $5.***

Scrap2Lib Used with PictureBase to create or append the contents of a Scrapbook file to a PictureBase Library.

(Screensave+ *f*) **Screensave+** A screen idle for the Mac Plus with a selectable delay time until idle but with no animation or illustration; the cursor remains as a reminder that the Mac is on. **ScreenSave** (by John Dunce) is the version for the Mac 128K or 512K (each with the 64K ROMs). The **ScrnSvDox** tells all about it. ***Shareware - Contributions accepted.***

Setsound1.3 Permits you to change the speaker sound volume from within an application.

(SkipFinder 6.2 *f*) **SkipFinder 6.2** Puts up a minifinder that allows you to switch to another applications quickly without having to return to the finder each time an application is quit. **Small SkipFinder 6.2** and **StartSkip 1.0** are included and described in **skipfinder.txt.**

(Stars 1.8 *f*) **Stars 1.8** A screen saver idle screen with a receding or accelerating screenfull of stars. Colin Povey, one of our members, relates his experimentation with Stars 1.6 in **Stars.doc**. Thanks Colin.

(Super Ruler 1.1 *f*) **Super Ruler 1.1** Allows screen objects to be measured at different resolutions. **Super Ruler.doc** describes it. ***Shareware - $10.***

(§uperHelp+ *f*) **§uperHelp+** Two screens of help hints for SuperPaint. **SuperHelp Docs** tells how to install them into SuperPaint instead of your System file.

(Time Logger 2.11 *f*) **Time Logger 2.11** A DA to keep track of time spent on the Macintosh, by client and client code, computing the minutes of time spent and billing at any rate specified. The **Time Logger INIT 1.1, Time Logger INIT 1.46,** and the **Run Time Logger FKEY** files are discussed in the **Time Logger DA Doc**, a 16-page description of the DA and its use. ***Shareware - $15 for disk with documentation and other shareware and freeware.***

TimeOut.acc A "Breakout" game with a timer and variable speeds.

Toggle <> 1.3 Toggles the "<" and ">" keys to the "," and "." for those of you who want a typewriter style keyboard response when the shift key is depressed.

Transfer 2.1 Permits you to switch from one application to another application without returning to the Finder. Does not work with all applications, especially MS Word.

Translator Converts MacWrite 4.5 files to text files. Make a backup copy first since it makes the transfer without renaming the document. ***Shareware - $3; $5 for source code.***

UnPack.DA Unpacks files packed with Packit.

ValCalc •**CALC** An attractive calculator with a variety of features including a calendar.

Mac Disk 127: Paintings VII

This disk contains a series of MacPaint compatible files. There are several startup screens for the naturalist: **BlkMosSem, CougarSS,** and **SwansSS.** For the two to eighteen wheel set **Harley SS,** and **MacTruckSS.** All of the preceding have been generated as he describes in the **Read This 1st!** file. A number of scanned images of photographs taken in Spain include **Alhambra, Great Mosque** (image found only to the far left of the screen), and **Lion Fountain.** Several scanned photographs of Incan and Peruvian locations are **Cave, Convent 1, and Ruins.** Other MacPaint offerings include **Black Beauty, Moon, Eagle.pnt, and mandala.** Any painting may be converted into a startup screen by running the ScreenMaker utility on Mac Disk #2, renaming the resulting file to StartupScreen and placing it into the system folder of the boot disk.

Mac Disk 128: Fun & Games XXVI

AirTraffic Controller 3.0 An upgraded version of the air traffic control simulator originally released on Mac Disk #106. The object is to guide all of the aircraft in your sector safely to their destinations within the time constraints imposed on your "shift." You have a radar screen and status and command panels for monitoring and controlling the headings and altitudes of a steady succession of aircraft entering and exiting your sector. The level of difficulty for each session can be varied by altering the number of aircraft, the minutes to complete your shift, the number of airports, and the required altitude and distance separations.

