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# Washington Apple Pi



The Journal of Washington Apple Pi, Ltd.

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Number 11

## Highlights

- Beginner's Start at the IIGS Finder
- I Love Apple Music: Part 6
- Disk /// Backup
- ☐ Laser Printing & Mac Typesetting
- ☐ A View of Big Blue
- ☐ You're Going to Love These! (Suitcase, PowerStation, Pyro)

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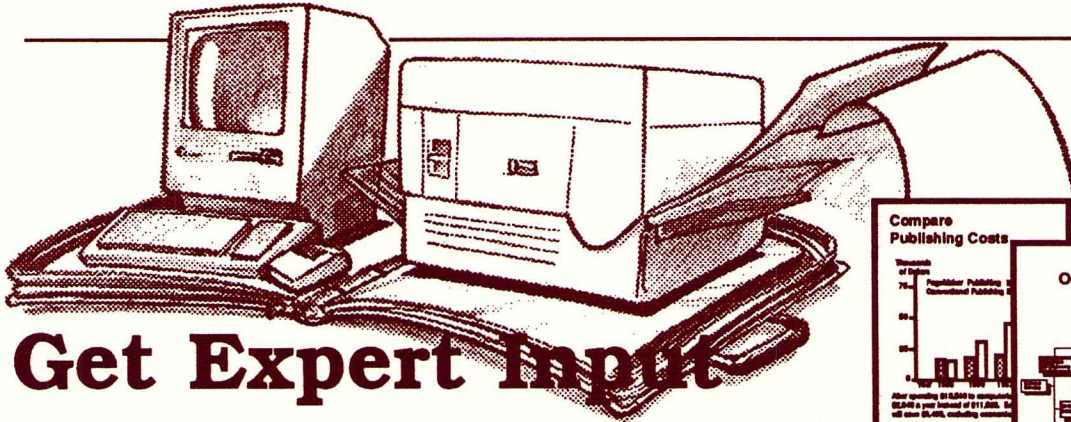
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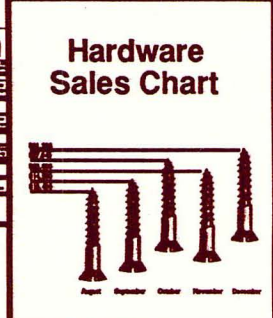
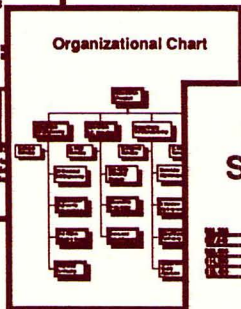
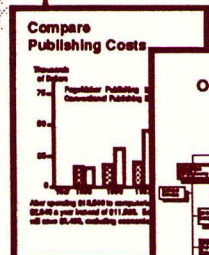
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Clinton Computer was founded in 1978 by co-owners Art Lundquist and Chuck Perilli. It began as a two-man consulting firm and has grown into a multi-million-dollar retail business.

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## Columnists:

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## Washington Apple Pi, Ltd.

8227 Woodmont Avenue, Suite 201

Bethesda, MD 20814

Business Office (301) 654-8060

Telecommunications System (301) 986-8085

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# EDITORIAL

The difficulty of preparing issues of the Journal varies from month to month. Some are easy and everything goes smooth as silk. Others require 4-wheel drive and jackhammers. This one was difficult. Strange problems with MacDraw Pict images which are still haunted, e.g. David Morganstein's Hardviews title, and problems with formatting Apple /// text files converted to MacWrite by means of Mac Passport. One never knows what the problems will be and what workarounds may work. But that is the challenge and the fun of it as well. All you aspiring publishers should not be fazed by any of this. Try it with both hands and feet and work within some deadlines. You will like it.

To improve our procedures and throughput, we are moving to

upgrade our system. First, the LaserWriter+ will be scheduled for a ROM transplant v47 of Postscript as soon as possible. They say we can realize a 40 percent increase in speed of processing bit-mapped images. We surely can use that! Next, an accelerator card, possibly a Radius, with the 68020 but not the 68881. Scott Knaster says that the floating point coprocessor is not used by QuickDraw and probably not by Postscript. He does not suggest a 68020 in the LaserWriter+ at this time because of that. In the Mac+, however, we should gain some improvements in speed, especially in conjunction with our next planned upgrade, CMOS SIMMS. We plan to bring the Mac+ up to 2.5 megs minimum, and will probably go for 4 megs. Finally, after the prices drop, we will look for a large screen, but until the prices do drop we will continue to suffer with tunnel vision. We'll keep you posted..☺



## PRESIDENT'S CORNER

by Tom Warrick



**Some Dealer Stories:** You may recall a few months ago, I told several stories concerning my law firm's acquisition of a few Macintoshes for some of our secretaries and attorneys. That series elicited a lot of interest from Pi members—people called me from as far away as Minnesota. So now that our firm has decided to buy twenty more Macintoshes—bringing our count to 31—I thought I would follow up with a few more stories of the small-business computer shopper.

This time, as before, we solicited bids from a number of authorized Apple dealers and VAR's. In our latest round of bidding, we found a new (for us) participant who made a very impressive showing: *FC Business Systems*, a subsidiary of Family Computers of Springfield, Virginia. They were as competitive in price as some of the area's other leading dealerships, including Clinton Computer, Discovery Data (of Fairfax) and Falcon Microsystems. In addition, we were particularly impressed by the candor and professional attitude of their salespeople.

At the other extreme, I was once again surprised by a number of dealers who showed no interest in the small-business marketplace. Some did so in the strangest ways. When we wrote all the prospective vendors, about a dozen in all, we got a call back from one of them, asking us what other firms we were contacting in our initial request for proposals. When we mentioned that one of them was Clinton Computer, this dealer said that he was not interested in competing for our business because he did not try to compete on price alone—he was a "full service" dealership. Needless to say, this came as quite a surprise to us—if there is anyone in the area who is a full-service dealership, it is Clinton. This was also our last conversation with that dealer.

Another dealership was in the running for the final contract until the moment they told us that even if we purchased on-site service contracts for our LaserWriter Pluses, the dealership would not, even for a premium price, agree to loan us a substitute LaserWriter if one of ours had to go in for repairs. The winning bidder, on the other hand, agreed to do so and got the contract in no small part because of that reason. Granted, this convenience to us carried a price, but given the cost of laser printers today, no one can afford to buy an extra one merely to have it available as a spare when a critical unit breaks down when we really need it. But neither can we afford to be short a key laser printer for more than a few hours when the printer needs repair—which, our experience shows, occurs only on days ending in "y." Price is not

everything, and flexibility in service arrangements is worth quite a bit to small businesses. A word to the wise?

Another observation I had is that dealerships whose sales representatives visited our offices seemed to do better than those whose salespeople did not come to our offices. As I have said before, many small businesses cannot have people visit computer dealerships to talk to a salesperson. Outbound sales forces are essential, and not just because Apple requires them of dealers who want to sell the Macintosh II. Even in the case of stores with primarily inside salespeople, it would not have hurt for the inside salesperson to visit his or her prospective customers, even if only to get a better feel for the customer's needs.

During one discussion with a sales manager for one dealership, our conversation turned to Washington Apple Pi. The sales manager said he thought his salespeople would benefit from attending Pi meetings—not just for the educational value of the programs themselves, but, just as importantly, from being able to hear what Pi members were saying. He recognized, however, that his people must not be seen as "pushy," because that would be counterproductive. I told him I thought he was very perceptive about the attitude of Pi members toward salespeople at Pi meetings. People recognize when someone is trying to sell them something, and that would clearly be viewed as inappropriate at a user group meeting.

I said, though, that if he wanted his staff to look at a salesperson with just the right level of visibility at Pi meetings, he should have his staff come and watch *Bob Fimiani of Falcon Microsystems*. For years, I suspect many Pi members in the government thought Bob Fimiani was Falcon Microsystems. Bob has recognized that two things make for an effective dealer presence at user group meetings: regular, low-key attendance and a willingness to help when he can, even when there is no prospect of an immediate sale. Bob, Pi member 4778, has been a regular attendee at Pi meetings for several years. On those few occasions when someone asks a question that stumps even *Jon Hardis* and *Marty Milrod*—particularly when the question is one concerning what Apple has or hasn't officially announced—Bob has often been able to supply the answer. After meetings, you can often find Bob part of a small group of people discussing the latest developments in the Macintosh market. Many of those people may end up being Bob's customers. Dealers and salespeople can play a constructive role in user groups, as illustrated by people like Bob and another Pi member, *Jonathan Paff*, branch manager of Clinton Computer's Rockville store.

**Large-screen monitors for the Macintosh II: a mini-review.** Two of the computers in our order were fully loaded Macintosh IIs. Shopping for Macintosh II monitors took a surprising amount of time during our computer acquisition, but we were glad we spent the amount of time we did. We started off by looking at the top-of-the-line 19" *Supermac* color monitor, but we were very disappointed with its picture, which lacked contrast and looked washed out next to the 13" *AppleColor* Hi-Res color monitor. The Apple color monitor is a real knockout—

contd.

one of the best peripheral devices Apple has ever produced. It uses a Sony picture tube, but even Sony's own 13" monitor looks second-class in comparison. The only problem with the Apple monitor is that it has a relatively high amount of glare, so you will have to be able to adjust the light in your room for best results. If you need color and can live with "only" a 13" monitor, I really recommend the Apple model, even if you have to wait for it.

Making a decision on color monitors turned out to be relatively easy, however, compared to shopping for monochrome monitors. Among monochrome monitors, we looked at the 19" *SuperMac* (thanks to Pi member *Don Webster* of Arthur Young in Reston), the 19" *LaserView*, the 17" E-Machines *Big Picture* and the *Radius Full-Page Display*. The SuperMac was good, but lacked the contrast of the E-Machines and the Radius. Also, the SuperMac monitor screen uses 80 dots per inch (dpi), compared to the native Macintosh screen, which has 72 dpi. This turns out to be a real problem when contrast is not good—periods and colons in particular became smaller and appeared to disappear from the screen when you weren't staring right at them. The Big Picture also uses 80 dpi, however, but its superior contrast made it a very good choice. I had heard that early Big Pictures were considered barely adequate, but E-Machines seems to have improved its act.

The LaserView was the strangest monitor we saw. It advertises two modes, one with something like 1,600 dots across the screen horizontally. Before you get overly impressed, go see one—this works out to 110 dpi. You practically have to press your nose against the glass of the monitor to see the characters. To get an idea of how small this is, imagine a square of 72 pixels on each side on the ordinary Mac screen—it would take up one square inch. On the LaserView, however 72 pixels would be 72/110 of an inch, so that a square of 72x72 pixels would be only 0.42 square inches.

Even more outrageous about the LaserView is their claim that they have another mode that gives you the original Macintosh resolution of 72 dpi. When I saw this in person, something seemed very strange about this—it seemed that everything was bigger than it was on my Mac Plus. When I saw the specifications, I found out why. The numbers they give for pixels on the screen in this mode work out to only 55 dpi, half the linear resolution of the high-resolution mode. This has the effect of making your 19" LaserView into a 14.5" monitor. (As my college math books used to say, "Proof of this is left as an exercise." Assume that the aspect ratio of a television picture tube is 4:3. Do you remember the smallest right triangle where all three sides are integers?)

When I realized the problem, I called up the manufacturer of the LaserView. I was referred to someone in sales, and when I told her what I thought about her monitor's "72 dpi mode," she insisted that the monitor did indeed use 72 dpi. I went through the math with her using the numbers in her ad, after which she said, "Just a minute, I'll have to check with one of our technical people." Long pause. Then she came back on the line and said, "Well, it appears you're right." "So you're going to change the ad, right?" "Uh, we'll have to see about that." ☞

## 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, beginning in the month joined. 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 (usually) of each month, both Apple and Mac, 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:

November 7 - Hypercard, Atkinson & Winkler  
November 28 - Mac: VideoWorks II, Mark Kanter  
- Apple II: Productivity II  
December 19\* - Garage Sale, Location TBA  
\* 3rd Saturday

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

### Special Meeting

Saturday November 7, USUHS  
9:00AM until ?

Bill Atkinson and friend(s) on HyperCard

Definite!

## CLASSIFIEDS

**WANTED:** Apple Writer II (DOS 3.3) program with complete documentation. (703) 893-5766, day or evening.

**FOR SALE:** For the Apple II - Transwarp card (\$150), Accelerator (\$140), Buffered Grappler 64K (\$90), Grappler (\$40), Multiram CX with 512K and software (\$130), Instant Pascal (\$100), Hayes Micromodem //c (\$100), AppleWorks 2.0 with manuals (\$150). Original boxes and manuals for most items. Daytime, 202-363-2342.

**FOR SALE:** Apple //e, 128K with: Apple DuoDisk; Street Business Card (2 serial ports and clock/calendar); Apple Mouse //c; Kensington System Saver; Apple Color Monitor; Imagewriter II printer; Dust covers; All manuals; Software. \$1500. Call 703-455-9019 after 6 PM.

**FOR SALE:** Mac 512e with 10MB Hyperdrive Hard Disk (very fast). Included Software: MacWrite, MacPaint, Switcher, Misc Shareware, MacTerminal, Hyper Backup and Disk Management Utilities. 800K internal disk, 400K external. Mac Plus keyboard and original keyboard. Also, Software for the Mac: DB Master, MacLion, Helix 2.0, Hayden Commercial Interiors and Hayden Building Blocks; Software for Apple //e: WordPerfect, State of the Art Accounting, BPI Time Accounting, AgDisk Farm Accounting, Landlord Rental Management S/W; Software for the IBM: State of the Art Payroll, Versaform XL Database. Call Greg Allen 301-732-9130 day or evenings.

**FOR SALE:** Cricket Draw (\$150) and Hard Disk Utility (\$45). In original shrink wrap, never opened. Warranty card included. Call Joe Klimek on (301) 299-5137.

**FOR SALE:** One 400K external drive for Macintosh. \$75. Call Eric McGrath at 703-494-3640 after 5 PM.

**FOR SALE:** ReadySetGo 4.0, NEW, with Registration Card. \$275. Call Joe Murray, days 301-595-2140 or after 5 PM 301-381-9121.

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

## COMMERCIAL CLASSIFIEDS

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## JOB MART

### HELP WANTED

**Graphic Designer to produce publication**—quality graphs of economic and statistical data on Mac II for large news organization. Must have microcomputer experience (preferably Macintosh); coursework or experience in data analysis (economics, statistics, public policy or market research); ability to work well under deadlines. Salary \$25,000, excellent benefits. Call Linda Stratman, Surveys Unit Manager, Bureau of National Affairs, Inc., (202) 452-4389.

**Architect-Developer seeks dynamic Administrative Assistant** with consummate Apple Mac Plus skills and familiarity with "Works" and "Turbo Maccountant" programs. Accounting experience a plus. Flexible hours, full or part-time (20 hrs/week min.) in Great Falls VA. Call Mr. Compton (703) 430-0060 day or night.

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**Institute Seeking Individuals with expertise in using desktop publishing software** on a Macintosh SE to produce a variety of publications from simple brochures to book length manuscripts. Production activities include: editing, proofreading, inputting copy, page layout, cover design and producing camera-ready copy on the Macintosh using an Apple LaserWriter Plus. Please send resumes to: Mark Odum, Publications Director, Georgetown University—NCEMCH, 38th and R Streets NW, Washington, DC 20057.

**Customer Support Manager Wanted.** DC-based software publisher with powerful new database management application needs your Mac talent! We seek bright, dedicated and enthusiastic Mac "techie" to establish and manage national customer services department. Must understand software support and be available to travel. Duties include customer interface and training programs, user group management and all technical support activities. Must possess strong Macintosh background. Exciting growth opportunity offers excellent salary potential with full company benefits. Send cover letter, resume and salary history to Pres., TPS, 1725 K Street NW, Washington DC 20006. No phone calls please.

**Consultant sought to provide high-quality, "quick-turn-around" day, night, and/or weekend off-site graphics support.** All work must be processed using a Macintosh computer. Artistic inclination, a keen eye for design, and ability to work under pressure is required. Work would be transmitted by courier to your location. Projects will be sporadic and have extremely short deadlines (possibly only a few hours, possibly overnight). Please contact Frank Grantham at 202-232-6261.

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# 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.

<b>Apple II</b>		
<b>General</b>	Dave Harvey (703) 578-4621 Robert Marün (301) 498-6074	
<b>Accounting Packages</b>	Mark Pankin (703) 524-0937	
Accountant(Dec.Sup.)	Jaxon Brown (301) 350-3283	
BPI Programs	Otis Greever (615) 638-1525	
Home Accountant	Leon Raesly (301) 439-1799	
Howardsoft (Tax)	Leon Raesly (301) 439-1799	
<b>APPLE SSC</b>	Otis Greever (615) 638-1525	
Apple TechNotes	Bernie Benson (301) 951-5294	
AppleWorks	Joe Chelena (703) 978-1816	
	Ken DeVito (703) 960-0787	
	Charles Baumgardner (703) 538-2316	
	Ken Black (703) 369-3366	
	Morgan Jopling (301) 261-3886	
<b>AppleWorks Data Base</b>		
<b>Communications Packages</b>		
ASCII Express	Dave Harvey (703) 578-4621	
XTALK CP/M Comm.	Bernie Benson (301) 951-5294	
<b>Data Bases</b>		
dBase II	Paul Bublitz (301) 261-4124	
	John Staples (703) 255-6955	
dBase II & III	Ray Hobbs (BBS) (301) 490-7484	
	Jim Kellock (day) (301) 986-9522	
	Leon Raesly (301) 439-1799	
Data Perfect	Leon Raesly (301) 439-1799	
PFS	Bill Etue (703) 620-2103	
	Ginny Spevak (202) 362-3887	
	John Staples (703) 255-6955	
<b>Q-Pro-4</b>		
<b>Hard Disks</b>		
Corvus & Omninet	Tom Vier (BBS) (301) 986-8085	
Corvus	Leon Raesly (301) 439-1799	
Sider	Jaxon Brown (301) 350-3283	
	Otis Greever (615) 638-1525	
<b>Languages (A=Applesoft, I=Integer, P=Pascal, M=Machine)</b>		
A	Louis Biggie (301) 967-3977	
A	Peter Combes (301) 251-6369	
A,I	Jeff Dillon (301) 422-6458	
A	Richard Langston (301) 869-7466	
A	Leon Raesly (301) 439-1799	
A,I,M	Richard Untied (609) 596-8816	
A,I,M	John Love (703) 569-2294	
M	Ray Hobbs (BBS) (301) 490-7484	
P	Michael Hartman (301) 445-1583	
Forth	Bruce Field (301) 340-7038	
<b>Operating Systems</b>		
Apple DOS	John Love (703) 569-2294	
	Adam Robie (301) 460-6537	
	Richard Untied (609) 596-8816	
CP/M	Ray Hobbs (BBS) (301) 490-7484	
	Leon Raesly (301) 439-1799	
ProDOS	Leon Raesly (301) 439-1799	
	John Love (703) 569-2294	
Print Shop	Thomas O'Hagan (301) 593-9683	
Newsroom	Carol Thomas (301) 424-1266	
Spreadsheets	Leon Raesly (301) 439-1799	
	Walt Francis (202) 966-5742	
VisiCalc	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	
<b>Word Processors</b>	Walt Francis (202) 966-5742	
Apple Writer II	Dianne Lorenz (301) 530-7881	
	Leon Raesly (301) 439-1799	
	Harris Silverstone (301) 435-3582	
Gutenberg	Neil Muncy Can. (416) 298-3964	
Gutenberg & Jr.	Leon Raesly (301) 439-1799	
Letter & Simply Perfect	Joyce C. Little (301) 321-2989	
Magic Window and II	Jim Graham (703) 643-1848	
Apple PIE	Peter Combes (301) 251-6369	
ScreenWriter II	Gene Carter (202) 363-2342	
	Jon Vaupel (301) 593-3316	
Word Handler	James Edwards (301) 585-3002	
Word Perfect	Henry Donahoe (202) 298-9107	
	Leon Raesly (301) 439-1799	
Word Star	Dana Riel (301) 350-3283	

\* Calls until midnight are ok.

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

<b>Macintosh</b>		
<b>General</b>	Terry Monks	(703) 471-4610
	Donald Schmitt	(717) 334-3265
<b>Data Bases</b>		
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) 278-8708
	Jeff Alpher *	(301) 630-2036
OverVue	J.T.(Tom) DeMay Jr.	(301) 461-1798
	Tom Parrish	(301) 654-8784
<b>Desktop Publishing &amp; Graphics</b>		
ReadySetGo	Jay Rohr	(301) 655-0875
	Jim Graham	(703) 643-1848
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<b>Inside Mac</b>	Jon Hardis	(301) 330-1422
LISA/Mac XL	John Day	(301) 621-7543
MacDraw	Tom Berilla	(301) 434-3256
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<b>MacLion (DBMS)</b>	Mark Miami	(202) 333-0098
<b>MacProject</b>	Jay Lucas	(703) 751-3332
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<b>Power Point</b>	Herb Schwartz	(301) 983-0534
<b>Programming, MS-BASIC</b>	John Love	(703) 569-2294
<b>Spreadsheets &amp; Graphics</b>	David Morganstein	(301) 972-4263
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	Walt Francis	(202) 966-5742
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	Tom Parrish	(301) 654-8784
	Marty Milrod	(301) 464-5981

<b>General</b>		
<b>Games - Apple II</b>	Charles Don Hall	(301) 864-2715
<b>Games - Mac</b>		
<b>IBM</b>	Ray Hobbs (BBS)	(301) 490-7484
	Leon Raesly	(301) 439-1799
	Walt Francis	(202) 966-5742
	Ray Hobbs (BBS)	(301) 490-7484
	Mark Pankin	(703) 524-0937
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Anchor Mark 12	Jeremy Parker	(301) 229-2578
Apple Inc. Modem	John Day	(301) 621-7543
BLZCOMP Modem	Jeremy Parker	(301) 229-2578
Hayes Smartmodem	Bernie Benson	(301) 951-5294
Smartcom I	Harmon Pritchard	(301) 972-4667
<b>Music Systems</b>	Ray Hobbs (BBS)	(301) 490-7484
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<b>IDS 460</b>	Robert Wood	(703) 893-9591
<b>MX-80</b>	Eric Rall	(301) 596-0004
<b>Okidata</b>	Dave Harvey	(703) 578-5621
<b>Stat. Packages</b>		
<b>Stock Market</b>		
<b>TCS</b>		
<b>Time-Sharing</b>		

**\* November 1987 \***

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 PI Sig 7:30 PM Office	3 Apple II Beginning Tutorial #1 7:30-9PM Office	4 Mac Progmrs. 7:30 PM Office; dPub SIG 7:30 PM PEPCO	5 GameSIG 7:30 PM Office	6	7 HyperCard Special Meeting 9 AM USUHS Bill Atkinson
8	9 Introduction to Macintosh Tutorial - Office 7:15 - 10 PM	10 Apple II Beginning Tutorial #2 7:30-9PM Office	11 Executive Board - 7:30 PM Veterans Day Office Closed	12 Stock SIG 8 PM Office	13	14 Frederick Slice; Annapolis Slice; Music SIG
15	16 Intermediate Mac Skills Tutorial - Office 7:15 - 10 PM	17 Apple II Beginning Tutorial #3 (AW) 7:30-9PM Office	18	19 Pascal SIG 8 PM Office	20	21
22	23 Productivity on Your Mac Tutorial - Office 7:15 - 10 PM	24 Mutual Fund Sub-Group (Stock SIG) 8 PM Office	25 Apple /// 7:30 PM Office	26 Happy Thanksgiving! Office Closed	27	28 WAP Meeting 9 AM USUHS
29	30					

**\* 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	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	18	19 WAP Meeting Garage Sale Location TBA
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	25 Christmas Day Office Closed	26
27	28 Productivity on Your Mac Tutorial - Office 7:15 - 10 PM	29	30	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 of the month at 7:30 PM in the WAP office. Next meeting is November 25.

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

DisabledSIG - Call Jay Thal at 344-3649 for info.

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 November 4.

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 November 5.

Mac Programmers meet on the 1st Wednesday of the month at the office, 7:30PM. Next meeting is November 4.

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 November 19.

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 Nov. 12.

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



# STRIPPING YOUR GS SYSTEM DISK

by David Todd

This article describes how to strip down your System Disk so that programs from the GS Disketeria can be placed on a startup disk. It follows up on a response in the Q & A column in the August WAP Journal.

Each GS owner will have to be responsible for learning how to use and install the ProDOS16 system. Some commercial software is starting to ship without a system on the disk. Most WAP GS disks will not have a ProDOS16 onboard.

One way to deal with this situation is to boot the GS System disk and use Finder (or Basic Launcher) to run an application. If you have only one 3.5 drive you may be asked from time to time to re-insert the System Disk so that other parts of the operating system may be loaded. A user may wish to install the system on a program disk. It can be confusing trying to figure out which files are necessary.

The following exercises should only be done on a BACKUP COPY of your System Disk version 3.1. Always keep your untouched original locked away somewhere.

Onto a blank formatted 3.5 disk copy these files from the GS System disk version 3.1:

PRODOS	SYS
SYSTEM	DIR be certain to copy over all of the files from this subdirectory
BASIC.SYSTEM	SYS
BASIC.LAUNCHER	SYS
ICONS	DIR and all files on this subdirectory
DIALOG.ICONS	SCA
FINDER.ROOT	SC9
FINDER.DATA	SC9
FINDER.DEF	SC9

Since there are a lot of files on the System subdirectory, another, somewhat faster, approach would be to do a disk copy of the entire GS System disk and then delete all of the files from the main directory except these files and subdirectories. You have left off the System Utilities and Appletalk. Next, go to the /SYSTEM.DISK/SYSTEM/DRIVERS/ subdirectory and remove the files Appletalk, Laserprep, and Laserwriter. If you have a LaserWriter, leave these last two files on the disk.

Make a copy or two of this setup. This stripped down System disk contains all that you need to run a Prodos16 or Prodos8 file. Just add your favorite programs and Desk Accessories.

If you prefer to use the old Basic.Launcher instead of Finder then go to the /SYSTEM.DISK/SYSTEM subdirectory (on another copy, of course) and delete START, FINDER, and FINDER.DATA. Rename LAUNCHER to START. In each subdirectory you should find and delete a file called FINDER.DATA. On the root volume delete the files FINDER.ROOT, FINDER.DATA, FINDER.DEF, and the ICONS/ subdirectory.

If you would like more detailed information on the GS System Disk I strongly recommend the Article "GETTING STARTED WITH THE APPLE IIGS" by Wesley Felty in the

September, 1987 issue of *Call-A.P.P.L.E.* magazine. You should be aware, however, that this article focuses on version 2.0 of the System Disk and the Finder that is referred to in the article is the old "Desktop" program.

Another reference you may wish to consult is the article "ANATOMY OF THE IIGS SYSTEM DISK" by Ken Kashmarek in the April, '87 *Call-A.P.P.L.E.* This earlier article centers around version 1.1 of the System Disk but most of the information is still valid. ☺

## IIGS SIG MEETING

### REPORT

by Ted Meyer

September's meeting was something of an impromptu affair since the change in meeting place caused the cancellation of our planned demonstration on digitizing with the IIGs. Officially the meeting was cancelled. However, at least 30 of our stalwart band met in a noisy and cramped cafeteria at NIH. Although David Todd and I brought a IIGs to demonstrate the GS Finder and the new System Disk, lack of electrical outlets turned the meeting into a kind of Q & A session.

I began the discussion by recruiting Hotline Volunteers. About seven brave souls signed up, so you should find the GS adequately represented in the Hotline page in this issue.

The discussion then evolved into more interesting topics, including the new Finder and the ROM and VGC chip upgrades. The Finder is the new desktop environment for the IIGs. It replaces the desktop that was on the System Disk and is available on System Disk Version 3.1. This new system disk is now available free from any Apple dealer (they really have them, this time) or from WAP's Disk Library. Look for a more complete discussion of the new Finder in another article in this issue of the journal. Also available free from any Apple dealer are the chip upgrades. These were mentioned in the President's Corner article in the last journal. See this month's Q&A article by Bruce Field and Bob Platt about software that won't run with the new ROM chip before you take your IIGs into an Apple dealer.

October's meeting will be a discussion of programming on the IIGs. We'll try to cover the languages available, programming methods, types of programs and programmers, and the IIGs programming environment. The IIGs is a real playground for both "hackers" and "software developers," as well as students and "dabblers."

The November meeting needs a subject and some volunteers to be leaders. One possible topic for the pre-Christmas season: Games. Since my wife and I are expecting our first child around that time I'm not sure whether I'll be there or not—I may be showing our new addition how the Finder works.

The IIGS SIG meets in the USUHS cafeteria (or in Building contd. on pg 17

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# IIGS STUFF: A BEGINNER'S START AT THE IIGS FINDER

by Ted Meyer

A lot of you are probably aware by now that the "Finder" Version 1.0, which is Apple's replacement for the Desktop on the IIGS System Disk, was released around September 17th. A new System Disk was released (Version 3.1), which includes the Finder instead of the Desktop and a few other less major changes. This new System Disk is available from your Apple dealer for free. This disk will also be available from WAP's Disk Library.

Over the last few months, I've had an opportunity to be a beginner, and to try to help a lot of beginners in getting started with the IIGS. Many questions have come up about the Finder and RAM disks in the last few weeks. At the IIGS beginner's tutorial on September 19th several questions were generated on these two subjects. So, this month I'll present a brief tutorial on the new Finder and backing it up. Have a blank 3.5 inch diskette ready if you want to follow the tutorial. Next month we'll continue the Finder tutorial and have a short discussion of RAM disks.

The Finder is a combination start-up program, utility program, disk organizer program, and game all in one. It is, in many respects, similar to the desktop program on the old System Disk. But, it's also different in a variety of ways. For one thing, it takes even longer to boot! It is more similar to the Macintosh's Finder program, but, again has a few differences—like color!

The Finder is set up on the new System Disk to be the program that first appears when a user "boots" the disk. It takes quite a while to load, about 90 to 120 seconds, so after starting your IIGS up, you might want to turn your TV on and watch a couple of commercials or go to the kitchen and get a snack.

Once the Finder is loaded you should see a blue desktop with a white menu bar along the top. On the right side of the screen you should see each of your mass storage devices (disk drives) represented by little pictures. These pictures are called "icons" and can be manipulated in what is hoped will be an "intuitive" manner to execute what might otherwise be fairly complicated tasks. Across the "menu bar" on the top of the screen you'll find: an icon of an apple, and the words: File, Edit View, Special, and Color. Each of these represent a list or "menu" of commands or options which you can execute.

The mouse is an absolute necessity when playing with the Finder. Your ability to point, click, click and hold, and otherwise handle the mouse will play an important role in how you get along with this program. If you're still unfamiliar with the use of the mouse, you might try rerunning the tutorial disk that came with your IIGS. It starts you off with the basics of mousing around. You might also take a look at some of the early MacNovice columns by Ralph Begleiter in earlier issues of WAP's Journal. Some of the ones that deal with the Mac Finder might also be appropriate for the GS version.

The first thing you can try doing with the Finder is to use it as a start-up program. The Finder can be used to easily search your disks to find the program you want to run. The icons along the right side of the screen represent the disks and disk drives that are presently hooked up to your system.

Slide your mouse across a surface (e.g. mousepad) so that the arrow on the screen rests on top of the icon in the top right hand

corner shaped like a 3.5 inch disk. If you booted from the System Disk, the icon should be labeled "SYSTEM.DISK." This is called "pointing." By "pointing" at an icon and then pushing the button on the mouse once quickly ("clicking") you will have "chosen" the icon. When an icon is chosen, it will turn black. Once you have "chosen" an icon you can do things to the disk and the data on the disk that the icon represents.

Go ahead and choose the System Disk icon. Once chosen the icon will turn black and stay black even if you move the mouse away. If you click somewhere else on the desktop, though, you will unchoose the System Disk. Make sure the System Disk icon is darkened. Now move your mouse so you are pointing at the word "File" on the menu bar. The arrow should cover part of the word. Click and hold your mouse button and a menu will appear. Continuing to hold the mouse button down, pull the mouse down until the arrow is pointing at the word "OPEN." Assuming that you had earlier chosen the System Disk, "OPEN" should be blackened as the arrow points at it. By letting go of the mouse button you will execute the command "OPEN" on the chosen object, the System Disk. When this is done the System Disk will expand into a "window." In this window you'll see a whole mess of icons just begging to be chosen and opened!

Across the top of the window is the title bar. The name of the window, "SYSTEM.DISK" in this case, is right in the middle of the bar. In the right corner of the window's title bar you'll find the expansion box. This expansion box looks like two small squares, one inside, and in the top left corner of the other. Move your pointer to this square and click. The window should expand to encompass the entire screen. You should be able to see all of the contents of the system disk now.

Somewhere in the window you should see an icon called "SYS.UTILS" that looks like a file folder. "Choose" this folder and open it by using the menu bar at the top of the screen just as you chose and opened the System Disk. A new window will open with yet more icons!

Several of these icons will look vaguely like a hand writing on a diamond-shaped piece of paper. (Use your imagination!) This icon generally represents application programs. AppleWorks, DeluxePaint II, MultiScribe IIGS, and MouseTalk are all examples of application programs. We are about to start an application which does nothing but duplicate diskettes in a fairly efficient manner. We could start any application program in the same manner and in this way the Finder is a start-up program. If all you want to do is run AppleWorks, booting from the Finder is probably a waste of time. Booting AppleWorks directly would be faster. But if you work with several programs, and copy and organize files in between, then the Finder might prove to be handy.

Choose the application icon label "FASTCOPY.SYSTEM." With the mouse still pointing at the FASTCOPY.SYSTEM icon, click the mouse button twice, very quickly. If done correctly (it might take some practice), the application will start up.

When the program is finished loading you will be presented with a screen with a menu with three choices. The top choice,

contd.

"Copy disks," should be darkened. The mouse isn't used with this application so it's back to the old keyboard. Use the up and down arrow keys to make sure the disk copy option is darkened. Hit the return key to start the disk copy option. The program then asks about the disk type you want to copy. Use the arrow keys to choose 3.5 inch disks. The program will then spit your System Disk out of the drive. Write protect it by moving the little tab on the diskette so that you can see through the hole. Put the disk back in the drive and the copying starts. From this point on follow the directions replacing the System Disk with the blank when prompted.

Once the copying is finished, you may be asked about making more duplicates. If you have spare diskettes make a few copies. We'll probably destroy a few before we're finished learning about this system. You'll return to the menu when you finish duplicating System Disks. Choose quit and again hit return. Use the arrow keys to answer yes to the "Are you sure?" prompt. You'll soon find yourself back at the Finder's desktop environment.

Now, since you've backed up your disk, you can go crazy, double clicking on applications and folders, randomly choosing menu items, moving files around, or whatever, knowing that if you mess your disk up you have a replacement. This kind of experimentation is actually not a bad idea. If you pay attention to what you're doing much can be learned.

When you're through, point and click on the "File" menu at the menu bar on the top of the screen. Pull the mouse down so the mouse points at and darkens "Quit." Let go of the mouse and the Finder will shut itself down. Now you can turn your IIGS off or boot another program.

That's it for now. Next month we'll play some more with the Finder. But don't wait for me, keep a good backup copy and spend some time experimenting on your own. Playing with the Finder can be fun. ☺

## MINUTES

Paul Schlosser reported on the bids he had obtained for printing the Journal. The present printer has also presented a new competitive quotation, and this is being discussed further. The Board decided to continue the custom of distributing Journals at main meetings. Susan Meehan reported on the issue of Call Waiting interrupting modem calls. C&P does not support Call Waiting disabling by the user. The Board voted to investigate the matter further. Tom Warrick reported on membership trends. Last month was one of the best in quite a few months for number of new members. The absolute decline on 6502 memberships has reversed. GS numbers are increasing rapidly, as are Macintosh SEs. We are starting to see a significant increase in the new models. The current high Apple sales suggest an opportunity for new membership publicity. Relationships with out-of-area groups who wish to be associated with Apple Pi were discussed. We have had requests from as far as Florida and Sweden. The 501(c)(3) effort is awaiting the arrival of forms from the IRS. Pins will be presented to active volunteers at the October meeting. Many letters have been filed about the FCC access fee. ☺

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<b>Database</b>			
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pfs: Workmates(f,r,p,w)	170	Reflex	72
<b>Education</b>			
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Math Blaster Plus	32	SAT Improvement	70
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Create a Calendar	22	MacDraft	170
Springboard Publisher	92	Powerpoint	250
<b>Leisure</b>			
Hollywood Hyjinx	29	Comicworks	57
Mean 18, Ultimate Golf	29	World Cup Soccer	32
<b>Programming</b>			
Applesoft Compiler	127	Lightspeed C	110
Turbo Pascal 3.0 (CP/M)	50	Lightspeed Pascal	79
<b>Spreadsheet</b>			
Planner's Choice	29	Excel 1.04	275
VIP Professional GS	205	MacCalc	97
<b>Word Processing</b>			
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Word Perfect 1.1	101	MS Word 3.01	285

### .....New, recently published software.....

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816/Paint	48	Bookmark	83
ASCII Mousetalk	63	DBaseMac	340
Award Maker Plus	26	Eureka	135
Beyond Zork	29	McMax	200
California Games	29	Nord & Bert	29
Maniac Mansion	26	PT 109	33
Music Studio-gs	57	Ragtime	250
Post Card-gs	26	Spellswell Med Dict.	64
SoftSwitch-gs	43	Superlaser Spool	96
Visualizer II-gs	62	Tops	148

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# APPLE II NEWS AND NOTES

by Walt Mossberg

This month's column reports on a host of new Apple II-related products, many displayed at AppleFest. And we present a comparison of disk-copying programs for making one-drive copies of the new 3.5" microfloppies.

## NEW APPLE PRODUCTS

I didn't go to AppleFest. But here's a list of new Apple II products, many exhibited there, which have been mentioned on CompuServe's MAUG Apple User Forum by many who did attend. NOTE: I cannot guarantee that these will hit the market any time soon, or at all, despite vendor promises. But all are supposed to be real. And their sheer quantity and variety shows the Apple II is very much alive and well.

**ZIP CHIP:** A replacement CPU for the IIe/IIc which supposedly quadruples computing speed in a completely transparent fashion. Lists at \$179, and a GS version is said to be in the works. But it's a new company, with only a one-man office in L.A., according to a MAUG member who dropped by. They're still at least a month away from release.

**PERSONAL NEWSLETTER:** A \$60 desktop publishing program from Softsync.

**EPIC MODEM:** A 2400-baud modem, internal version for \$175, external for \$189, from Epic.

**THEXDER:** A Japanese-designed game for the IIgs, Sierra Online.

**GS BASIC:** Apple. Distributed via APDA.

**THE DESKTOP MANAGER:** A Pinpoint-like desktop accessories package for the IIgs. Will review in a future column. By On Three.

**SPRINGBOARD PUBLISHER:** Desktop Publishing for all Apple II's.

**MANAGING YOUR MONEY 3.0:** New version from MECA with more power.

**FIRST CLASS MODEMS:** From First Class Peripherals, makers of the Sider hard disks. Versions in 1200 and 2400 baud, plus pocket version. Also new models and sizes of the Sider.

**PRINT SHOP IIGS:** Very nice upgrade from Broderbund. Prints in color, allows designs to be saved, and previewed complete onscreen. List is \$59.95. A \$20 upgrade supposedly available for IIe version owners.

**FANTAVISION IIGS:** SHR graphics, sound from Broderbund. List is \$59.95. A \$20 upgrade supposedly available for IIe version owners.

**SHOWOFF:** A \$59.95 package from Broderbund for making presentation graphics.

**DELUXEPRINT II:** Electronic Arts. Note that's "Print", not "Paint". A sort of souped-up Print Shop type program for the IIgs. Lists at \$49.95.

**DELUXEWRITE:** Graphic-oriented GS word processor from Electronic Arts. Has built-in spell checker. Lists at \$99.95.

**POSTCARDS:** Postcard-printing program from Activision.

**LIST MANAGER:** An Activision database which can be used with Writer's Choice elite to do mail merge.

**THE PERSONAL PUBLISHER or MEDLEY:** A still-unfinished desktop publisher for the GS from Milliken.

**MULTISCRIBE GS 3.0:** New version from StyleWare is expected to include built-in spell checker, thesaurus and enhanced graphics.

**DESKWORKS:** A IIGS desktop accessory package from StyleWare. It features NDA's, including calculator, macros, clipboard, calendar, etc. Lists for \$59.95.

**MDIDEAS GS ACCELERATOR:** Shown in prototype version.

## ONE-DRIVE COPYING OF 3.5" DISKS

The 3.5" microfloppy, holding 800K, is gradually supplanting the 5.25" floppy as a storage medium for all Apple II's. On the IIgs, these rugged little high-capacity disks are the standard already. But most Apple II owners who use 3.5's have only a single 3.5 drive, making copying the disks a procedure so potentially tedious it can seem like a lifetime job. For instance, using even the newest version of Apple's GS System Utilities, it can take 15 minutes and 25 seconds, with 94 disk swaps, to copy a 3.5" disk with around 700K of its 800K in use.

Fortunately, there are a number of competitors out there that do the job much faster, and some which REALLY speed it up on a GS if you're willing to allow any RamDisk you've set up on /RAM5 to be overwritten.

Below are the results of a bench mark comparison using as a test disk the new GS System.Disk (1371 blocks used). The fastest of the programs is Fast Copy, a new utility Apple included on GS System Disk 3.0, and which runs under ProDOS 8 (meaning it may well work on IIe's and IIc's, though I'm not sure). When set to overwrite /RAM5, Fast Copy copied the test disk in 3 minutes, 25 seconds, with 3 disk swaps required. Even when set so it preserved /RAM5, Fast Copy took only 3 minutes, 40 seconds and 3 disk swaps.

Diversi-Copy, a \$30 shareware program by Bill Basham of DSR, Inc., was a few seconds slower than Fast Copy, but required only 1 disk swap. Diversi-Copy, available on many BBS systems, did our test disk with only a single disk swap in 3 minutes, 29 seconds. But in doing so, it overwrites your Ram Disk and requires a complete reboot after it's done.

Another fast performer was the ProSEL Copy utility available on Glen Bredon's fabulous \$40 ProSEL disk—the best Apple II utility package ever, in my view. The ProSEL Copy utility, when set to use extra memory, did our test disk in 4 minutes, 21 seconds, with 16 disk swaps. But even when using extra memory, it doesn't trash /RAM5. If you set it to copy to /RAM5, and then back to disk, it requires just one swap.

Here are the complete results:

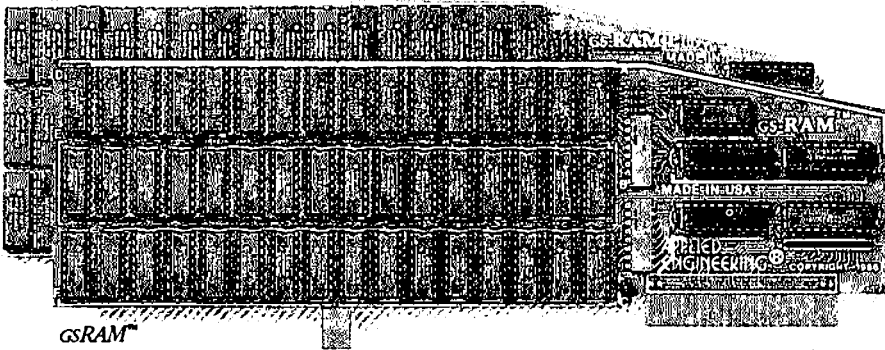
<u>Program</u>	<u>Time</u>	<u>No. of Swaps</u>
1. Apple Fast Copy - using /RAM5	3:25	3
2. Diversi-Copy (uses /RAM5)	3:29	1
3. Apple Fast Copy	3:40	3
4. ProSEL Copy (preserves /RAM5)	4:21	16
5. GS Finder (SMART Copy Setting)	4:25	6
6. Apple Desktop II	4:54	24
7. Copy II Plus	5:24	21
8. GS System Utilities V3.0	15:25	94



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gsRAM and gsRAM Plus are available now, allowing up to 8 MEG of memory expansion. That's 8 times the memory capacity of Apple's card and just look at the benefits that only gsRAM and gsRAM Plus have over Apple's card:

- Lower cost
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- Has memory expansion port
- Has ROM expansion port
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even have Pinpoint or Macroworks and your favorite spelling checker in RAM for instant response. gsRAM and gsRAM Plus will even display the time and date right on the AppleWorks screen. Nothing comes close to enhancing AppleWorks so much.

## Turn Your IIGs into a Giant

Simply plug gsRAM into the IIGs memory expansion slot and you've got up to 8 megabytes of RAM at your fingertips—all of it instantly and automatically recognized by the IIGs. gsRAM is compatible with all IIGs software, including AppleWorks, as well as BASIC®, ProDos, DOS 3.3, PASCAL®, "C" and CP/M®.

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# Q & A

by Robert C. Platt & Bruce F. Field

Send your Apple II and III questions to the WAP office for our resident experts.

Q. What is the latest IIgs System Master Disk?

A. System Disk 3.1 features: ProDOS 8 ver. 1.4; Basic System ver. 1.1; Loader ver. 1.3; ProDOS 16 ver. 1.4 and Launcher ver 2.1. The most notable improvement over System Disk 2.1 is the arrival of the long-awaited IIgs Finder program (version 1.0). It also includes a new disk copy program, FASTCOPY.SYSTEM in the Utilities folder, and works as fast as DiversiCopy. (Be sure to use the RAM Disk to allow it to copy disks in one swap.)

Q. What are the differences between the IIgs Finder and the DeskTop program?

A. Unlike the Apple II DeskTop program which runs under ProDOS 8, Finder runs under ProDOS 16. The Finder gives you more control using the Preferences dialog accessed through the Special menu. You can specify whether icon information will be saved or not on each disk (and folder) using a "FINDER.DATA" file. If your data disks are tight on space, you can select the no save option (which is not available on the Mac.) You can also specify whether the "FINDER.DATA" files are visible or invisible. Another important time-saving option is, "Do a smart block copy when copying disks of the same size." In general, using the IIgs Finder takes longer to boot than the DeskTop, but saves time when copying disks on a single drive machine. (The Finder copies disks with fewer disk swaps.) Although there are a few differences from the Mac's finder, Mac users will feel more at home on the Finder than on Apple II DeskTop.

Q. How can I test my //c for the ROM update?

A. Use the following procedure:

1. Switch on the //c and press Control-Reset to stop the drive from spinning.

2. Type CALL -151 <return> to enter the Monitor. (You should have an asterisk (\*) prompt.)

3. Type Shift-1 (the "!" key) and press <return>.

If the prompt changes from \* to !, you have the new ROMs; if it remains an \*, you have the old //c ROM which won't work with 3.5" disks or Apple's memory expansion card.

Q. When I start an Apple //c with the AppleWorks Startup Disk, it asks for the program disk. After I insert the program disk and press return, the computer locks up. Any clues?

A. First, check that your AppleWorks Program Disk is NOT write-protected. Second, make sure that your copy of the AppleWorks program disk has the SAME name as the original: /APPLEWORKS. Also, be sure that your data disks are not also named /APPLEWORKS.

Q. When I visited my Apple Dealer to install an Applied Engineering board in my //c, he told me that my "MMU is soldered

to my //c's motherboard." I also want to use a 3.5" drive which I borrowed from a friend and my ROM is apparently an older version which does not support 3.5" drives. Can I get a free upgrade?

A. Regarding the ROM upgrade, most Apple Dealers seem to require that you purchase a UniDisk in order to qualify for the free upgrade. Borrowed equipment does not seem to count. Apple soldered in the MMU chip to increase the reliability of the //c Logic Board. For owners who wish to purchase third-party peripherals, Apple has an inventory of motherboards with socketed MMU chips. The bad news is that if your //c is out of warranty (including AppleCare), then you will have to pay for the motherboard exchange.

Q. I am trying to print labels with AppleWorks but it is not recognizing my form size.

A. Follow these steps:

1. From the main menu, select number 5, "Other Activities".

2. Select number 7, "Specify information about your printer(s)". You should now see a "Printer Information" menu.

3. Under the heading "Change printer specifications" select the name of the printer you want to use.

4. Change item number 2 "Accepts top-of-page commands" to *no*.

This trick will not print two or three labels across. Instead, try MacroWorks from Beagle Brothers. MacroWorks also adds Macro capability to AppleWorks. You can contact Beagle Brothers at (619) 296-6400.

Q. How can I transfer a word processor file created in AppleWorks, to Apple Writer, ProDOS version?

A. AppleWorks files cannot be read by Apple Writer directly. To transfer the file to Apple Writer you must print the file to disk. Use the following instructions:

1. With your AppleWorks word processor file in the window, press <Open-Apple-P>.

2. Choose "from the beginning", then select "A text (ASCII) file on disk." (This option "prints" your formatted file to disk rather than to a real printer.)

3. AppleWorks will ask for the Path Name. Specify a disk and file name separated by slashes: /DISKNAME/FILENAME, where /DISKNAME is the name of your disk and /FILENAME is the name under which you wish to save the file.

4. You can now [L]oad the file into AppleWriter using the same Path Name that you used to save the file in step 3.

Q. How can I reverse the process and read Apple Writer text files into AppleWorks?

A. From the AppleWorks main menu, select Add file to Desktop and create a new file for the Word Processor, indicate "From

contd.

a text (ASCII) file" and provide the proper PathName when prompted.

- Q. How do I delete formatting codes such as headers, footers, and page breaks from AppleWorks?
- A. Press <Open-Apple-Z> to display all formatting codes. Highlight the codes using the cursor keys, and then press <Open-Apple-D> to delete them.
- Q. How can a IIgs produce foreign language printed output—specifically German, Spanish, and Swedish? When I go to the control panel, I get the keys rearranged but don't get the appropriate letters with diacritical marks that I need.
- A. Most current word processors, e.g. AppleWorks, use the Apple's text display mode, not graphics, to show characters. (An exception is Guttenberg.) Also, these word processors send straight ASCII character codes rather than graphics to the printer when printing files. Fortunately, the Image-writer has various selections of characters with diacritical marks built-in, but you must set the DIP switches on the printer to indicate the appropriate language. Check your manual.

From the control panel, set the Display Language and Keyboard Layout to the desired language. Reboot the IIgs to update parameter memory with the control panel changes. This controls what symbol the IIgs will display for a given keystroke. Remember that the control panel affects only the screen display and that the imagewriter DIP switches must also be set correctly for printed output to also read correctly.

Specifically the upside down question mark is created with a <Shift-2>. For an "ñ" type the ";" key, and <Shift-;> yields an upper case N with a tilde over it. See Appendix A and p. 90 of Fischer's *Apple IIgs Technical Reference* (Osborne/McGraw Hill) for various languages' keyboard layouts and screen display characters.

- Q. I am trying to run a bunch of public domain programs that use high resolution graphics under DOS 3.3 on my IIgs. They don't work.
- A. Try selecting the Alternate Display Mode from the Desk Accessories Menu <control-open-apple-escape>. This will help if the programs use both "pages" of the high res memory. Some old programs use PEEKs and POKEs which are not supported on the IIgs ROM (or the ROM of the //e or //c.) Try running the program with 40 column mode display mode. (For example, Flight simulator.) Also try to run the program at normal system speed. There are many other possible sources of problems and solutions.
- Q. What BASICs are available to run under native mode on the IIgs?
- A. There are now several. APDA sells a beta version of Apple's 16 bit BASIC interpreter for \$50. It supports the toolbox. Next, Pecan Software sells a BASIC compiler which runs under their 16 bit implementation of the p-System. This has the advantage of being able to link to Pascal, Fortran and Modula subprograms. Finally, TML advertises a compiler which is compatible with Apple's GS BASIC interpreter which should be available on November 30. TML lists for \$125. Roger Wagner Software is also reportedly working on

a BASIC & extension to Applesoft to provide access to the toolbox.

- Q. Is it possible to use Apple's GS Demo program on WAP Disk 2002 to display your own graphics slide show?
- A. Yes. Use a disk zap program to change the file type of your Deluxe Paint screen images from \$C0 to BIN (\$06). The demo program will run through a display of all of the binary files in the PICTURES folder.
- Q. Are there any commercial programs which will not work with the new GS ROMs?
- A. Bard's Tale and Hacker II for the GS do not work with version 01 ROMs.
- Q. Will there be more software available for the IIgs?
- A. Yes. There were many announcements at AppleFest. In addition, the availability of the Finder, a true ProDOS 16 and the APW development environment as well as other software tools will finally allow the GS to reach its potential. ☺

#### IIGS SIG Meeting Reporting contd. from pg 10

A, Lecture Room D) at 8 a.m. before the regular WAP meeting. From lists of attendees to the SIG meetings, we have more than 100 members and we're growing fast. If you're a IIGS owner, or expecting to be a IIgs owner, the meetings are a lot of fun. Please join us! ☺

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# I LOVE APPLE MUSIC - SIMPLE APPLE MUSIC: Part 6

by GARY HAYMAN ©1987

I hope you are having fun with the TEXT FILE SONG PLAYER (Listing 14) that appeared in Part 5 of the series last month, and have tried out the NEW SOUND DRIVER which was prepared with the NEW SOUND DRIVER GENERATOR (Listing 15). Since I am writing this part prior to the publishing of last month's article, I don't know how the MYSTERY SONG (Listing 16) is coming along. Now I would like to depart from the song aspect and cover another topic.

## NO DRIVER SOUNDS

The music and sounds that we have been reading about and listening to throughout Parts 1 - 5 of this series have been emanating from a little speaker housed in our Apples. We have produced many fine tones by passing information to a machine language program (Sound Drivers) which caused our speaker to vibrate and produce sounds. We don't have to use these Sound Drivers to access the speaker. We can produce sound, more like noise than music, by PEEKing at a memory location in our Apple.

Most texts state that each time your program references memory location "-16366" or "49200" using the following statement, or something similar, a "click" is emitted.

```
SOUND = PEEK(-16366) or  
SOUND = PEEK (49200)
```

THIS IS NOT quite TRUE and you will prove it for yourself. It seems that each time the PEEK is performed the paper cone of the speaker either moves in or out from its current position. I suspect that only when the cone moves out can you hear the click. If you type the PEEKs in immediate mode several times in a row, you will only hear the click every other time. Now this information may not be of outstanding value to you since we seldom are interested in just one click by itself.

By using Applesoft to PEEK at the memory location repeatedly we can generate tone frequencies. Unfortunately, only low frequencies can be produced. One author states that, using Applesoft, the highest frequency of tone that can be produced is 72 Hz (cycles per second). That is why we use machine language sound drivers to produce higher frequency tones.

But still we have enough available to us so that we can do some interesting experimentation with the PEEK method of producing sound, although in most cases we can call it "Controlled Noise". You may, by stretching your imagination a little, be able to produce and hear: clicks, ticks, tocks, buzzes, missiles, rockets, explosions, sirens, creature voices, tanks, cars, lasers, and other weird noises.

## THE PROGRAM

The following program, Listing 17, VARIOUS SOUNDS, is designed to allow you to easily experiment with this particular way of generating sounds. It allows you to choose the sound by number or <N>ext, repeat the sound using <A>gain, and listen to the previous different sound using <P>revious. It allows you examine two sounds repeatedly for comparison purposes—an extremely useful feature. Not only will it produce the sound but

it will also DISPLAY THE LINES OF CODE responsible for the sound.

The actual program is short and consists of lines 10-95, a couple of lines of additional programming at the end and a few one or two line subroutines. The major part of the code that you see in the listing are the 28 different sounds that you will be working with and hearing. Even the code for the sounds follows an easy pattern for you to enter into your program. I think you will find it worth your while to type in the program, or if not, get it on a disk along with all the other listings of the series from the author.

Lines 10-80 establish the variables and set up the top of the screen. Line 90 is the repeated entry point. Sub 1000 prints the sound number. Line 95 selects the sound depending upon to what "PR" is set. Lines in the 2000 range filter your choices and adjust the variables. Sub 3000 is an error noise—an example of how you might use the process in your own programs for mistakes instead of the oft used Apple Beep.

```
NEW  
1 REM VARIOUS SOUNDS  
10 TEXT : HOME :PR = 1:PV = 1:S = 49200  
20 MAX = 28  
30 INVERSE : FOR X = 1 TO 240: PRINT " ";;  
NEXT X: NORMAL  
40 VTAB 1: HTAB 13: PRINT " VARIOUS  
SOUNDS "  
50 VTAB 3: HTAB 2: PRINT " <A>gain ": VTAB 4:  
HTAB 2: PRINT " <N>ext ": VTAB 5:  
HTAB 2: PRINT " <P>revious "  
60 VTAB 3: HTAB 20: PRINT " Select bynbr.1-";  
MAX;" ": VTAB 4: HTAB 20: PRINT " <Q>uit "  
70 POKE 34,6  
80 VTAB 7: HOME : GOSUB 3000: FOR X = 1  
TO 1000: NEXT X  
90 GOSUB 1000  
95 ON PR GOTO 110, 120, 130, 140, 150, 160, 170,  
180, 190, 200, 210, 220, 230, 240, 250, 260, 270,  
280, 290, 300, 310, 320, 330, 340, 350, 360, 370,  
380  
110 LIST 111,112  
111 SO = PEEK (S)  
112 REM S = 49200 THIS PEEK CLICKS SPEAKER  
113 GOTO 2000  
120 LIST 121,123  
121 FOR X = 1 TO 2  
122 SO = PEEK (S)  
123 NEXT  
124 GOTO 2000  
130 LIST 131  
131 SO = PEEK (S) + PEEK (S)  
132 GOTO 2000  
140 LIST 141,143  
141 FOR X = 1 TO 200  
142 SO = PEEK (S)  
143 NEXT X  
144 GOTO 2000  
150 LIST 151,153
```

contd.

```

151 FOR X = 1 TO 200
152 SO = PEEK (S) + PEEK (S)
153 NEXT X
154 GOTO 2000
160 LIST 161,163
161 FOR X = 1 TO 200
162 SO = PEEK (S):SO = PEEK (S)
163 NEXT X
164 GOTO 2000
170 LIST 171,173
171 FOR X = 1 TO 200
172 SO = 1 * PEEK (S)
173 NEXT X
174 GOTO 2000
180 LIST 181,183
181 FOR X = 1 TO 200
182 SO = 100 * PEEK (S)
183 NEXT X
184 GOTO 2000
190 LIST 191,193
191 FOR X = 1 TO 200
192 SO = 0 * PEEK (S)
193 NEXT X
194 GOTO 2000
200 LIST 201,203
201 FOR X = 1 TO 200
202 SO = PEEK (S) + PEEK (S) + PEEK (S) +
    PEEK (S) + PEEK (S) + PEEK (S) + PEEK (S) +
    PEEK (S)
203 NEXT X
204 GOTO 2000
210 LIST 211,213
211 FOR X = 1 TO 200
212 SO = PEEK (S) - PEEK (S) + PEEK (S) -
    PEEK (S) + PEEK (S) - PEEK (S) +
    PEEK (S) - PEEK (S)
213 NEXT X
214 GOTO 2000
220 LIST 221,223
221 FOR X = 1 TO 200
222 SO = PEEK (S) * PEEK (S) * PEEK (S)
223 NEXT X
224 GOTO 2000
230 LIST 231,233
231 FOR X = 1 TO 20
232 SO = PEEK (S) + PEEK (S) + PEEK (S)
233 NEXT X
234 GOTO 2000
240 LIST 241,243
241 FOR X = 1 TO 20
242 SO = PEEK (S) + 5 * PEEK (S) + PEEK (S)
243 NEXT X
244 GOTO 2000
250 LIST 251,256
251 FOR X = 1 TO 10
252 SO = PEEK (S) + PEEK (S)
253 NEXT X
254 FOR X = 1 TO 13
255 SO = PEEK (S) + PEEK (S) + PEEK (S)
256 NEXT X
257 GOTO 2000
260 LIST 261,263
261 REM COMBINING LINES
262 FOR X = 1 TO 20:SO = PEEK (S) + PEEK (S) +
    PEEK (S) + PEEK (S): NEXT X
263 FOR X = 1 TO 5:SO = PEEK (S) + PEEK (S):
    NEXT X

```

```

264 GOTO 2000
270 LIST 271,273
271 REM INSERTING MULTIPLIERS
272 FOR X = 1 TO 20:SO = 1 * PEEK (S) + 5 *
    PEEK (S) + 5 * PEEK (S) + 1 * PEEK (S):
    NEXT X
273 FOR X = 1 TO 5:SO = 1000 * PEEK (S) + 5 *
    PEEK (S): NEXT X
274 GOTO 2000
280 LIST 281
281 FOR X = 1 TO 15:SO = PEEK (S) + PEEK
    (S):SO = PEEK (S) + PEEK (S):SO = 10 *
    PEEK (S) + 5 * PEEK (S): NEXT X
282 GOTO 2000
290 LIST 291,294
291 REM THREE LOOPS
292 FOR Y = 1 TO 5: FOR Z = 1 TO 100: NEXT Z
293 FOR X = 1 TO 10:SO = PEEK (S) + PEEK (S)
    + 4 * PEEK (S) + 10 * PEEK (S)
294 SO = 10 * PEEK (S):SO = 20 * PEEK (S):
    NEXT X: NEXT Y
295 GOTO 2000
300 LIST 301,302
301 FOR Y = 1 TO 5: FOR Z = 1 TO 100: NEXT Z
302 FOR X = 1 TO 10:SO = 10 * PEEK (S) + 20 *
    PEEK (S): SO = 3 * PEEK (S) + 6 * PEEK
    (S):SO = 40 * PEEK (S): NEXT X: NEXT Y
303 GOTO 2000
310 LIST 311
311 FOR Y = 1 TO 6: FOR X = 1 TO 5:SO = PEEK
    (S) + 5 * PEEK (S) + 10 * PEEK (S):SO = PEEK
    (S) + PEEK (S): NEXT X: NEXT Y
312 GOTO 2000
320 LIST 321
321 FOR Y = 1 TO 10: FOR X = 1 TO 10:SO = PEEK
    (S) + 4 * PEEK (S) + 6 * PEEK (S):
    NEXT X: NEXT Y
322 GOTO 2000
330 LIST 331
331 FOR Y = 1 TO 10: FOR X = 1 TO 10:SO = PEEK
    (S) + 12 * PEEK (S) + 6 * PEEK (S):
    NEXT X: NEXT Y
332 GOTO 2000
340 LIST 341,342
341 FOR X = 1 TO 10:SO = PEEK (S) + 5 * PEEK
    (S) + 5 * PEEK (S): NEXT X
342 FOR X = 1 TO 10:SO = 15 * PEEK (S) + 30 *
    PEEK (S): NEXT X
343 GOTO 2000
350 LIST 351
351 FOR X = 1 TO 30:SO = PEEK (S) + PEEK
    (S):SO = 10 * PEEK (S) + 10 * PEEK (S):SO =
    100 * PEEK (S) + 100 * PEEK (S): NEXT X
352 GOTO 2000
360 LIST 361,363
361 FOR X = 1 TO 30:SO = PEEK (S) + PEEK (S):
    NEXT X
362 FOR X = 1 TO 30:SO = 10 * PEEK (S) + 10 *
    PEEK (S): NEXT X
363 FOR X = 1 TO 30:SO = 100 * PEEK (S) + 100 *
    PEEK (S): NEXT X
364 GOTO 2000
370 LIST 371,373
371 FOR Z = 1 TO 4: FOR X = 1 TO 30:SO = PEEK
    (S) + PEEK (S): NEXT X
372 FOR X = 1 TO 30:SO = 10 * PEEK (S) + 10 *
    PEEK (S): NEXT X

```

contd.

```

373 FOR X = 1 TO 30:SO = 100 * PEEK (S) + 100 *
    PEEK (S): NEXT X: NEXT Z
374 GOTO 2000
380 LIST 381,383
381 FOR Z = 1000 TO 1 STEP - 1
382 SO = Z * PEEK (S) + Z * PEEK (S)
383 NEXT Z
384 GOTO 2000
999 END
1000 IF PR < 10 THEN : INVERSE : PRINT
    "SOUND";PR; " - IT'S LINE NUMBER(S) &
    CODE  ":: NORMAL : RETURN
1010 INVERSE : PRINT "SOUND ";PR;" - IT'S LINE
    NUMBER(S) & CODE  ":: NORMAL : RETURN
2000 PRINT "Select A, N, P, Q, or sound number":
    INPUT CHOICES
2010 IF CH$ = "Q" OR CH$ = "q" THEN 999
2020 IF CH$ = "A" OR CH$ = "a" THEN GOTO 90
2030 IF CH$ = "N" OR CH$ = "n" THEN PV = PR:
    PR = PR + 1: GOSUB 2900: GOTO 90
2040 IF CH$ = "P" OR CH$ = "p" THEN HOLD =
    PR:PR = PV: PV = HOLD: GOTO 90
2050 IF VAL (CH$) = 0 THEN PRINT
    "You have typed an incorrect choice":
    GOSUB 3000: GOTO 2000
2060 IF VAL (CH$) < 1 OR VAL (CH$) > MAX
    THEN PRINT "That number is out of range":
    GOSUB 3000: GOTO 2000
2070 PV = PR:PR = VAL (CH$): GOTO 90
2900 IF PR > MAX THEN PR = 1: RETURN
2910 RETURN
3000 FOR Z = 1 TO 5: FOR X = 1 TO 20:SO = PEEK
    (S) + PEEK (S) + PEEK (S) + PEEK (S):
    NEXT X: FOR Y = 1 TO 300: NEXT Y:
    NEXT Z: RETURN
SAVE VARIOUS SOUNDS

```

Listing 17

### THE SOUNDS

Now let's look at the sound codes, lines 110 through 384. Separate sound codes begin on line numbers that end with a zero. To find out what sound number it is just subtract 100 and drop the zero. Thus line 160 represents the start of Sound 6 (160 - 100 = 60; drop the zero and 6 remains).

Sound 1 (110): The basic PEEK (S). Use the <A>gain to discover the "now you hear it now you don't" phenomenon. Please notice that I have set the variable S = 49200 throughout the listing so that instead of doing a PEEK (40200) each time a PEEK (S) will suffice.

Sound 2 (120): Hear the difference when you PEEK twice. Compare sounds 1 and 2 using the <P>revious selection. Please notice that <A>gain does not destroy the previous selection so you can listen to a sound many times using the <A> and then listen to the previous sound with a <P>. You can go back and forth with the <P> making your comparisons. This holds true throughout the program.

Sound 3 (130): See a new way of PEEKing twice (or more) by using the "+" sign between the PEEKs. SO = PEEK (S) + PEEK (S). You can't hear it at this point but there is a value to this technique by enabling higher frequencies since the code can be accomplished quicker if it is on one line. Compare sounds 2 and 3 using the <P> option.

Sound 4 (140): Now you hear a hum as the PEEK is done 200

times. Could this be a note or tone?

Sound 5 (150): Almost the same thing but this time we used "added" PEEKs on a line. Notice that the tone is higher and the duration is slightly longer. Use <P> to compare sounds 4 and 5.

Sound 6 (160): Same idea but we used two separate statements with a colon in between on one line. SO = PEEK (S) : SO = PEEK (S). When compared with sound 5 it is lower, but when compared with sound 4 it is higher. Try the comparison out. Why? "+"s produce a higher sound, ":"s a little lower (separate statements but on the same line), and separate statements on separate lines, lower yet.

Sound 7 (170): Notice that a multiplier was placed before the PEEK. SO = 1 \* PEEK (S). This lowers the sound a little more. It also makes it slightly erratic or harsh. Compare this sound with sounds 4, 5, & 6.

Sound 8 (180): If we increase the multiplier such as 100 \* PEEK (S) the sound becomes lower yet. Compare with sound 7. Increase the multiplier much more and the sound goes lower and becomes more harsh.

Sound 9 (190): Suppose we multiplied by 0, a strange thing to do. 0 \* PEEK (S). The sound goes higher. Why? I don't know, but there it is. Compare with sounds 7 and 8.

Sound 10 (200): Let's place a longer string of "+"ed PEEKs together. Wow! The sound is higher yet. Compare sounds in this order; 10, 5, 6, 4, 9, 7, 8.

Sound 11 (210): Some authors prefer to write the stringed "+"ed PEEKs alternating between "+"s and "-"s. I don't know why it seems the same to me. Let's test it and see if there is any difference. Sound 11 is the same as sound 10 except that every other "+" was changed to a "-". Listen to sound 11 first and then compare with sound 10. Is there a difference? You be the judge.

Sound 12 (220): Here we use the "\*" on the compound line. SOUND = PEEK (S) \* PEEK (S) \* PEEK (S). Notice the raspy quality of the sound.

Sound 13 (230): Instead of the "\*" we will go back to the "+" and compare sound 13 with sound 12. You may find sound 13 useful in your programs.

Sound 14 (240): Let's stick a multiplier in the works multiplying one of the PEEKs by 5. Notice the sound is slightly lower than sound 13.

Sound 15 (250): Here we make a compound sound placing everything in one statement line. Compare it with sound 13. Do the sounds appear to have the same pitch? Could it be that this is due to the PEEK being accessed approximately 60 times in each sound? Does sound 15 sound a little different each time you play it with the <A> option? Do you notice a slight hesitation in the sound as it switches between the two loops?

Sound 16 (260): Here we put the complete loop on the same statement line.

Sound 17 (270): I now insert a couple of multipliers. Compare sounds 16 and 17. 17 appears lower and more raspy.

Sound 18 (280): I use a combination of "+"s, ":"s, and "\*"s. Compare with 17. Have we reduced the raspy quality somewhat?

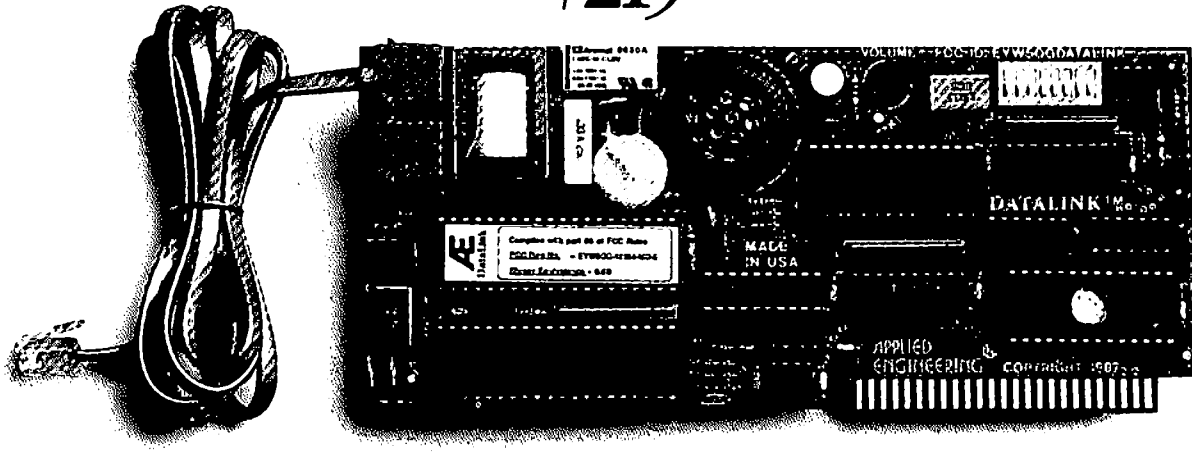
Sound 19 (290): Here I use three loops. Y - the how many times loop, Z - the pause loop, and X - the sound frequency loop. Examine this. Do you find it a more useful sound?

Sound 20 (300): Similar set up to sound 19 but I play around with different multipliers. Compare the two.

contd.

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Max. transmission rate	1200 baud	1200 baud
Warranty period	5 years and charge	2 years or 4 years for \$75
Software included	YES	NO
Hayes AT commands	YES	YES
Help screens	YES	NO
On-board telephone jack	YES	NO
Flashing disk (even with fan)	YES	NO

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Sounds 21 - 23 (310, 320, 330): Variations on a theme. Compare all three with each other.

Sound 24 (340) : I make the sound occupy two statement lines. See if you can hear the two different parts.

Sounds 25 & 26 (350, 360): Another comparison of one and three line sound statements.

Sound 27 (370): Gives you sound 26 four times in a row.

Sound 28 (380): Designed to produce variable multipliers. There is very little change even though Z goes from 1000 to 1. There is more of a change between "\*" by itself, "0 \*", and "1 \*" (see sounds 7,8 and 12) than "1000 \*" and "1 \*".

#### INSTALLING YOUR OWN SOUNDS FOR TESTING

This is an easy task. Here's what to do:

1. Line 20. Increase MAX to cover the number of sounds that you are inserting.

2. Line 95. Add the appropriate line numbers to the ON PR statement. Remember they have to end in "0".

3. Put in your code starting with line 390. The first line will be your LIST statement. See examples. The next short group of lines will be the sound producing code. The last line will be the GOTO 2000.

4. SAVE your altered program. Give it a new name in order to protect the original program.

5. RUN it.

COMING UP: Commercial Programs, Outside Speakers. And More....



## READING FUN: A NEW SHAREWARE DISK

by Phil Shapiro

One of the best kept secrets about the Apple II is the amazing power of the Applesoft SPEED command. Even a beginning programmer can compose an amusing, interesting reading selection using the SPEED command.

A few months ago I decided to explore what could be done with the Applesoft SPEED command. The shareware disk titled "Reading Fun" contains fifteen of these text-display programs.

The disk starts out with my personal favorite, a short story titled, "Drive Your Eyes". The story draws an analogy between reading speeds and driving speeds. The story itself progresses from "first gear", a slow speed of display, to "fourth gear", where the text comes out so fast that you'll have to hold onto your hat.

Also on the disk is a short story titled, "Random Story", where the words of the story bounce out randomly all over the screen. Each time you run it, the story will look different from the time before.

About four of the programs on the disk were specifically written for young readers. (i.e., second grade to fifth grade readers.) These programs give the users a choice of display speeds. The idea is for a beginning reader to read the selection slowly the first time, and then go back and read the selection at a faster pace. The second time around the reader ought to be able to include more of the words in the passage into his or her "sight vocabulary".

Reading teachers talk about a person's "sight vocabulary" as those words which a reader immediately recognizes on sight. Some reading teachers believe that strong readers typically have an enormously large "sight vocabulary", and that the most important skill in learning to read is to increase one's sight vocabulary. Whether this view is true or not, these programs will invariably improve some facet of reading skills. If nothing else, they will give the reader's eye muscles a robust workout!

Some of the programs on the disk are whimsical; some are more serious. I've tried to include a good mix of the different types of programs I've experimented with.

Frankly, it seems as if we have a whole untapped field here.

Previously, the display of text on the Apple's monitor has been limited to documentation for programs, and text-adventure games. But while these two applications are useful and interesting, there's no reason to stop at them. Why not display short biographies, or information-packed articles, or even poetry for Apple users to read? People pay upwards of \$10 an hour to read text online, so why not create our own text-display programs?

The Reading Fun disk contains a text-display program which gives instructions on how to write and save your own programs. Also included on the disk is a text-display program giving a detailed explanation of the workings of the Applesoft SPEED command. Anyone interested in trying their hand at writing BASIC programs might enjoy dipping their feet into the water by writing a text-display program.

Anyone interested in the educational uses of computers might note that text-display programs can be used to introduce beginning readers to the joys of reading. One program on the Reading Fun disk, titled, "Ten Reasons to Read a Lot of Books, Magazines, or Anything", is especially aimed at inviting young readers into the world of print we adults so often take for granted.

"Reading Fun" is a shareware disk: the author of the programs ask for \$12 if you decide you like the programs and want to keep the disk. The disk is not protected and copying/distribution to friends and colleagues is encouraged. The disk is a DOS 3.3 disk, with all text displayed in capital letters. Therefore the disk should be able to run on the Apple ][+, as well as the //e, //c, and IIgs.





# DOCUMAX™ : A REVIEW

by Dave Doherty

Documax™ V2.02, is authored by Arthur St. Hilaire, Ph.D. and Robert Tripodi, Ph.D., and is published by Signum Microsystems, Inc., 120 Mountain Avenue, Bloomfield, CT 06002. Equipment: Apple //c, or //e with 128k, 5.25" floppy disk, and 80-column card 100% compatible with Apple's. It is available directly from Signum: \$19.95 with documentation on disk or \$39.95 with printed manual.

**What Documax Will Do.** Documax is a text-file utility that performs a number of functions:

It will search a file or a collection of files for one string, two strings, either of two strings, or one string and not a second. If there is a match, it will stop and display the contents of the file in the area of the match, and give you the options of ignoring, printing the display, printing the document, or reviewing the document using the cursor keys for positioning. You may also edit the file using a supplied editor. As a user option, it will generate a file containing a list of match locations by document and line number.

It will display part or all of a ProDOS directory, filtering out the following file types: CMD, PAS, INT, IVR, BAS, VAR, REL, SYS, ASP, and DIR. This allows other file types including AWP, ADB, and TXT. There is an option to pass only TXT files.

It will create a ProDOS directory, or sort one alphabetically or chronologically.

It will crunch a ProDOS directory. A new ProDOS directory entry will overwrite the first available position in the directory. If this happens to be a deleted file, it may leave the directory out of chronological order. This utility sorts the directory so that all deleted files are placed after the last active file. Your new file will then show up last on the listing when you catalog it, which is probably where it should be.

It will allow you to cut and paste among files using the SEGMENT and MERGE commands, which are standalone functions, and are not contained in the editor.

It will compress and decompress files. Compressed files occupy much less disk space than standard files. The compression/decompression technique used recovers all characteristics of the original file, but a compressed file will not be recognizable to an application like Appleworks until it is decompressed. This can be a great time-saver when transmitting large documents by modem, and a great space-saver when archiving old documents. Documax works with compressed or standard files, although somewhat slower with compressed files.

**What Documax won't do.** The program will search text files in a directory, but will not extend the search to subdirectories, each of which must be set up for a search individually. Therefore, it is of limited value on a well-structured hard disk with many subdirectories.

It will search, but will not do global search-and-replace. This is a good idea, since such a function would be extremely dangerous on a large directory.

**Problems.** Documax doesn't know what to do with an empty file (one with a header but with no data yet placed in it). When it encounters one, it returns the following statement:

Error Code \$4C detected.

Consult ProDOS Manual

Here are two failings in the program: First, the error aborts the processing with the empty file, even if there are populated files to come. Second, the error message is abysmal. The manual was of little help, simply making reference to the "ProDOS Manual". The sanitized manuals Apple ships for general consumption are of no help in decoding a hexadecimal MLI error code, and this one sent me scrambling for my ProDOS Technical Reference Manual, a document many users don't have. Most errors are trapped properly, but encountering an empty file is not really unusual. For example, it happens when you OPEN a file from BASIC and the program stops executing prior to a WRITE to the file.