Battleship Here's Battle Mac v1.0, a Macintosh version of the game you used to play in the car with graphpaper and pencils. You can decide the positions of your five ships on the grid, or you can let the computer produce a random distribution. Play against a friend or the Mac. Take shots by simply placing the pointer over a square on your opponent's map grid and clicking the mouse button. The author promises that registered users will receive notice of an upgraded version that will allow you to play against an opponent over an AppleTalk network or a telephone modem. (You will also be able to chat and transfer files at the same time you're playing.) ***Shareware - $5.***

Faulty Towers of Hanoi Figure out a way to move your pile of "disks" from one platform to another, using the three on-screen platforms to move individual disks one at a time. You can watch

contd.

the computer do it for you at any of several speeds (including a "Cray simulation" that performs the task instantaneously) or you can work the puzzle yourself. You can vary the level of difficulty by specifying the number of disks in the pile. The computer keeps track of the time and the number of moves needed to complete the puzzle.

Monopoly v4.02 A computerized version of the famous board game. This one allows two to seven players, and you can play against the Mac by typing "Computer" when asked for the players' names. You can vary the rules regarding the collecting of fines in Free Parking, the auctioning of unwanted properties, and the charging of mortgaged property owners. The computer performs all transactions; calculates net worth; and shows who owns what, lots for sale, mortgaged lots, and information about individual lots. You can save games in progress (a nice feature at 2:00 in the morning), and keyboard commands are available. One point of temporary confusion, you have to press the Return key after you land on the Community Chest or Chance spaces. The game suffers from lack of color and insufficient space on the screen board to show the names of the properties. On the other hand, it's nice not to have to worry about the banker cheating! ***Shareware - Small Contribution Greatly Appreciated.***"

(BJT v2.1a *f*) **BlackJack Trainer v2.1a** Improve your BlackJack game with this program based on the "Basic Method" of Lawrence Revere. The program shows your hand and the dealer's hand and gives you four choices double, hit, stay, or split. After you make your choice, the program tells you what you *should* have done and keeps a running record of the percentage of correct choices. The screen graphics are primitive and somewhat "buggy." Check the "Background Info." under the BlackJack Trainer menu for information on the program. ***Shareware - $10.***

Mac Disk 129: Telecommunications V

This telecommunications disk brings you the LegalTerm™ for LEXIS® and LegalTerm™ for WESTLAW® programs that facilitate access to these two legal data bases. As quoted from the September 1987 *Washington Apple Pi Journal,* President's Corner, by Tom Warrick, "I can tell you from personal experience that LegalTerm™ is fabulous". To complement these two offerings, we also have an update to the popular FreeTerm, a very good starter telecommunications program for beginners or for those with a limited amount of disk space.

(LegalTerm™ for LEXIS® *f*) **LegalTerm™ for LEXIS®** Both the desk accessory and standalone application provide access to the Mead Data Central LEXIS® legal data base using the familiar Mac interface. The Desk Accessory version gives access to LEXIS® from inside another application such as a word processor so that your do not have to leave your place to research a case. LegalTerm™ for LEXIS® includes all of the most commonly used buttons on the Deluxe and Ubiq terminals, represented by on-screen buttons that work just like their LEXIS® terminal counterparts. These buttons are provided for your convenience. You may still use typed commands if you prefer. Menu items provide access to all the other functions on a dedicated LEXIS® terminal as well as two special printing functions. The **LegalTerm™ for LEXIS® Doc** is the comprehensive manual while the **LEXIS Flyer (Write)** is a descriptive summary of features. ***Shareware - $30.***

(LegalTerm™ for WESTLAW® *f*) **LegalTerm™ for WESTLAW®** You can access the West Publishing Company WESTLAW® legal data base using the familiar Mac interface using either the desk accessory or standalone application. The Desk Accessory version gives access to LEXIS® from inside another application. LegalTerm for WESTLAW® provides all of the most commonly used buttons on the WALT® terminal, represented by on-screen buttons. The buttons work like their WALT® terminal counterparts. Typed commands may also be used. The other functions performed by buttons on the WALT® terminal are accessed through menu items in the LegalTerm™ menu. A comprehensive manual and descriptive summary are provided by **LegalTerm™ for WESTLAW® Doc** and **WESTLAW Flyer (Write)** respectively. ***Shareware - $30.***