**Operations.** This is a very fast program. It will search a large text file on a hard disk in seconds. For example, it searched a 57-block (28k) text file in 16 seconds on my ProFile. It will search a full 5.25" floppy disk in less than two minutes.

There are some very neat and easily accessible utilities built into this program, such as copy file and create or sort a directory, and menus are generally a keystroke away.

**Overall Conclusions.** This is a very fast and inexpensive utility program, but you must consider its limitations. If you have six textfile directories on your hard disk for keeping your correspondence organized, you will have to do six separate searches to check all your files. There is no way to search an entire disk for references to a particular subject, which would be an outstanding improvement; nor is there a way to search for program titles or file names, which would make it a real disk management utility.

As it stands, it is most appropriate as a file-search utility for someone who has a lot of files contained on floppies or in only a few directories on a hard disk; or as an archival utility where you might place old correspondence files or reports in compressed form into one directory, and go looking for a subject months or even years later. ☺

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# THE BEST OF THE APPLE ITEMS FROM TCS

by Lou Pastura

## WordPerfect, Real Soon Now

BOB COSGROVE ON 10/01

Received a letter today from Roger Bell, Manager for Apple Marketing at WordPerfect. To quote: We "expect to release an update (version 2.0) November 1, 1987. Version 2.0 will feature a mouse interface, with the ability to assign your own keystroke equivalents to any of the menu commands. WordPerfect 2.0 will include such features as: 115,000 word spelling checker, thesaurus, mail merge, macros, footnotes and endnotes, headers and footers, automatic page numbering, etc. Current users of WordPerfect for the Apple IIGS will receive a free update to version 2.0." I was also sent a brochure on version 2.0. Overall, it looks like a pretty powerful program—even if it doesn't have sorting functions. Maybe on 2.1...

## Open Apple Goodies

LEE RAESLY ON 09/29

Well, got Tom Weishaar's "Open Apple" yesterday, and there it was, the answer to a very aggravating problem for me. AppleWorks will only let you print 9 copies of a document. We do all our pre-printed forms on a word processor, set them up with 2-3 part carbon, and turn on the machine at 5 PM, set to 150 or more copies, and go home. Next morning, all copies are there and ready to use, even with color ribbon, if we choose. But until now we could not use AppleWorks. Now we can! The answer was in the newsletter! I made a BASIC program out of it, bunned it, and put it on Area 1 (AW Templates, etc.). It is file 35. Just download it, unbunny it, and run! Presto! 255 copies now possible! If you upload it to Genie or CIS, please give credit to all THREE Authors! **IMPORTANT PS!** Only use these patches with AppleWorks 2.0 and with ProDOS Version 1.1.1 dated 14 September, 1984 or a LATER version! Using it with ProDOS 1.0 or 1.0.1 will cause it to truncate your SEG.M1 file, making AW unusable. Also, only use it on a COPY of AppleWorks, NEVER on the original!

(Editor's note: the excerpt from Open Apple is as follows: "Beagle Bros/Software Touch AppleWorks guru Alan Byrd provided us with the following:

Patch to change the maximum number of copies to 255 (AppleWorks 2.0 only)

POKE 768,255

BSAVE SEG.M1,T\$00,L1,A768,B36074 ; for WP

BSAVE SEG.M1,T\$00,L1,A768,B9185 ; for DB

BSAVE SEG.M1,T\$00,L1,A768,B65895 ; for SS

For other versions of AppleWorks, Alan suggested searching the SEG.M1 file for the byte sequence 'A9 09 20 35 D0' and replacing the 09 with a larger value. Dennis looked at AppleWorks 1.2 and 1.3 and discovered the actual sequence you have to look for in SEG.M1 is 'A9 09 20 32 D0'. This sequence occurs four times; change the first three (as Alan did for 2.0):

Equivalent B parameters for AppleWorks 1.2 and 1.3:

V 1.2	V 1.3
B34049	B34253
B9151	B9151
B67095	B67332

After the patch you can enter any value from 1 to 255 copies directly."

PAUL SCHLOSSER ON 08/31

From September's Open-Apple: "The Smartport assembly language command that causes a 3.5 drive to eject its disk causes a SCSI hard drive to REFORMAT itself! There are not many programs that eject 3.5 disks, but if you have one, and a SCSI drive, proceed with extreme caution." The above was discovered by WAP member Tom Vier.

## DOS/ProDOS Combos

EDWARD DOMBEK ON 09/10

I was at the library today browsing the magazines and I looked through the October issue of *Compute!*. They have a machine language program called Double Duty DOS on pages 90-91. The blurb goes: "The Apple II has two popular operating systems, DOS 3.3 and ProDOS. If you've ever been trapped between them, you'll appreciate this utility—it adds new commands to let you read and write DOS 3.3 files from within ProDOS, and move ProDOS files to DOS 3.3."

MOHAN PAUL ON 09/10

*Nibble* (Vol 8/No. 4), April 1987 also has a program called Double DOS that allows a user to switch between DOS 3.3 and ProDOS. But I don't think it adds any commands to either DOS or ProDOS.

JOHN WAAK ON 09/10

The Nibble program Double DOS will, however, not work with their UniDOS 3.3 Plus—their program to use DOS 3.3 on the Unidisk 3.5. I haven't (yet) seen the Compute program, so I do not know if it will work with a 3.5" drive (although I do not expect that it will).

EDWARD DOMBEK ON 09/11

The Nibble program allows you to switch BETWEEN the operating systems. The Compute! program allows you to ACCESS DOS 3.3 disks from ProDOS by adding commands to ProDOS when this program is BRUN. The new commands are:

DCAT (catalog a DOS 3.3 disk)

DLOAD (load a DOS 3.3 program from a DOS 3.3 disk)

DSAVE (save a ProDOS file to a DOS 3.3 disk)

All the commands allow you to specify disk location and, if appropriate, starting addresses in the normal fashion.

JON THOMASON ON 09/12

That's fantastic! Does the DLOAD command do the same thing for type A files as well as B, I, T, R, and S files?

ED DOMBEK ON 09/13

Jon, as soon as I can get some time (next weekend?) and type this buggger in, I'll let you know. The limited docs don't say anything about the other types. I assume/hope that it will. B.T.W., the contd.

starting address is 3000 and goes thru 3A17—FOUR full columns of machine code.

#### Disk Fixer

RICKY JUDGE ON 09/13

Does anyone know if there is a program in the public domain (or otherwise) that will detect bad blocks on a large ProDOS volume and either fix or lock out those blocks. I have a Kodak 3.3 meg floppy drive that works like a ProFile & have some floppies that have a few bad blocks. Since the disks cost \$15 each, I'd like to salvage them. Also, is there such a thing as a backup program for ProDOS that only backs up the changed files instead of the whole disk? Takes a looooong time to backup 3 megs at floppy speed.

DAN HUGHES ON 09/13

Try Bag of Tricks 2. It has a very good ProDOS Zap editor.

DAVE HARVEY ON 09/25

When you buy Glen Brendon's ProSEL disk, he includes a bunch of utilities on the two disks. One is called CAT Doctor. You can copy files to another disk and specify that you only want to copy those that have been changed since the last time you copied. He also has a program call Fixit, that finds bad blocks and I think locks them out. ProSEL costs \$40 direct from Glen. His address is 521 State Road, Princeton, NJ 08540.

#### Tax Preparer Woes

PAUL KELBAUGH ON 09/20

Time for my annual bashing of HowardSoft and their "support" of Tax Preparer. I'm a legal owner and have supported them on annual updates so I figure I'm entitled. Received the annual, "We're here to help you, and send us \$75 for the latest Tax 87 update" in the mail yesterday. In past years it was a one sheet "send money" form. This year it is several pages long and full of language between the lines indicating they caught a lot of doodoo last year over their totally inadequate support of users, late issuance of usable updates and major errors in the program which was finally shipped. I'd like to see these folks eat a lot more humble pie. As far as Pi members are concerned, Paul Koskos has made this expensive piece of software obsolete.

#### Check it Out!

JOE HARAB ON 09/27

I've been looking for a good check writing program, and a friend of mine showed me Dollar\$ and Sen\$. Unfortunately, he has since moved and I cannot reach him to get any additional information. Some people tell me that it is too complex for just personal checking. I am looking for someone who is currently using Dollar\$ and Sen\$ who could help me out with a few questions about the software. If it is good I'm going to purchase the program. If you know of some better software that is easier to use please also let me know.

RAY COOPER ON 09/28

At the Apple Pi meeting on 9/26 in the Apple // portion of Q&A, several people said that QUICKEN is a good personal accounting program. I'm sure some of the actual users of it can give you better details.

PAUL SCHLOSSER ON 09/28

Quicken (from Intuit) will write checks, keep your checking account(s) up to date, and even balance your account. And it's easy to use. The old version of Quicken was in Pascal, the new version is ProDOS, and much better.

#### //c Hard Drive?

ROBERT GIBBS ON 09/07

I am interested in finding a hard disk for my //c. Any hints?

KIM BRENNAN ON 09/07

Currently there are few Hard Disks that work on the //c. The ProAPP series does very nicely—though you won't be able to boot from the ProAPP if you also want to use a 3.5 drive. Also you will not be able to use an external 5.25 drive with the ProAPP. Quark also makes hard disks that supposedly interface with the //c. I've not seen them.

#### //c Flicker

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. Somedays 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.

#### GS Software Stuff

GREGORY KING ON 09/15

Has anyone with the new GS Roms had problems running Hacker IIgs by Activision? The program run from the Launcher attempts to load, but freezes with an "Unclaimed Sound Interrupt" requiring a reboot. Any ideas?

WALT MOSSBERG ON 09/15

Gregory, Hacker IIgs is one of two Activision programs that don't work with the new ROMs. The other is Music Studio. You can fix Music Studio by simply deleting the file Intro.SNG. But there's no user-doable fix for Hacker that I know of. Activision is aware of the problem and is supposedly going to do a free upgrade to a fixed version of both for registered users.

DAN HUGHES ON 09/22

Called both Data Pak and Styleware this week. Data Pak demoed version 2.0 of GraphicWriter at AppleFest and it will be shipped to registered owners of versions 1.0 & 1.1 in two to three weeks. The lady on the phone said I'd really enjoy it. It has more sophisticated page layout features (how could they be less sophisticated). Asked her if there were any exciting Desktop Publishing programs introduced for IIgs at AppleFest and she

contd. on pg 27

# ON THE TRAIL OF THE APPLE ///

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

## PHASE ///

After waiting so long for Phase ///, it's now hard to believe the conference is actually over! It was a wonderful experience to finally meet many of the people your /// SIG Co-Chairman has been talking to for these past few years. It was disappointing, however, that more /// people did not show up. In fact, I was told that the attitude of some on the West Coast was, "Why Come?" Well, the fact is, the conference was excellent and well worth the effort and money spent to get there. Lavona and Richard Rann, Randall Jackson, and all the other TAU folks who put this conference together deserve a great deal of thanks from the entire /// community. Financially, this event ended up in the red. But it was well organized and came off with few problems.

## HIGHLIGHTS AND LOWLIGHTS

Among the highlights: Former Apple Sales Manager Don Williams (now President of Productivity Software) provided not one but two glimpses into the history of the Apple /// and /// EZ Pieces; Taylor Pohlman discussed Apple Business Basic and its new, more powerful cousin, GS Basic (more on that below); sessions on the future of Apple /// hardware and software; and finally, the demonstrations by Bill Atkinson of HyperCard that literally blew everyone away and made us all want to buy Macs!

The lowlight of the conference: The no-show of The /// Magazine's Frank Moore. He had reserved a booth and agreed to be a speaker but never bothered to contact anyone when he apparently decided not to come. Rumor had it he was in Florida putting together a network of IBMs! Needless to say, his standing in the /// Community has hit rock bottom with many (this only added to the problems, since his magazine has not published since February).

The bottom line for the /// was simply this (and best described by On Three's Bob Consorti): The Apple /// is still an excellent machine that can continue to do a number of things well. It does not have the glitz of the GS or Mac, but so long as it can continue to do the work you need to have done, it will remain a useful computer. But as WAP's (and ///'s Company BBS GURU) Ed Gooding added, the ability of vendors to support the /// is dwindling and it is becoming more and more incumbent on the /// community, and more specifically each /// owner, to provide his or her own support (including writing your own programs). That's why your /// SIG and other /// groups are becoming more, not less, important to users, especially new ones who are inheriting their ///s from relatives or businesses moving to newer technologies.

Sun System's Bob Cook announced he has in hand now a letter from Apple, letting him search for any information about the /// that he might be interested to find. That includes (as I understand it) the source code to SOS, etc. What he might do with it after that was not clear. Cook also donated a BBS program, Infonet, to the public domain. It may be used as a starting point by some ///ers trying to put together a Pascal BBS that can help tie together Apple ///ers around the nation. On Three's Bob Consorti also agreed to provide his mailing list to /// groups, to help improve communications among users.

I'm proud to say your /// SIG Co-Chairman also won an award for his series of bibliographies and data bases called Three-Works. Other award winners at the "/// Forever" luncheon were Ed Gooding, ///'s Company BBS; Bob Consorti, On Three, Bob Cook, Sun Systems; Rob Turner, Apple (and formerly of On Three) and Taylor Pohlman, Apple.

Apple, by the way, was one of the exhibitors at the conference, as was On Three and Sun Systems. Bob Consorti and Tim Harrington (of On Three) demonstrated a number of /// products (even Dr. Mel Astrahan was showing his Draw On program as only the developer can.) That included the new GS version of Desktop Manager and Graphics Manager. Both work essentially the same as the /// version but have a nicer look about them. Bob Cook brought a whole contingent with him from Logan, Utah and was showing off his Lisa Professional line, as well as offering a number of /// specials for the conference.

I'll provide you with additional information from the conference over the next few months. I managed to record many of the sessions on audio tape and will make a copy available at the WAP office for those interested in listening.

## THE NEW GS BASIC

The new GS Basic is an implementation of the Apple /// Business Basic that (surprisingly enough!) works on the GS. Apple's Taylor Pohlman, who was intimately involved in developing Business Basic also worked on the GS version. It is powerful! Taylor demonstrated a version of the GS demo program that was written entirely in GS Basic and you could not tell the difference. It retains everything we are familiar with in Business Basic, including invokable assembly language modules. It also allows the user to designate devices by number (such as ".d1") rather than volume or slot/disk designations (you II folks will get spoiled not having to designate slot, disk or volume names anymore.)

GS Basic essentially contains everything we originally wished for in Business Basic and much, much more! It has direct access to the GS's Quickdraw routines, its own powerful editor, and it follows Apple's SANE numerics standards as well. For // users and vendors, it provides an excellent upgrade path. Developers of /// Basic programs should have few problems porting them over to the GS, and in fact, many programs already out there for the /// should, with only a few changes, be directly portable to the GS. That means many of the Basic programs in our WAP /// SIG library can provide an excellent beginning for those GS folks wishing to learn this new Basic language.

Pohlman says it's not been determined if Apple will distribute GS Basic or not at this point. It is being distributed by APDA for \$50. One more version will be distributed through them before Apple has to make a final decision. But overall, I'd say GS Basic is a real winner. It is the loving work of folks who continue to make the power of the /// live on elsewhere.

Pohlman, by the way, did donate his Softalk articles on /// Business Basic into the WAP and TAU public domain. That includes the programs as well.

contd.

## HYPERCARD

I know, it may seem heretical for a /// person to be talking about a Mac program, but Bill Atkinson's demonstration of this powerful tool at Phase /// was a real treat. Hopefully, you will have a chance to see what it can do at the special WAP HyperCard demo November 7th at USUHS.

Atkinson came to Chicago after a seven nation tour and was very gracious to show off the program not once, but twice to Phase /// attendees. He was asked after the initial demonstration how he came to develop HyperCard. He said that when he had completed his last programming project, he sat back and thought about what future computers would be like; fantasizing about a "dream machine" that could be developed if money and time were no object. After culling out all the things currently technologically impossible, HyperCard was what was left!!

It's hard to describe, but I'd call the program a powerful data base that is much more than a data base. It can combine graphics, text and "buttons" (which are icons that let you do things like dial a phone) and link them together in various ways. You build "stacks" of information one "card" at a time, and the stacks can be saved like any other file.

Apple is bundling this with all new MAC SE's and IIs and selling it to current owners basically at cost (\$50 from dealers, of which \$26 goes to Apple). Apple is reportedly looking into a GS version as well. But for many Mac users, this could be the only program they will ever really need. And Apple is basically giving it away! No wonder other Mac vendors are upset!

## MEETING QUEUE

Please note that because our December meeting would fall near Christmas eve, we will meet one week earlier, on the 16th. Time and Location remain the same. We will have a graphics demonstration with On Three's Graphics Manager and a new WAPPD offering, Sketchpad ///, a little sister to Draw On written by Apple's Richard Williams. We have also finally added D3.Backup by Dr. Al Bloom and an accompanying article in the Journal this month describes the program and how to use it. ☺

Best of the Apple Items from TCS contd. from pg 25 said only a couple—Publisher, which is a 128K program and something called Publish It. She didn't seem too excited about the competition, but what would you expect. Stylware's ad for Multiscribe 3.0 in *InCider's* October issue is a little premature. That ad said 3.0 would offer an 80,000 word dictionary and thesaurus. Sounds nice. They hadn't decided what to charge upgraders from version 2.0, but don't look for it until December. Merry Xmas.

### GS Finder Bug?

KIM BRENNAN ON 09/27

Well, a significant Finder bug bit me on Saturday. It hurt so bad that I'm resigned to putting Finder in the bit bucket. If it had only happened once I would have suspected something else—but, the bug occurred on both a 3.5 and on my hard disk. Somehow or other Finder trashed a directory header, making it impossible to delete a file. This happened on a 3.5 earlier in the week (but, it didn't concern me much at the time). However, on Saturday it zapped my Hard Disk. This is unforgivable since it forced me to reformat the Sider. Seems a shame too, since I liked the looks of Finder. I'll wait, now, for a newer version. ☺

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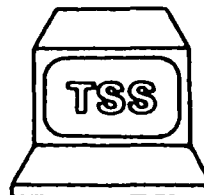
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# DISK /// BACKUP: A Backup Program for the Apple ///

by Allan M. Bloom, PhD CDP

## A Beginning Note

DISK /// BACKUP is the newest offering in the Washington Apple PI /// SIG PD library. It was provided by /// SIG member Allan Bloom for use by our members. Below is a complete description of the program, what it does and how to use it.

## Introduction

DISK /// BACKUP is an automatic backup utility for Apple /// diskettes. The program displays side-by-side directories of a master and a backup diskette. By comparing file dates, it suggests master files to be backed up. You then use keyboard arrows to change those suggestions, for any file on either diskette: copy master-to-backup or vice versa, delete backup or master file, leave things as they are. The program then executes your wishes. DISK /// BACKUP requires a 256K Apple /// and an external diskette drive.

Until now, backing up files on diskettes hasn't been easy, unless you copied an entire volume. A volume copy may be inappropriate. You may want to keep a backup file, delete a file on the master instead of backing it up, or copy from the backup. Until now, you had to list each disk directory, compare the lists manually, then use the System Filer to do the copies and deletes—one at a time. DISK /// BACKUP eliminates that bother. The program handles everything—comparing disk catalogs, deciding on what to do with each file, and doing it.

When you boot DISK /// BACKUP, it asks you to insert your master and backup volumes, then displays a side-by-side catalog of the disks. The program shows you which backup files are current, which master files should be copied to backup, and which files on the backup volume either (1) don't exist on the master or (2) are more recent than corresponding master files. You may then override the program's suggestions. The up/down arrows select a file, and the left/right arrows select a disposition for that file: copy or delete, master or backup. You page through the directory screens with the ESCAPE and RETURN keys. When you are ready, you press "X" to execute your selections.

Then the program enters the "delete" pass. DISK /// BACKUP deletes first so that the maximum disk space is available for copies. You may let the program do your deletions automatically or require approval of each and every one. After the "delete" pass, the program enters the "copy" pass. As in the delete pass, you may require verification of every copy or let things happen automatically. After copying, you may exit the program or back up another diskette pair.

As you will see, the program checks your work carefully. It will not let you do anything impossible, and it always lets you try again. The following sections tell you in detail how DISK /// BACKUP works. You will find it a powerful program that is easy and safe to use for backing up your disk files.

## Installation

D3BACKUP is supplied on two sides of WAP /// SIG diskette

#1011. Side One is a Basic "boot disk" for the documentation and source code. Side Two contains the actual Pascal D3Backup program.

BACK IT UP! Copy each side—preferably onto separate single-sided disks—before doing anything else. Put the master disk in a safe place, and only use it to make another work copy. Always execute from your work copy.

D3BACKUP comes on a bootable diskette. You need do nothing if your system is configured with two Apple "Disk ///" drives. A "ProFile" driver is included for your convenience. If your system includes other disk drives or if you do not like the "Standard" type font, use the "System Configuration Program" to re-configure the SOS.DRIVER file to your needs.

To install this program on a hard disk, create a sub-directory with any "dirname" you wish. Then copy SYSTEM.STARTUP as "dirname/D3BACKUP.CODE" and SYSTEM.STAR.LIB as "dirname/D3BACKUP.LIB." If you have Quark's "Catalyst," or Selector, follow the directions for installing simple Pascal programs.

## User Notes

Neither MASTER nor BACKUP need be a diskette, but they must be directories on different volumes and they must have the same capacities. You may use the program to back up a ProFile sub-directory to diskette—if the diskette has enough capacity to hold all the files. The program does not handle files that span multiple volumes. Within size and complexity limits, you may back up a ProFile to another ProFile, or a Micro-Sci A143 to a twin. Within its design limits, DISK /// BACKUP is superior to Apple's "Backup ///" in that you don't have to back up a whole volume to have a complete backup.

## Program Modification

The Pascal source code for D3BACKUP is included on side one of the disk, as file D3BACKUP.SOURCE, should you need to modify it in any way. It is a big program, and you may have to break the textfile in half to do much editing. The program presently handles up to 250 files. If you want to change that number, first use the Pascal Editor's global R)eplace command to change 250 to whatever number you like. Next, globally replace 17 with the new maximum number of 15-file directory pages (filecount div 15 plus 1).

D3BACKUP handles up to 4 hierarchical file levels. You may increase that to 8. First decrease the number of front-end blanks added to a file name in the "dir\_line" procedure to one per level (from two). Then scan the program for the number /4/ and replace it with /8/ if it refers to hierarchical level.

The program's SOS directory reading routines are adapted from Volume 1, Number 2 of ON THREE magazine. The program's library contains two special files: Apple's SOSIO unit for making SOS calls from Pascal, and the author's own PLUTIL unit containing several generally useful Pascal utility routines.

contd.

Screen 1: Initial File Check

```

A:  D3BACKUP: Back Up Disk /// Files AMB: v.06/84

C:  Enter pathname of the MASTER volume: [.D1 ]
D:  Enter pathname of the BACKUP volume: [.D2 ]

E:  Constructing Directory.....

F:  Master File  MLM.UTILITIES contains 15 files.
    Backup File  MLM.UT.BACKUP contains 20 files.

B:  Insert MASTER and BACKUP volumes.  Press any key.
C/D: RETURN to accept default, else edit pathname as needed.
G:  Are these the right files? (Y | N) ()
    
```

A: The program identifies itself as D3BACKUP and specifies its revision date.  
 B: A beep alerts you that D3BACKUP is ready to begin.  
 C: If MASTER is not a diskette in the internal drive (.D1), edit the pathname [in brackets]:  
     ESC: Default (.D1) reappears.                      RET: Accept bracket contents.  
     L/R Arrows: Move cursor.                            Openapple-I : Toggle insert.  
     Openapple-L-Arrow: Delete left. Openapple-R-Arrow: Delete right.  
 D: The same as Message C, for the backup volume.  
 E: D3BACKUP is constructing its internal paired directory.  
 F: Identifies the MASTER and BACKUP volumes, and the number of files in each.  
 G: Press "Y" to "Change Backup Status," or press "N" to go to "End of Task."  
     Possible Error Messages: Go to "End of Task"  
     C/D:ERROR: SOS Input/Output Error Message    Enter RETURN to retry.  
     "Abort" to terminate program.  
     No pathname entered. Press any key.  
     Please use SOS device name as the first level. Press any key.  
     MASTER and BACKUP pathnames may not be the same. Press any key.  
 E: PATHNAME is not a valid directory. Press any key.  
     Program handles only 4 levels of directories. Press any key.  
     Both MASTER and BACKUP are blank. Press any key.  
     Two volumes with the same name. I am changing .D2 name. Press any key.

The Directory Screen

After the initial screen, everything looks like this "directory" screen.  
 Brackets - "[ ]" - are used here to show highlighted items.

D3BACKUP: Back Up Disk /// Files AMB:v.06/84					
(A)	(B)	(C)	(C-1)	(C-2)	(D) (E)
Backup Status	File Name	Master:[152]Blk MLM.UTILITIES		Backup:[ 89]Blk Blk MLM.UT.BACKUP	Blk F-Ty
[?? ]	[ATEST ]	<Not Present>		84/03/11 22:15	2 Catlg
OK	MLMPRT	83/04/21 13:37	1	83/04/21 13:37	1 Catlg
OK	AWGCOPY	84/03/11 18:04	2	84/03/11 18:04	2 Catlg
Cpy->	GLOS.KEYPAD	84/03/11 21:14	1	84/02/02 18:41	1 Ascii
<-Del	LEVELA	84/03/11 18:05	2	<Not Present>	Catlg
<-Del	TEXTMAKER	83/08/18 08:01	1	<Not Present>	Ascii

<-Cpy	STARTUP	84/01/23 18:44	1	84/03/11 21:13	1 Ascii
Cpy->	SYS.PRT	84/01/21 12:36	1	<Not Present>	Binar
Cpy->	SYS.TAB	81/08/22 00:00	1	<Not Present>	PasDta
??	TEST04	<Not Present>		84/03/11 18:05	2 Catlg
??	TEXTMAKER	<Not Present>		83/08/18 08:01	1 Ascii
Del->	PRT.MISSION	83/11/27 23:25	7	83/11/27 23:25	7 PasDta
Message Area					

A: The first column shows the status of each file:  
 OK: Nothing needs to be done, and nothing will be done.  
 ??: This may be a file that you wish to delete. If you don't change this status, D3BACKUP changes it to "OK" before processing.  
 Cpy: Copy the file: "→": MASTER to BACKUP. "←": BACKUP to MASTER.  
 Del: Delete the file: "→": BACKUP file. "←": MASTER file.  
     Delete: Delete the file from the MASTER\and\the BACKUP directories.  
 B: File names, indented to show hierarchical level, alphabetized within level.  
 C: MASTER file date stamp in "year, month, day" format followed 24-hour time.  
     If a file doesn't exist on the MASTER, the date stamp is "<Not Present>."  
     C-1: Available space on the MASTER volume, 152 blocks in this case. The second line identifies the MASTER directory's name.  
     C-2: The number of blocks used by the file in the MASTER directory.  
 D: The same information as column "C" for the BACKUP files.  
 E: This is the SOS "type" of the file, of the MASTER file if both present.

Screen 2: Change Backup Status

Once leaving Screen 1, you come to the "backup status" screen. It is the standard "directory" screen accompanied by the following message area:

Arrows: Up/Dn to file. L/R sets status. X:Executes	
	(Multi-page)      ESC/RET: Last/Next page. X:Executes
	ESC/RET: Prev/Next page. X:Executes
ESC/RET: Prev/ 1st page. X:Executes	

The "arrow" keys work within a "page" of up to 15 files. The vertical (up/down) arrows move from one file entry to the next and "wrap around" if you go beyond the top or bottom of the page. The "current" file is highlighted. The horizontal (left/right) arrows cycle through the current file's backup status, highlighted while you are changing the status.

For multi-page directories, the ESCAPE key backs you up a page, and the RETURN key moves you forward. From the first page, ESCAPE "wraps" to the last page of the directory. From the last page, RETURN wraps to the first. You may press these keys at any time.

D3BACKUP imposes three restrictions. First, you may not delete a sub-directory until you have deleted all its members. Second, you may not copy a member of a sub-directory if its parent sub-directory does not, or will not, exist on the destination volume. Third, you may not copy over an existing directory. It might point to valid files, and they would be lost.

You may not leave a file - by pressing the vertical arrow, ESCAPE, RETURN, or "X" key - in an illegal backup status. You'll be beeped at and invited to "Press any key" to erase the error message and correct your entry. You may change the status of as many files as you like, as often as you like. You may page through the file to your heart's content.

When you are satisfied with each "Backup Status" entry, press the "X" key to proceed. If you haven't seen all pages, the program tells you and gives you a chance to reconsider. If any files are to be deleted, D3BACKUP goes to Screen 3's "Deleting Files" phase, else it goes directly to Screen 4's "Copying Files" phase.

———— Possible Error Messages: Return to "file status" ————  
 Please delete all members before deleting a sub-directory. Press any key.  
 You cannot copy a non-existent file. Press any key.  
 You cannot delete a non-existent file. Press any key.  
 Sub-directory already exists on destination volume. Press any key.  
 Parent sub-directory does not exist on destination volume. Press any key.

#### Screen 3: Deleting Files

Entering delete pass. Verify each delete? (Y | N){}

Press "N" to make all deletes automatically. Press "Y" for verification of each delete. Verification is slower, but it may be a valuable double check.

Deletions begin at the lowest hierarchical file level and work up to the root directory. This ensures no sub-directory being deleted if it contains files.

(Verify) Delete "PATHNAME"? (Y | N) {}  
 (Automatic) Deleting "PATHNAME"

In "verify" mode, press either "N" to change your mind or "Y" to confirm. If you "un-delete" a member of a sub-directory, its parent will not be deleted.

As a file is deleted, the "available space" in its column header increases. This phase ends when all deletes have been processed. If you choose to copy any files, go to the "copy" phase. Else, you proceed to "End of Task."

#### Screen 4: Copying Files

Entering copy pass. Verify each copy? (Y | N){}

The "copy" phase is similar to the delete phase of the program. Copying proceeds from the root directory and works down. This ensures that a member of a sub-directory has a parent on the destination volume. As a file is copied, "available space" on the destination volume is reduced. If there isn't enough space on the destination volume to hold a file, D3BACKUP will not attempt to copy it. If you decide not to copy a sub-directory, none of its members will be copied. After all copies have been processed, go to "End of Task."

#### End of Task

End of task. Back up another disk? (Y | N | ESC to Pascal) {}

If you have another backup to do, or if you'd like another backup pass on the same disk pair, press "Y." If you invoked D3BACKUP from Pascal, press

ESCAPE to return to the Pascal environment. Press "N" to terminate both the program and Pascal. If you invoked the program from Quark's "Catalyst," you will return to the Catalyst main menu. Otherwise INSERT SYSTEM DISKETTE AND REBOOT.

# PROGRAM INTERFACE (PI-SIG) NEWS

by Robert Golden

## Report on meeting of Monday, October 5, 1987

This meeting in the WAP conference room, was typical of many of our past meetings, consisting of very different, highly motivated, intensely interested individuals focusing on one aspect of computing, program interfacing. By the very nature of the diversity of their interests within the group, their focus moved from one area to another.

With an Apple IIgs provided for the evening by a member, Walter Urban demonstrated programs he created with much patience and good detective work. He created a graphical background and displayed plots of sine waves, sawtooth functions and a Fourier series in which amplitude varied with angular displacement in radians, on the horizontal axis. This was done in a "plain vanilla format", (least complicated), using Pascal. It was inspired by musical programs made available by Ray Hobbs at a previous meeting, for use with the IIgs Ensoniq chip. This kind of demonstration, while of limited application at present, was designed as an exercise using Pascal, a high level language, and toolbox functions, to evoke the desired response from the IIgs to specific commands. This programming is a way of learning to use the tools available, for a computer not completely understood and not yet fully documented.

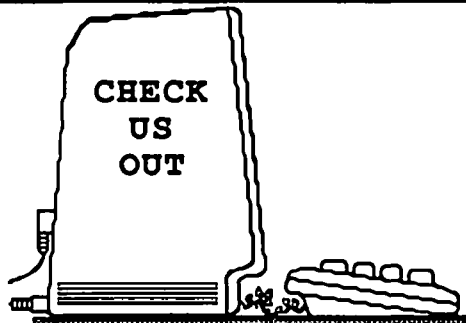
Next, Kim Brennan demonstrated the installation of Roger Wagner's SoftSwitch™ into the Desk Accessory Menu. He emphasized the importance of properly partitioning RAM memory, for containing this program and for use with other programs. I realized that setting aside 832K RAM in the ram card was not so smart, as there was not enough memory to install SoftSwitch, and upon booting this program, it would be immediately kicked out of the disk drive. By reducing RAM disk memory, the disk could be booted and then installed.

A general question and answer session followed, with questions and comments flying around the room. As the meeting closed, I left with a much greater appreciation for the need to carefully read, understand, and implement exactly the caveats of the program designers, and value the comments of those who have paved the way ahead. ☺



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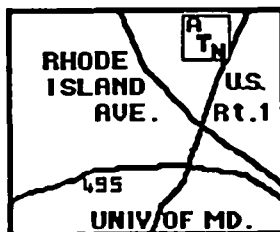
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# WAPACROSTIC

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.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15								
15	B	P	A	K		H	P	E	H		F		G	S									
33	F	U	I	A	X	J	Z		I	M	E	N	G	K	A	C	U	R	K		U		
		52	C	R	V	E	I	a	X		L	Q	Z	E	A	U	V		H	Y	L	U	E
71	M	Q	K	X	a		U	H	E		S	L	J	D	I	Z		C	T	O	H	D	
90	a		U	F	C	G	a		Z	E		O	B		H	B	G	J		U	S		
106	I	J	M	S	L	Q	V	U	B	A		70	80	a	20		P	R	W		a		
125	Q	U	T	C		U	P	E	S	D		L	K		D	L	Y	90		E	H	D	
143	2	K	F	T	G		8	X		U	Q	S		3	K	M	W	A	R	X	8		
161	U	L		3	C	K	R	M	E	90		70	K	2		3	R	J	W		7	8	
		7	9	2	1	8	4	S		5	J	7	2		9	0	S	1	2	4	Y		

**Definitions**

**Words**

A. Country House	116 157 46 36 17 6 63
B. Israelite	101 160 148 114 99 15
C. Raise	93 85 47 164 52 128
D. Crocks	7 89 82 136 142 133
E. Early Educational Experience	181 21 55 62 131 78 140 168 42 97 70 170
F. Saunter	10 24 145 92 32 33
G. Interior	44 29 94 102 27 147
H. Teeth	66 77 19 5
I. Receivers	63 55 40 13 106 56 177 8 120
J. Thinness	81 38 107 166 103 175
K. Opposing Attack	50 144 135 154 16 165 73 45 171
L. Foreign Judgement	162 59 110 80 137 134 68
N. Poetry	163 108 155 88 25 167 1 100 41 71
H. Has Appeal?	12 26 22 141 43 4

**Definitions**

**Words**

O. Carried Out	87 98 31 169 139 117
P. Vermont Ski Area	130 121 20 3 16
Q. Heading Home Water	72 151 125 60 111 30 162 193 187
R. Annie's Pole Here Once	158 53 166 122 174 49 191
S. More Improper	105 190 79 184 109 14 28 152 132
T. Army Heals	179 146 127 153 86 11
U. Phonetic Sound	48 178 165 126 104 91 118 150 115 69 34
U. Slouson	64 129 161 113 76 109
U. Uses Up	172 51 176 192 123 136
X. Protest	74 37 2 58 159 149
V. Spinner	138 9 112 54 65 67 194
Z. Huableness (obs)	39 61 173 84 96 143 188 180 163
a. Realizing	95 90 124 119 57 75 23

## ANSWERS TO LAST MONTH'S WAPACROSTIC

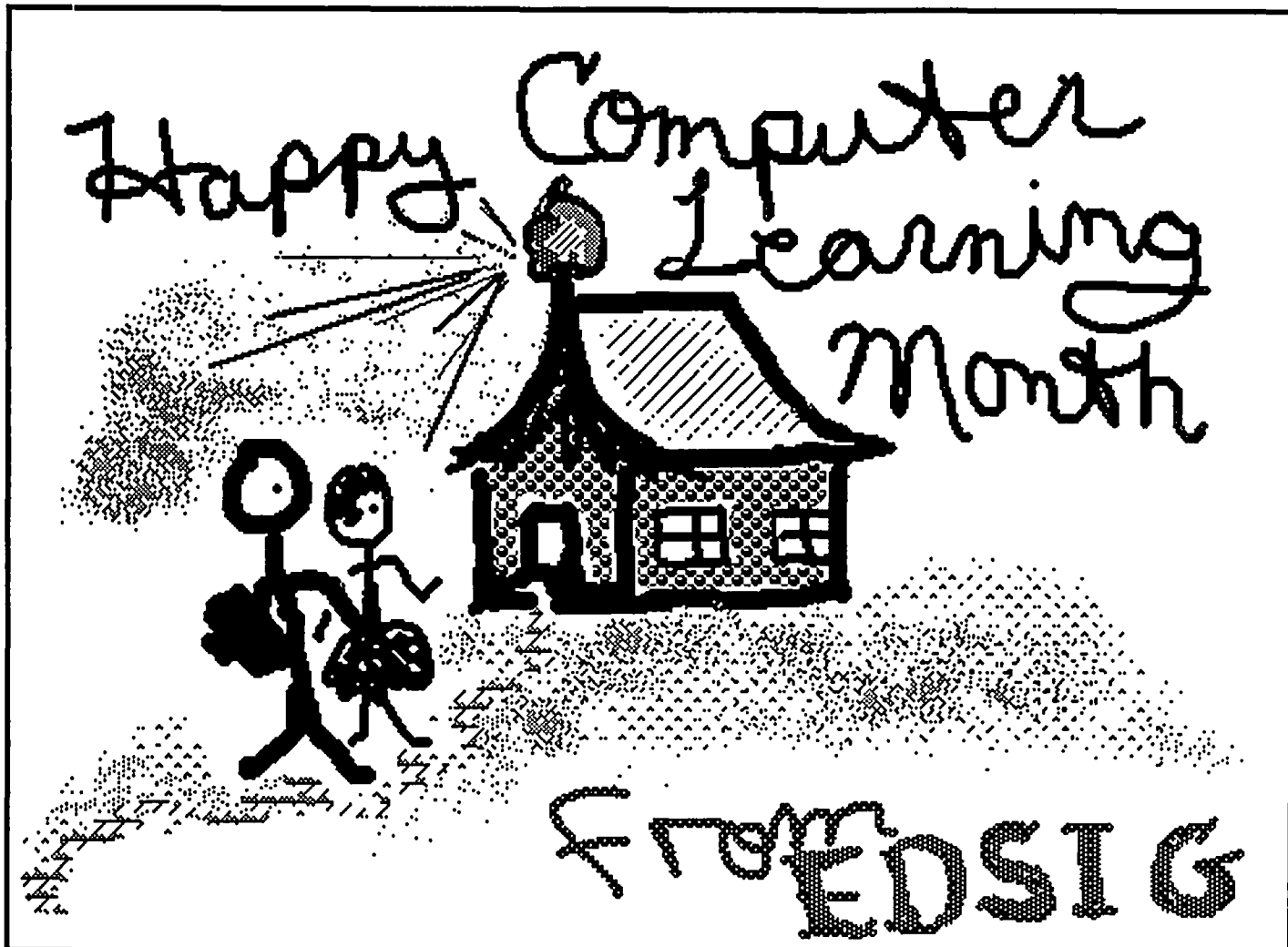
HyperCard is a powerful new medium for creating and exchanging information. It is an extension of Mac technology that puts new power into the hands of all Mac users. People without special training in programming can create entirely new uses for the Mac.

Author: Apple Computer

Work: HyperCard Tech Spec

A. Acetylene	I. Poodle	Q. Erupts	X. Entwist
B. Profaning	J. Unisex	R. Rhenium	Y. Cofactor
C. Panama	K. Terrific	S. Charwoman	Z. Hoaxes
D. Lightfoot	L. Errant	T. Awning	a. Semipro
E. Enwinding	M. Rumpus	U. Rewind	b. Platonic
F. Canary	N. Hogging	V. Deface	c. Ewes
G. Omelets	O. Yachtsmen	W. Treenail	d. Cahoots
H. Mufti	P. Plinth		





## EDSIG NEWS

by Patricia Kirby

EDSIG is delighted to host the main WAP meeting this month (October), which by happy coincidence is "COMPUTER LEARNING MONTH."

Many Apple enthusiasts have contributed their time and effort to this first (annual?) EDUCATIONAL & TRAINING EXTRAVAGANZA, especially Ginny Stange, who directs educational sales for Clinton Computer Co. Ginny helped us locate a number of presenters and resources.

Next month we will write up the main points of the presenters for the *Journal*. As it goes to press in mid-October, we are still fine-tuning the program. We are hoping that everyone will feel at least some measure of awe when confronted at the October 24 meeting with just some of the wonderful things going on in this field. Nothing would make us feel better than a few converts among those who may not realize how much their lives are touched by education and training through the computer. (You need not march down the aisle as you convert.)

EDSIG, small but committed, plans a more concerted effort to fostering educational and training within WAP and invites your help. Watch this column, which will include reviews and discussion of issues—not just write-ups of our SIG meetings.

The following comments are submitted by Ginny Strange of Clinton Computer:

"Computer Learning Month is the theme of the October 24 Washington Apple Pi meeting, co-sponsored by EDSIG and Clinton Computer, a local Certified Apple Education Dealer. We have arranged with local educators to share a variety of different applications that they are involved in. These will be of interest to educators as well as consumers. We also have represented today a variety of people involved in adult learning programs in the Washington Metropolitan Area with good ideas for you to increase your "computer learning" no matter what your age. Our program will begin with the speakers and then a question and answer period. Afterwards we will have a product fair with a large variety of vendors present who will demonstrate and give you hands-on time on lots of new things. Representatives of local institutions are scheduled to also be present to sign you up for classes. In addition, Apple corporate representatives will be available to demonstrate some of their new software solutions for schools, as well as to present new products and programs.

"The Computer Learning Month theme, sponsored by Apple Corporate, the U.S. Congress and a national network of software vendors, has as its mission to heighten our awareness of computers and all their potential in the future. We hope this gathering will be a beginning toward that end and that it provides information useful to all."

# GAMESIG NEWS

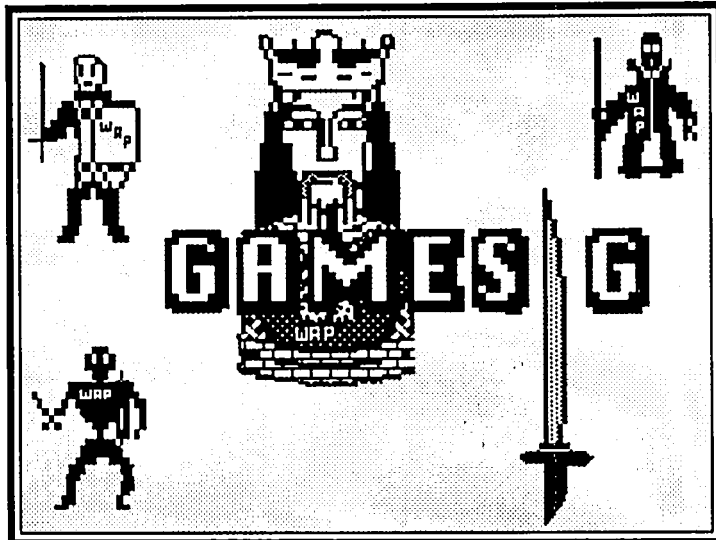
by Steven Payne

On October 1st, GameSIG members gathered for their regular monthly meeting to witness and cheer on the first solo flight of Charles Don Hall as our new GameSIG Chairman. Charles began by mentioning the extension of the World Builder Contest deadline, to make it more competitive. (So far only one entry has been received!) Next we shared rumors regarding the present whereabouts of our previous chairmen Ron Wartow and Thomas Johnston, both currently undergoing major life transitions. Charles reported that *Ultima V*, *Wizardry IV* and *V*, *Beyond Zork*, and so on, are due out "any day now," while Infocom's latest games, *Plundered Hearts* (a historical romance) and *Nord and Bert Couldn't Make Head or Tail of It* (a series of 8 stories involving puns, cliches, spoonerisms and other verbal trickery), have already been released. He also gave high marks to *Maniac Mansion* (Lucasfilms, Activision). Meanwhile, the following software was distributed for review:

**Darkhorn: Realm of the Warlords** (Avalon Hill, Apple // series with 64K): real-time arcade/war game;

**Guderian** (Avalon Hill, Apple // series with 64K): World War II simulation of German invasion of Moscow area, using Gulf Strike system;

**Riddle Magic** (Mindscape, Apple // series with 64K): educational program for learning how to devise riddles.



Because the display equipment was not available, we were unable to have the usual game demos. Instead, members discussed the programs they were currently playing; *Ultima I*, *The Lurking Horror*, *Plundered Hearts*, *Balance of Power*, *Shanghai*, *Wrath of Denethenor*, *Might and Magic*, *Stationfall*, and *Lode Runner III* were among those mentioned.

The next regular GameSIG meeting will convene at 7:30 PM on Thursday, November 5th at the WAP Office. Look for GameSIG reviews of *Ogre* (Mac version), *Balance of Power* (Apple // version), *The Spy's Adventures in Europe*, *The Fool's Errand* and *Battles in Normandy* which follows. ☞

## OGRE FOR THE MAC: A Review

by Jeff Stetekluh

*Ogre* is a great game from Origin Systems Inc., newly translated to run on the Macintosh. (See the review of the Apple II version in the August, 1986 issue of the WAP Journal. The old review applies equally well to the Macintosh version and goes into more detail.) The program is based on a board game so there is a window with the hexagonal grid familiar to wargamers. Units are moved about on this grid much like pieces are moved on a chessboard. Unlike a board game, all the burden of calculating odds, remembering where a piece moved from, rolling the dice and so on are done automatically by the Macintosh.

The player must protect his command post from an exceptionally powerful robot tank called the *Ogre*. At the player's command are units of infantry, artillery and three types of armor. He has a lot of flexibility as to what defensive strategy and what battlefield tactics to use. For example, my first successful strategy was to allocate my resources exclusively for artillery and place them carefully so as to have overlapping fields of fire. This worked about half the time.

The *Ogre*, as controlled by the computer, is a very challenging opponent. Often it will move steadily towards the command post destroying many defenders on its way despite the best efforts of the defenders to stop it. The manual recommends first slowing it down then destroying its offensive power but I suspect the opposite is more effective. The game is addictive. After

many tries (each about one hour) I found two strategies that worked.

The Macintosh user interface is well done, but do not overlook the keyboard shortcuts, as they speed things up a lot. (Hint for the enthusiast: The tiresome task of directing many units to fire at the *Ogre*'s treads can be sped up greatly by first ensuring that the treads are targeted and then repeatedly moving the cursor to the unit that is to fire—without clicking the mouse button—and hitting keys "T", "Return" and "F". I would like to have seen a key for "target at treads and fire.") Although slow compared to an arcade game, this is paced fast enough so that many of those who do not like wargames should enjoy it. I recommend *Ogre* highly.

I have worked professionally with computers for some time now, so acting on operant conditioning, I first write-locked the *Ogre* disk. After that I found I could not make a backup copy since *Ogre* is copy protected. Without a backup I always had some worry that I would lose my only copy. I wanted to make a file of the screen for this review but did not want to write to the only copy of the *Ogre* disk! Origin Systems agreed to send me some files of the screen but mailed a 35mm slide instead!! Those of you who like to store your programs on your hard disk and those of you who like to make a backup for peace of mind are warned in advance. ☞

# BALANCE OF POWER (APPLE II): A Review

by Philip Greco

There you are—President of the United States. The Soviet Union has just sent troops to help insurgents depose a pro-Western government. You send them a note in protest. They send back a strongly worded reply saying the diplomatic equivalent of “drop dead.” The whole world is watching you. What do you do? Do you back down and risk losing a valuable ally as well as prestige throughout the world, or do you escalate the protest and bring the world closer to nuclear destruction?

Such is the dilemma you face over and over in Mindscape's *Balance of Power*, a game depicting a world dominated by power politics at its Machiavellian best. Available for a couple of years on the Mac and IBM, it has now been adapted for the /e, //c and IIGS (128K required). It is, in short, the most fascinating and admirable computer game I have ever played. Note, though, that I did not say the most enjoyable, since there are significant frustrations as well as numerous pluses.

The game unfolds over 8 years, from 1987 to 1994, during which as the U.S. President (or, if you wish, as the USSR General Secretary) you try in a number of ways to strengthen your allies and overthrow your enemies. At the beginner level you can send military aid to either a government or insurgents seeking to overthrow it, or you can “send in the Marines” on either side of the conflict. You don't even have to get Congressional approval to do it! In the intermediate game you have additional options of sending in the CIA (or KGB) to do various things to subvert an unfriendly government, or giving economic aid to frustrate the opposing superpower's attempts at subversion. At the most advanced levels you also can try to bully a government into supporting you (what the game creator terms “Finlandization”) or bolster up a friendly government by signing various treaties with it.

Of course your opposite number (human or computer opponent) is trying to do the same. At certain points each side has a chance to protest the actions of the other. This is potentially followed by a few rounds of escalating protests until one side backs down. If acquiescence occurs early, there is no loss of face (in the game, prestige points), although one side has gained some strategic advantage. The longer the confrontation, the more prestige points are lost by the side that backs down. After a few exchanges of protests and threats, assuming war hasn't already broken out accidentally, the side that lodged the initial protest is faced with the decision whether to actually launch a nuclear war or back down with great loss of prestige. If war is opted for by either side you are presented with the final screen which chides you for your bloodthirstiness, and the game is lost. The game can be won only by avoiding war for 8 years while accumulating more prestige points than your opponent.

This is one of the finest educational games I have ever seen. I was entranced by the way the designer analyzed and simplified one of the key conflicts affecting all our lives. It made me think as few games have about the world I live in. I can imagine this game being assigned in high school or even college government courses, not because it accurately reflects the world political scene—any game must inevitably be simplified far too much to

do that—but as a springboard for thought and discussion. It presents a hypnotic and frightening perspective on how super-powers try to win and lose “points” in a world where total destruction is just around the corner. The extensive bibliography provided in the manual gives further opportunity to understand and explore these crucial issues.

Even at the “beginner” level the computer opponent plays a very challenging game. It is constantly probing your weaknesses and seems ever ready to go to war when its vital interests are threatened. Therein lies my main frustration in the game. Even for apparently insignificant issues the computer's version of the General Secretary can be quite intransigent. Even one miscalculation about its intentions can leave you in the position of either caving in and giving your opponent an insurmountable lead or “pushing the button” and ending the game in a most unsatisfying manner.

After a few tries where I did not get beyond 1989 without either losing outright or getting in a hopelessly lost position, I decided to use the classic adventure and fantasy game ploy: I saved the game before making a crucial decision and rebooted if I made a bad choice. It turned out that saving at the beginning of a “year” wasn't a good idea, since if you had to reboot, the saved game included all your opponent's actions as having already been accomplished without any further protest from you being possible. If you save at the end of the year, however, just before you are ready to tell the computer to go to the next year, then you can protest to your heart's content the next year with the knowledge that a disastrous decision can be redone without penalty. Also since the computer opponent lodges protests right before going to the next year, if you later reboot then all of your actions are left intact without your opponent being able to stop you. This enables you to try all kinds of provocative actions without fear of reprisal. In this manner I was able to trounce the USSR and make the world safe for democracy. It is of course cheating, but not only was it emotionally satisfying but it also gave me a far better glimpse into the workings of the game and left me better able to win the game legitimately. Surprisingly, there is little randomness in the game, with the same outcomes occurring over and over from the same set of conditions, with only minor variations in the points scored.

A game at the most advanced levels can take a few hours if you are trying your utmost to win, since there is quite a lot of information that must be obtained at each turn before decisions are made and there are many countries to make decisions about. I never played the Mac version but one review I read said it contained 66 countries. This version has 54, which despite the obvious oversimplification is more than enough for the game (although I did wonder what happened to Australia). The basic game screen is a world map with options of obtaining detailed summaries of each country or overview indications on the map of various bits of crucial data. Selections may be made by joystick, keyboard or mouse.

Although there is the option of having another person playing the other side, my estimate is that the game would be very  
contd. on pg. 38

# THE SPY'S ADVENTURES IN EUROPE: A Review

by Chris Hancock

New from Polarware is the *Spy's Adventures* series (Apple II with 64K). This is a series of travel adventures for the entire family, set in Asia, Africa, the Pacific, North and South America and—in the game reviewed here—Europe. This software is similar to the "Carmen Sandiego" series, but with some notable differences which I will touch on later.

The object of the game is to locate the "fiendish Dr. X." While travelling through Europe one encounters informants who have clues to the location of Dr. X. They will reveal these clues when bribed with cash or jewels. The latter are hidden throughout Europe and may be found by chance or from clues given by friendly agents whenever they are encountered.

The effectiveness of one's search is judged by an "efficiency rating." During the play of the game one may keep track of this by accessing the "clues screen" which also displays details of the jewels in one's possession, the location on informants and all clues. This feature means that there is little reason to make notes except perhaps to keep track of which countries one has visited.

The game plays quickly and easily with all the information required for playing being stored on disk. Just three keys are used for all commands. For those nasty, irritating interruptions the

game may be saved at any time directly to the game disk in any of 9 positions. I found little need for this feature because a game can easily be played in an hour.

Both standard and double hi-res graphic modes are provided. Play is much quicker using the standard mode but the graphics are certainly more satisfying with double hi-res.

A number of play options are available. It may be played solitaire, cooperatively with up to six players working together to find Dr. X, or competitively where each player searches for his or her own villain.

The game ends with the location of Dr. X. One has three guesses at finding his location. In solitaire play one tries to achieve ever higher scores in efficiency rating. I will not spoil things by telling all in this area!

While this series shares the same general theme as the "Carmen Sandiego" games, I would recommend this more highly for younger gamers, since it is more forgiving and less competitive. The graphics are also better. Indeed the documentation mentions enhanced school editions being available, so it is obviously geared to the younger generation. I certainly enjoyed playing this game and it seems well worth the quite modest price. ☺

# BATTLES IN NORMANDY: A Review

by Chris Hancock

*Battles in Normandy* (Apple II series with 64K, \$40 list) is the latest offering from Strategic Studies Group. It uses the same basic game system as their *Battlefront* game. Indeed, for those of you familiar with *Battlefront* there is very little change in the play of the game. One can once again play either the Axis or Allied side with your opponent being either a human or the computer. A game played entirely by the computer is also possible.

It is a corps level game with individual units representing battalions of infantry, armor, etc. Orders are issued to regimental size groups which then attempt to execute these general orders under computer control. As in all SSG games, orders are entered using a set of menus which are easy and logical to access.

The object of the game is to secure a number of objectives and to destroy as many enemy units as possible. Victory points are earned in varying proportions for these actions, with the victor being determined by a direct comparison between Axis and Allied point totals, after taking into account any handicap multipliers selected.

Included in the game are eight scenarios, each dealing with fighting in and around the beach heads of the Allied invasion of Normandy in 1944. The scenarios range in length from 19 to 55 turns. As usual, SSG has included a complete design kit which allows for variations to be made to existing scenarios or for the creation of new ones.

The player's manual is probably the best yet from SSG. It contains extensive scenario notes and a section on tactics for

each scenario. In addition, suggested variations for each scenario are included.

While this game uses essentially the same system as *Battlefront* there have been some refinements made. The effect of changing weather conditions has been added, creating different distributions of the basic weather types. This makes the play of a scenario quite different on occasion. Units now have a chance for resupply even if they have no line of supply, making the latter less disastrous. There have also been some changes to artillery and off board support effectiveness together with some allowance for combined arms bonuses on defense. HQ units now have a separate movement allowance. Finally, there are some modifications to the game design options.

*Battles in Normandy* scenarios will run under the *Battlefront* system with the various refinements being ignored. Likewise, *Battlefront* scenarios will run under the *Normandy* system but may require some minor adjustments to the artillery and off board support points.

I found the scenarios in *Battles in Normandy* altogether more interesting and satisfying than those in the original *Battlefront* offering. Each offers different challenges and frustrations. The lack of off board support in poor weather can really be felt and one usually feels that it is missing just when it is needed most.

In one Omaha beach scenario I played, I may have found a bug. On two separate occasions an Axis unit rushed toward the Allied lines for no reason I could discern. Allied attempts to attack the unit failed and then they simply were removed from the

contd. on pg 38

# THE FOOL'S ERRAND: A Review

by Steven Payne

Not long ago I was partially responsible for a disastrous demo of "The Fool's Errand" (Miles Computing, Mac 512K or better) at our regular GameSIG gathering. In our eagerness to show something for the Macintosh, we had opened the review copy just received and immediately booted it up. But as the recent advertisements in MacWorld and elsewhere loudly proclaim, "The Fool's Errand" represents quite a departure from the normal adventure game format, and so we couldn't at first make any sense of it. After spending a few weeks wrestling with its puzzles, I'm here to tell you that the program deserves a second look.

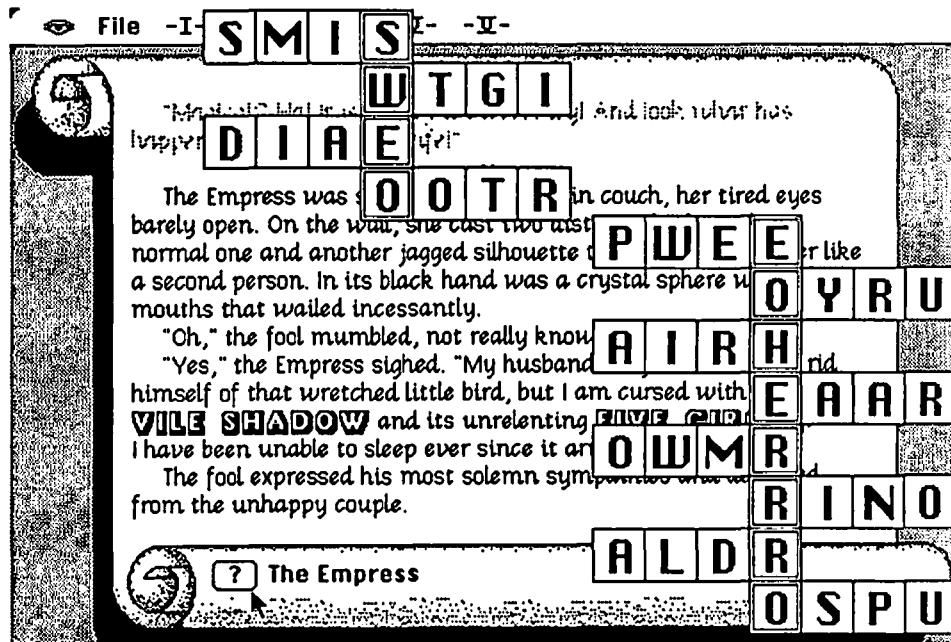
"The Fool's Errand" is not easy to describe. It is an adventure game of sorts, but one in which there is no traveling and exploration (at least not of the "go east" type), and no items to discover and manipulate in the usual manner. The characters and plot are based loosely on the Tarot deck, but without any fortune-telling or other occult overtones involved (Church Lady can breathe a sigh of relief). According to the basic story, the Land of Tarot is in disarray, and the four kingdoms—Pentacles, Cups, Wands and Swords—are on the verge of war, due to the disappearance of 14 treasures which the High Priestess has cleverly hidden throughout the land. Your task, as the Fool, is to find the names of the treasures and inscribe them in the "Book of Thoth." A brief animated video sets the scene before you start. As you begin the game, only a few sections of the 80-part story are available to you; more become available as you solve the puzzles corresponding to particular sections of the text. Each solution also gives you another piece of the sun's map. Once all the initial puzzles are solved and the map unscrambled, you are ready to figure out the names of the treasures, based on clues found in the map and story. At this point the program allows you to print out the whole story—all 21 pages—for easy reference. When all the names are correctly inscribed, the program takes you into a final animated sequence, in which the High Priestess gets an appropriate comeuppance for all of the trouble she has caused.

This may sound obscure, and in fact the story line often seems contrived, little more than a framework on which to hang the puzzles, with the language distorted to fit the elaborate verbal clues embedded in the text. But it is the puzzles themselves which make the program truly special. There are scrambled pictures and letters, hidden words, mazes (including a tricky "roller-coaster" version), jigsaws, a card game, coded sentences, wandering control buttons—nearly 60 initial puzzles of all kinds before you even get to the endgame. Best of all, "The Fool's Errand" makes splendid use of the Macintosh interface; the graphics are excellent and most of the time you can simply point, click, and/or drag to trace lines, select cards, exchange letters and so on. (HINT: The most fiendish puzzle belongs to the

High Priestess, where you have to click on the numbers 1 to 99 in descending order as they appear randomly about the screen. I advise not even attempting it until you have seen all the "Keys of Thoth" and your pointer has become key-shaped—I tried it too soon and ended up having to restart the game because of some glitch.)

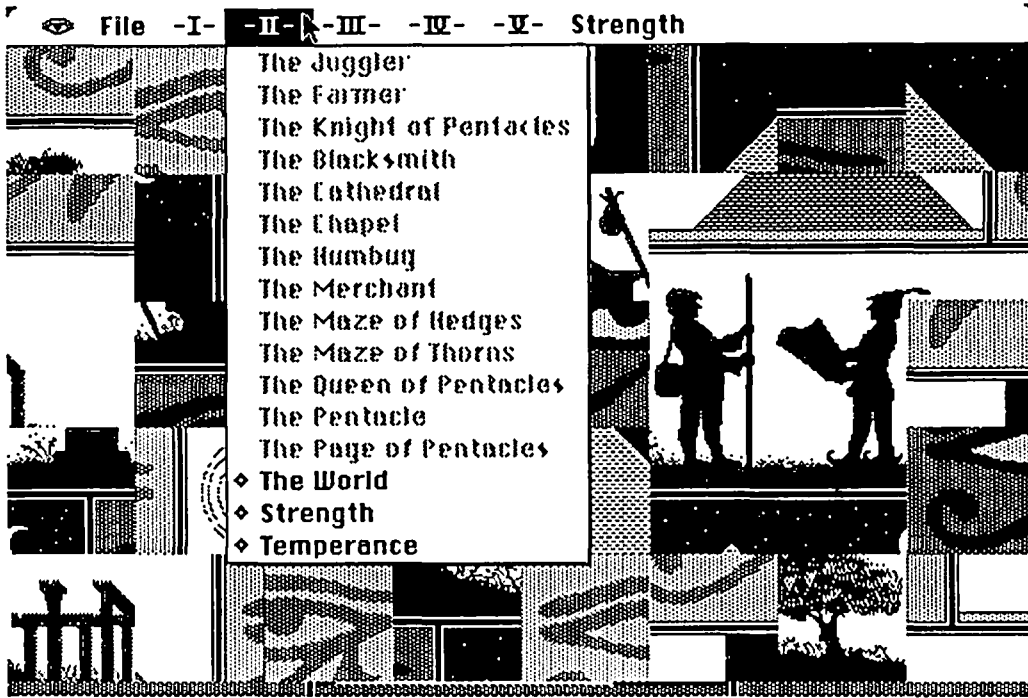
"The Fool's Errand" is not copy-protected, and comes on three single-sided disks: one for the game itself, one for the puzzles, and one for the animated "preview" and "finale." After you save a game for the first time, the program will automatically update and save your current position every time you quit. This prevents you from losing your latest puzzle-solving achievements, but can also be annoying if you want to go back to an earlier stage of the game. (I resorted to the "Save As" command in order to preserve a duplicate of earlier positions I didn't want to lose.)

In short, this game will not be everyone's cup of tea. It is definitely not Zork-like, involves no killing (of yourself or others), is fairly stingy with clues, and expects you to know how to spell words like "onyx" and "amethyst." But for those who enjoy jigsaw and crossword puzzles, "The Fool's Errand" is ideal. The package indicates that this is the first in "The Arcanum Series." If Miles Computing can now find a story to match the quality of the puzzles, their next release in this series could be spectacular.



The "Empress fragment of the story with its corresponding puzzle superimposed. (The puzzle is revealed by clicking on the button in the lower lefthand corner of the scroll.)

contd.



*This picture puzzle is solved by clicking on any two pieces to exchange their positions. Different parts of the story and their corresponding puzzles can be reached via the pull-down menus.*



*Two puzzle screens. The one behind involves clicking and dragging over letters forming the names of 25 kinds of birds. In the forefront is a cardgame.*

**Balance of Power** contd. from pg 35 different and less satisfying. Instead of opposing a difficult but ultimately fairly predictable and rational (in its own way) opponent, you would be facing someone who knows what he has to lose in terms of points and could do all kinds of irrational things in the knowlege that if you challenged him you would have to back down eventually or both of you would lose the game.

While this game is not for everyone, I recommend it highly. I think that many people who are not nrmally computer game players will be tempted by this product. ☺

**Battles in...** contd. from pg 36 map after a turn or so. Further investigation of this is required once I can play that scenario a few more times.

The most recent edition of *Run 5* magazine (published by SSG) contains details of a campaign variant linking the Cherbourg and Utah scenarios in the game. The continued support of their games through this medium greatly adds to the value of SSG products.

Although SSG says that only a monochrome monitor is necessary, I have always found that a color display is to be highly recommended. Others may not find this a handicap, but I do.

This is certainly a worthwhile addition to any wargamer's library. The added diversity in scenarios over those in *Battlefront* will surely persuade you to part with your money even though the game system is essentially the same. ☺



# SOFTWARE INDUSTRY: ITS ECONOMIC STRUCTURE

Part 2 by Joseph A. Hasson

## IV U.S. Competitive Position

In 1982, the U.S. software industry, nearly ten times larger than in France and Japan, its nearest competitors, obtained 56 percent of world-wide revenues from packaged software. Japan and France derive their major revenues from custom software - 95 percent and 70 percent, respectively. The United Kingdom relies more on integrated systems (54 percent). Japan and France each had 5 to 7 percent of world market shares; the U.K., 2 to 4 percent.

Among the world's top computer firms, total revenues came to \$40.2 billion in 1979. In 1981, the total had increased to \$54.4 billion—more than 35 percent over a two year period. The share of the market of U.S. firms increased from 73.6 percent to 80.8 percent; of Japan from 8.41 percent to 8.92 percent. Shares going to France, Italy, West Germany, the United Kingdom and the Netherlands all declined. The share increase for the U.S. was 4.12 percent and for Japan, 6.1 percent. Hence, the share increase for Japan was 50 percent greater than for the United States even while the U.S. maintained its predominant position.

For software, there are 1981 data for Europe and the United States. The total market for software in the United States and Europe came to \$20,670 million, 39.5 percent of which was in Western Europe and 60.5 percent in the United States. The fastest growing markets in Europe were Portugal (35.9 percent) Spain (22.1 percent) and Norway (21.2 percent). These growth rates compared with 15.3 percent for Western Europe and 14.8 percent in the United States. Aside from growth rates, the largest European markets were in France, the UK and West Germany with \$4,430 million sales compared with \$12,500 million in the United States. No separate figures are shown for Japan. We have more to say about Japan and other countries later. It is clear that in Japan, government-support programs benefit software producers who seek to improve their world market positions.

We noted that employment in the U.S. software industry increased from 224,000 in 1982 to 508,000 in 1985—more than doubling over a four-year period. The 1982 employment exceeded the combined employment of France (40,000), Japan (38,000) and the U.K. (8,000). As interesting as these figures are, they do not provide great insights into the economics of the industry. In 1982, 16 of the 20 largest computer software producers in the world were in the United States, two were Japanese, one, French and one was in the United Kingdom. These 20 firms had total revenues of \$4,569 million, 88.25 percent of which was reported by the U.S. firms. Moreover, the top five American firms accounted for 68.3 of the total revenues of these 20 largest firms. This American dominance was affected by the presence of IBM. Still, the strength of American firms was even greater than their sheer numbers would imply. One caveat is required. Data for this industry are notoriously incomplete; hence, other non-American firms may fall within the top 20 circle of firms. Or if the top 30 firms were considered, the American relative position might be altered. In any case, the basic finding regarding the position of U.S. firms would be unchanged. It has been stronger than the mere numbers would imply. When the top

American firms are examined more closely, we find that their sales revenues by source is broken down as follows:

	<u>mns./\$</u>	<u>percent</u>
Packaged software	2,595	64.28
Contract programming	1,320	32.70
Integrated systems	122	3.02
Total	4,037	100.00

An interesting difference arises when the top 20 firms are compared with the total software industry. The larger firms obtain a greater proportion of their revenues from contract programming and a smaller share from integrated systems. Revenues from packaged software for the larger firms are proportionately closer to revenues from this source for the total industry. A deeper analysis of the economics of the industry would be required to better understand this asymmetric pattern between large firms and the aggregate industry. On the other hand, more than 60 percent of total sales by the largest American firms was from packaged software. A considerably smaller proportion came from contract programming and still less from integrated systems. Overall, these top 20 firms accounted for only one-third of the estimated total revenues in world markets in 1982. This detailed assessment throws some light, albeit in a preliminary way, on the international structure of this industry. Present projections of future markets in software suggest that if the U.S. is to maintain its competitive lead in the world market, it may have to focus more research and development on integrated and contract systems than on packaged software. This focus appears to be a prerequisite particularly in order to establish and maintain a strong beachhead in European markets.

On the other hand, total software revenues among all U.S. firms in the industry in 1982 amounted to \$10.3 billion, broken down as follows:

	<u>bn/\$</u>	<u>percent</u>
Packaged software	5.768	56.00
Customs	2.884	28.00
Integrated systems	1.648	16.00
Total	10.300	100.00

Given the U.S. share in world markets of 70 percent, estimated world revenues, therefore, were about \$14.1 billion. By 1985, total software revenues among U.S. firms was \$21.5 billion, broken down as follows:

	<u>bn/\$</u>	<u>percent</u>
Packaged software	14.0	65.1
Customs	4.5	20.9
Integrated systems	3.0	14.0
Total	21.5	100.0

These revenues of \$21.5 billion were about 71.7 percent of world software sales of \$30.0 billion.

Between these two years, 1982 and 1985, there was more than a doubling of software revenues and a relative shift away from customs and integrated systems (-7.1 percent and -2.0 percent, respectively) to packaged software (+9.1 percent). The big change was from customs to packaged software, from higher to lower priced merchandise. These shifts may reflect price in-

contd.

duced changes, the growth of personal computers and, therefore, alterations in the preferences of consumers. Or it can imply that in a total market that was growing certain segments may have been increasing more rapidly. While such a shift may be rooted both in technological and demand factors, they may also raise questions about their effect on the long-run competitive position of the U.S. software industry in the world market, especially in areas of high and increasing industrialization. It may be that in these latter markets, the demand for customs and integrated systems will increase more rapidly over the long run.

The competitive position of an industry can be analyzed within a framework of relevant supply and demand factors. On the supply side, predominant factors in the software industry have been U.S. technological preeminence, entrepreneurial and managerial strengths, the size and sophistication of its user markets. Technologically, a close connection exists between the development of microprocessing hardware and software. Advances in the former—expanded memories, speed, modems—peripheral and built-in, networking possibilities—all have motivated development of sophisticated software. Greater computer output has been obtained—quantitatively and qualitatively—per unit of input. Complementarities exist between sophisticated hardware and software. As real prices of the former decline because of changes on the supply side, a greater demand for software develops. As software becomes more sophisticated requiring larger memories, greater speeds and capacity to perform more complex and subtle functions, incentives for innovations occur on the hardware side. There can be a reciprocal and integrated relationship as the total technology moves on to higher planes of attainment. A major factor is that U.S. software and new operating systems are adopted world-wide.

A new generation of personal computers is beginning to enter the market—based on Intel's new 80836 microchip which is very high speed and can perform several operations simultaneously. (Wall Street Journal, 1/19/87) In this instance, hardware developments have outpaced those in software. Machines with the new chip can run existing software two to three times faster than the fastest machines now on the market. The new chip can handle memory several times larger than currently in use; it permits a computer to perform several tasks at the same time. While integrated software exists, software with sufficient power fully to harness the new technology remains to be developed. Hence, lags in the development of different segments of an expanding industry occur—not a novel condition but one that has occurred many times in the history of technological evolution.

On the other hand, there has been a rapid growth in the demand for software. Computer users, supported in many ways—special classes, user groups, a proliferation of books and periodicals—have been eager and responsive to get into the market. Networking has occurred, data bases expanded; other vehicles have broadened user horizons. Computer languages for programming have proliferated and while they have been mastered with relative ease, there have been some dysfunctions. Schools and universities have integrated computers into their curricula. A higher than average rate of return from software and other computer products has generated financial resources which have been plowed back into research and development. A general and revolutionary change wrought by the computer—actual and potential—is sweeping American society. One can

perceive a moving horizon with its ultimate destination still undefined. As computer literacy seeps through all the crevasses of our society, a spiralling and self-perpetuating cycle of growth will be the consequence.

Based on a recent survey by a computer magazine, the relative importance of selection criteria relied on by purchasers and users of computers were identified. The prime criterion users consider “very important” is assigned a value of 100; those of lesser importance are expressed as a percent of this leading factor.

<u>Characteristic</u>	<u>Evaluation</u>
Documentation	100.0
Ease of use	98.1
Performance	82.2
Support	70.4
Compatibility with other software in use	57.0
Error handling	49.7
Compatability with other hwre	27.3
Price	25.7
Vendor reputation	20.9

Clearly, non-price factors are of much greater importance than price. A simple listing of this kind does not, however, reveal what inter-correlation there may be among the factors.

## V Position of Leading Competitors

The competitive position of American firms must be placed in proper perspective. We alluded to the status of the software industry among our closest competitors. Those early observations are brought together here where we focus on individual countries: France, Japan and the United Kingdom—our major competitors.

France: In 1982, the top 10 French firms had total revenues from software of \$631 million, broken down as follows:

	<u>mns/\$</u>	<u>percent</u>
Packaged software	22	3.49
Contract programming	534	84.63
Integrated systems	75	11.89
Total	631	100.0

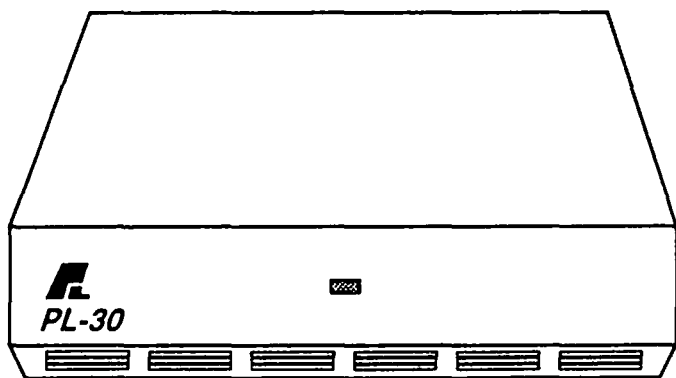
The top 100 French firms had total sales revenues of \$825 million. Hence, revenues of the top 10 firms constituted 76.48 percent of that total. The revenue breakdown among the top 100 firms was as follows:

	<u>mn/\$</u>	<u>percent</u>
Packaged software	123.0	14.91
Contract programming	592.0	71.76
Integrated systems	110.0	13.33
Total	825.0	100.00

Among both the top 10 and top 100 firms in France, contract-programming has been most important as a source of software revenues. Packaged software has played a relatively minor role. This profile of software demand is in sharp contrast to that found in the United States. It implies that the personal computer may play a considerably less important role there than here. Also, since the French do not have an IBM counterpart, their industry concentration pattern on a priori grounds can be expected to be different than ours. Interestingly, however, sales concentration among the top five French firms was not much different than that found in the United States—69.1 percent vs. contd.