(FreeTerm 2.0 *f*) **FreeTerm 2.0** This simple terminal emulator supports ASCII file transfers. The XMODEM protocol is supported as it the Macintosh MacBinary II format. It will work on asynchronous communications devices that support data transfer rates from 300 to 57600 baud. If you have a Hayes-compatible modem, there is support for auto-dialing and hang up commands. The **FreeTerm 2.0 Doc** describes all of its features and lists a number of the XMODEM error messages.

And, Introducing the DA Series...

Mac Disk 2.01: DAs 1

Abacus, ABCcalc, AmortDA.acc, Analog clock, Analyse 1.2, Animator, Appointments, AreaCode, Art Browser 1.0b6, Artisto+2.01, ASCII, Auto Dial, Autolog 3.0, BackDown/Delta+2, Bagels, Beacon DA and Big Ben.

Mac Disk 2.02: DAs 2

BlackJack, Bouncy, Bricks, BugOut DA, Calc. RPN, Calendar 1.7, Calendar v2.2, Call -151, Camera, Casio.da, Change Font DA. 1.03, Charger 1.1, CheckSum, Chime1.0, Choose ScrapBook+, Clicker, Clipper DA 1.0b2, ClipPrint DA 1.1, Clock, Collapse, Commander 2.0, Comments, Compact1, Compact2, Compress It, ConCode 1.5, confineDA, Control Panel Plus 0.85, Coordinates, CopyFile, Crabs2, CrashFix, CRAY5A.BIN and CScan.

Mac Disk 2.03: DAs 3

Cube, DA Book, DAFile, DAFont2, Daleks DA, DAMenus, Delay, DePICTer v1.61, DeskZap 1.3, DevTools 2.0, Dice Roller, DirC, DiskInfo™ 1.45 + SICNs, DiskTop 1.2, Display Message, DisplayRLE, Doodle Pad, Double Apple, Dvorak3.0+, Envelope 1.0a4, Error, Extras and Fade to Black 2.0.

Mac Disk 2.04: DAs 4

FatMouse2, FFT 0.96, File Printer, File Splitter.DA, File Tools, File Utilities DA, FileCopy, FileFixer, FileMaster, FileStar (DA), FileTran, FixPic, FKEY Runner demo, FKeys, Flow, FolderMaker1.0, Font Grabber+, Font Sizer, formfeedDA, FrCalcDA, FrCalcHelpDA, Freemem, Fun House, Function Keys, Gabby, Get Comment DA, Gone Fishin', Grep-Wc 1.1, Halloween, Heap Picture, heap scan, HeapInfo, HelpDA and HFS Find.

Mac Disk 2.05: DAs 5

Icon Maker 2.1, Idle, Illust.DA, KeyMouse, KnockOut, LabelMaker, Laser Envelope DA, Launch, Load Keyboard 1.0, Loca-

contd.

tor, LockOUT™ v1.2, LoftyTime, Lookup DA v1.00, Mac's Headroom, Macros.Demo, Macster Mind, Maxwell 2.2a, McSink.da, Measles, MegaCalculator, MegaWatcher, Mem Watch DA, Memory Monitor, MemroMeter, MemScan and Menu Time.

Mac Disk 2.06: DAs 6

MenuFonts™ v1.0 DEMO, MenuMaster, Message DA, Mickey Mouse Clock, Mini Sci Calc, miniDOS, miniWRITER™ 1.39, MockPackage+ 4.3.4, Moire, Molasses and Mouse-o-Meter.

Mac Disk 2.07: DAs 7

Mouseprint, mPCv01, MultiScrapbook, MultiCounter, MW 4.5 Counter.DA, New Idle1, New Scrapbook 2.0, NumCaps, Other...3.09, PagerDA, Paint Grabber, ParmBlaster, pattern mover, Periodic Table, Piczle, PocketDA, Poker Game, Poly, Popup 1.0, Port Watcher 1.0, PostScriptDA, Preferences 1.01 and ProCount.

Mac Disk 2.08: DAs 8

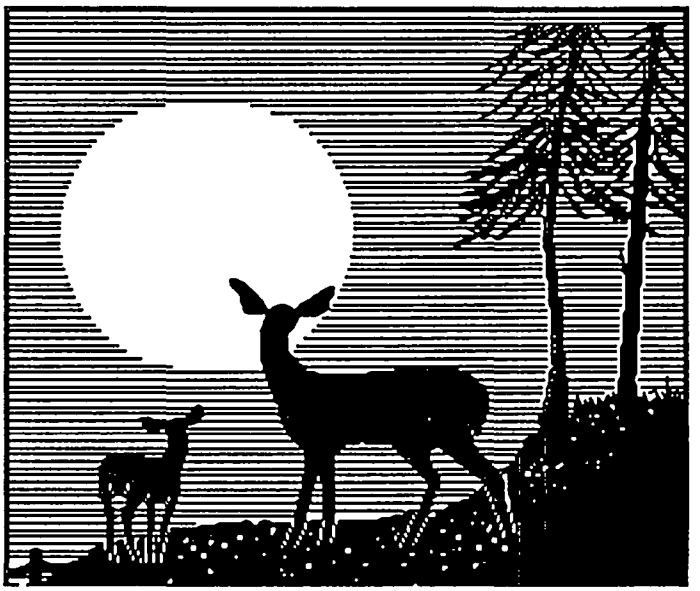
ProgCalc, push, QDial 1.6, RasNIX, Rays, Reader 1.06, Read-MacWrite, reset.DA, ResPeek DA v2.03, Rolodex, Rubik's Cube, Ruler, SafeLaunch 2.2, Saviour1+, Scrap2Lib, Screen-Save, Screensave+, ScreenSaver_DA, Scribbler 1.00, ScrnToLife3 DA, Seek 'n Destroy, SegWatcher, Set Paths 1.3, SetMenuFlash 1.1, Setsound1.3, Show Clipboard, SkipFinder 6.2, Sleeper, Small SkipFinder 6.2, Sort and Sort DA.

Mac Disk 2.09: DAs 9

SoftDisk DA, SoundPlay, SpiralsDA.acc, StackSniffer 1.0, Stars 1.8, Stars II, Stuffclip, Super Ruler 1.0, §uperHelp+, Tab Expander DA, TalkingKeys 1.0, Talking Moose 1.21, TeaTime, Telegraph, Text Bender 0.95p, TheBox and Tiler 1.1.

Mac Disk 2.10: DAs 10

Time Logger 2.11, TimeOut.acc, Timer v1.2, Toggle <> 1.3, Trails, Transfer 2.1, Translator, Traplist, UnitConversions, UnPack.DA, Uriah heap, Utilities V2.0, Utils, ValCalc •CALC, Vimode, vt52, Window DA, Wind•ws, WNTranslator.DA 1.60, Word Count V3.0, Word DA, World time, Wrap, WRD3KPAD, WXModem, XL Screen, Zoom DA, ZoomDA, ZoomIdle 1.1, µPaint and 3D Tic Tac Toe.



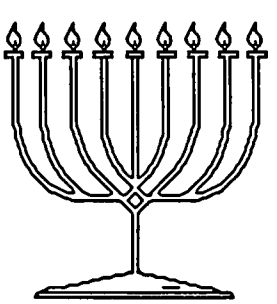
WAP Tutorials cont. from pg 90

packages on MS-DOS machines. Versions are now available for the Apple II family. Please bring your IIgs, a copy of WordPerfect and a blank disk.

"Disk and File Recovery for the Apple II" - Lee Raesly

Saturday, Jan. 30, 9 a.m.- 12 noon.

Ever delete a file but wish that you had not? Do you have a disk which holds valuable files but you get errors when you catalog it? This course will teach you how to bring files back from the grave. Please bring your Apple II and a sample of your disk graveyard.