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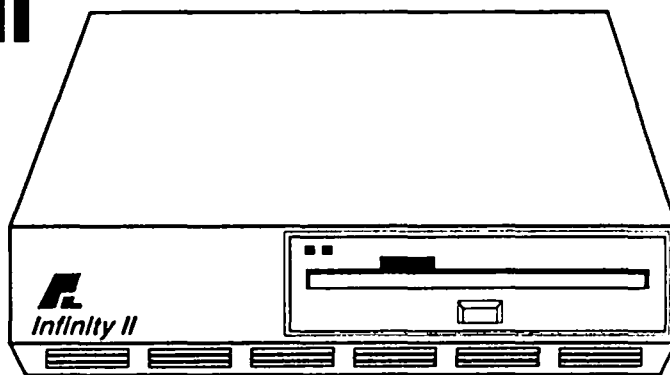
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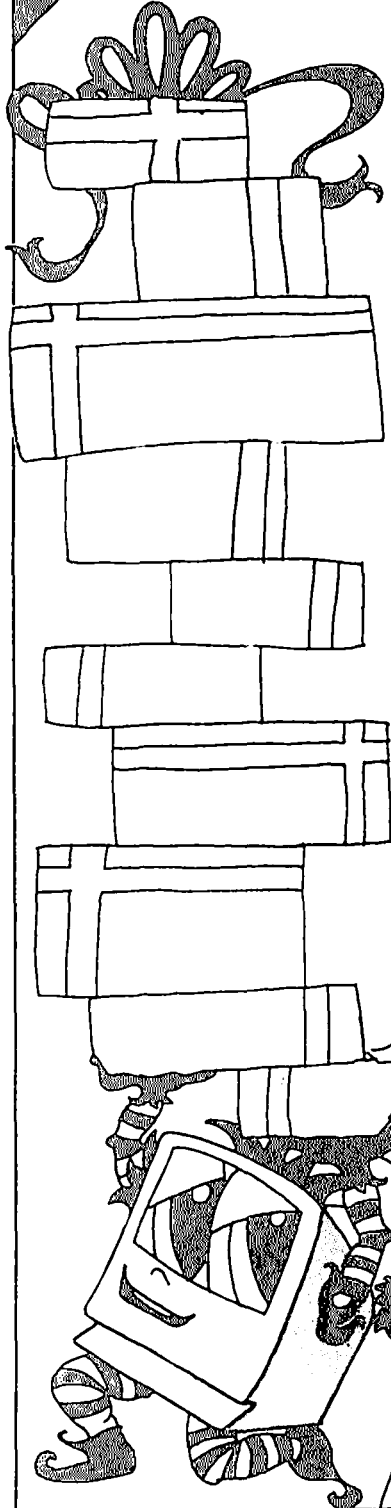
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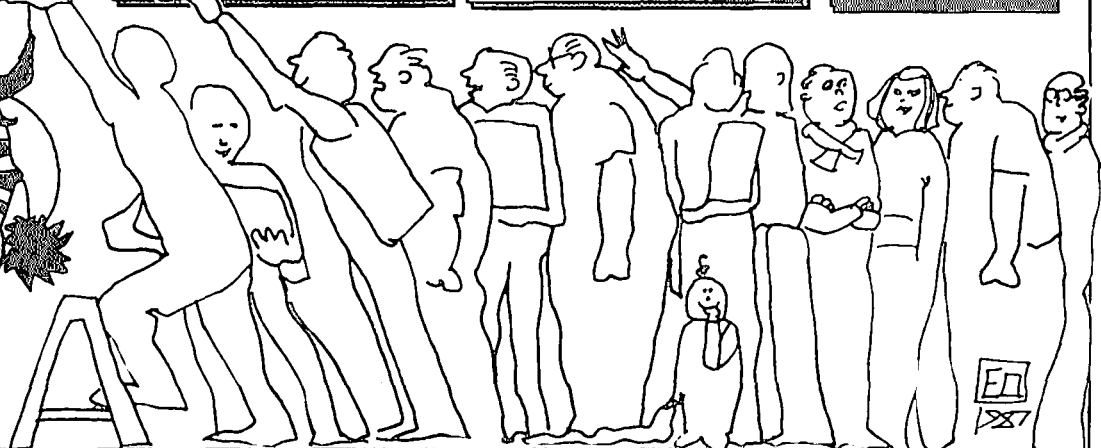
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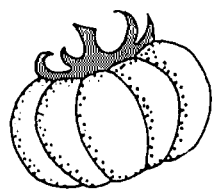
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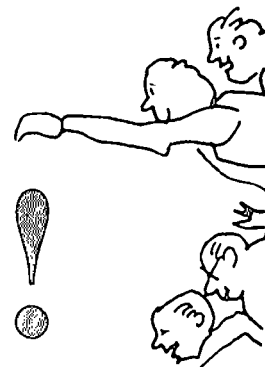
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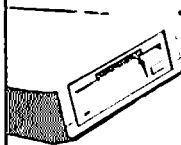


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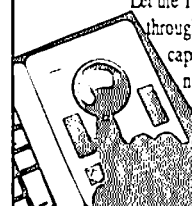
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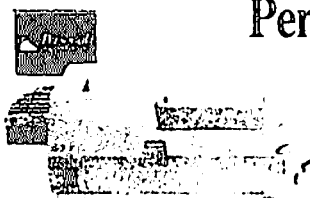
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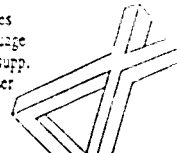
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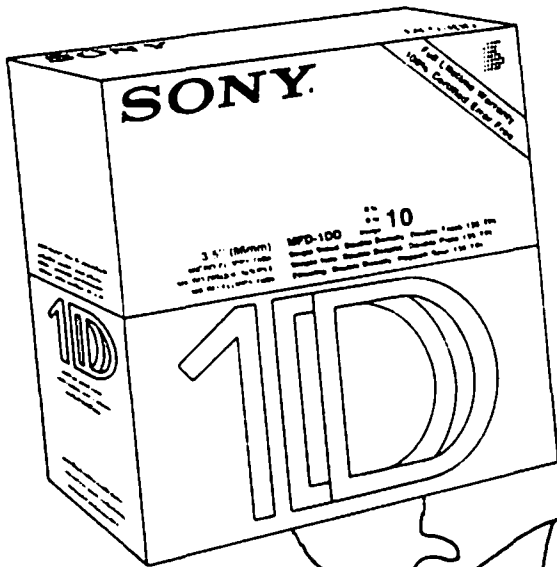
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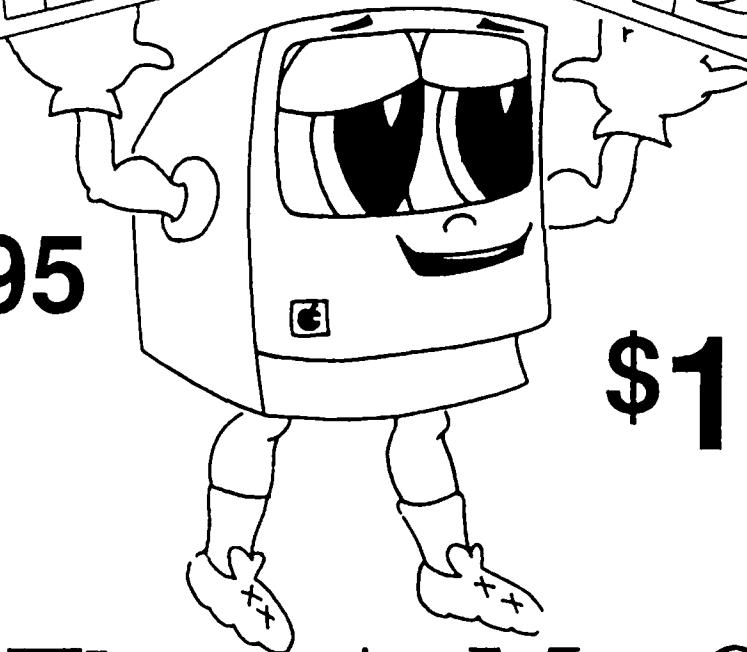
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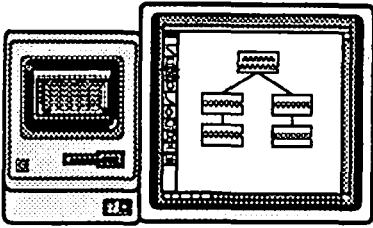
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### OCR From New Image Technology

*The wait is almost over*

Come in and see the new OCR software from New Image Technology. A Demonstration disk is now available. The software is expected to be ready in the early part of September.

Pricing was not available at press.  
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### Also New From New Image Technology

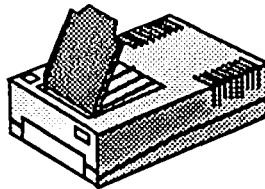
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New Image Technology will shortly be shipping their new Flat Bed Scanner. The scanner will work with their current interface and software. Come in for a demonstration of this new product from the innovative people at NIT.

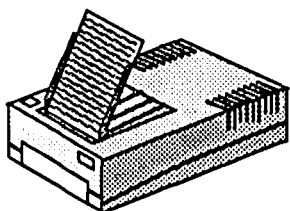
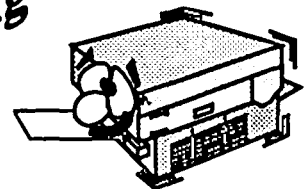
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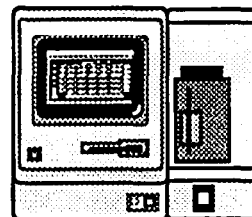
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69.3 percent. The French government has declared that it will practice preferential treatment for national sources in computer and software acquisition. It has established a "super-ministry" for Industry and Research which can affect software development. It has adopted the "Farnoux Plan" to help mobilize private, nationalized and public sector sources in scientific-electronic markets, including the increase of research funds by 50 percent. The effects of these activities is not certain. It could result in market interventions which might affect the position of American subsidiaries in France in the computer and related fields. It may help explain the concentration pattern noted above.

Japan: In 1982, total software revenues were \$1,046 million. The top ten firms accounted for \$479 million, or 45.79 percent of that total. Total revenues for Japan are not disaggregated among the three broad classes of software - packaged, custom, and integrated systems. It is estimated that 90 percent of those revenues, because of consumer preferences, come from contract programming. Japanese progress in this industry has been rapid, especially, since it came into being only ten years after its U.S. counterpart.

Three special features of the industry are noteworthy: (a) Software production is closely linked to computer hardware manufacturers. (b) The industry never received assistance from the Japanese government. (c) Its sales are concentrated in the domestic market and exports have not attained significant levels. Yet, revenues have been increasing at close to 20 percent per annum. For a variety of reasons, sales revenue figures are probably an understatement of the true amount. Much software is developed in Japanese corporations which are its final users. Some software, included in the price of hardware, is not reported separately. The Japanese government has provided preferential tax treatment directed at software: 50 percent of "software income realized" can be set aside in a tax-free reserve to defray future software development costs; tax deductions are allowed for annual cost increments incurred for training software engineers. Government loans amounting to 5 billion yen will be made for joint software programs. These developments are broadly consistent with industrial policy support in Japan. This kind of support has been effectively managed, in the past, and adequately funded. Industrial targeting in other Japanese industrial areas has led to high performance results and considerable gains in foreign markets. Hence, efforts in the computer field must be taken seriously since they could encroach on the U.S. share of world computer markets.

United Kingdom: In 1982, more than half total software revenues in the U.K., estimated at \$700 million, came from integrated software; the balance was about equally divided between custom and packaged software. The following are estimates of this breakdown:

	mns/\$	percent
Packaged	175	25.0
Customs	175	25.0
Integrated	350	50.0
Total	700	100.0

The top ten firms accounted for \$556 million, or 79.43 percent, of the total. The concentration ratio among the top 10 firms was greatest for the United Kingdom and lowest for the United States (35.13 percent). Concentration in France (76.48 percent) was closer to that in the United Kingdom; concentration

in Japan (45.79) was closer to that in the United States.

In 1982 there were about 8,200 programmers and systems analysts in the British computer industry. The British software industry, faced with a shortage of skilled workers, has experienced, therefore, an inhibited growth. Nevertheless, British software technology is of high quality: in database management; electronic mail; videotex; and other sophisticated uses. Some observers consider computer science departments in British universities among the best in the world. These conditions have probably induced leading American companies, including Digital Equipment, Hewlett Packard, Honeywell and IBM to establish key software development facilities in the United Kingdom. British shortcomings in the computer field are primarily in marketing skills and in inadequate financial resources for investments in more complex systems required for mainframe computers. The British Government through its Department of Industry has established an 80 million pound fund to be drawn on over four years. The aim is to support "information technology." The funds, channelled to firms and users through a series of grants, will be employed to develop advanced technologies for fifth generation computers. Funds will also be deployed to assist in software engineering.

Other countries with evolving software industries include Ireland, Singapore, Taiwan and India.

Ireland: Ireland, which enjoys tariff-free access to the markets of the European Economic Community, has an incentive program administered by the Irish Development Authority. The objective is to attract foreign hi-tech industries into the country. To date, cash grants and tax breaks offered to foreign software firms have attracted IBM, DEC, and other firms. By 1990, software production will triple and employ 10,000 software specialists.

Singapore: Singapore officials intend for their City-State to become a leading producer and exporter of software by 1990. They have established an \$80 million training program, three training institutes and subsidies for the development of software. Several foreign companies, including Nixdorff of West Germany, DEC, Hewlett-Packard and Sperry (before it merged with Burroughs) from the United States have located multimillion dollar software centers there. In 1983, sales revenues from software were \$24 million; exports were 17 percent of this amount. It is expected revenues of \$200 million and employment of 4,000 in software production will be reached by 1990.

Taiwan: Taiwan has more than 100 software firms, many with fewer than 20 workers. Most output is applications software. Tax incentives and skilled, but low-cost, labor have induced American firms including Wang, IBM, and Hewlett-Packard to establish software development groups. In 1983, firms in Taiwan exported \$500,000 of applications software. A production goal of \$3.2 billion by 1990 has been set. A substantial percentage of that total will be exported.

India: India has an estimated 120 software companies with about 5,000 workers. They have a strong export orientation. Indian firms have entered into joint ventures with U.S. computer manufacturers. Indian advantages in software production include a strong intellectual base and very low wage rates. Software production costs are 30 to 50 percent lower than in developed countries.

LDC's: In general, lesser developed countries consider evocntd.



lution of a computer industry as a vehicle for stimulating economic growth. National changes to achieve this goal will have to occur either through the entry of foreign firms and/or government support. In Mexico and Brazil, fiscal and financial assistance measures will be invoked. Certain forms of trade restrictions will protect infant industries. Specifics may differ from market to market. The general inference is that U.S. firms will have to tolerate burdensome systems of public control if they are to participate in the computer markets of these countries.

#### VII Issues in the Software Industry

What are some of the critical issues that will confront the software industry? Generally, the industry is strong and growing in the United States, given the quality and sophistication of its programs. U.S. software producers encounter a serious problem in foreign markets which arises from inadequate protection of intellectual property rights and piracy. A comprehensive analysis of this problem is beyond our scope. This problem is so serious that steps to deal with it are incorporated in current trade legislation in the U.S. Congress. Existing laws are considered inadequate. Trade negotiations at Punta del Este will provide a forum and "an opportunity to develop and strengthen international rules and procedures for international property right protection and enforcements." In addition, amendments to Section 337 of the Tariff Act of 1930 would provide greater protection to domestic industries that rely on intellectual property rights from foreign imports. In addition, the U.S. Special Trade Representative will be instructed to identify those foreign countries that limit market access to U.S. persons that rely on intellectual property protection. A timetable will be established for consultations and negotiations.

Countries with the largest potential markets for intellectual property rights and with the most onerous acts, policies or practices will be identified. Negotiations with them will be entered into aimed at "the harmonization, reduction, elimination, or prohibition of restrictions, barriers, fees or other trade-distorting acts, policies or practices in order that United States persons that rely upon intellectual property protection will obtain fair and equitable market access. In negotiating with foreign governments, the U.S. will try to induce them to adopt corrective legislation and seek the development of international rules and dispute settlement procedures. Special attention will be focussed on the protection of "new and emerging technologies". These include computer technologies, software development and production. ☺

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# PASCAL NEWS

by Robert C. Platt

**PIG.** The September Pascal Interest Group meeting focused upon arrays. After a general discussion, the group coded a program to play tic-tac-toe as an illustration of using two dimensional arrays. The listing of the program follows this column. The PIG meets on the third Thursday of each month at 8 p.m. at the WAP Office. Newcomers are welcome. We regret to announce that Mike Hartman is retiring as Chairman, and a volunteer is needed to lead the group. Given the PIG's proud history as WAP's longest-running SIG, it would be a shame if noone volunteered to fill this vacuum.

**APDA.** The Apple Programmers and Developers Association, 800-426-3667, sells by mail order many programming tools which Apple does not wish to carry as a commercial product. Unfortunately, Apple is dropping its p-System for the Apple II family from its product list. However, APDA will continue to sell Apple Pascal 1.3 for a reduced price of \$75 plus shipping. APDA is also selling TML Modula-2 for the Mac for a new price of \$69.95.

**BASIC.** I have ordered Apple's new GS BASIC through APDA for \$50. This is the only BASIC available to date with full support of the IIgs tools. Pecan Software's BASIC runs under 16 bit mode, but does not yet support all gs ROM routines.

**MPW Pascal 2.0.** APDA shipped version 2.0 for a two week period and then recalled the Pascal compiler when it discovered fatal bugs in the program. If you have version 2.0 you may return it for a free upgrade to version 2.0.1. Mike Hartman reports that 2.0.1 is faster than version 1.0. However, he is now addicted to his Mac II, and has not been running it on a mere mortal Mac. The documentation points out seven bugs which were *not* fixed in 2.0.1: (1) After reporting a "method not declared as override" error, the compiler will crash. (2) Bad code may be generated when using a Btest function on an element of a packed array. (3) Large source file containing enough procedure names to overflow a 32K buffer will generate a defective object file leading to link errors. (4) Bad code will be generated from source in the form:  $k:=a+t[i]$ , where  $t$  is a packed array of [0..1] and  $k$  is allocated to a data register. (5) If your program attempts to exit(program), and the main program has been reduced in size by compiler optimization, the program may crash. (6) The compiler should flag record definitions exceeding 32K as an error, but it generates bad code instead. (7) If you use the MC68881 option and a procedure is passed an extended parameter, which in turn has a subprocedure that accesses the parameter directly, then reading the parameter will return bad data and writing into the parameter will overwrite memory. Needless to say, many APDA products are in 'debug mode.'

**MS=SS?** (An acronym for Microsoft is shortsighted.) A little known fact is that Microsoft uses its own p-System for generating its Mac products. While UCSD p-System followers debate the relative merits of 16-bit vs. 32-bit p-Systems, Microsoft has been quietly using a system with 20-bit long addresses. This allows Microsoft to develop programs on a VAX and then port them to the Mac (and hopefully other machines.) This obscure fact came to light when someone realized that Excel,

Word and other famous products would not run properly on systems with memory greater than  $2^{20}$ . Hence, Macs with more than a meg of RAM running Multifinder discovered problems. However, as proof of Microsoft's clout with Apple, Multifinder was revised to automatically move any Microsoft program into low memory. This does not solve the problem of running several Microsoft programs with large RAM partitions at the same time.

The moral of the story is that when you work with any p-code interpreter, be sure that it works well with your host's memory management and addressing structure.

As promised, here is our tic-tac-toe game. This program illustrates the use of *arrays*. An array is a collection of data items all of which have the same data type. (This contrasts with a record, which can be a collection of different types.) Specific items in the array are referenced by *subscripts*. A subscript is like a post office box number. In addition, an array can have more than one dimension. The number of dimensions and the range of legal subscripts are set when the array is declared. In our program, the tic-tac-toe board has two dimensions, so two subscripts are required to reference a specific element. The upper left corner has the subscript [1,1] which can be read "row 1, column 1." The board uses these subscripts:

```
[1,1] [1,2] [1,3]
[2,1] [2,2] [2,3]
[3,1] [3,2] [3,3]
```

The program uses a 3 x 3 matrix called *grid* to store the current state of the board. It is declared: `array[1..3,1..3] of owner`; Each square can have three possible values: belong to x, belong to y or blank. Hence, we define the *enumeration* called *owner* to symbolize these three possible values. The variable *player* which keeps track of who has the next move is also of type *owner*. Function *showit* is necessary to convert a variable of type *owner* into a character for output.

One tricky feature of the game is procedure *testwin*. Each time a player moves into a square, the row and the column must be tested to see if that player won. In addition, if the square is on a diagonal, the diagonal must also be tested. Because it takes longer to test whether the square is on a diagonal than to test the diagonal for a winner, we test the two diagonals each time. One diagonal has the subscripts [3,1], [2,2], and [1,3]. Can you tell what the subscripts are of the other diagonal? The integer variable *turn* is used to count up to 9 to check for games which end in a draw.

This game is designed for character based output. The PIG suggested several additions including using *turtlegraphics* to draw a more intricate gameboard (by revising procedure *showboard*) or accepting mouse-based input (by revising procedure *getmove*). This program can also be turned into an educational program by displaying a short-answer question before each move and allowing the player to move into the square only if the answer is correct. Finally, you could expand the program so that a human player could challenge the computer. Bring your own enhancements to a PIG meeting.

contd.

```

program TicTacToe;
type owner = (x, o, blank);
var i, j, turn : integer;
grid : array[1..3, 1..3] of owner;
ch : char;
won : boolean; {Have a winner?}
player : owner; {current player}
function showit (c : owner) : char;
begin
  case c of
    o : showit := 'o';
    x : showit := 'x';
    blank : showit := ' ';
  end; {case}
end; {showit}
procedure init;
var i, j : integer;
begin
  for i := 1 to 3 do
    for j := 1 to 3 do
      grid[i, j] := blank;
    won := false;
    turn := 1;
    player := x
  end; {init}
procedure showboard;
var i, j : integer;
begin
  page(output); {clear screen}
  writeln(' 1 2 3');
  writeln('  _____ ');
  for i := 1 to 3 do
    begin
      writeln(i : 2, ' | ', showit(grid[i, 1]), ' | ',
        showit(grid[i, 2]), ' | ', showit(grid[i, 3]), ' | ');
      writeln('  _____ ');
    end;
end; {showboard}
procedure getmove;
function get13 : integer;
var k : integer;
c : char;
begin
  repeat
    read(c);
    case c of
      '1' : k := 1;
      '2' : k := 2;
      '3' : k := 3;
    end; {case}
  until (k < 4) and (k > 0);
  get13 := k
end; {get13}
begin
  repeat {pick a blank square}
    write('It is ', showit(player),
      "'s move. Enter row =>');
    i := get13;
    write('Enter column=>');
    j := get13;
    until grid[i, j] = blank;
    grid[i, j] := player
  end; {getmove}

```

```

procedure testwin;
begin {test the row and col of move}
  won := ((grid[i, 1] = player) and (grid[i, 2] = player)
    and (grid[i, 3] = player)) or ((grid[1, j] = player) and
    (grid[2, j] = player) and (grid[3, j] = player));
  {test the diagonals}
  won := won or ((grid[1, 1] = player) and
    (grid[2, 2] = player) and (grid[3, 3] = player)) or
    ((grid[1, 3] = player) and (grid[2, 2] = player) and
    (grid[3, 1] = player));
  if won then
    writeln(showit(player), ' won!');
end; {testwin}
begin
  repeat {loop for several games}
    init;
    showboard;
    repeat {loop until end of game}
      getmove;
      showboard;
      testwin;
      turn := turn + 1;
      if player = x then
        player := o
      else {alternate turns}
        player := x;
      until won or (turn > 9);
      if not won then
        writeln('It' s a draw. ');
        write('Play again? (y/n)');
        read(ch);
      until (ch = 'N') or (ch = 'n')
    end.

```

☞

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# dPUB SIG MEETING REPORT—OCTOBER 7

by Cynthia Yockey

The failure of WAP's large screen projector torpedoed plans for an evening of desktop publishing software demos at the October meeting, but the time was well-spent on questions, answers and the introduction of a special offer—for WAP members only—on a new laser printer.

## The NEC LC-890 PostScript LED Printer

David Geller, president of Electric Logic, Inc. and The Press Corps, an IBM desktop publishing oriented service bureau, spoke to the group about the newly introduced NEC LC-890 laser printer. His ad for the machine in the October *Capital Computer Digest* quotes its list price as \$4795 and says his price is \$3995—the price he quoted at the meeting. However, when I spoke with him before writing this story, he said he would sell it to WAP members for \$3599!

Features of the NEC LC-890 include: three megs of RAM; eight pages per minute output; 300 dots per inch resolution; 35 resident Adobe typefaces; uses Adobe version 47.0 of PostScript; dual 250-sheet paper hoppers; Apple Talk interface; parallel interface; serial RS-232 and 422 interfaces; face-down, correct order output; LCD status display; HP Laserjet+ emulation; Diablo 630 emulation; and a weight of 65 pounds.

David says the LC-890 uses LED array imaging technology with fewer moving parts than other laser printers, including Apple's, and is therefore more reliable, ensures a cleaner image edge to edge, produces blacker blacks, and handles paper better. He estimates the life of the machine at 600,000 copies and says that is two or three times the life-expectancy of most other laser printers.

In addition, while Apple is using the slower PostScript version 38 (it has announced it will ship PostScript version 47.0 for its laser printers), David says the LC-890 is using version 47.0 now and that it is compatible with the current printer drivers.

The LC-890's three megs of RAM give it more speed and higher capacity for downloadable fonts than the LaserWriter Plus. It also has a two-line LCD display, like those on current photocopiers, that offers a menu system to select various printer options and displays diagnostic messages.

According to David, the LC-890 does have some drawbacks: it is not always available the day you buy it, due to demand; and support and repair are still coming up to speed because the machine has just been introduced. However, if you are interested in checking out the LC-890, David invites you to visit him at The Press Corps, 2025 Eye Street, N.W., Suite 220 in the Park Lane Building, Washington, D.C. His office phone number is (202) 223-9115. Remember to bring a job to print that will show you how it handles small print, gradations of grays, and large areas of black.

David also announced that he is a reseller for Bitstream laser typefaces. Bitstream was founded in 1981 and has produced the typefaces for Hewlett-Packard's laser printers for the last two years. David said Bitstream is a very good type foundry that will be competing with Adobe and can be expected to produce better typefaces than some of the smaller type houses. Bitstream will be providing PostScript-compatible typefaces for the clones of

PostScript that are coming out—sooner or later.

## Other News

Desktop Publishing SIG Chairman Tom Piwovar announced that next month's meeting on Wednesday, Nov. 4, will feature Jim Mackie of Interleaf demonstrating its \$2500 publishing system on a Mac II. Interleaf is a product of interest to publishers of long documents like books and technical manuals and until now was only available for mini-computer systems. And if there is time, the demos scheduled for October will be pushed back to November: ReadySetGo 4.0 by John Albino; and SmartScrap and HyperCard by Tom Piwovar.

The group also decided to continue to meet at the PEPCO Auditorium, 1900 Pennsylvania Avenue, N.W., in Washington, D.C., at 7:30 pm, on the first Wednesday of each month.

In other news, Tom said the opening of the National Bureau of Standards' Electronic Publishing Lab will be announced at a press conference on October 30, but that they are not yet ready for a visit by the dPub SIG. However, Tom said he will try to arrange a tour for us and will be talking with the Lab to see how we can work with them.

Tom also announced that the dPub SIG will continue to buy the preferred paper for the LaserWriter Plus—Frostbright coated stock—and sell it at meetings for \$9.40 a ream. According to Tom, some companies are charging up to \$27 per ream for the stuff!

Also available at future dPub SIG meetings will be the latest screen fonts for Adobe's entire library of laser typefaces, version 2.01, courtesy of Ron Moore, ArtForm Communications, 1826 Jefferson Place, N.W., Suite 301, Washington, D.C. (phone (202)-331-7423). Just be sure to bring five blank 800K disks, preferably pre-initialized so the process goes faster. (Remember that you can get screen fonts without violating copyright laws—what Ron can't give away is the stuff the printer uses to draw the typefaces on paper.)

## Quick Takes:

- in a few months Aldus will introduce Masterpiece to compete with Adobe's Illustrator.
- Aldus's next version of PageMaker will have style sheets, in addition to other unspecified improvements.
- a 14-inch black-and-white monitor is available for the MacPlus and the SE for only \$395, but it has half the resolution of the Mac screen so it is likely to be a boon primarily for the visually impaired.
- Cricket is coming out with a presentation program that is supposed to be an improvement over PowerPoint, which is now being marketed by Microsoft.
- Tektronics is producing a 300 dpi color PostScript printer that uses wax to make the images (yes, wax!).
- Publisher's Service Bureau in Bailey's Crossroads will support any PostScript file created on the Mac or IBM-compatible computers and can now provide Linotronic 100 output. They are located at 4900 Leesburg Pike, Suite 310, Alexandria, Virginia 22302, phone (703) 824-8022, or telecommunicate jobs by dialing (703) 824-8024.

contd.

• Jim Stewart will present a four-session PageMaker tutorial starting October 27 and Marty Milrod will give a ReadySetGo 4 class on October 31 (see the WAP tutorial registration page at the back of the Journal).

• do not expect MacPluses to be manufactured after January 1988.

#### Questions and Answers

*I'm having problems connecting my Mac and IBM computers to my LaserWriter Plus (alternately, not simultaneously).*

Make sure when you unplug the IBM from your LaserWriter and replug your Mac that you switch the LaserWriter from 9600 baud to AppleTalk and turn the machine off to reset it. Do this before you plug in the Mac or you could fry its power supply; at the very best you'll lose everything you had in RAM since you last saved your data.

*Does anyone have comments on the Daynafile?*

A new model is coming out that is less clunky than the older model, which works and does convert IBM files to Mac files. Be aware that Apple is talking about bundling a file transfer program with all Macs starting in November and plans to sell it bundled with HyperCard and MultiFinder to current Mac owners for \$49. This new program will convert files among Macs, Apple //s and IBMs. The NBS's Electronic Publishing Lab mentioned above has set the creation of file conversion standards as its first priority.

*Will 2.5 megs of RAM be enough memory with MultiFinder?*

You never have enough, but that will probably be sufficient to run PageMaker, Word and MultiFinder, which is all you'll usually need at one time. Don't get it until you need it, because prices now could drop. Apple lists its 2-meg memory upgrade at \$599, Clinton's WAP price for a 2-meg is \$449 installed, while others are rumored to offer upgrades installed for \$450. Memory prices have recently increased due to Toshiba being punished for the sale of advanced technology that let Russia make quieter submarines, but Apple has dropped its memory upgrade prices anyway—probably to help get its installed user base up to speed with HyperCard and MultiFinder. Members who have used MultiFinder to the max said it works very well; it only crashed with CricketDraw, but several CricketDraw users said they wouldn't blame MultiFinder for the crash.

*Does anyone have some good uses for HyperCard yet?*

Tom Piwowar said one company he knows is using it to demo software it is creating. A WAP HyperCard SIG has already formed and will decide when and where to meet after the October WAP general meeting. Marty Milrod said that 60 percent of the stuff available now on commercial bulletin boards are HyperCard stacks.

Commenting on HyperCard, Tom said, "Comparable programs like Guide by OWL were interesting, but clunky. HyperCard is simple, but elegantly done—it's the MacPaint of programming languages. Lots of details work like MacPaint. It's an object-oriented programming language plus hypertext—it's a combination of many ideas, so it's hard to characterize. And it's expandable by writing extra commands. It was designed to work with CD-ROMs; having that kind of storage space is one thing, but you also need the software to use it."

Note that Bill Atkinson, author of both HyperCard and MacPaint, will talk at a special WAP meeting on Saturday,

November 7, 9 am.

*When and how do you use a Linotronic output service?*

Laser print when you are in a hurry, when your final product will be printed on newsprint paper (because it can't take a sharp image), when you have to save money: any time when 300 dots per inch (dpi) resolution will do, don't go to 1200 or 2400 dpi on the Linotronics. Gear your production process to what you're producing—for example, when the final product is printed on glossy paper, it will look better with the higher resolution the Linotronic provides. However, your client may not be bothered by the lower quality of laser output printed on glossy paper.

The cost of Linotronic output is \$8 to \$12 per page or about \$50 per hour. Complex, bit-mapped pages are likely to be charged by the hour, rather than the page, because they take longer to print than simple text pages.

Also, rather than produce screens on the Mac, you can get better quality screens by indicating them with a rubyolith overlay on your mechanical. And instead of scanning photos, you can get better quality by having your printer make halftones of your photos and strip them in during the printing process.

#### Comments on ReadySetGo 4.0

Although the failure of the projector stopped his demo, John Albino discussed some of the new features of ReadySetGo 4.0 (the upgrade from 3.0 is available from Letraset for \$75, plus \$10 for "postage and handling").

"It's a completely new program," John said, "with the toolbox on the top instead of the side as before. But it works the same as ReadySetGo 3.0 and opens old 3.0 documents, plus MacWrite, Word 3.xx and WriteNow files. Its search and replace feature can now find and change fonts and font styles, and you can now reset the zero point on the ruler."

Other new features John mention include: a faster, bigger dictionary for spellchecking (John said he couldn't confirm it in the documentation, but he thinks hyphenation is probably still by algorithm); the ability to make .25 point rules—but no half-point rules; automatic flowing of text around both regular and irregular graphics; tiling; registration marks; and style sheets. While ReadySetGo 3.0 was a slim 139K, 4.0 is 278K—still much smaller than PageMaker. ☺

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# LASER PRINTING AND MACINTOSH TYPESETTING

by Lynn R. Trusal

The Macintosh computer and the LaserWriter printer have spawned a new cottage industry by bringing "desktop publishing" down in price and more available to the masses. Advertisements offering laser printed output have appeared in the WAP Journal, which itself is produced by a Macintosh page layout program and the LaserWriter printer.

I will start by discussing laser printers in general and the LaserWriter specifically and then move into the use of the Macintosh for actual typesetting applications. Laser printers are intelligent photocopying machines. Basically they function as follows. The laser printer drum is first given a positive electrostatic charge. The desired image is transferred to the drum by firing the laser beam and deflecting it onto the drum with rotating mirrors. This neutralizes the positive charge of the drum only in areas where the image is to be formed. As the drum passes the toner cartridge, positively charged toner is attracted to the neutralized area of the drum. Negatively charged paper is then fed past the drum and this attracts positively charged toner (remember your physics!) to form the image on the paper. The final step is passage of the paper between two heated rollers which permanently fixes the toner to the paper. If a paper jam occurs and you have to remove the copy before it goes through the rollers, you can wipe the image off the paper with your hand. I believe the toner is really a fine plastic based toner and not carbon based like photocopy machines.

Laser printers are often described as producing "near-typeset quality" with 300 dot per inch (dpi) resolution. If you look closely or use a magnifying glass, you can see the output is made up of individual dots. This is particularly evident with diagonal lines. Of all the low cost (<\$5,000) laser printers on the market, the Apple LaserWriter appears to offer the most for the money. I have seen articles saying it is overpriced, but if you get down to comparing "apples to apples" the so called inexpensive laser printers are no bargain. Then again you may not need all of the graphics capabilities of the LaserWriter and can settle for one of the cheaper printers on the market. Which printer is right for you will depend on such considerations as dots per inch (dpi), pages per minute (ppm), duty cycle (dc) in pages per month, and the need for full-page graphics.

Laser printers are available from such vendors as Apple, Casio, Hitachi, NEC, Ricoh, Xerox, QMS, Corona, and Imagen. The guts of each printer is the so called "engine" or laser printer mechanism and each vendor chooses the engine that is best suited for the dpi, ppm and dc required. The LaserWriter uses the Canon CX engine which was the first low cost engine (LBP-CX) when introduced in 1983, and it has been adopted by about 20 original equipment manufacturers. The Canon engine is rated at 300 dpi, 8 ppm, 3,000 pages a month (dc) and is contained in a cartridge which is replaced when the dc is over. Canon is discontinuing the CX engine and replacing it with the SX which is smaller, rated at 10 pages a minute, 4000 copies per cartridge and offers true collating of the output. The Konica engine is rated at 10,000 pages a month (dc) while the Ricoh engine contains no

cartridge and the printing drum and toner must be added separately when the need arises.

There is no longer just one type of shutter mechanism used for the printing process. In addition to laser printers, there are now liquid crystal display (LCD) shutter printers, light emitting diode (LED) shutter printers, and ion-deposition printers (IDP). The LCD shutter printer functions by shining a light onto the printing drum through a long, narrow LCD shutter. When the liquid shutter turns dark, light is blocked so the drum is selectively sensitized. It is also possible to use tiny light emitting diodes (LED's) to achieve the same effect. The LED printers use an array of individually addressable, non-laser LED's. The Casio printer is an example of a LCD shutter mechanism, while the NEC and Kodak models use LED technology. LCD printers generally have a slightly lower resolution of 240 dpi while the LED may be 240 or 300 dpi. This slight decrease is often offset by higher PPM and DC ratings in the range of 12 ppm and a dc of 24,000. Laser printers usually have a dpi of 300, a ppm of 8 to 12 and a dc of 3,000 to 5,000 pages a month.

Ion-deposition printers use a hardened aluminum drum and a pressure roller. These two components generate high pressures to fuse the toner to the paper. This process is generally more economical and faster than laser technologies. CIE Systems produces such a printer which produces 45 pages a minute but lists for \$15,540. A laser model that can produce the same throughput costs considerably more. Obviously, such a printing rate is beyond the printing needs of most personal or small business users and the cost is generally prohibitive.

The last general point to discuss is the need for full page graphics. All laser or shutter printers that are rated at 300 dpi can produce full page text at this resolution but the ability to produce similar resolution with graphics is largely a function of RAM memory. Mr. Lamont Wood (Government Computer News) describes the importance of RAM for graphics as follows and I quote, "If you want to print graphics, the most direct way to do it is to use the 'all points addressable' method in which every dot to be printed on the page is mapped out in internal memory. This requires a bit for each dot, or one byte for every eight dots. For an 8.5 by 11 inch sheet of paper, at 300 dpi, you need slightly more than a million bytes, not counting the memory needed for program storage and fonts. And to get these bytes arranged fast enough you need a high-speed processing unit. This adds up to a rather sophisticated computer system". Therefore, you can understand why the LaserWriter has 1.5 million bytes of RAM, 0.5 million bytes of ROM and a Motorola 68000 microprocessor and why it was initially described as the most powerful computer that Apple produced. The LaserWriter Plus has 1 megabyte of ROM and seven additional fonts resident in ROM. The above description also describes why the Hewlett Packard (HP) Laserjet can only do a small portion of the page in 300 dpi graphics and why the Laserjet Plus can only do one-half page at 300 dpi. The Laserjet has a 59K RAM while the Laserjet Plus has a 395K RAM and 117K ROM memory. If both these printers had the

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capability of the LaserWriter, they would cost considerably more. In addition, the HP printers make use of font cartridges to produce printed output in various fonts and point sizes. Since each font cartridge costs \$225 to \$400, it is not hard to see that only four cartridges add another \$1,000 to \$1600 to the cost. Now you can see what I meant earlier about comparing "apples to apples". If you don't have a need for full-page graphics then you may not need the capabilities of the LaserWriter.

Although the Macintosh and LaserWriter are sufficient for much of the "desktop" publishing industry, they are not adequate for some needs. The typesetting industry is now releasing products that, although expensive, costs significantly less than earlier models. It was often necessary to spend hundreds of thousands of dollars to achieve the capability available today for a fraction of the price. These new models seek to capture the market area between expensive printing methods and the low end "desktop" industry. What follows is a description of one of these companies and its "Macintosh compatible" laser typesetter.

### Allied Linotype Typesetter

Allied Linotype was founded in 1886 by Ottmar Mergenthaler who introduced the first typesetting machine called the "Linotype". It used a technique called "hot metal casting" to set each line of type. Since that time, Linotype has changed its name several times and is now a division of the Allied Corporation. (Note: Allied was trying to sell a number of its subsidiaries and Allied Linotype was one of those up for sale.) Although Allied Linotype has a number of different typesetting systems, I will focus on the 100 series that is compatible with the Apple Macintosh, the LaserWriter printer, and the Postscript language (Adobe Systems).

The Linotronic 100 has a raster image port which permits the Macintosh to be connected by Linotype's Postscript raster image processor (RIP) and AppleTalk network. The LaserWriter can be used to proof the layout before type set imaging. The Linotronic 100 offers three resolution settings of 1270, 635 and 317 dpi, while the Linotronic 300 offers 2540, 1270 and 635 dpi resolution. A new model 500 has a resolution of 1690, and 845. The time required to send a graph or text to the typesetter varies from approximately 1.5 to 6 minutes, depending on the complexity of the graph, the number of fonts used, and the chosen resolution setting. Because professional typesetters use photographic paper, it is necessary to transfer the storage cartridge containing the "imaged" data to a photographic processor before viewing. Linotype uses the ML-314 Processor for resin coated paper and films. Developing time takes several minutes and the images come out of the processor dry and in a single sheet which may be cut at appropriate lengths.

I was interested in comparing the quality and resolution of the LaserWriter output to the Linotronic. I printed output from MacWrite, MacDraw, PageMaker, and More. I compared both the LaserWriter and Linotronic output side by side. The typeset output is on a white matt finish photographic paper and therefore looks slightly different than the same output on regular copier paper from the LaserWriter. As such, it may be somewhat unfair to present comparisons in this manner and actual comparisons should be made with original output from both sources. At a quick glance to the naked eye, the difference between 300 dpi and 1270 dpi is not overwhelming. The most obvious difference is

in the quality of diagonal lines and shading patterns. Diagonal lines produced on the LaserWriter are more obviously dot like while the Linotronic output is sharper and darker. In a similar manner, shaded patterns are sharper, more homogeneous, and less dot-like with the Linotronic.

One of the major complaints about LaserWriter output is the "darkness" of large solid areas. Such areas are often slightly gray or irregular in consistency of the toner darkness. This problem is corrected with typesetting which is always very black. In all fairness, it is not fair to compare a toner-based system to a photographic-based one, but the end result is better and more consistent with typesetting.