WASHINGTON APPLE PI DISKETERIA MAIL ORDER FORM

This form is only for ordering disks that you want mailed to you.
5 1/4" Diskettes (all except IIgs & Mac): - Members $ 5.00 each; Non-members $ 8.00 each, Plus $1.00 each postage up to a maximum of $ 5.00.
3 1/2" Diskettes (IIgs & Mac): - Members $ 6.00 each; Non-members $ 9.00 each, Plus $1.00 each postage up to a maximum of $ 5.00.
A $1.00 per disk discount on the above prices is offered for orders of 5 or more disks. Postage remains as above.

DOS 3.3 Volumes

( ) 41 IAC 25 Mach. Lang. Util.
( ) 42 One Key DOS
( ) 43 IAC 29 Utilities H
( ) 44 Utilities I
( ) 45 Diversi-Copy
( ) 46 French Vocab. Tutorial
( ) 47 Tic-Tac-Toe in French
( ) 48 Boot for l'Hote
( ) 49 l'Hote Story
( ) 50 l'Hote Quiz
( ) 51 French Poetry Tutorial
( ) 52 Apollinaire Biography
( ) 53 Albert Camus Interview
( ) 54 Tic-Tac-Toe in Spanish
( ) 55 Rafel-Boot
( ) 56 Rafel
( ) 57 Rafel Quiz
( ) 58 Matute
( ) 59 Lo Fatal
( ) 70 Business/Math/Statistics
( ) 71 Music
( ) 72 Keyboard Games
( ) 73 Text Adventure Games
( ) 74 Paddle Games
( ) 75 Color Graphics for Fun
( ) 76 Education
( ) 77 Utilities
( ) 90 Spreadsheet C Genl. Bus.
( ) 91 Spreadsheet D Investment
( ) 92 Spreadsheet E Bus. Recd.
( ) 93 VisiPlot & VisiTrend
( ) 95 Spreadsheet F-Coin Coll.
( ) 100 Utilities A
( ) 101 Utilities B
( ) 102 Games A
( ) 104 Business A
( ) 106 Science Engineering
( ) 107 Games B
( ) 108 IAC 10 (Graphics)
( ) 109 IAC 11 (Applesoft Tutrl.)
( ) 110 Personal/Education
( ) 111 Games C
( ) 112 Utilities C
( ) 113 Business B
( ) 115 IAC 12/13 Misc.
( ) 117 Picture Packer
( ) 118 Utilities D
( ) 119 IAC 15 Misc.
( ) 120 IAC 16 Misc.
( ) 122 IAC 17 Misc.
( ) 123 French Vocabulary
( ) 124 Utilities E
( ) 125 IAC 18 Misc.
( ) 126 Sights and Sounds
( ) 127 Math/Science
( ) 128 Games D
( ) 130 Diversi-DOS (rev.)
( ) 131 Personal/Educ. 2
( ) 132 IAC 19 - Utilities F
( ) 133 IAC 20 - Pascal & DOS3.3
( ) 137 IAC 21 Spreadsheet A
( ) 138 IAC 23 Utilities G
( ) 139 IAC 24 Education 3
( ) 140 Education 4
( ) 141 Special Data Bases
( ) 142 IAC 28 Pinball Games
( ) 143 Sports
( ) 144 IAC 27 Applesoft Prog.
( ) 145-147)3 disks)Ap.Logo Util.
( ) 150 EDSIG1 (Elem. Math)
( ) 152 IAC 31 Miscellaneous
( ) 153 Investments A

DOS 3.3 contd.