Another major advantage of the Linotype based system is the ease of use. If you already know how to use the Macintosh you already know how to use the Linotronic typesetter. Once the Linotronic is installed, it is as simple as selecting "chooser" and selecting the "Linotype" instead of the "ImageWriter" or the "LaserWriter." The data are first sent to the Postscript RIP, where they are converted into postscript commands, and then on to the Linotype for imaging. The time required is largely dependent on the amount of graphics and combined text. The entire process might range from 2 to 20 minutes depending on its complexity.

The Linotronic 300 gives the user more flexibility in resolution and output speed but I don't think the ability to double the resolution from 1270 to 2540 dpi is worth the extra \$22,000 in price. I think that only a trained eye could tell the difference between 1270 and 2540 dpi without the use of a magnifying glass. If both LaserWriter (300 dpi) and Linotronic 100 (1270 dpi) output were side by side, you could definitely tell the difference, but my subjective opinion was that typesetting was not four times better.

I also had the impression that an IBM PC could be hooked to the Postscript RIP through an RS-232 port, provided the IBM software package supported Postscript, by using a Postscript print driver. Word Perfect is one IBM program that now comes with a Postscript driver. It may also be possible to attach an IBM computer to AppleTalk with the newly released PC/AppleTalk card for the IBM PC and this in turn to the Linotronic. More MS-DOS programs will now support PostScript due to IBM's recent endorsement of this printer language.

The Linotronic 100 lists for \$31,950 while the Linotronic 300 lists for \$53,900. Both prices include the postscript RIP. The model 100 has a rated imaging speed of 100 lines per minute (lpm) while the model 300 is rated at 225 lpm. A higher speed throughput of 400 lpm is available on the 300 for an additional \$3,950. The ML-314 processor costs an additional \$3,950, and is a necessity to develop the output with both typesetters. All of these prices may not be current by the time this article appears.

Instead of photographic paper, you may also use rolled acetate which produces a very high quality transparency output suitable for mounting in cardboard frames for briefing presentations. The Linotronic paper cost about 60 cents a foot and the transparency acetate \$1.50 a foot. The Adobe type font library is additional and if both the LaserWriter and Linotype are to be used, it is necessary to purchase font packages for both. If you want to purchase most of the currently available fonts, plan on adding several thousand dollars more to the total cost. Adobe now has about 50 fonts and the number is growing rapidly.

contd.

Hopefully in the future the cost of typesetting will decrease and the available equipment will continue to increase bringing true typesetting to the masses.

### Color Laser Printers

No one buys black and white televisions any more and users want color monitors for their personal computers. I've generally felt that color displays weren't that important unless you could output the color to a printer, plotter or laser printer. Well there are color dot matrix printers, color plotters and color ink-jet printers but color laser printers remain elusive and will probably continue to do so until 1990 or beyond.

The first color laser printer was offered by Xerox back in 1978 and was called the 6500 Color Graphics Printer (\$39,000) for use with mainframes and minicomputers. Its lineage was derived from the 6500 Xerox Color Copier and could either act like a color copier or printer. It produced 100 dpi resolution at 3 pages a minute and used argon lasers. Xerox was also the first company to offer a black and white laser printer in 1977 called the 9700 laser printer. The 6500 is no longer made but is still supported by Xerox. At the present time, many companies are working on perfecting color laser printers but there are no commercial versions available from any manufacturer. Canon, Ricoh, QMS and AST are several of the companies working on color laser printers.

The technology used to make color photocopiers is being adapted to the production of color laser printers. This technology is not new and is based on combinations of the three primary colors, red, blue and green (RGB). Instead color laser printers use magenta, cyan and yellow to achieve the same effect. If you remember your art classes, the human eye and brain can be convinced it is seeing a new color by combinations of these three colors. Cyan and yellow produce green while all three colors combine to produce the laser printer version of black. In typical color printing shops, the image to be reproduced in color is scanned and separated into its black, magenta, cyan and yellow components each of which is scanned onto separate metal photosensitive plates. Each plate is inked with its respective color and transferred to a single piece of paper. As you can guess, alignment of each plate and the paper must be very precise or chaos results.

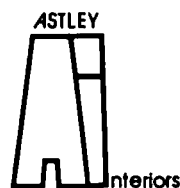
Why aren't there any color laser printers on the market now, you ask? The answer is simple. The technology is feasible and largely perfected but the cost, and perhaps even more important, an identified market has yet to emerge. The color laser printer technology resembles the above process of a typical printing shop. The computer separates the color image into separate bit-maps for each of the four colors (i.e., magenta, yellow, cyan and black) and images it separately onto the output paper. Naturally, the same concern for precise printing registration of the four colors is of paramount importance. Thus the process demands high tolerances and is slower due to the four passes necessary to prepare the final image. The process is also very memory intensive since 1 MB is necessary to store a bit-map for a full 8.5 x 11" page at 300 dpi. This must be multiplied by four to hold the bit-maps for the four colors. In addition, four separate toner-cartridges have to be used which result in a non-desktop, photocopier size color laser printer. The cost of building color laser printers today has been estimated to be \$20,000 or more. If you

want to produce color output for distribution to a large number of people you make one copy and then mass produce it on a color photocopier. Offset printing would be a second method.

Apple Computer, who now produces the LaserWriter and LaserWriter Plus, have no immediate plans for development of a color laser printer since they do not see a market in the near future. QMS hopes to market a production model in late 1987 using a QMS controller and a Colorocs print engine that will produce 10 ppm but cost a whopping \$20,000 to \$40,000. This laser printer combines laser-beam technology with electrophotographic color copier technology. Eventually QMS will add PostScript compatibility. AST Research is also interested but only if it can bring it in for \$10,000. Toshiba unveiled a color laser printer (\$10,000 to \$15,000) at last Fall's COMDEX show but it was only capable of producing two color output in black and then either blue, red or green. Toshiba is also working on a four-color laser printer. (Source - *The Color of the Future*, by Wes Nihei in *PC World*, February, 1987).

Adobe recently previewed a color PostScript printer at the Seybold conference in September 1987. It is not a laser printer but use thermal transfer technology with a Mitsubishi G650 engine capable of 300 dpi resolution with a seven color output. An estimated price is around \$12,000. Adobe has no plans to go into the color printer market but want to demonstrate what PostScript output looks like in color. Color laser printers will undoubtedly take more time.

Lynn R. Trusal may be reached at 301-845-2651 to answer questions about material that appears in this column.



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# STOCK SIG NEWS

by Andrew D. Thompson

The monthly gathering of STOCK SIG convened on September 12 and discussed topics ranging from the complexity of tracking "open interest" and stock market cycles to the house-keeping matters of electing a new chairperson and sharing public-domain software.

## 1. MUTUAL FUND SUB-GROUP REPORT

The monthly meeting was held on its traditional 4th Tuesday of the month (August 25), the day the stock market hit its historic high by reaching 2,722 on the DOW.

Participants discussed the findings of their various methods for tracking the performance of various funds, especially the select sector funds within the Fidelity group.

Future meetings will take place on October 27, November 24 and December 22.

## 2. DISCUSSION OF "OPEN INTEREST"

As a spontaneous warm-up for October's Stock SIG meeting, members launched into a discussion of how to understand ways "open interest" figures can be used to forecast future moves that the stock market is expected to take. Some said that by tracking the ratio between puts and calls as reported daily in the financial press, they have an indication of which way "smart money" is leaning. For many members, this discussion of contracts, futures, options and methods for computing put/call ratios was new information which peaked their interest and primed the pump for a systematic discussion scheduled for October 8th.

## 3. ELECTION OF CHAIR FOR 1987/88 YEAR

Participants noted that the one-year term of leadership for the Stock SIG has been competently fulfilled this past year by co-chairs Ron Grognet and Ben Fogle. Grognet opened the floor for discussion of the election process. The group concluded they would submit nominations for next year's chair(s) to a nomination committee consisting of Stock SIG's secretary, Andrew Thompson (270-6790) and Grognet (296-5444). They will propose nominations to initiate discussion and an election to be held at the October meeting.

## 4. SHARE-WARE LIBRARY DONATIONS NEEDED

Bob Johnson requested that Stock SIG members examine their personal disk libraries and other potential sources to find stock-market related public-domain disks that can be made available for Apple and Mac users. To make donations or gain further information, call Jim Little (762-3215) or leave materials or messages for him at the WAP office.

## 5. OVERVIEW OF CYCLE ANALYSIS

Peter Kasper updated participants on the on-going research which Mercari, Inc. has been conducting with regard to forecasting future stock market moves. "Sometimes cycle analysis has little value, as in the last couple of months. But now they may be coming back," Kasper said. By developing proprietary software written in Pascal for use on the Mac, his recent research has been exploring the question: what's beyond cycles?

This approach begins with the assumptions that the stock market contains a certain amount of random noise and that the non-stationary stock market has indicators or warning lights which come in and out of favor. The rules of the game keep

changing, Kasper indicated, so by taking a partially probabilistic approach, he hopes to come up with "maximum likelihood" indicators that will more accurately forecast the market's future direction. He hopes to do this by constructing "one big complex filter that's a variable—an adaptive filter that seeks the lowest noise, akin to a telephone." For further information, call (703) 620-4071.

Future Stock SIG meetings will be on November 12, December 10 and January 14 at 8 p.m. at the WAP office. ☺

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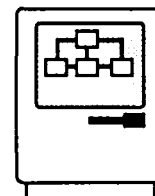
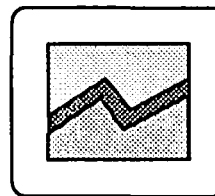
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# MAC MEETING REPORT—SEPTEMBER 26

by Cynthia Yockey

▶ The September Macintosh WAP meeting focused on the newly released 4th Dimension database management system and featured presentations by both Scott Knaster, one of its creators, and local computer consultant Melvin Laney. However, the meeting began with some confusion because it was changed on short notice from the usual site at USUHS to nearby Maser Auditorium at NIH. (The next meeting will be back at USUHS at 9 am on Saturday, October 24.)

## Taking Care of Business

Before the meeting, copies of Danny Goodman's *The Complete HyperCard Handbook*, which lists at \$29.95, were on sale for \$17.95. (Fifty more copies of the book will be available at the October meeting, according to Rich Wasserstrom, and WAP will continue to order copies as long as the demand is strong.) In addition, the WAP Journal was distributed and WAP disks were on sale.

Leading off the meeting with announcements, WAP President Tom Warrick told the audience that Bill Atkinson, creator of MacPaint and HyperCard, is scheduled to speak to WAP about HyperCard at a special meeting Saturday, November 7, 9 am at USUHS. Details will be announced at the October 24 meeting—or you can call the office or watch the bulletin boards.

Other announcements included notification that WAP is still planning to move the meeting site permanently—after the October meeting—perhaps to Georgetown University or the University of the District of Columbia—thus members are cautioned to verify the meeting site by watching the bulletin boards or calling the office (the meeting site is announced on the message tape after office hours, so call any time).

In addition, the HyperCard Special Interest Group announced its first meeting, which was held in the WAP offices immediately following the regular member meeting. The next HyperCard SIG meeting will also be held at the WAP offices after the October 24 general meeting to decide on a regular meeting time and place.

Tom also displayed the new WAP pins, shaped like the WAP bitten apple logo. In recognition of their work on designing and obtaining the pins, Tom awarded the first and second pins to Charlie Ryder and Deacon MacCubbin. The pins will go on sale to all members for \$5.00 at the October meeting.

## About the Meeting

When the federal government asked local computer consultant Melvin Laney to create a database application to keep track of its civilian employee personnel files, he knew he would have to supply something that could be used easily by the lowest level clerks. Despite having spent the formative period of his 25-year background in computers with XXX, he told WAP members he chose the Mac for the job over IBM and VAX, saying, "I'm impressed with the Mac because of the user interface. We often say the training and maintenance of a system cost more than the software, more than the hardware. I believe the Macintosh is the wave of the future in the user interface."

Laney's next step was to call Apple to see if there were any new applications to solve his problem and was soon into 4th

Dimension, which would make much cuter copy if only it had been named The 4th Dimension. In less than three weeks, one of Laney's associates, Dr. Jim Hoffer, had mastered the application and produced the required civilian personnel database, dubbed CiPers by Laney & Associates.

Dr. Hoffer was on hand to demo CiPers, which he made to resemble a standard government form on-screen, hole punches and all, using drawing functions in 4th Dimension. For the lucky clerks who will be using CiPers on Mac IIs, the forms will appear in colors. (Yes, that is just like buying a fleet of Lamborghinis to deliver the mail, isn't it.)

Following the demo of CiPers, Scott Knaster, author of *How to Write Macintosh Software* and the soon-to-be-released *Macintosh Programming Secrets*, former head of Apple's Tech Support department and now formerly of Acius, 4th Dimension's publisher, demoed the program he helped to re-write for the U.S. market.

Knaster explained that 4th Dimension was developed in France [by Laurent Ribardi re] and was France's single most popular Mac program. So Apple brought Ribardi re to the U.S. to adapt the product for the American market [under the code name Silver Surfer]. Then Apple decided it would get out of the software business so it wouldn't compete with third-party developers. Apple formed a new company called Claris which will now publish MacWrite and other applications formerly published by Apple—except 4th Dimension, which was picked up by Acius, which Guy Kawasaki left Apple to form as a U.S. subsidiary of the application's French publisher, ACI. (Knaster noted that Apple will still continue to publish system software under its own name, and said wryly it seems to regard HyperCard and MacTerminal as system software.)

"When I first saw 4th Dimension," Knaster said, "I was really astonished by it. 4th Dimension lets you program the Mac without having to fight it. The big books are for the programmer and not the user, and that's as it should be. But there's this great interface and programmers don't get the advantage. Now 4th Dimension, V.I.P., and HyperCard give those advantages to the programmer. For example, in conventional languages to make a button takes a lot of code. In 4th Dimension, you just draw the button. To me, this is a revolutionary step."

Although 4th Dimension costs \$695, Knaster said the price includes unlimited technical support because "We don't charge you for the right to call us and tell us about our bugs." Acius is also planning to offer support through MacBiz in MAUG on CompuServe.

Knaster then went through the steps of creating a simple database of cities and states, explaining that there are usually two shortcuts for everything in 4th Dimension. And when he showed how two fields could be linked simply by drawing a line between them, there was a thrill from the audience. Other features Knaster mentioned included: the ability to have pictures as a field in 4th Dimension databases; a capacity of up to 16 million records; the ability to change fields even after data have been entered without any re-structuring or re-copying; eight

contd.

different automatic screen layouts for placing the fields properly, plus the ability to create custom layouts; no programming code is generated to create the layouts on-screen, they're just done graphically; the ability to design a color database that will show color on a color screen and black and white on a black and white screen; and the ability to import ASCII, SYLK and DIF files.

The nice thing about 4th Dimension, Knaster concluded, is that you can add features because it has a very extensive programming language built in—yet you can use it to create a sophisticated database without being a programmer. In addition, it comes with “almost an obscene amount” of documentation. For potential buyers, Knaster noted that most of his demo was so simple it could have been done in a program like Borland's Reflex Plus, but “4th Dimension is worth the higher price when you need additional fields, customizing features, huge text fields, picture fields—that's where it's the best choice.” For a questioner who wanted to compare 4th Dimension with Omnis, he recommended a call to Ron Del'Aquila at Acius.


Knaster also pointed out that 4th Dimension has multi-user features built-in. The program is economical for multi-user systems, he said, because companies would not have to fork out \$695 per copy, but would buy the first copy at \$695 and then pay \$95 each for copies of 4th Dimension Runtime for each additional user in that network. To design a database in 4th Dimension requires at least a MacPlus, but 4th Dimension Runtime can be used on a 512Ke, another potential saving.

A sign that the program is rapidly finding its market came when several audience members promptly formed a 4th Dimension SIG after the general meeting.

*Cynthia Yockey—a writer and editor with experience in journalism, PR, and advertising—is a freelance desktop publisher and Macintosh consultant.*



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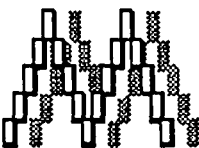
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# MacNovice Column

by Ralph J. Begleiter

## Annual Gift-Givers' Guide

If you haven't given any thought yet to your MacNovice's holiday wish list, here are some suggestions to help you get started on the shopping spree.

In the 1987 gift-giving season, it's more important than ever to know what kind of Macintosh system your Novice is using. There are probably some Macintosh users who still have the original limited-memory (128K) Mac, and many of the programs available today won't work properly on that mini-Mac. To a lesser degree, the same is true of the un-enhanced "Fat Mac" (512K) machine. But, if your gift recipient is using any of the following Macintoshes, you're pretty safe buying almost any Mac program available today: 512e (enhanced "Fat Mac"), MacPlus (1MB), Mac SE (1MB) and Macintosh II.

### Stepping Up

For the owner of a small-memory Mac (such as the 128K or even the 512K computers), perhaps the most appreciated holiday gift would be an "upgrade" to a Mac with more internal memory. This isn't a frill anymore. It's quickly becoming a necessity in order to use the advanced computer programs now available for the Macintosh. Everything from games to graphics and accounting software is taking advantage of the newer Macs' increased memory.

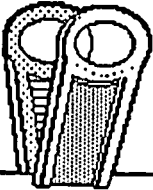
You could have your MacNovice's machine upgraded secretly, by taking it into a Macintosh shop on the sly. The operation can often be completed in a few hours—sometimes while-you-wait.

But an equally classy way to give this gift is to arrange with a computer shop for a gift certificate worth the price of the upgrade. Or even just to make your *own* certificate—perhaps even on the Mac!

### Under \$30

Believe it or not, despite the reputation of the Macintosh as an expensive computer, it's possible to purchase a wide variety of gifts for less than \$30. Here are some suggestions:

You'd be surprised at how welcome a fresh box of disks, or some children's programs would be around the Mac. And a collection of "clip art" can really dress up your Mac Novice's publications.



**Under \$30**

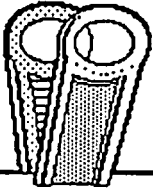
- Mouse Pad \$8
- Dust Cover \$10
- Disk Case \$20
- Box of Blank Disks \$20
- Communications Source Subscription \$25
- Clip Art Collection \$30
- Font Collection \$28
- Chess Game \$29
- Childrens' Educational Programs \$30

### Under \$75

For a little more money, you can open up the handy world of

"outlining" to your MacNovice. These are desk accessories able to help organize a Macintosh user's thoughts. Another world—automating routine computer chores—is available at this price with a "macro" program called "tempo."

And your writer can check his spelling with any number of available programs which work with word processors. Some of the best Mac graphics programs are also available in this price range.



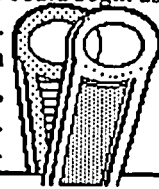
**Under \$75**

- Vast Variety of Games
- Smart Alarms Utility \$38
- Tempo (Macros) \$55
- ACTA or Voila! Outliners \$36
- Spelling Checkers \$35-\$50
- FullPaint \$50
- SuperPaint \$54
- StatWorks (statistics) \$75
- Learn-to-Type Programs \$40
- MacTilt Stand for Mac \$75

### Under \$175

For less than \$175, your MacNovice could begin using some of the Macintosh's software superstars. MORE, the outlining program which made the genre famous. Multiplan, which broke the mold in spreadsheets. Write Now, one of the new word processing entries. Microphone, the computer communications program which makes it easy.

And, by shopping carefully, you can even find an external double-sided disk drive for this price from Central Point!



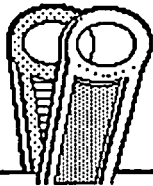
**Under \$175**

- MicroPhone \$120
- Microsoft File (database) \$110
- Trapeze (database) \$170
- Cricket Graph \$125
- Multiplan (spreadsheet) \$105
- MORE! (presentations) \$160
- Write Now \$100
- Cricket Draw \$175
- Accounting Programs \$100+
- Central Point Disk Drive \$175

### Under \$300

If you're willing to spend as much as \$300, you can give a truly powerful Macintosh gift. The best spreadsheet program on any computer today is Excel, available for \$225. The all-purpose program called Works, combines spreadsheet, word proc-

contd.



**Under \$300**

- Communications Modem \$200
- Small Memory Upgrade \$275
- Omni 3 or Hellx Databases \$275
- Reflex Plus Database \$200
- PowerPoint (presenter) \$210
- Microsoft Excel \$225
- Microsoft Works \$190
- ReadySetGo 3 \$250

essing, communications and database. One of the best page layout programs, ReadySetGo 3, is available in this price range, as are several powerful and useful databases.

And if your MacNovice hasn't tried communicating via phone line yet, there are excellent quality modems available in this price category. (Actually, there are good quality modems available in the under-\$175 category, too, but shopping carefully is a must.) Even a small memory upgrade, from 128K to 512, or from 512K to 1

megabyte, can be purchased for less than \$300, too.

**Over \$300**

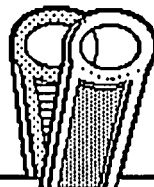
If your MacNovice has grown into a Mac "power user," this season could be the year to upgrade to a newer Mac. Prices are holding steady on the MacPlus at about \$1700, even at discount houses.

Top-of-the-line desktop publishing and accounting programs, as well as hardware improvements such as an external floppy disk drive or even a hard disk drive (which holds vastly more data) are gifts to consider for someone who has become truly productive on her Mac.

And, for the Novice who's ready to upgrade without buying a new machine, there are memory and other internal enhancements available which can make the Mac virtually sing with speed and power to handle today's most advanced programs.

Most of the prices quoted in this article are the least-expensive available at time of publication, and most are available only through mail-order houses. Expect to pay more at a local computer store, but if you do, make sure the store understands that you expect to *get* more for your money in customer support, advice and instruction.

Happy hunting for the holiday season!



**Over \$300**

- Lg Memory Upgrade \$370-\$500
- Hard Disk Drive \$800 +
- PageMaker \$420
- Business Sense (accounting) \$340
- Macintosh Plus Computer \$1700
- Macintosh SE Computer \$2400

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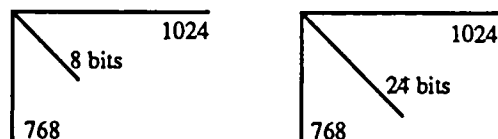
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# DEVELOPER'S VIEW...

24 Bit Color, HyperCard, Boston and Seybold.  
by Jim Lanford

## 24 Bit Color

The Hardware product of the MacWorld show this summer was 24 Bit Color cards for the Mac II.



SuperMac Technology was showing a system in their booth using three of their 8 bit Spectrum cards (using three Mac II slots) and RasterOps was showing their single card system in their hospitality suite. What is exciting about 24 bits is that it allows 16 million colors to be displayed simultaneously. The human eye cannot resolve that many colors, which has led the color graphics industry to refer to a 24 bit system as *True Color*. To me, a 24 bit system makes very impressive color! It looks better than my seven-year-old Sony TV at home. An 8 bit card on the Mac II only gives 256 colors out of a palate of 16 million. Some images look great if the palate is chosen correctly, but others (especially flesh tones) look terrible.

Micro Dynamics borrowed a RasterOps system for our booth at the Seybold Desktop Publishing Conference to show off our collection of 24 bit images. A 1024 x 768 x 24 bit image is about 2.5 Meg. If you have 1000 slides that you wish to store, you will need a large capacity optical worm drive. As you can see, it was a great way to tell people about our archival and retrieval system. RasterOps has lent us a 24 bit card and we are using it with our SuperMac 19" Sony color monitor. RasterOps will be selling their card for \$2795 and a 19" Hitachi color monitor for \$2795. This makes it the lowest cost 24 bit color system on any computer. I'll be happy to bring my Mac II and 24 bit card to give a demo at a WAP meeting if someone else brings a 19" monitor.

The only problem with any of the 24 bit systems is that Apple has not filled all of the 24 bit hooks in Color Quick Draw. RasterOps is not waiting for Apple to do the work, and has a programmer working on the patches. Micro Dynamics will be working with RasterOps to ensure compatibility. If some of the color graphic programs assume only 8 bits of color they will not give the full potential of a 24 bit card. The RasterOps will only operate in 24 and 8 bit mode, so programs such as SuperPaint will not work, because they only run on the Mac II in single bit mode.

### Radius FPD on the Mac II.

Radius has just released a Mac II card for their monitor. It has all of the features of their Mac SE version, menus with 20 point type, screen saver, and double wide quick scroll. They lent us one for use at our booth for the Seybold conference, and we liked it so well we bought it instead of returning it. The only thing which it does not offer is gray scale. The monitor is sharp and flicker free.

### Other Big Screens.

Last year was the year for introducing big screens at Boston. This year it seemed like everyone had them. New Image Technology was showing one for the SE using the Princeton

Monitor. At a list price of \$995, it makes it one of the least expensive monitors. They triggered a lot of show specials from other vendors to match their price.

One problem with big screens is their lack of ability to work with various 68020 accelerator cards. Radius claims their FPD works only with their accelerator card. Levco works with the MegaScreen and Moniterm. The E-Machines display does not work with either the Radius or Levco. For us, we will be using the Radius accelerator and monitor on our traveling demo SE.

A case company in Berkeley makes a carrying case for the Radius FPD which is only slightly larger than a Mac Plus carrying case. If you find yourself lugging your Mac and FPD around, you might want to spend the \$100.

### InterLeaf on the Mac II.

The hottest new software announcement at the Seybold conference was InterLeaf on the Mac II. InterLeaf has been selling a wonderful, high end desktop publishing system for Sun workstations for several years. They now have a version for the Mac II which runs under the Finder, not A/UX. Using Centram's TOPS, they were demonstrating Mac II's sharing files with Sun workstations over AppleTalk.

### HyperCard.

The software hit of MacWorld was HyperCard. Bill Atkinson gave the best demo of MacPaint that I have ever witnessed. At MacWorld he also gave an incredible demo of HyperCard. Earlier demonstrations by Apple sales reps left me wondering what all the excitement was about. After watching Bill's, the entire meeting hall went wild. Because everyone else has written about it and many of you have already bought it, I will not describe it. I will describe my feelings on it. I think HyperCard is wonderful even though it killed three products we had on the drawing board. I might feel differently if it affected any of our main products or we were publishing something like Guide (HyperText), PictureBase, File Vision, or Record Holder, which will be directly affected by HyperCard. What we will do now is include tutorial and help stacks with our main programs.

### TMON monitor.

My favorite programmers' monitor has been upgraded to run on the Mac II.



When used on an SE or Mac II it features an INIT resource which utilizes the Mac II power on Key. When the option key is held down and the "Programmers' key" is pressed, it has the same effect as pushing the programmers interrupt switch on the side of the Mac. If your Mac is located in a way which makes these switches hard to reach, you'll really appreciate this feature. The new version costs \$150. ICOM simulations is offering a \$50 upgrade policy for current owners.

### On Line Programmer's Companion.

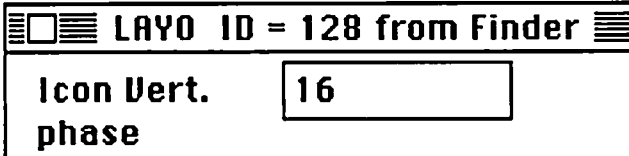
Steve Capps, one of the original Macintosh development team, wrote a marvelous little \$29 utility which lives as a PC style

contd.

RAM resident routine which can pop up at any time and give complete reference for that tool box routine and the Inside Macintosh page number. It will also attempt to paste the call and argument information into whatever editor you have open at your cursor. By not being a DA, it can co-exist with most development systems. If you write software for the Macintosh, you might want to look at this little gem.

**Finder Tune.**

One of the nicest features of the Macintosh, is the ability for each user to customize his or her environment. Other than fonts and desk accessories, I usually do not customize anything. I have just discovered what many of you may know, and that is the Icon Vertical phase setting in the Finder.



This setting affects how every other folder will be vertically lined up on the desktop. The default setting is zero. Setting it to 16 will give a nice offset to every other icon when you use the *clean up window* command. If you do not know how to use ResEdit, have a friend show you. The LAYO resource lives in the Finder file. Scroll down to the bottom of the list to the Icon Vert. Phase. Do this on a COPY of your Finder.

*Jim Lanford is the architect of MacLabeler™, Micro Dynamics MARS™, PostHaste™, and other software for the Macintosh II. He has implemented ground stations for Spartan I and other real-time 68020-based testing systems for various satellites. He is president of Micro Dynamics, Ltd., the largest Macintosh software company in the DC area.*

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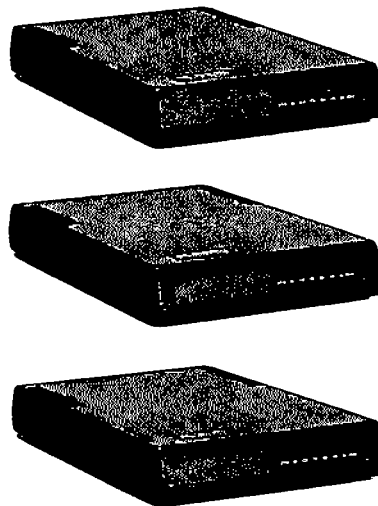
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# A VIEW OF BIG BLUE

by Robert Wolov

Let me confess right now, from the onset, that I am a defector. Like some Soviet spy coming in from the cold, I marched into the WAP office, declared my intentions, put my membership money where my mouth was and joined the fold! I have been a proud, even smug owner of a "true blue" IBM PC from the earliest days of the breed. I relished the fact that sitting on my desk was a "real computer" from a "real computer company", not a kludge of breadboards and wire. Those magic three letters gave me, as much as it distresses me to admit it now, a warm fuzzy feeling at night. When the 128K Mac was unleashed, I was there, amidst the mob, hooting and jeering at the "overpriced etch-a-sketch." But, like a sinner saved, I too have seen the light.

I've come around to the Mac from the turmoil of the MS-DOS world (messy DOS?), and therein hangs a tale. But, by so doing, I've gotten to see both sides from a fresh perspective. I still own my PC and keep up with the popular and trade press for both communities. For many years Apple and MS-DOS crowds existed separate, and as far as their opinion of each other's machines, unequal. But a funny thing happened this Spring. Apple released their "serious" business machines, the SE and II. And, IBM contrary to all of their talk of compatibility, effectively declared their old architecture null and void. Suddenly company procurement officers were confronted with a choice. IBM was asking them in so many words to scrap what they had and start over with the PS/2 line, mindful that all of their old expansion cards and 5 1/4" media were no longer usable, and to wait for nearly 18 months for an operating system to run it all! An operating system that in its final iteration would be graphics based and more "Mac-like."

In the meantime, Apple, plus third parties, released a series of products to make Macs "connectible" to the IBM world. Apple now had machines (with all respect to the Plus and "fat Mac 512'ers) that no longer looked like expensive etch-a-sketches.

Mac'ers, it seems, have gloried in their rebelliousness towards the pin-striped, button-down world of MS-DOS. There have been a few articles of late on connectivity to IBM systems. The most recent issue (Aug 87) of *MacWorld* has committed the "sacrilege" of having an IBM PC as the sole computer on the cover. But, for the most part, there has been little if any mention of activities in the MS-DOS world. Mac'ers just didn't care.

Not so for the IBM'ers! Since this Spring, there have been more comments, articles and analysis by industry pundits on the impact of the new Macs than in all the time since the Mac was introduced! Most, if not all, are quite favorable. Stewart Alsop, who is as well known to IBM'ers as Lon Poole is to the Mac'ers has already said in print that he will continue to own an IBM in order to evaluate and comment on MS-DOS software. After all, it is his job, but for his personal use he lusts for a Mac II.

*PC Tech Journal*, which deals solely with the nitty-gritty of programming and hardware for the Intel family of CPU's, has favorably editorialized on the Mac II, a notable and quite radical departure from their usual focus. This would be the same as *MacTutor* taking up the cudgel for the IBM Model 80!

Jerry Schneider, long time IBM advocate, recent columnist

for *InfoWorld* and president of the Capital PC Users Group, not so tongue in cheek asked the membership in the June CPC Monitor whether they should cover Mac SE and II happenings, since by definition Capital PC's mandate is to cover MS and PC-DOS compatible machines. With the addition of AST coprocessor cards, guess which machines from a company in Cupertino are now DOS compatible?

Things are indeed changing. The U.S. Army is in the process of dropping operating system specificity from their bid requests for small computer systems, opening the door to Apple. The Navy has acquired about 10,000 Macs for various applications and evaluation. The Merchant Marine Academy has specified Mac Pluses for their midshipmen in order to tie into the system at nearby Dartmouth College. Can the other services be far behind? The Harvard Business School, where pinstripers are made and not born, has announced that the Mac is the machine of choice for their students starting this Fall. More and more articles are appearing citing the not so hidden costs of training personnel on MS-DOS systems. The point is, the rest of the small computer world (that part that looks towards the blue light from Armonk, NY rather than Cupertino) is no longer laughing.

By trying to direct their customers to start over with new hardware, IBM has allowed them the option of a second look at all contenders, including Apple. This time around, with regards to the previous Lisa and Apple /// machines, Apple has something to show them. Many like what they see.

For the near future, the MS-DOS world seems more than somewhat fragmented. My own personal appreciation of the Mac (Mac evangelists would call it "salvation") in part had to do with this fragmentation. I learned to like the Mac (really the Mac interface when you get right down to it—without it, it's just another 680XX box) by inadvertently trying to build one—the hard way.

Bear with me, gentle readers, as we briefly journey into the dark recesses of the IBM compatible world. First it started with adding a special memory board called an EMS (expanded memory system) to get around DOS's self-imposed limit of 640K. Until OS/2 appears in the real world, 80X86 machines can only address 640K of system memory. Some programs can be fooled by paging blocks of additional memory on the EMS, but unlike the Mac you can't keep adding memory and have your old software address and utilize it.

My switch to MS Word for the IBM necessitated the addition of a mouse and the loss of one of my two serial ports. Unlike the Mac, where Apple assumed you would connect it to the real world (i.e. printers, monitors, graphics tablets, plotters) IBM "unbundled" all ports so that all connections had to be added by means of ala carte plug in cards, at extra cost, using precious slots and creating the multifunction card industry just to achieve mundane interconnection chores.

The final step was the addition of MS Windows, the prototype graphics "environment" which is to become the interface to OS/2—the competition to Finder. It was pleasant at first—until I borrowed a Mac Plus. Windows on an 8088 based machine is

contd. on pg 65



# BITS AND BYTES

by Lynn R. Trusal

## Multiuser Helix Impressions

I have been using Multiuser Helix for the past six months to design a veterinary database at USAMRIID. It is the most difficult Macintosh program that I have worked with but only in the sense that it has a lot of features that need to be learned. I approached the task like most Macintosh programs, put the disk in the drive and started experimenting. I quickly found I needed to read the manual extensively and occasionally call the company.

I needed a multiuser database, and the original choice only left Omnis 3 and Multiuser Helix. Since that time Fourth Dimension has arrived and dBase Mac will soon be available. Since one of my fields had to contain several paragraphs of data, I chose Helix because it permitted much larger data fields (up to 32,500 characters) than Omnis 3 Plus which had a limit of 70 characters. Odesta (Helix) also has a good reputation for customer service and I would have to agree that my many telephone calls were always handled very well. If someone could not talk to me immediately, they always returned my call the same day. On the negative side, they no longer have a toll free 800 telephone number.

The one major fault that I have found in Double Helix is the potential for loss of data on experiencing system errors. If a system bomb occurs you lose all your data files which become corrupted in the process. The use of backups is of paramount importance. I used two copies on the hard disk and two copies on a floppy. Another problem is that the "page orientation" command is global and if you use vertical forms and horizontal listing forms, it is necessary to change the page orientation in the "page setup" menu before printing. In fact, if the orientation is "portrait", a horizontal listing form will display only one record on the screen until the orientation is changed to "landscape." Version 2.0 of Double Helix which was announced at the Boston Mac Expo has both these problems corrected, along with increased speed, and automatic saves. Odesta is making available to registered users a 60 minute video tape (\$19.95 plus \$2.50 shipping) detailing the many changes and improvements in version 2.0.

Design of custom forms is pretty straight forward but probably not as easy as "FileMaker Plus" which I have read is one of the best databases for form design. I found it somewhat tricky to get a border around both a text and data field so they appeared as one box with the data field name and a space for the data itself. Helix is very icon intensive and it takes awhile to learn all the various icons and what they mean. I did not use any of the calculation capabilities of Helix but they are very extensive and include 80 different relationships.

I designed one data form that contained all but two of the data fields used in three listing forms, and three portrait oriented forms. As individual fields of the data entry form are entered, they are automatically entered into the listing forms that contain the same field icons. Thus data may be input into a central form without reentry into other forms that use the same data. I think

this feature is pretty standard for most databases on the market.

The ability to do single or multiple searches on a database collection is also important. The department head wanted to be able to search the files for each pathologist who had outstanding reports as of a certain date. He now has at his fingertips the ability to see who is up to date and who isn't. He likes this but I'm not sure the other pathologists do.

Each user has their own serial numbered Multiuser disk to access the pathology database collection. We purchased the right for 8 users to use Multiuser Helix. Three user disks come with Multiuser Helix and additional ones can be purchased for about \$100 each. The data collection is opened on a "host" machine and other users may "visit" the collection. Multiuser Helix supports simultaneous users but no two people can access and change the same record at the same time. Helix has very good error checking and "beeps" at you if you make a mistake. The user can find out what the beep means by checking the "why" menu item under the "Apple DA". This saves much aggravation and is very useful.

Printing hundreds of records takes time and it would be nice to use a Laser print spooler to speed the process but Super Laser Spool is not compatible and causes an instant crash that damages the data files. Screen dimmers also cause Helix problems including "Fade to Black" and "Stars 1.3". Therefore both automatic and manual screen dimmers are not totally compatible with Helix. If the host has opened the collection on one machine and uses a manual or automatic screen dimmer, other users can not visit the data collection. I hope Odesta is able to improve the compatibility of Double Helix with both screen dimmers and laser spoolers. In all fairness, Helix was on the market before either of these type of programs existed.

All in all I found Helix to be a good database. Although it makes good use of the Macintosh interface, it is not as intuitive as most Macintosh applications and can be frustrating until you get the hang of it. I would recommend it for business use but not for home or personal use unless you need the power and many capabilities it offers. I think version 2.0 will be a significant improvement.

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

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# Hardviews by David Morganstein



**MacScan (New Image Technology).** Document scanning is one of the exciting outgrowths of desktop publishing. Graphic images can be converted into graphic files which can be enhanced and then pasted into word processors and page layout programs. Text can be optically scanned and converted into machine readable information in a document, database or spreadsheet. There are a number of manufacturers of systems which enable you to scan a graphic or text document.

**What You Get.** New Image Technology, a local company, offers MacScan, a package consisting of three components. First, you have the scanner. New Image offers the LS-300 scanner from Princeton Graphic Systems. It is a proven product used by other value added resellers. Capable of 300 dots per inch (dpi) resolution, the unit is quiet, fast and compact. It can scan an 8 1/2" x 11" page in ten seconds. (Compare this to the low cost Thunderscan that may require more than five minutes to scan the same document.) Next, New Image adds an interface box. This box connects the scanner to the Mac's SCSI connector. Both the scanner and the interface box require A.C. power (i.e. you'll have to provide two outlets!). Last, New Image provides software (the MacScan program) which activates the scanner, receives it's signals and creates a Mac file as output. You run the program, insert a document in the scanner and select the Scan command from the File menu. That is all there is to it!

Before going on, let me point out that New Image does not yet offer optical character reading software. Such a program would convert scanned text into a text file, either by doing the scanning itself or by reading a graphic image file previously created by the MacScan program. New Image had hoped to offer such a program as an extra-cost option but current plans indicate it will not be available till the end of the year.

The equipment is very easy to set up. You plug the scanner into the interface box and the interface box into the Mac SCSI connector. If you already have a device hooked to the SCSI port, you unplug it and reconnect it to the MacScan cable which offers a second SCSI just for daisy-chaining the SCSI devices together.

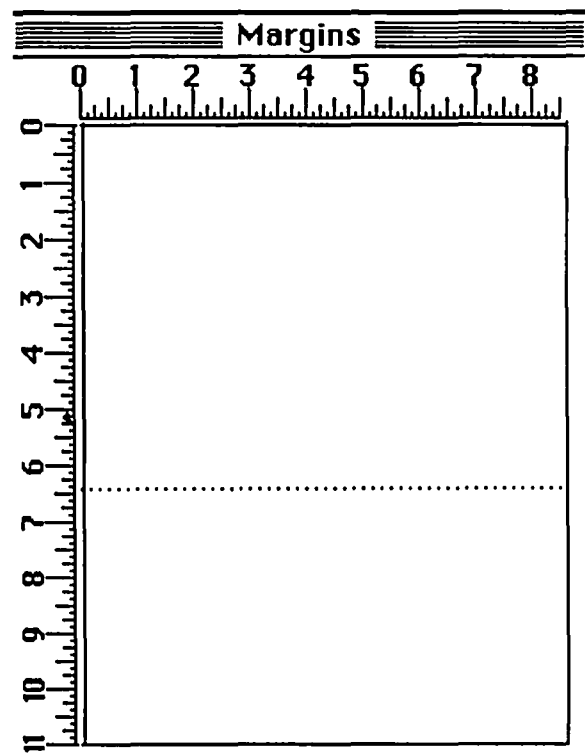
**The Software.** In addition to operating the scanner and saving the scanned image as a graphic, MacScan offers several other useful features. For one, it allows considerable editing of the scanned image. In addition, it provides for saving scanned image in one of ten different formats. (see below). Not all of these formats were familiar to me, but they are coming into greater use as page layout software expands. I was a little surprised to see only PageMaker 1.2 appearing as a choice since PageMaker 2.0 has been available for five months now. TIFF, which stands for Tag Image File Format, is used by a number of page layout packages on both the Mac and MS-DOS machines. EPSF stands for encapsulated postscript. I know very little of the meaning of these two formats or how to choose between them.

(As an aside, if you use SuperPaint you will need to get version 1.0S, as pointed out in the MacScan manual. Version 1.0 leaves a large white swath down the middle of scanned images!!!)

- Compressed "TIFF"**
- Uncompressed "TIFF"**
- Generic "EPSF"**
- MacIntosh "EPSF"**
- PageMaker 1.2**
- MacPaint**
- SuperPaint**
- PICT (Actual Size)**
- PICT (Maximum Size)**
- PostScript**

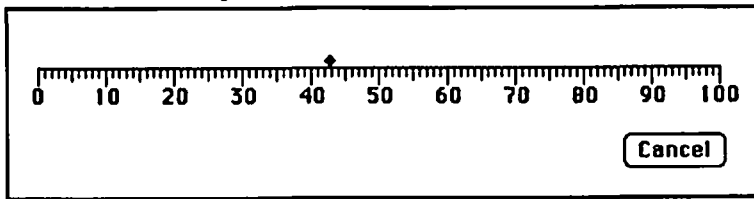
Documents can be scanned at 75, 150, 200 and 300 dpi. If you only work with MacPaint (or FullPaint) for editing, you will only need the 75 dpi setting. If your output will be on the LaserWriter, you will want the 300 dpi choice for the best resolution. However, be aware that high-resolution graphics take up a lot of memory, both in RAM and on disk. In fact, you may need more than 1 Meg of

RAM to scan a full page of 300 dpi graphics. MacScan provides a "Margins" window which will tell you how large an image you can scan with the memory you have available. Note the thin horizontal dotted line appearing at 6 3/8". In this case MacScan has a 700K RAM partition (in MultiFinder) and is saying that it can only produce a half of a 300 dpi document. The margins can be reduced by manually clicking and dragging on them. They can only be expanded by neuro-surgery on your Mac...




contd.

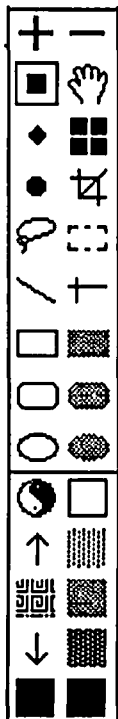
I can tell you that PICT formats can be very large. When saving one half page image in PICT, the resulting file (which took over than 3 minutes to save) required more than one megabyte of disk space! MacScan kindly displays a gauge indicating the percent of the file saved (or loaded) to help you know when a cup of coffee might be a good idea.



The scanning options include two-value normal, two-value thinline and halftone alternatives. Halftone is the standard choice for gray-scale images. Two-value normal works best for text images as it produces a graphic with only white and black content. In addition, you can scan the image a little lighter or a little darker (I'd guess the change is about a half stop to a camera buff) by selecting a different menu choice.

Once an image has been scanned, it can be viewed at any of seven magnifications, normal, and 2X, 4X and 8X magnified or reduced. The magnification is useful for fine editing while the reduction allows you to see the entire image and to crop away parts you do not need. (After cropping, the "sub-image" alone can be saved.)

At the left of the MacScan window are a set of tools for editing. Most of these will be familiar to MacPaint users. The plus and minus signs at the top increase and decrease the size of the square, diamond shaped or round pens shown below the plus sign. The fourth icon on the right, , is the cropping tool which can be used to bring in any of the four borders to eliminate the area around a sub-image. The patterns at the bottom are used with the fill icons. The textured pattern between the two arrows is just one of many random patterns available for filling. The yin-yang symbol is used to invert the textured pattern.



The dancing ants rectangle can be used to select an area of the scanned image. MacScan then allows you to rotate or invert the selected portion.

Besides scanning, editing and saving, the MacScan program can also print to a LaserWriter (but not to an Imagewriter).

**Other Comments.** The accompanying manual is well written and explains practically everything you need to know about using both the hardware and the software.

One minor annoyance about the software. Certain functions only work when using certain magnifications. The user could be helped if MacScan would dim those functions not available at any point in its use. This is not a major criticism but would represent some improvement in user "friendliness".

Given the overall quality of the product, I was a little disappointed at the type of connectors used by New Image. The ribbon cable from the interface box to the SCSI connector uses very inexpensive plastic connectors without screws. This type of connector can easily pull out at either end,

computer or interface box.

The power supply which feeds the interface box is a "biggy", barely under the size of a brick. While it is not heavy, it is bulky and takes up a lot of space where several devices (computers, modems, printers, etc.) are already connected.

**Summary.** I found the MacScan product to be a good buy. The list price of \$1499 is competitive (I believe I have seen it advertised for less). I would like to have seen the interface box and scanner powered together, avoiding the need for two plugs and a lot of wires running all over the place. If you need a scanner, give them a call. New Image Technology, 10300 Greenbelt Rd., Seabrook, MD. 20706. Phone (301) 464-3100. ☺

#### A View of Big Blue contd. from pg 62

like watching grass grow compared to the speed of the Plus. The story goes, that there is enough similar code in Windows that Microsoft pays royalties to Apple. In spite of these legal "arrangements", perhaps to avoid the "look and feel" controversy that tripped up Digital Research's GEM interface, much of Windows' housekeeping tasks (i.e. file copying etc.) involve a pull down menu, but then require typing into a dialog box. A two to three step operation compared to Mac's quick click and drag. Add to this the fact that little if any software is written to run under Windows, then there is no convenient way to patch data from one application to another. While Mac'ers bemoan having to use the clipboard and await Multifinder ("Juggler"), the IBM'ers don't even have that option.

I may amuse you at some future time over the memory conflict wars and system crashes that result from what are called TSR programs (terminate and stay resident) for the IBM. Desk Accessories for the Mac, Apple's equivalent of TSR's, are generally well behaved and well handled in an organized fashion by the Mac OS—but I won't!

So, as a defector, how have things changed? Well, I've given up my smug self-assured attitude as a former member of the "Empire of Armonk" for the smug self-assured attitude of the "Rebel Alliance of Cupertino" (obviously a character flaw). Pickpockets scratch their heads in bewilderment as they find both Capital PC and WAP membership cards in my wallet. My local newsstand has long since given up trying to figure my purchases of PC World, PC Magazine and Mac User and MacWorld.

On the down side, I've always envied the fact that software for the Mac was cheaper than for the IBM. But, as the Mac goes mainstream, this too shall pass. Compare the 2-digit prices of Mac Connection to the 3-digit prices of her sister store, PC Connection just for historic interest. FYI, Reflex for the Mac may be the first "casualty of respectability", as Borland has announced that the next version which was shown at MacWorld in Boston will be triple the price. Philippe Kahn himself is quoted in InfoWorld as saying that it's low price was hurting its credibility. Welcome to the pinstripe world, folks.

I got involved with computers, because as well as being quite useful computers are simply—fun. I've found Mac'ers in general still to have that sense of fun and adventure with their machines. More fun than the button-down crowd of IBM. I'm glad I came to the party—and I'm not looking back! ☺

# VIEW FROM THE HILL

by Rich Norling

My apologies to those who have looked for this column in the last few issues of the Journal. I took my planned summer vacation from the August issue, then missed the September issue because I was so busy getting ready for my company's booth at Macworld Expo in Boston. At the beginning of September I had actually started to write a column for the October journal when I received an invitation from Apple to join John Sculley's press conference announcing the beginning of Apple's major push to develop Desktop Presentations into a separate market segment like Desktop Publishing. So I jumped on a plane for Silicon Valley, and the column did not get finished before the Journal deadline.

## Desktop Presentations

What makes presentations different from publishing? Presentations often involve a dynamic element and interaction, a progression from one idea to another to a logical conclusion. The purpose of a presentation can be to provide a background briefing, report progress, prepare for a decision, provide training, sway opinion, or make a sale.

Publishing delivers a uniform message efficiently to a large number of people. Presentations are usually delivered to smaller numbers of people, and are often customized to speak directly to the interests and concerns of each specific audience.

The computer output for publishing is usually paper. For presentations the output can include paper flip charts, full-page acetates for overhead projectors, 35mm slides, speaker's notes, handouts, and many other media.

By creating a special market segment for Desktop Presentations, Apple is broadening the types of output associated with Macintosh technology and is positioning the Macintosh as the leader in yet another important activity that is conducted in business, science and government.

Studies of presentations have shown that graphics are more effective than words in gaining and keeping the attention of the audience, getting people to remember what was presented, and persuading people to adopt a point of view or take an action. Since the Macintosh is the outstanding graphics machine among desktop computers, the Macintosh is the best machine to use for creating and making presentations.

Apple's emphasis on Desktop Presentations should result in lots of new software that will make the Macintosh unbeatable for this application. On the hardware side, the slots in the Macintosh II and SE provide obvious opportunities for companies to design cards that connect the Macintosh directly to film recorders, videotape machines, and other devices.

The reason I was invited to attend John Sculley's press conference announcing Apple's push for Desktop Presentations is that my company, Language Systems Corp., announced at Macworld Expo in August that we are developing ColorLab™, desktop presentation software that will make full use of the Macintosh II's color and graphics capabilities. ColorLab will ship later this fall. I don't want to misuse the free space for this column to promote my own product, so we'll buy an ad to tell you about ColorLab's features when it begins to ship.

## Industry Changes

Lots of changes have happened in the companies that bring you Macintosh software since my last column.

Forethought, which had been founded by two former Apple employees, was purchased by Microsoft for \$14 million. Forethought had published PowerPoint, the first Macintosh application directly aimed at the Desktop Presentation market, and that was the reason Microsoft bought the company. The developers of FileMaker, another of Forethought's products, exercised the option in their contract to take the product back if Forethought changed ownership, and will be selling FileMaker themselves.

Ansa, publisher of the Paradox data base program for those machines identified by three letters beginning with a vowel, has merged into Borland. Ben Rosen, the well-known venture capitalist who was instrumental in the creation of Lotus and Compaq, was also involved with Ansa, so he now sits on Borland's Board of Directors. Borland started as a competitor on price, but has recently started finding reasons to raise the prices on its software. It will be interesting to see whether reviewers will become less tolerant of shortcuts taken in the design of Borland's software now that their prices are higher.

Living Videotext, publisher of ThinkTank and MORE, has merged with Symantec, another company more involved with I\*\* machines than Macintoshes until now. Symantec recently announced that its Living Videotext division is beginning development of an application for the Desktop Presentation market.

Claris, Apple's software spinoff, has not done many visible things yet. Claris officials attended Macworld Expo in August, but had no company booth. Rumors abound as to which Macintosh software publishers or products Claris will acquire. The first outside product appears to be a forms design program. Claris is also expected to publish MacDraw Plus, an expanded version of MacDraw that has been under development at Apple for some time.

While Claris has not yet entered the market in its own right, I suspect that the existence of Claris has been at least partly responsible for some of the mergers and company purchases noted above. The Macintosh now has an installed base large enough to attract publishers previously involved only with other machines. When they look at the market and weigh the possible effect of Claris as a major actor, it suddenly begins to look more attractive to buy a company that is already established in the Macintosh market than to try to enter it from scratch.

## Spreadsheet War?

Jockeying among the two largest microcomputer software companies continues, and an all-out war may be in the offing. Just 24 hours before Microsoft's scheduled press conference to announce the formal launch of Microsoft Excel for the I\*\* PC and clones, Lotus held a press conference to announce that Lotus will develop a version of 1-2-3 for the Macintosh.

So far Lotus has failed dismally in the Macintosh market. Their first offering, Jazz, did not contain macros or other power features that had been largely responsible for the success of 1-2-3. Their belated attempt to remedy that, codenamed Galaxy, contd.

will now be named Modern Jazz and ship in early 1988. The Macintosh version of 1-2-3 will presumably be available later than that. In the meanwhile, the winter will probably be enlivened by press accounts of the "spreadsheet war" between Microsoft and Lotus.

I think Lotus was originally fooled by the user-friendliness of the Macintosh, and failed to understand that having a simple user interface does not require the underlying software to be simple-minded. The real trick of writing Macintosh software is to find a simple, easy-to-understand user interface that gives the user access to real power in the software. Inventing a simple way for people to access complex and powerful features is one of the challenges that I enjoy in designing Macintosh software.

#### Back to the Land?

Farmers live close to the land, with their daily activities often dictated by weather conditions. Software developers work with machines, not animals or plants, so you might think we have little in common with farmers. However, the weather is often a matter of great interest to software developers, too. Even though the computer work is performed indoors, I find that I keep an eye on the weather just like farmers do.

The particular weather of interest to a software developer is thunderstorms. They can cause power surges and outages, and sometimes more direct harm to the computer equipment. Whenever I notice a thunderstorm in the neighborhood, I shut down my computer and remove the plug from the wall socket.

I am not being paranoid about this—the danger is real. Cricket Software lost the power supply on one of their first Macintosh IIs during a thunderstorm in Pennsylvania. Closer to home, the house of some friends in Great Falls was hit by lightning last month. Everything on the electric circuit where the lightning hit was destroyed—lightbulbs burnt out, fuses blown, wall plugs fused, plastic on/off switches melted or exploded, and a stereo tuner destroyed. Any computer plugged into that circuit would have been dead silicon.

Luckily, the computers in my friends' house were on a different circuit in the end of the house away from the lightning strike. But the warning should be clear: just turning a switch off does not provide complete protection to your equipment. The major surge that accompanies a lightning strike can easily jump the small amount of air between the connections of an average on/off switch. If you really want to protect your electronic equipment during thunderstorms, unplug it.

So software developers keep an eye on the weather. Sometimes we even call each other to warn of thunderstorms coming through. I won't try to push the analogy between farmers and software developers too far, however. Software developers have a reputation for working late into the night, and many of us do. I don't want to think about how early in the morning I would have to get up to feed the livestock if I were a farmer!

*Rich Norling is coauthor of StatWorks™ and Cricket Graph, 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-McGrawHill. Rich is Chairman of Language Systems Corp., a Macintosh software company.* ☺

# HYPERCARD NEWS

by Robert C. Platt

The next meeting of the HyperCard SIG will be immediately after the main WAP meeting on October 24. We will then set a permanent meeting time and place.

The SIG's organizational meeting produced two dozen enthusiastic HyperUsers and HyperScripters. We decided to focus the SIG so as to appeal to both groups. One significant development was the group purchase of Danny Goodman's book for \$17.95 plus tax. If you want a copy, drop by the office (phone ahead to see if it's available).

Several people have downloaded Stackware from CompuServe and GENie. SIG volunteers will assemble these as well as your creations into WAP library disks. Remember that you get a free WAP library disk for every disk of software you contribute. ☺

## JOB OPPORTUNITIES

A variety of positions are now available at MacCorner, the leading Macintosh third party product company in the Washington area.

Please call Mr. DeArriz or Mr. Benites at 948-1538 or submit a resume to MacCorner, Attn. Personnel Manager, 8653 Zetts Avenue, Gaithersburg MD 20877.

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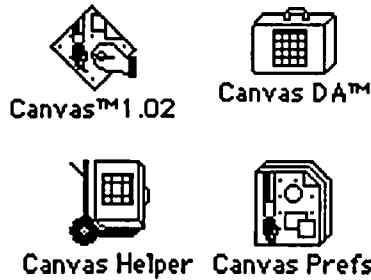
And we will be the only storefront in the area taking orders for the COLBY WALKMAC laptop (order now, available late Nov, early Dec). We previewed the WalkMac on September 7-8, and the WalkMac demo video is still available for viewing. We are also taking orders on the Dynamac.

*Our prices are competitively discounted, and we continue to offer Macintosh Workstation rentals, including scanning and laserprinting.*

\* Or one of the first, based on a telephone survey.

# CANVAS™—Just Another “Graphics” Application?

by Martin Milrod



Deneba Software is a Florida-based firm which has produced a host of Mac software, such as MacLightning and Memorandum. These (and some others) had been marketed by Target Software, but after an acrimonious break with Target, Deneba is now producing and selling its own software directly. Both Deneba and Target have promised to continue user support of “their” products, even though these named products will no longer be developed, and they are in the midst of legal proceedings. (Target Software produces Scoop™, one of the latest desktop publishing page layout programs.)

Deneba’s “new” products—expanded versions of some prior products, include Comment, replacing Memorandum, and Spelling Coach and Spelling Coach Professional (which works with MS Word 3.01), replacing MacLightning. One of its truly new products is Canvas, a combination Draw/Paint product.

Canvas is similar to SuperPaint in conception, and shares considerable familial tendencies with GraphicWorks and Silicon Press in its ability to deal with both object-oriented and bit-mapped materials.

Both SuperPaint and Canvas provide “layered” images in either object (PICT) or bit-mapped (Paint) form, some form of “translucent” or “opaque” layering, the ability to work at 300dpi (LaserWriter) or 72dpi (Imagewriter), and the ability to work in much-enlarged or duplicated versions of graphics.

Both also share a common problem, and that is their relative inability to import or export materials in their native formats to almost any other application. Both SuperPaint and Canvas almost require “saving” in MacDraw (PICT) or MacPaint format in order to utilize their products in other applications. This is a special problem for desktop publishers and presentation graphics users.

Finally, they share a common problem in RAM memory management when dealing with “larger than 4” square” images at the 300dpi level. Mind you, this a problem common to all programs which permit editing at this level, including Illustrator, LaserPaint™ and all scanned 300dpi TIFF files (4/1 bit compressed TIFF in the case of ThunderScan). If you plan to edit at this level, you had better have 2-4 Megs of RAM available or

You must select a paint object before using any of the Paint tools!

Do you want Canvas to convert this object into a Paint object?

72 d.p.i. (MacPaint™)

300 d.p.i. (Scanners)

OK

Cancel

## Duplicate Options

Number of Copies:  Rotate Each Copy: °

Offset Each Copy:  ΔX  ΔY   To a Line

Resize Each Copy:  ΔX  ΔY   Δ%

Increment Patterns

Center of Rotation:

- Top-Left  Top-Right  
 Center  
 Bottom-Left  Bottom-Right

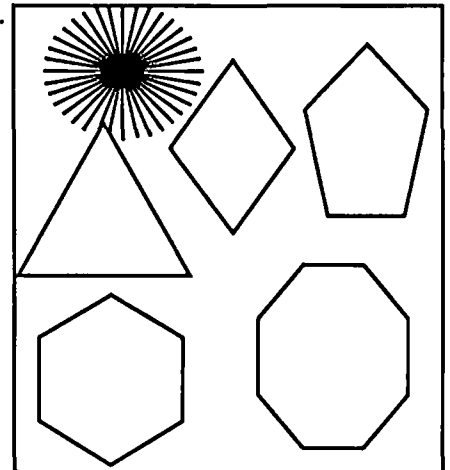
OK

Cancel

look forward to repeated crashes. Canvas permits you to control dot-by-dot resolution up to 2400dpi—a first, and a super memory hog, of course.

Canvas also supports grouping of objects, Snap-to-Grid, alignments, the use of arrowheads and line weights.

Canvas represents one of the best attempts to provide a useful and relatively complete graphics environment for most of us. Canvas permits 1° rotational increments of objects or paint images, a continuous working area of 8 x 4 feet, full Bezier curves, and the ability to fully adjust brush, spray, paint and fill patterns. It can “blowup” your graphic by up to 3,200% magnification. Canvas also comes with some standard shapes readily available (see below) and has the ability to store combinations of objects in what is incorrectly called Macro Sets. You can also skew and distort any object or paint image, and create one or two point perspectives.



contd. on pg 70

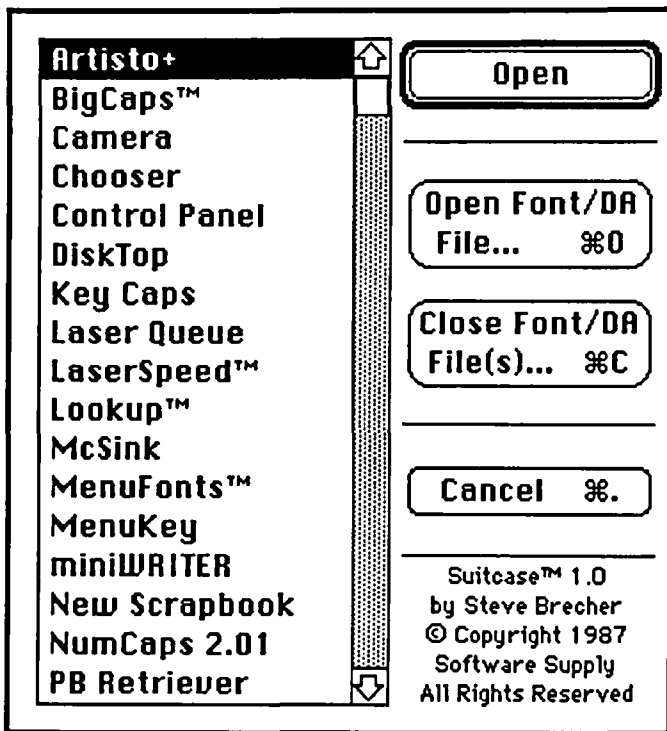
# BOY, ARE YOU GOING TO LOVE THESE!

by Martin Milrod

## Suitcase™

Beginners seldom find the need for a variety of Desk Accessories (DAs,) and hardly ever have enough knowledge or sufficient space within their floppy disk Systems to load many fonts. Now we have a breakthrough utility called Suitcase which lifts the burden of manipulating DAs and fonts. It's all run by a simple init placed into your System Folder, and is excellent for the 70 percent of us who now use Hard Disks and where space limitations are no longer critical.

The init, called Suitcase, is initialized upon startup. It automatically opens all (up to ten each) of the DA "suitcases" or font "suitcases" or FKeys (Function Keys) which you have also placed into the System Folder. They are all immediately available to you without having been installed into your System and without using the horrible Font/DA Mover, Apple's utility for adding DAs and fonts. By placing any combination of "suitcase" containing DAs and fonts, you can have virtually unlimited access to them from within any application that support DAs. What a bonanza!



Desktop publishers, graphics artists and just ordinary Mac users will love this utility. About 4K of its codes are placed into RAM (Random Access Memory) which "calls upon" the Suitcase icons within the System Folder to "open up." In using Suitcase I encountered two problem—one with a "screen darkener called Pyro which is bundled with Suitcase (discussed below) and its occasional failure to automatically open all my DA suitcases. I spoke with Brecher about this and he stated that he was aware of this anomaly. To avoid using the Command-K instruction, locating the suitcases and opening them—a minor inconvenience—you can place your DAs and fonts suitcases into

one folder named Fonts/DAs. Once I did this, Suitcase functioned beautifully.

Suitcase runs within any environment having 512K or more of RAM, and lists for \$59.95. Steve Brecher, the author of Suitcase and PowerStation is one of the true Mac experts and his list of credits to his Beta testers reflects the "cream" of nationally known Mac "mavens."

John Love III finally became convinced to buy Suitcase (he took some convincing,); at the time he had the older 64K ROM (Read Only Memory) Mac, and he reports another minor problem with Suitcase. To have it work smoothly in older Macs, (the 128K and 512K RAM machines with 64K ROM) you must patch some of the Suitcase code as follows. Using Resedit, or getting an advanced user to do it for you, find and change the following code within Suitcase:

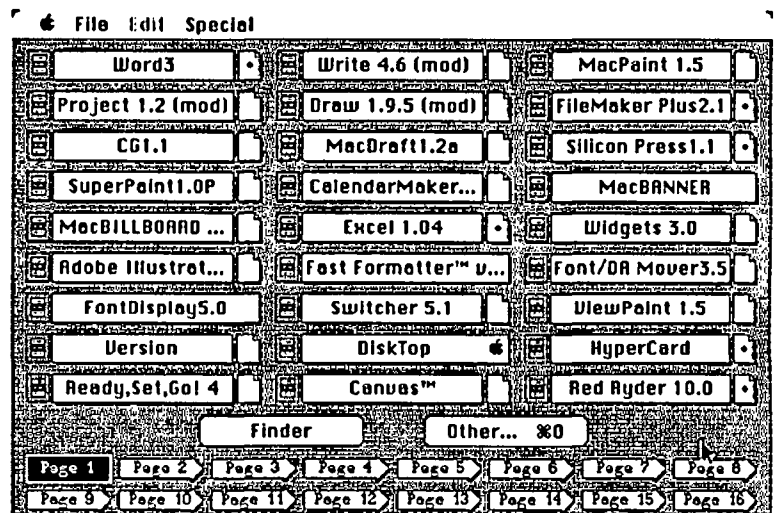
30280010 to 4A404E71

Don't worry, please, about what all of this mystical stuff means. If you have an older machine, you'll be best off "patching" Suitcase as described above.

For John Love, who has since gotten the Mac SE, and for all Macers with newer machines (128K or 256K ROMs) Suitcase works like a dream just as it comes out of the box.

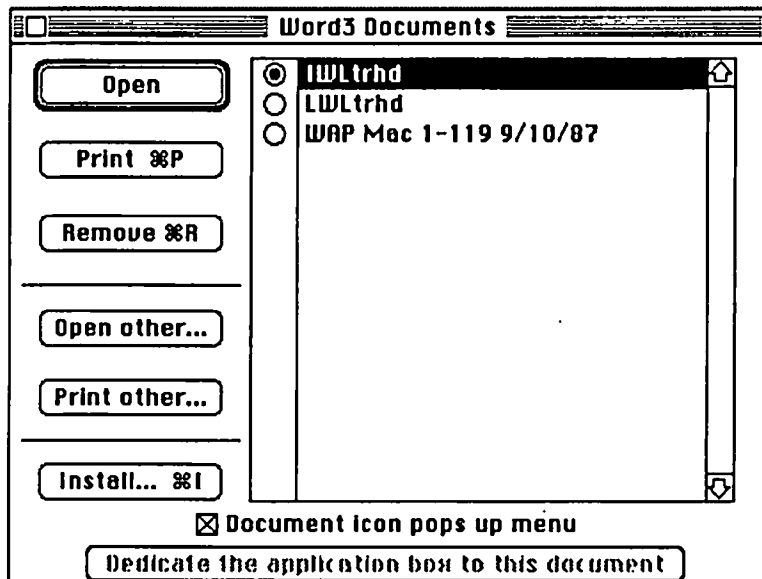
## PowerStation™

PowerStation is a mini-finder similar to its predecessor WayStation, Oasis and a host of other Finder "speeder-uppers," which permits you to move rapidly from one program to another without having to first return to the desktop. PowerStation permits you to have 27 items per screen (called a Page) with up to 16 Pages available. Of course, I've got to better organize my Page 1 one of these days.



You can easily install any DA or other program, place them on a Page, locate all files within your computer environment for each application (such as MS Word) and designate one default file for each application. (I use my letterhead for MS Word, as my default.)

contd.

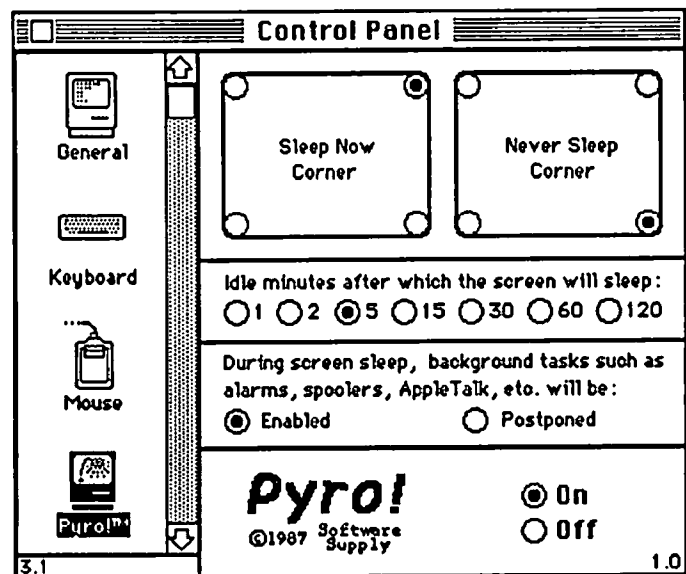


In fact, PowerStation can substitute for the Finder, although I haven't had the nerve to quite do this. It opens and closes things very rapidly since it is RAM intensive in remembering where on your disk(s), hard or floppy, an item is stored. Anything which runs in RAM runs much faster than anything that accesses a physical head reader device such as a floppy disk drive.

PowerStation works within the MultiFinder environment (System5.0/Finder6.0—not yet released as this article is written) with one slight flaw. To return to the normal Finder from PowerStation within MultiFinder, you must click on Restart or Shutdown in the PowerStation screen; if you click on the Finder button within PowerStation, you crash. For those of you not using MultiFinder, PowerStation sails you from application to application rapidly and safely. It's neat as all get-out, and the best of any mini-finder with which I've worked.

### Pyro™

Included with either Suitcase or PowerStation is a "screen darkener" similar to MacsBug or AutoBlack. It neatly appears in the Control Panel if you are using System 4.1/Finder 5.5 or later versions and you can control a variety of features (see inset).



When initiated, Pyro generates an annoying ad for Software Supply, Steve Brecher's company which produced these items, and only then goes on to show either a bouncing white apple on a blacked out screen or, optionally, fireworks—which appears in color on color-supported monitors.

I found Pyro slightly unreliable. It interrupted long print jobs I had when not using a print spooler. Nothing was lost—it just froze the printing while Pyro was engaged, and then continued when Pyro was disengaged by touching any key or moving the mouse. Because of this, I returned to AutoBlack 1.5 and contentment with my screen darkener.

### Conclusion

Suitcase and PowerStation are well developed, smooth, efficient, effective and safe utilities which do not damage anything I've used them for. They are responsive and clean, well worth their costs, are not copy protected, and have solid, clear documentation.

Jean-Louis Gassée, Senior VP for Apple, is quoted as having said that PowerStation is "easy to install, good aesthetics, smart assumptions. In my opinion, the best of the lot!"

I recommend them to you without reservation.

Software Supply, 599 N. Matilda Ave, Sunnyvale, CA 94086 (408) 749-9311. \$59.95 each program. Order phone: (800) 443-0100 x 451. ☺

### Canvas contd. from pg 68

Neither SuperPaint nor Canvas currently uses the new PICT-2 protocol (the enhanced "color window" version of PICT used in the Mac II color environment.) but both will be using that protocol in 1988 upgrades.

The most pleasing aspect of Canvas is that it has a DA version of its program with 80% of the features of the full application. This means that you can have a full-featured object or paint working environment within any application which supports DA's, a major breakthrough in my opinion. The DA shareware Scribbler, µPaint, (and a few others,) and other commercial software such as DeskPaint™, the DA by Zedcor (\$59.95 list) can be tossed out the window—they cannot begin to compare with Canvas' features!

The user manual is sparse, yet serviceable. Canvas has direct phone user support (800-6CANVAS), is not copy protected and Deneba has already sent me a free upgrade (to version 1.02)—the hallmark of a decent user support company.

### Conclusion

All the best of MacDraw and MacPaint in one up-to-date package. Better, in my opinion than SuperPaint or Graphicworks, and with a level of user support that is pleasing. Its shortcomings remain its intractable native format which limits import/export functions, the absence of more template designs, and the virtual necessity for serious users of having more RAM memory than the 1 Meg standard. Its relatively low cost represents a solid buy.

Canvas, Deneba Systems Inc., 7855 NW 12th Street, Suite 202 Miami, FL 33126. (305) 594-6965. Tech Support: (800) 6CANVAS. \$195 list, or \$99.95 for just the DA version. ☺



# RADIUS ACCELERATOR CARD, WORD 3.01 FIXES AND DEALER SUPPORT

by Barry D. Watts

Jim Lanford's upbeat review of the Radius accelerator card for the Mac SE in the August 1987 issue of the *Washington Apple Pi Journal* led me to take the plunge and have the basic 68020 board installed in my Mac Plus. While I'm delighted with the results overall, I would note two differences from the SE version. The Radius 68020 accelerator for the Mac Plus/512E comes with a fan on the board. Also there is—inexplicably, I thought—no control panel, which means once the board is installed you cannot elect to run programs with the 68000.

Regarding performance, I wanted the card mainly to speed up features like Page Preview in Word 3.0. I'm working on a book with 50-100 footnotes per chapter positioned at the page bottoms, and given the pagination and footnote problems I encountered with Word 3.0, I have found myself constantly twiddling my thumbs for periods approaching a minute while Page Preview chugged through the first twenty pages of the chapter I'm rewriting so I could check to see if all the footnotes were going to appear. As far as I can tell, the 4-500% speed increases advertised for word processing functions such as scrolling, saving, repagination, and previewing pages with the 68020 at 16 MHz are "for real." In addition, all the applications I normally use day-to-day (MacDraw 1.7, FullPaint 1.0, Microsoft Word, and, occasionally, MacWrite 4.5) appear to run without problems. Noise-free-Macintosh purists will be disappointed to learn that the internal fan which comes with Radius accelerator for the Plus/512E is not exactly inaudible. In fact, together with the Kensington System Saver I have on the top, my Mac Plus now sounds as loud as the IBM AT I have at work. On the other hand, there are no longer any warm spots whatsoever on the exterior of my Mac.

Turning to Microsoft Word, the articles by Rick Chapman and Harris J. Silverstone on Macintosh technical writing and Word 3.0 formulas in the August *Journal* were both outstanding (especially for those of us who originally bought Word 1.05 but have been too busy word processing ever since to bother reading the murky-to-incomprehensible documentation that came in the mail with Word 3.0). Some years ago I got involved in revising a locally-produced symbolic logic textbook that is still used by the philosophy department at the U.S. Air Force Academy, and I still remember vividly the utter horror of having to enter by hand every piece of notation that did not appear on an IBM Selectric typewriter in 1975 (quantifiers, implication symbols, etc.). Thus my reaction to the two articles was to rush immediately to my Macintosh and try to generate some formulas with integral and summation signs.

To my chagrin and disappointment, however, I found myself getting the symbol  $\square$  in place of  $\int$  and  $\Sigma$  in all my formulas. The reason, of course, was that following my last hard disk crash, I had not bothered to put the Symbol font back in my system file. Without this font, you don't get the lovely sigmas and all the other Greek letters some of us fondly remember from assorted

mathematics and physics courses in college.

I thought this fact might be of general interest for two reasons. First, it was not explicitly mentioned by either Chapman or Silverstone, although the careful reader might have avoided my problem by drawing the obvious inference from Chapman's comment that the Word 3.0 spelling checker flagged sequences containing Symbol characters as misspelled words. Second, perusal of my Word 3.0 reference manual revealed that Microsoft didn't bother to mention this minor detail either—or at least not in any of the places where it seemed logical to look.

Although Word 3.0 may have answered Chapman's prayers for technical writing capabilities on the Mac, mine regarding bottom-of-the-page footnotes had to wait for Word 3.01. Using the 3.0, somewhere around footnote 75 in Chapter 2 of my current book, I started running into the puzzling phenomenon of randomly non-printing footnotes (first mentioned in the June 87 issue of the *Journal*). Moreover, mine refused to print regardless of the print quality selected, as evidenced by the fact that my non-printing footnotes were always missing in Page Preview as well. Even worse, neither my workarounds nor those suggested by Robert Platt in the June *Journal* helped. In fact, inserting manual page breaks where Word 3.0 should have done so, frequently *increased* the number of missing footnotes (in one case, from one to four), and the best I could elicit from Microsoft over the telephone was a promise that the bug would be corrected in the next version. (Well, I must confess that I sometimes write very, very long footnotes.)

The good news, though, is that the voice on the telephone at Microsoft wasn't lying. Microsoft's on-disk notes suggest that the first thing you do should when you initially open a Word 3.0 file with 3.01 is to depress the shift key and select Repaginate. To my joy, this simple procedure not only fixed the non-printing footnotes in the chapter with which I've been struggling, but the pagination even managed to get the beginnings of all 81 footnotes on the same pages as the corresponding footnote numbers in the text.

The on-disk notes (Read-Me-First) that accompany Word 3.01 list a number of improvements which users of the program can read for themselves. (For example, fonts will now mercifully appear in the font menu and character-dialogue box alphabetically.) Let me just mention one other improvement I've noticed which isn't mentioned in Microsoft's notes. When you open the footnote window (with bottom-of-the-page footnotes) in the middle of a twenty-five-page chapter, you are no longer returned instantly to the first page of the file and forced to scroll back to where you were editing. (Over the last five months, I have cursed Microsoft for this "feature" at least ten times a day.) But no more—with 3.01 the footnote window opens politely to the notes corresponding to your place in the document (hallelujah!).

Finally I would like to say something nice about a local dealer. I bought a DataFrame 20 hard disk from MacCorner in

contd. on pg 78



## Best of the Mac Items from The TCS — Bill Baldrige



### Data Bases

MARK OSTROFF on 09/19

This message is to correct some information previously posted about Borland's upgrade for Reflex called Reflex Plus. I had an opportunity to talk directly with the folks at Borland yesterday for some technical information, and got some info on the new release at the same time. It seems what I've been trying to do in Reflex with great difficulty will actually be very easy to do in Reflex Plus. As has been posted before, MOST of the changes in Reflex Plus are indeed cosmetic. Things like:

- More numeric and date formats
- More fonts allowed...etc.