( ) 154 Investments B
( ) 155 IAC 33 Miscellaneous
( ) 156 IAC 35 Applesoft-AW//e
( ) 157 IAC 36 Arcade Games
( ) 158 Apple Logo Programs
( ) 159 Recipe Files
( ) 160 Utilities & Games
( ) 161 Wizard Worker
( ) 162 Games E
( ) 163 Graphs and Displays
( ) 164 Games F
( ) 165 Happy Holidays
( ) 166 Charts and Graphs
( ) 167 IAC 40 - Pilot Lang.
( ) 168 IAC 41&47 - AW Util.
( ) 169 Hayes Term. Prog.
( ) 170 Love's Follies (Utilities)
( ) 171 Cat-Graphix
( ) 172 Print Shop Graphics
( ) 173 Riley's Pers. Instrum.
( ) 174 Imageworks
( ) 175 No Name Yet
( ) 500 Master Catalog Listing
( ) 501 Util.-Beginner's Choice
( ) 502 Util.-Intermediate User
( ) 503 DComm
( ) 504 Database - LOGIC

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( ) 181 Beginners Cave
( ) * 182 Lair of Minotaur
( ) * 183 Cave of the Mind
( ) * 184 Zyphur Riverventure
( ) * 185 Castle of Doom
( ) * 186 Death Star
( ) * 187 Devil's Tomb
( ) * 188 Caves of Treas.Isl.
( ) * 189 Furioso
( ) * 190 The Magic Kingdom
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( ) * 192 Lost Isl. of Apple
( ) * 193 Abductor's Quarters
( ) * 194 Quest for Trezore
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( ) * 197 Horgrath Castle
( ) * 198 Deathtrap
( ) * 199 The Black Death

Note: Eamon disks 200-229 are also available. See previous month's order form.

ProDOS Volumes

( ) 802 Utilities (A)
( ) 803 Filecabinet
( ) 804 Shareware
( ) 806 ZAP
( ) 807 Imageworks
( ) 808 Comm-Term
( ) 809 '86 Tax Tmplate-AW
( ) 810 Haunted House
( ) 811 Adventures Disk
( ) 812 Toddlers and Kids
( ) 813 TAWUG-1
( ) 814 TAWUG-2
( ) 815 TAWUG-3
( ) 816 TAWUG-4
( ) 817 Telecom

Pascal Volumes (See also 133)

( ) 300 PIG0:ATTCH 1.1/BIOS
( ) 301 PIG1: ( ) 302 PIG2:
( ) 303 PIG3: ( ) 304 PIG4:
( ) 305 PIG5: ( ) 306 PIG6:
( ) 307 PIG7: ( ) 308 PIG8:
( ) 309 PIG9 ( ) 310 PIG10:
( ) 311 PIG11: ( ) 312 PIG12:
( ) 313 PIG13: ( ) 314 PIG14:

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( ) 401 Master Catalog
( ) 402 Utilities 1
( ) 403 Communications
( ) 404 Utilities 2
( ) 405 Utilities 3
( ) 406 ZCPR2 Install
( ) 407 ZCPR2 Documentation
( ) 408 ZCPR2 Utilities
( ) 409 Modem 730
( ) 410 Essential Utilities
( ) 411 Text Editor
( ) 412 Spreadsheet
( ) 413 MDM740(SSC&Com)
( ) 414 MDM740(7710&A-Cat)
( ) 415 Orig. 350 Pt.Adventure
( ) 416 Kermit Source Code
( ) 417 Kermit Documentation
( ) 418 Kermit Running Code
( ) 419 Util.-Z83,REZ,VDE
( ) 420 Small "C" Compiler

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( ) 1001 Games Volumes 1 & 2
( ) 1002 Basic Utility Vol. 1
( ) 1003 Basic Utility Vol. 2
( ) 1004 Sys. Utils & Data
( ) 1005 New Member Disk
( ) 1006 Word Proc. & WPL
( ) 1007 Games for Kids
( ) 1008 The Best of MAUG
( ) 1009 The Best of the Source
( ) 1010 The Best of TAU
( ) 1011 D3. Backup
( ) 1012 Sketchpad&Slideshow

Apple IIGS Volumes @ $6

( ) 2001 Utilities & Pictures A
( ) 2002 Demo Disk A
( ) 2003 Freeterm
( ) 2004 Slide Show I
( ) 2005 Demo Source Code 1
( ) 2006 Demo Source Code 2
( ) 2007 M18 Courses
( ) IIgs Systems Disk

Macintosh @$6

( ) 17.3a Red Ryder 9.2
( ) 17.2b Red Ryder Doc.
( ) 31.1 Dun.Doom/Eliza Talks
For disks 32-42 see Sep. Jrnl.
( ) 44 Boston II Fonts
( ) 45 Games IV
( ) 46 Games V
( ) 47 Fonts IV
( ) 48.3 Fonts V
( ) 49 Utilities IV
( ) 50 Paintings III
( ) 51.2 Telecom II (no sys)
( ) 52.1 Utilities V
( ) 53 Utilities VI
( ) 54 Games VI
( ) 55 Games VII

Macintosh @$6 contd.

( ) 56 Games VIII
( ) 57.1 New Memb. Disk 86
( ) 58 Desk Accessories IV
( ) 59.1 CE Sampler II
( ) 65 Desk Accessories V
( ) 66 Desk Accessories VI
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( ) 92 Education II
( ) 93A & ( ) 93B Fonts VI
( ) 94 Paintings IV
( ) 95 Fun & Games XX
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( ) 98 DAs IX
( ) 99 Inits I
( ) 100 Fonts VIII
( ) 101 Fonts IX
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( ) 103 Utilities XVII - W.P.
( ) 104 Fun & Games XXII
( ) 105 Fun & Games XXIII
( ) 106 Fun & Games XXIV
( ) 107 DAs X
( ) 108 Fun & Games XXV
( ) 109 Sounds II
( ) 110 Fonts XI
( ) 111 Sounds III
( ) 112 Utilities XVII
( ) 113 Fonts XII
( ) 114 DAs XI
( ) 115 Telecom IV
( ) 116 DAs XII
( ) 117 Utilities XIX
( ) 118 Paintings V
( ) 119 Utilities XX
( ) 120 Inits II
( ) 121 Utilities XXI
( ) 122 DAs XIII
( ) 123 Graphics II
( ) 124 Paintings VI
( ) 125 Sounds IV
( ) 126 DAs XIV
( ) 127 Paintings VII
( ) 128 Fun & Games XXVI
( ) 129 Telecom V

DAs Series: (entire set $35)

( ) 2.01 ( ) 2.02 ( ) 2.03
( ) 2.04 ( ) 2.05 ( ) 2.06
( ) 2.07 ( ) 2.08 ( ) 2.09
( ) 2.10

( ) New System 4.2 and Finder 6.0 Set of 4 disks - $20

*Vol. 181 required with these disks. Date: _____

Note: Allow 2-3 weeks for mailing. Total Order = ____ Disks; Postage $_____; Total Amount Enclosed $_____.

NAME: _____

ADDRESS: _____

CITY, STATE, ZIP _____

Make check (U.S. funds on a U.S. bank.) payable & send to:

Washington Apple Pi, Ltd.
Attn. Disketeria
8227 Woodmont Avenue, Suite 201
Bethesda, MD 20814

Telephone _____

WAP Membership No. _____

WAP TUTORIAL REGISTRATION

Apple II: The following three WAP tutorials are being offered to Apple II owners on the first three Tuesday evenings of the month from 7:30 to 9:00 PM, at the office, 8227 Woodmont Ave., Bethesda, MD. We are experimenting with alternating the 1st two sessions between Apple IIgs and other Apple II. (The tutorials start promptly at 7:30; if you bring your computer please arrive 15 minutes early to set up.) You may sign up for any or all of the series. They are designed for the "beginner" and will be repeated monthly. The fee for each session is $10.00. You are urged to bring an Apple, monitor and disk drive. (Monitors are available for the 1st 5 registrants - call office.) Please note that WAP does not have equipment for you to use; if you do not bring your own, you will have to look over someone's shoulder.

( ) December 1 (IIgs specific) - **WELCOME TO THE WORLD OF APPLE** ( ) January 5 (//e and //c specific)
( ) December 8 (IIgs specific) - **HOW TO USE YOUR APPLE SOFTWARE** ( ) January 12 (//e and //c specific)
( ) December 15 - **POPULAR APPLICATIONS: APPLEWORKS** ( ) January 19

Macintosh: Tutorials for the beginners are regularly given on the 2nd, 3rd and 4th Monday evenings of the month at the office, from 7:15 - 10 PM. The fee for each session is $10. You may sign up for 1, 2, or all 3 sessions. You are strongly urged to bring your Macintosh—WAP does not have equipment for you to use. These tutorials fill up quickly - call the office to verify space before mailing in your registration.

( ) Monday, December 14 or ( ) January 11 - Introduction to Macintosh . Prerequisite: Guided Tour to Macintosh.
( ) Monday, December 21 or ( ) January 18 - Intermediate Mac Skills. Prerequisite: Familiarity with Desktop, disk copying, etc.
( ) Monday, December 28 or ( ) January 25 - Personalizing Your Mac for Productivity. Prerequisite: First two sessions or equivalent.

Non-Regular Tutorials: The following tutorials are being offered in the next two months. The fee for these tutorials is $15 ($20 for non-members). A more detailed description is given elsewhere in this publication or was given in a previous month.

( ) **Introduction to Word 3.01 - Leon Moore and Rochelle Long - Saturday, December 5, 1 - 3 pm, Office.** Fee $15 ($20). Hands-on experience. No prior knowledge of Word required, but familiarity with Mac assumed. Bring Mac and Word. Requires 1-800K drive or 2-400K drives. Come 15-30 min. early for setup. Limit 12.

( ) **Introduction to HyperTalk - Rick Chapman - Saturday December 19, 1 - 4 pm, Office.** Fee $15 ($20). Prerequisite: know how to paint, author text, cut & paste buttons and fields. Bring Mac, HyperCard and a blank disk.

( ) **WordPerfect 2.0 for the IIgs - Lee Raesly - Saturday, January 9, 9-12 am, Office.** Fee $15 ($20). Learn this popular word processing program. Bring your IIgs, WordPerfect and a blank disk.

( ) **Disk and File Recovery for the Apple II - Lee Raesly - Saturday, Jan. 30, 9-12 am, Office.** Fee $15 ($20). How to bring back files from the grave. Bring your Apple II and a sample of your disk graveyard.

Please check the desired tutorials and return this form with fee(s) made payable to Washington Apple Pi, Ltd. to:

Washington Apple Pi, Ltd.
Attn. Tutorials
8227 Woodmont Avenue, Suite 201
Bethesda, MD 20814

Name _____ Membership No. _____

Day phone _____ Eve. phone _____ Total Enclosed $ _____

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New VERSION 1.1

THE NEW YORK TIMES:

"MicroPhone is a breakthrough in communications software..."

LOS ANGELES TIMES:

"The program is more sophisticated and easier to use than any...on either the PC or the Mac."

MACWORLD:

"...brings together the best traits of every Mac communications program."

INFOWORLD:

"MicroPhone is the easiest communications package we've seen."

With reviews like these who needs advertising?

They say the best advertising is word of mouth. So we're reprinting some of the multitude of words that have already been said about MicroPhone communications software for the Macintosh.

And what they're saying, universally, is that MicroPhone—created by Dennis Brothers—has far outdistanced all its predecessors. That for the novice, MicroPhone is the simplest telecom software ever devised. That for the expert, MicroPhone is the most powerful.

On-line for the lazy.

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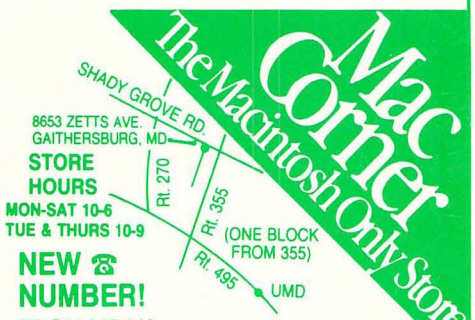

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