However, there ARE some REAL improvements to the program as well. These include such things as:

- Table-style (ie, multi-record) data entry
- Ability to renumber a sequence field based on the now-current sort order
- Ability to group items in a report by a key field

The first item is very useful when entering records that have "sub-fields" which must line up in a print-out. The second item cannot be done in Reflex at all, unless you export every field except the sequence field and then import the entire database into a new file. Clumsy!! The third item would eliminate the current need to create reports with multiple repeating collections with criteria such as "people WHERE STARTS (Last\_Name,"A")" or be forced into using an overly complex relational setup with nested repeating collections in order to get a report that only prints each unique key field entry (like a category) once.

The price of the upgrade for all registered owners of Reflex will be \$95. The program IS NOT YET SHIPPING!!

BILL AMON on 09/21

I could add that even though dBASE Mac will read binary versions of dBASE II, III, files as well as some other formats, I found it was easier to import a flat ASCII file from dBASE II than go in with a simple editor like QUES and add a new first line to auto-define the field names and formats. This makes loading your data base a lot easier!

EDWARD BARNAKO on 09/29

I'm a new Mac SE owner. Moved over from a //c, where I had a twenty-four month love affair with AppleWorks. But can you believe it? MS Works doesn't do all the things AW does. I'd like to hook up with someone who knows MSWorks. Got lots of questions about it—like how to print to disk, or print a formatted report from the database to the clipboard. Help!

BILL BALDRIDGE on 09/30

I was going to suggest you call one of the Hotline volunteers, but I see we have no "MS Works" specialists listed. Check your Journal Hotline for one of the Excel specialists - maybe one of them could at least point you in the right direction. As a

suggestion, if the section you're trying to "print to the clipboard" ("copy to the clipboard" would be more accurate) is not over 32K, you should be able to copy that portion and paste it into the word processor in Works, and format it to your heart's content.

### Desktop Publishing

RICHARD MARTIN on 09/13

Have had a chance to mess around with RSG 4 a little bit over the last couple days. Looks good, but there are more than a few bugs. At least, I've had nothing but problems working on a long RSG3 file which I converted to RSG4. For instance, the font characteristics are off by about 8 characters in many text blocks, so what I want to appear in Times prints in Dingbats, and Dingbats prints in whatever font and style that follows, etc. Also, a global change took 5 hours + (what do you bet the machine had hung up?). Tabs still seem strange and even less intuitive than before. And the kicker is that some files become corrupted, and can't be opened or fixed by RSG 3 or 4. Other than that, I like it. It is much faster than RSG3, and many of my problems could be caused by a faulty document converter. We shall see!

EDWARD BARNAKO on 09/17

In FullPaint, I've done an 8.5-by-11 border. I move it to the clipboard, or bring it up in Get Picture in RSG 3 and—zap—there it is on a page. But I've put it there by defining the page as a picture. How can I put text inside the border? I can't do a text box. What can I do?

CHARLES OSTROFSKY on 09/18

Well you could put the border on a master page, and then you can enter text over it on a regular page.

EDWARD BARNAKO on 09/20

Thanks for the tip. That did it. Boy, the RSG 3 manual is about as useful as Webster's Dictionary would be for finding a good restaurant.

RICHARD MARTIN on 09/22

The other way to do it is to put the border on the regular page, then create a normal text block wherever you'd like it and select Bring To Front to make sure the text block is in front of the graphic. Do your stuff as usual in the text block, and then print. It may look funny on screen, but should print out just fine on paper. RSG4 fixes this, with the "arbitrary graphic run-around" feature (for lack of a better thing to call it). RSG4 doesn't seem as bad as it was on first impression, it's nice and quick. Convert RSG3 documents at your own risk, though.

DAVID GURSKY on 09/23

The following appears in the September 14th issue of *Macintosh Today*, p 17: "Denver - Responding to criticism from its customers, Quark, Inc. will remove copy protection from its XPress

contd.

desktop publishing program. Effectively immediately, the company will supply protection-free program disks to customers who return or have already returned their warranty registration cards, said Quark president Fred Ebrahimi. The company initially decided to install copy protection under pressure from its foreign distributors, who feared counterfeiters would cut into their business, Ebrahimi said. 'We were heavily advised to do this because of problems in places like Hong Kong, where pirated versions of PageMaker sell for \$15 to \$25,' he said, "But the policy hurt innocent honest people and we got clobbered for it, so we changed it. XPress, which retails for \$695, is designed for newspapers and multi-article publications."

### Entertainment & Education

**BILL BALDRIDGE on 09/09**

A tip passed on about Dark Castle in this month's MacUser: when you're climbing/descending stairs or a ladder hold down the "duck" key and when you reach the top/bottom you'll end up "walking on air." I've tried this and sometimes you have to fiddle around to get it to work, but it's kinda fun! You can go over to the guy with the whip in the dungeon without him knowing you're there, floating 4 feet off the ground, and club him over the head (or is that "mace" him over the head?). On the first screen of the shield room you can casually stand in the air watching the boulders roll by underneath (if you stand at the opposite end of where they come bouncing down from the previous level). Fun...

**DALE SMITH on 09/16**

A friend at work is considering purchase of a computer with one of the major goals being to help his daughter in school at the Jr/Sr High School level. After a brief flirtation with IBM/clone world, he seems interested in the Mac SE. But he wants to find out what software is available in this age/education range for the Mac. Info on any lists, catalogs, stores, etc. would be appreciated. BTW, he has already checked Egghead Software and the Program Store (White Flint) and I'll be loaning him my Egghead catalog; so we're looking for leads beyond that. Thanks much!

**HOLGER SOMMER on 09/16**

Many of the public domain programs from universities (Drexel, CMU Stanford ) are suitable for high school use. Check at Kinko's Copy store—they have an agreement with the Apple University Consortium to distribute the software produced through Apple supported projects. Also any PD distributor (like the WAP) would have some helpful software for schools. Sometimes the titles of the programs don't reflect what they really can do—so you have to try some.

**BILL BALDRIDGE on 09/16**

Suggest your friend subscribe to "Wheels for the Mind" —an Apple, Inc. sponsored publication from Boston College. It is a quarterly compilation of the latest educational and applications software being developed and worked on by schools (mostly colleges & universities) all over the country. Most of the software available is either available immediately (at very good prices) or in beta test form. There are copies at the WAP office.

**JESSICA WEISSMAN on 09/19**

Broderbund is coming out with another one of its tutorial

packages (like Geometry). This one is for Calculus. Should be decent. Also, there are some excellent interactive math things by Kurtz and Kemeny (who invented BASIC and now sell True Basic). They have Calculus, Analytic Geometry, and a few others that retail for around \$40 and are good. Mostly for exploration rather than tests or direct instruction.

### HyperCard

**JONATHAN PAFF on 09/15**

Any purchasers of a Mac Plus, SE or II who bought their system on or after August 11th from an authorized Apple dealer are entitled to a free copy of HyperCard. (The date is Apple's—not the dealer's.) All they have to do is go to the dealer from whom they purchased the system(s) with their invoice and pick up their copy.

**BILL BALDRIDGE on 09/17**

To save a lot of menu pulling and clicking while in scripting mode (the highest level), hold down the SHIFT key while double-clicking on an object, and the script dialog box for that object will be called up directly.

**BILL BALDRIDGE on 09/17**

From the August 28th issue of MacTalk... The TOP TEN greatest things about HyperCard:

10. Anybody can be a StackHead for only \$49!
9. Dealers drool when you show 'em HC day after Expo and their copies are three weeks away!
8. Microsoft is staying away from StackWare!
7. Card Mania might take over the world!
6. IBM users don't get it!
5. Nested HyperTalk code never seems to work!
4. It's so easy, even Fawn Hall could use it!
3. You can't protect stacks, enabling the user to fix StackWare bugs! (not true - HyperOp)
2. Only 1 click required!

And the number one, greatest thing about HyperCard...

1. It weeds out those wimpy 512K owners!

**ALLAN BALLIETT on 09/21**

For some reason HyperCard won't talk to my modem correctly. MORE dials out just fine. So does RR9.4. HyperCard (stacks that came with the original pkg, as well as any others) makes dialing sounds but the calls don't go through. I assume I need to add ATDT to the beginning of the phone numbers but I'm not finding a modem menu anywhere (for that matter, the number prefixes etc in the provided stack are a little hard to deal with also, in that I can't "write" into their fields and yet they come up in the dial msg box) Anyway—Is there a modem menu? Do I have to prefix my phone numbers with modem commands? And just what's the deal with the APPLE HyperCard manual?

**BILL BALDRIDGE on 09/23**

The section on dialing out via HyperCard is three pages, Allan. I don't feel inclined to type three pages in here, thanks. Basically, to output the number to your modem you'll need to add 'with modem' to the script 'dial' command. Let's say you wanted to dial the number 555-1212 and have the modem go off line after dialing (so you could pick up the receiver after the dialing was contd.

complete)—this is what the command would look like for a Hayes compatible modem: dial "555-1212" with modem "ATDTS7=1" [the S7=1 tells the modem to go off line 1 second after dialing]. Hope you can wait long enough for your Handbook—it's worth the wait!

**BILL AMON on 09/24**

For those of you who purchased Sidekick from Borland, the audio interface cable that ties to your phone should work fine with HyperCard—proper DTMF tones are generated at the audio jack—all you need to do is use the very inexpensive interface from Borland!

**ALLAN BALLIETT on 09/22**

Is it going to be possible to do relational lookups with hyper like I do in Double Helix? I don't have a handle on how you do things like selectively print cards, search only CERTAIN fields, etc.

**BILL BALDRIDGE on 09/23**

According to Bill Atkinson, while it is very possible to build relations with HyperCard, it is not as powerful as a true relational database application in relating data and formula building. So while HyperCard is certainly capable of relational concepts, it is not, nor was it ever intended to be a database application (in the classical sense). Thus, all the screaming and yelling of various DB developers is way off base—more of a kneejerk (or just jerk) reaction.

**BILL AMON on 09/29**

I just imported a large Omnis 3 Plus file today—interesting statistics: file was a name, address, 4 dates, ID number type...imported 1019 records in 55 minutes 15 seconds (18 records/minute)...sorted on last name in 2 minutes 5 seconds (603 cards/min)...compacted the stack with about 10% free in stack in 3 minutes...note that compacting took longer than sorting! Sort is VERRRRRY fast...much better than dBASE Mac or 4D! Other lessons learned...don't be too quick with the COMMAND BACKSPACE when deleting cards...I got my first card with the entire IMPORT procedure script ARGGGGGH! Also, I sure wish HC had a procedure call capability... removing those @#%@\$!@^#\$ quote marks from all character strings meant for a lot "put empty into first and last of ..." Oh well, this is just version 1!

### Graphics & Design Software

**NANCY SEFERIAN on 09/15**

How can I move a full page picture (8 1/2 x 11) from MacPaint to a MacWrite document?

**HOLGER SOMMER on 09/16**

There is a utility called PaintMover which does the trick. I think also Artisto and ArtGrabber will move a full page picture—Artisto is in the Graphics file section.

**BILL BALDRIDGE on 09/16**

There are several options, Nancy. Holger's suggestion is probably the easiest. Artisto+ is a desk accessory, and is available in our downloads section. PaintMover is also there, but will not do, as it only moves paintings from one paint file to another (at least

the PaintMover I know). Another option is to download the SuperPaint demo from our downloads section and select the whole document and copy it to the clipboard—then quit SP and open MacWrite and paste it. With Artisto+ you will be able to open a paint document from within MacWrite and select the entire document by double clicking on the marquee tool.

**BILL BALDRIDGE on 09/26**

Silicon Beach says version 2.0 of SuperPaint is upon us. Improvements will include, but not be limited to, the ability to rotate text in the draw layer in 90 degree increments, work sideways in the document, automatically smooth LaserBits upon creation, align objects to the grid, and select line patterns of none, hairline, or arrows. Moving palettes, trace edges, brush mirrors, and an air brush are also planned.

**RICK STICKLE on 09/28**

If I can rotate text in the draw mode it will be worth the price. I think I heard that Superpaint was one of the programs that are going up in price so that "people will take the program seriously."

**BILL BALDRIDGE on 09/28**

I would think that if someone were contemplating purchasing version 2.0 (not necessarily you, Rick), the best approach would be to buy the current package (at around \$60 via mailorder), and then get a cheap (or maybe even FREE) upgrade to version 2.0 when it comes out. Something to consider.

### Hard Disks

**BILL QUALLS on 09/06**

Success! With the help of a friend, I was able to format my homebrew hard disk with SF&I. The secret was in the mode select command. If anyone is interested in this homebrew project, I can provide details. Bottom line: The hard disk works great and ended up costing in the neighborhood of \$550—about the same as a low-end commercial HD—because I purchased all-new, quality components.

**BILL BALDRIDGE on 09/07**

I'm ready! How about a Journal article on your experiences? I want to build an 80 meg HD...BAD! If you don't want to do an article, how about recommending a source of information (which MacTutor issues) or expertise.

**BILL QUALLS on 09/10**

I built my hard disk following Tim Standing's article in the February 87 issue of MacTutor. I got a friend to help with assembly, since he had more electronics background and experience assembling kits than I had. I bought an Adaptec ACB-4000A controller board and a Seagate ST225 hard disk, following Standing's recommendations from the article. I deviated from his assembly instructions in only two instances: (1) I DID NOT cut a hole in the rear of the disk drive enclosure and install a DIP switch. I used jumpers instead. This means I have to open the enclosure and move jumpers if I want to change the SCSI address. I personally don't mind having to do this, and I think it's a cleaner method than Standing's. (2) I DID NOT cut a hole in the rear of the disk drive enclosure and install a cabinet-mount fuse holder. I installed an in-line fuse holder instead. Again, I conid.

wasn't wild about hacking on the enclosure and opening the case to replace a fuse occasionally doesn't bother me. Although I used a 20 meg hard disk, I see no problem with using a larger capacity hard disk. In fact, Standing describes building a 40 meg home brew drive in his article. You may have to modify SF&I like I did, but that's not an insurmountable problem. That's what Inside Macintosh is for, right?! One final point. In his article, Standing cites an erroneous part number for the 50-pin SCSI connectors that are mounted on the rear of the drive enclosure. The correct part number is ID57-50S. These connectors don't require soldering. I got 'em for \$8.08 each from Altex Electronics, 10731 Gulfdale, San Antonio, TX. Tele (800) 531-5369. They advertise in Computer Shopper. Other than this, I really can't add anything to Standing's article, and I recommend it as a guide for homebrew hard disk builders.

DAVE GIBSON on 09/16

Has anyone purchased the Rodime 45M. Falcon has one on GSA schedule for about \$1210. Is it a good machine? Is it fast or slow? And is it reliable?

RICK STICKLE on 09/17

I've got a Rodime 45mb drive on my plus at home and two on the SE's at the office with two more on order. They seem to be excellent drives and they are very fast. I've has no problems with any of the three so far—they have been in use since mid-June.

#### Other Hardware

BRUCE FIELD on 09/13

After the WAP meeting we had a few months ago where the Turbo Max accelerator board was demonstrated I went out and got one. Specs are great especially for a 512K owner—2Meg memory, 2 twice the processor speed, and a fast SCSI port. After 30 days I would intermittently get system bombs even if the machine was sitting doing nothing in the finder. Any kind of mechanical vibration would trigger it, bumping the Mac, inserting a disk in the internal drive, etc. I took it back to Mac Corner (where I got it originally) and they replaced it with an entirely new one. 30 days later the problem started again. Took it back again and they said they have had other complaints and no longer carry it They took it out and gave me a credit for the original purchase price (less installation). Thought I'd warn anyone else considering getting one.

MARK BERRY on 09/13

While we're on the subject of warnings, let me put my 2 cents in about Mirror Technology's 800K drive. I bought one "slightly" over a year ago and have had to send it back twice for head alignment problems (not recognizing formatted disks). Each time, Mirror Tech sent me a NEW drive. Last week the same thing happened. I called to get the scoop on how to get it fixed and the tech support people told me since I bought the first unit over a year ago the warranty had expired. I told them that I felt I deserved a new unit because they hadn't sold or given me a drive that had lasted for more than 6 months. Needless to say I lost the argument and am contemplating what to do next (estimated repairs \$80). Any ideas, campers? Should I come up with the cash or get a new drive from a more reputable firm and use the Mirror Tech one for an unusual paperweight? I've been thinking

about going to a 20-40 meg drive. what with the prices going down to more reasonable levels. One things for sure—I ain't gonna buy Mirror Tech hard disks!! There, now I feel better.

MARK ROVNER on 09/18

Being relatively new to this world, I'm willing to be the dummy, but I bet I'm not the only one here who doesn't know what SIMM, CMOS, and MOS stand for. Edification would be greatly appreciated!

BILL BALDRIDGE on 09/18

SIMM - Single In-line Memory Module; MOS - Metallic Oxide Semiconductor; CMOS - Complementary Metallic Oxide Semiconductor. While SIMM is self-explanatory, the other terms delve into the mumbo jumbo world of the ultra-techie. And while I probably have read several articles on the whats and wherefores of semiconductors, I didn't retain enough of the specifics to give a satisfactory dissertation on the jargon.

DAVID BELL on 09/27

I am getting pretty fed up with my mouse and have decided to buy (maybe) a new one. The two that come to mind are the Turbo Mouse from Kensington and a new one I saw in the latest issue of MacWorld, A+ Mouse from Mouse Systems. Since I have occasion to use a SUN at work, I think I would opt for the latter. Any suggestions or advice??

BILL BALDRIDGE on 09/27

I've been using my mouse for over 3 years—what's the gripe?

DAVID BELL on 09/28

The surface on my desk makes for great mousing UNTIL it gets cleaned (no mistake). At that point there is not enough friction to make it turn well. And it will get stuck on dust that gets settled. Now, I have a mouse pad, but that only worked as long as the surface was rough, too. The mouse will not react on that very well either. I saw the ads around, and was wondering. I would like to buy some things for my Mac, and that was one thing, though I know that there are other more important ones.

BILL BALDRIDGE on 09/28

I guess the A+ mouse, being optical vice mechanical, would be the better choice—but I've heard of problems with the A+ mouse wearing out the grid on the special pad that comes with it (of course, this may be after 2000 hours of use—so it's all subjective). I personally use a mouse pad, and have used mine for over two years with no problems—I just vacuum it every week or two to keep dust from clogging up the surface.

DAVID BELL on 09/29

Now there's something I didn't think about....

#### Misc. Programming

WICK WICKRAMASINGHE on 09/07

The SmallTalk version I'm using is currently available for \$50 via APDA, is the real McCoy, and pretty robust on the 1M Mac+ (even with no HD/ext drive!). A newer version of it slated for Apr '88 is said to have a capability to convert code directly into MacPascal, so that with MPW one can have a pretty neat contd.

professional development environment. With Apple running SmallTalk (and c) on the Cray, and Seymour designing his next Cray on a Mac, SmallTalk is headed for the BigTime...

**KARL WOLF on 09/08**

A slightly newer version of Smalltalk is available from APDA for \$75. It is version 0.4. I am thinking of buying it. As a side note, I LOVE Smalltalk. At work I am writing some applications in Smalltalk on a SUN 3/160 workstation. It is a wonderful software development environment. I find that I miss the browser when I have to do some of my other software in C. I would really like to see the Mac have a decent Smalltalk; however I am concerned that a Mac (other than the II) many not be fast enough. Smalltalk on the SUN sometimes bogs the system down, and it gobbles up memory for lunch. One last thing, the latest full implementation of Smalltalk for the Mac is available from Parc Place in Palo Alto, Calif. This is where all the major releases come from. The cost is steep (towering?) at \$695 for the basic system or \$995 for the developer's version (more classes and things). At my work, we have the \$4000 developer's version for the SUN. It includes COLOR!, and the ability to talk directly to UNIX sockets (really nice!).

**KARL WOLF on 09/24**

On Oct. 4-8 I will be attending the 1987 OOPSLA (Object Oriented Programming Systems, Languages, and Applications) in Orlando Fla. Parc Place has asked my company to demo some of our prototype Smalltalk software in their booth. Guess who gets to go! I have my mouse ears all packed! Anyhow, I should be able to get low-down about whats happening in the Smalltalk world. By the way, I have obtained a chart of benchmark results for various Smalltalk implementations. Here are a few: (just the overall performance rating) Mac Plus — 27; Mac SE — 33; Mac II — 102; SUN — 50, 60, 160, 260; HP 9000 350-C — 151; Apollo 3000 — 75; Cadmus-MSW — 185, 250. Note: most of these machines are 68020 based. The little Mac 68000 is trying.

#### Printers

**MARK ROVNER on 09/17**

I have a question for anyone familiar with hooking the Mac up to non Imagewriter dot matrix or daisy wheel printers. I've had a Mac for about 6 months, but didn't buy a printer (I telecommunicate to the office's PDP-11/Xerox 2700). I have a number of longtime Mac'er friends who warned me off of the Imagewriter II for mechanical reasons (main complaint—they jam a lot). It does seem like someone is bringing a sick I-2 into Clinton every time I'm there. Does anyone have any experience with other printers? Anybody tried the Softstyle/Microsoft MacEnhancer that MacCorner wants to sell me? Any advice is welcome!

**JERRY OPPENHEIMER on 09/18**

My wife is using a Panasonic 1080 (now called 1080I) which costs \$139 on today's market. She has a program from Sofstyle called Epstart. You place the Imagewriter emulator patch in the system file (Epson FX80, I believe) and there you go. It totally emulates the Imagewriter (text and graphics) albeit a bit slower. You need, however, a serial to parallel adaptor. There are several on the market, including the one you mentioned.

**ALLAN LEVY on 09/21**

I just received several grappler c/mac/gs and they plug into the c, mac+, se, and gs. Mac thinks it is talking to Imagewriter. Grappler plugs in parallel printer. Seems to work fine.

**JOHN PELKEY on 10/02**

Saw an ad for a new NEC postscript laser (Model LC890). Does anybody know anything about this unit?

**MIL TRATENSEK on 10/02**

John, I've been using one for the last three weeks and love it. I have no experience whatsoever with the LaserWriter+ or other PS based printers so I cannot compare output or throughput. Those who have seen the printer's output, as well as I, have been very impressed by the sharpness of the printed page; I do not recall ever having to wait more than 30 or so seconds before a page output (I have used with Word 3.01, Excel, RSG3, MacDraft, & Cricket Graph. Additionally, blacks are black and do not exhibit 'streaking' of the Canon based engine (as I have heard). It has 3MB of RAM, the same font set as the LaserWriter+, you can directly hook up an IBM PC (horrors) emulates an HP laser printer, and best of all, with comparative shopping, beat the LaserWriter price by \$500 to \$600 (our cost was \$3800).

#### Rumor Manager

**JONATHAN PAFF on 09/30**

AST will begin shipping the first MAC286 cards next week. The first evaluation units have arrived, but we are awaiting the final—non Beta—software to test it out (supposed to come Fed EX this AM). Look for the boards in small quantities in about two weeks. The SE version (8086) is still scheduled for late 4th quarter. I'll try to report preliminary results by the weekend.

#### Software Misc.

**TIM LEE on 09/14**

Does anyone have any knowledge or experience with expert system software for the Mac? I'm interested in finding something fairly inexpensive if it exists—under \$200. I've seen something called MacSmarts advertised in AI Expert Magazine for 150—anyone know anything about it? Also something called Humble by Xerox for several computers including Apple Macintosh workstations—make that HUMBLE—for use with Smalltalk 80.

**HOLGER SOMMER on 09/15**

I use a program call MacKit from Knowledge Systems Environments, Inc.—cost only \$80, I believe. For writing programs I use experLisp, Prolog and OPS5. I try to put it into one environment for software development but still have to use Switcher to move between OPS5 and Lisp.

#### Tech Notes

**ERIC RALL on 09/05**

There is a new ul/dl area, number 18 with Mac tech notes. These notes came courtesy of Jay Heller. I have two more to upload that I got from another source and then we should be up to date. Jay, if you see this, thanks on behalf of all the Mac owners looking for tech notes. I hope all is well (or at least better) with your eyes.

contd.

## Telecommunications

**BILL BALDRIDGE on 09/06**

Hiding on the back pages of the September MacWorld is a new on-line information service called Telefolders. It's a Mac-only service, and \$49.95 (or \$50 for the rest of us) gets you a complete startup package. I called them and found the line Sprint clean—and they're in California! According to the ad (and the person) the interface is not menu driven, but finder driven—all files and services appear as icons on a desktop metaphor. Sounds intriguing. BTW on-line charges are 1 cent per minute, so you'll have to decide if a long distance call to CA will offset the cheap connect charge. P.S. They also sell a complete on-line package for startup services (i.e., 512E Mac, 6-port serial interface, 20Mb drive, software, etc.—\$8300). Maybe we could...

**DAVID GURSKY on 09/15**

Has anyone out there seen/used/heard about a fairly new comm package for the Mac called Mac240? It is a DEC terminal emulator supporting VT100 and VT240. Does it do XModem/YModem/Kermit? What about MacBinary extensions? Macros? "Follow Me" Mode? Shoelaces??

**DAVID BOYD on 09/17**

I have an early copy of a VT240 package from White Pine Software (603) 673 8151. It has been updated believe (I have version 1.1). The package is fairly good although my version has a few problems. It does Xmodem, MacBinary, and Kermit. The Kermit implementation is fairly rudimentary, for example it does not support wild cards. I require a detailed implementation of the VT125 regis, since the main frame driver I wrote does selective erase. Unfortunately, this is not implemented correctly in the White Pine program. The 240 driver I have access to does not support selective erase and therefore the 240 mode is not useful to me. The 240 mode does support cursor movement with the mouse the 125 mode does not. There does not seem to be any support for macros or a script language, but I haven't looked very carefully.

**DAVID GURSKY on 09/21**

Thanks, but I bought Versaterm. It does a terrific job of VT102, which meets my basic requirements, and it also does Kermit incredibly well. Versterm also supports the MacBinary extensions to Kermit, and has an excellent reputation for support. Frankly, I think we should all bag RR10 and get this instead! Great package that is very Mac-ish.

**LOUIS M. PECORA on 09/22**

I recently received VersaTermPRO. The price is high at \$295, but what a hunk of software!! This version of VersaTerm has macros, Tek 4014 and Tek 4105 emulation with full pan and zoom. Graphics can be saved as MacPaint or PICT for MacDraw or MacDraft. It's loaded with other features which I'm just learning, but like it's little brother (the \$99 Versaterm) it is straight forward and easy to use. Some other features that come to mind are full support for all sorts of "mouse editing", saving all graphics for "instant" recall, if you like, wild card in Kermit, and help for all menu items. If you have the bucks, I couldn't recommend it more.

## Utilities

**DAVID HARRIS on 09/08**

How do I use UNPIT.BIN, file 1 on the Mac Utilities download area? Where do I go for info? Also, what is/are good book(s) to start learning more about the Mac for novice??

**ERIC RALL on 09/08**

I'll download UNPIT.BIN and try to get back on later with a blow by blow explanation. As for best intro to the Mac, try "Mac Insights" by Lon Poole. It is published by Microsfot Press and lists for \$18.95. It is chock full of shortcuts, tips, even explains how to use ResEdit to do some basic stuff. All in all, a bargain. In no time at all you can impress your MacFriends by pretending to be a power user (whatever that is).

**HOLGER SOMMER on 09/08**

OK, here are some instructions and explanations for Mac file transfer. Most of the files on this and other BBsystems are stored in MacBinary format (file extension .BIN) if you use MacTerminal, RedRyder or Microphone or other Mac communication software use the MacBinary option. This has the result that the downloaded file is converted during the transfer. But that's not all—some clever people came up with some programs to save storage memory and to pack several files (like a program and its documentation) into one file (usually with the extension .PIT or .P3T). These files need to be "unpacked" or "unpited". For this purpose you need a program call PackIt III or similar. If you have this program double-clicking the .P3T file usually opens the PackIT III program and gives directions.

**RICHARD BROSNAHAN on 09/26**

Well, here is what I found out about Fedit + version 2.0. First a recap. I am a registered user of Fedit and was sent a letter from MacMaster saying I could upgrade to Fedit + for \$15. On 6/10/87 I ordered the update to 2.0 from 1.0.4. I had not received the upgrade or an explanation by the end of July so I sent a letter asking about it on the 31st. Still no reply. On 8/18/87 I sent another letter, still more stern. No reply. On 9/17/87 I sent both John Mitchell a letter as well as The United States Postal Service. Today I received a letter from John Mitchell. He explains that 2.0 has some bugs and that he is trying to fix them. His possible release date is the end of October. My problem with all of this is that he never wrote in all this time to let me know what was happening. I am not pleased, but at least I heard something.

## Word Processors

**DAVID BELL on 09/05**

You mean that Word 3.01 does NOT have WYSIWYG column display?? Or just editing? I thought that was one of the things MS was plugging.

**BILL QUALLS on 09/06**

That's right, MS Word DOES NOT have WYSIWYG column display! In other words, when you're working with a multi-column document, the text is displayed as one long stream of text. One column is not displayed along side another. It's a major shortcoming as far as I'm concerned. After FullWrite Professional comes out, I think the heat will be on Microsoft to add this feature to Word.

contd.

**PETER COMBES on 09/12**

I am looking for potential consultants/trainers/helpers/advisors on the following processors: MacKorean, MacCyrillic, MacHebrew, Super Greek, EG Word (Japanese), Al Kaatib (Arabic). If you have experience on any of these, please give me a call on 251-6369 (voice).

**BILL QUALLS on 09/13**

Wow!! I'm impressed!!! If I may be so forward, exactly what is that you do that requires knowledge of these word processors. By the way, are all of these products Macintosh word processors? If so, I'd like to know who makes them (name, address, and telephone number). If you can provide this info, I'll put it in a library file (Mac foreign language word processors) so that WAP members can reference it. Unfortunately, I can't help with experience. I studied Hebrew as my classical language in college, but that was ten years ago. However, I've often had an urge to check out the new Hebrew word processors. I could have used one of those 10 years ago.

**PETER COMBES on 09/18**

The programs are available from Linguistics Software, 106R Highland Street, South Highland, Mass 01982. Thanks for your interest.

#### Mac SE/II

**JONATHAN PAFF on 09/08**

We (Clinton) have both monitors. Contrary to earlier assurances, you are right! The Sony is a very good monitor—I'm using one at home right now on my Mac—but the Apple monitor—AHHH!—it is the best color display I have ever seen. They are in very short supply right now—on allocation from Apple—so I can't get one myself (customers come first). Otherwise I'd take one for myself. I don't know about the bandwidth, but the Apple monitors allow the user to adjust the convergence from accessible controls in the back of the monitor, making for a seemingly perfect, crisp display (notice the "convergence pattern" option on the MacII's system control panel).

**BILL BALDRIDGE on 09/09**

CE software will be releasing a new utility to take advantage of the enhanced keyboard's function keys (allowing you to turn dead plastic into macros or keystrokes—I'm not sure what all...). Its name is Quickeys and will be out the end of this month at \$99.95 (HEY! It coulda been \$100—so just be glad you saved a nickel). Look for it...

**JONATHAN PAFF on 09/15**

The Sony 1302 doesn't plug into the back of the Mac II. (Though I suppose it could with the right type of power cord). The apple color monitor (which I'm using right now) does, but, again, with the right type of power cord can plug directly into the three prong outlet (hopefully surge protected) you normally use. The Apple color monitor is indeed dual voltage (presumably auto-switching, like the Mac II) I was "inside" of one this morning—boy is it ever well built. All Sony on the inside. The entire system is RF shielded. The picture tube is entirely caged to prevent interference with data and other RF sensitive devices. The power supply is modular and held onto the main chassis by

4 screws - for easy replacement! It is the best built electronic device I think I have ever seen. (I must confess, I have never been "inside" the 1302—but I doubt that Sony took as much pains on that as it did with the Apple monitor. I understand Apple pressed Sony very hard to get what it wanted. It apparently succeeded!) Last thing—I bought a monochrome monitor first, but even with tweaking, I didn't find it to provide as crisp an image as either of the color monitors.

**BILL BALDRIDGE on 09/15**

Apple is offering a 100% rebate to purchasers of the Apple monochrome monitor when they purchase an Apple color monitor. The offer pertains to those who would like the color monitor, but cannot obtain one, and must settle for the monochrome monitor. The offer ends on October 31st, so if you want a color monitor, but can't get one, this is a viable alternative. BTW, they (Apple) are projecting wide availability of the color monitor by the first quarter of next year (but then that belongs on the Rumors board—ed).

#### The Mac Fed SIG

**JERRY WALZ on 09/29**

Note that Apple has reduced its prices considerably for memory expansion for the Plus, SE and Mac II. The Falcon GSA price for 1Meg is now \$188 down from \$276 and for a 2Meg upgrade (gives the Plus and SE 2.5 Meg) price is down from \$756 to \$452. I would recommend that all upgrade or make their initial buys for at least 2.5 Meg on Plus and SE and 5Meg on MacII. HyperCard and Multifinder need RAM!

**JERRY WALZ on 10/01**

We got our Abaton MultiTalk the other day, and although I have only had time to get one modem up on it I'm tentatively pleased that it will do the trick. MultiTalk is connected as an AppleTalk node and can have three serial devices connected to it. All devices can be accessed simultaneously by different user on the net. Our use will be to connect three modems so all lawyers on the net can have access to stuff like LEXIS and Westlaw without having to buy a modem for each Mac and all of the extra phone lines. Its rated to 9.6K so should satisfy our telecommunications needs for now as the fastest we presently have is 2400. ☺

#### Radius Accelerator Card contd. from pg 71

March that worked flawlessly for about three months. Then I had the XP up-grade added and the thing crashed three times in one week (trashing numerous files that, of course, I had not completely backed up). The people at MacCorner, however, cheerfully reformatted the disk after the first two crashes. Then, after the third, they gave me a new one with the same up-grade, and it has been problem-free ever since. (The source of the problems with the first disk once it was upgraded remains a mystery to all concerned.) Aside from the agony of lost files, the unexpected experience of knowledgeable computer sales people willing take care of my problems on the spot, even though they had already pocketed my money, was a refreshing first in my three-plus years of owning a personal computer. ☺



# MAC DISKETERIA NOTES

by Martin Milrod and David Weikert

## Here We Go Again, Folks !

In November, Apple will release its new System 5.0 and Finder 6.0 which includes MultiFinder. The significance of this change affects not only the need for multiMeg Macs (some 2.5 Megs of RAM are recommended for running MultiFinder and HyperCard) and the increasing desirability of Hard Disk environments because of more frequently occurring "massive" programs, but will also create an inevitable wave of "problems" with all kinds of software, including those produced by shareware/freeware providers, such as those included in our Mac disks.

Please expect some problems with software which is run in the new environment and understand that upgrades may be expected shortly. If you are a registered owner of shareware, the chances are that you will be notified of the needed upgrades, if any. Once again, we plead for your patience and forbearance in handling the perennial problems of revisions and System changes.

## About Shareware Fees

Now, while you are thinking about it, send the authors their requested shareware fees for those programs you have added to your software library. Shareware now accounts for over half of the material that we receive for Mac disks and we all need to encourage the authors to continue to use this distribution channel. Shareware gives us the opportunity to use a program for a while (usually 30 days) before deciding whether it is useful or not. However the shareware concept depends upon the *honesty* of each of us for success. If we don't support the shareware concept with the requested fees, the authors will find different distribution channels.

## Disk Catalog Available

The Summer, 1987 Mac Disk Catalog containing comprehensive information about the entire WAP Disk collection (through Mac Disk 109) is still available. The catalog costs \$4.25 at the office and at 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.

## Desk Accessory Series Update

Production snags and a last minute decision to include recent updates have delayed the issue of the Desk Accessories series until next month. All of the DAs in the current library have been grouped into one series of nine disks with the DAs arranged alphabetically. These DAs have been tested and annotated by William Jones in what is truly a monumental undertaking. The latest DAs to be included in the DA series but not previously in the library have been issued on disks 116, 122 and 126 (Desk Accessories XII, XIII and XIV respectively). 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.

## Help Requested, Help Received

Brook Grayson, librarian of the recently organized SIG for HyperCard and "StackWare", has volunteered to test, assemble

and annotate this material for the Disketeria. StackWare will be issued on 800K disks. Thanks, Brook.

## Help Still Wanted

We still need volunteer help in three areas; library restructure, Mac II 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.

3. Someone with a Mac II is needed to test, assemble and annotate disks for the Mac II, which will be on 800K disks. (If you do not want to volunteer, Dave will, at great personal sacrifice, accept any member's offer of a long term loan of a Mac II so he can put these disks together.)

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).

## This Month's New Disks

This month we issue five new disks. These include one Inits disk, one disk of utilities, one disk of desk accessories, one disk with graphics, and one disk with paintings. This month's submissions are brought to you by William Jones, Bob Soule and Dave Weikert, and the efforts of all the duplicators listed under the masthead. The folder information, where appropriate, precedes the listing of program contents. Folder information is parenthesized, programs and files are printed in bold with shareware price information printed in bold italic print.

### Mac Disk 120: Inits II

**Init.** Text A description of the process by which Paul. Muselman created icons for various Inits written by others, represented on this disk by MacsBug (pem),

JClock, Skip Startup, Cursor Wrap, Sort Menu, Narrator, Immortality, and MacWait.

**INIT.CursorWrap** Lets the cursor move from screen left to screen right (and top to bottom) off-screen.

**INIT.Skip.Startup** Once installed, if Set Startup opens an application when you boot, command-shift-option will skip the startup application.

**INIT.SortMenu** Makes the DA menu appear in sorted order for 64K ROM Macs. (This was not tested due to lack of a Mac of the proper configuration.)

**SFSrollInit** Keeps your place in a standard "Get File" dialog list.

**SUS init** There was no documentation for this mystery DA so there is no description. Who wrote it and what does it do? Let us know if you find out.

(AutoBlack 1.5 f) **AutoBlack 1.5**, **MacsBug & MacsBug** (pem) Three versions of the popular AutoBlack screen blanking program; the MacsBug (pem) version is the one with Mr. contd.

- Muselman's icon. **AutoBlack Doc** describes the installation and use of the Init. *Shareware - \$5.*
- (Backdrop f) **Backdrop** Places a picture in the background instead of the usual background set by the control panel. Place Backdrop in the system folder together with a folder of pictures for it to use. (Unlike Randomizer, described above, the picture doesn't have to be in StartUpScreen format.) The **Backdrop Information** file tells you all about it. **Backdrop da** An optional way of manipulating the background pictures.
- (beepinit f) **beep.init** An Init file which, when placed in the system file, plays a phrase from the BeepSounds folder. The documentation **beepinit.docs** tells you all about it. (Use the sounds from the beep.sounds folder following or from any of the prior sounds disks.)
- (bceep.sounds f) **Beep #1 through Beep #5** Sounds from a collection of 20 short sounds on Mac Disk #111. Rename any one of these to *BeepSound* and place it in the system folder along with the beep.init file.
- (Big Screen INIT f) **Big Screen Init** Makes your small Mac screen look like a window into a big screen view. A reasonable alternative to Stepping Out, but without all its features. This version, 1.02, is described in the **Big Screen Documentation** along with an explanation of how it works. *Shareware - \$5.*
- (Fontsie 3.05 f) **Fontsie 3.05** Allows you to have access to fonts stored in font files on disk in addition to fonts installed in your system file. The use of **Configure Fontsie 3.0** is detailed in **Fontsie 3.0 Doc** along with an explanation of how to use Fontsie. *Shareware - \$10.*
- (immortality 0.94 f) **immortality 0.94 & immortality 0.94(i)** Immortality automatically calls up a selected desk accessory each time a new application is launched, just as though you'd selected it from the Apple menu. It was designed to launch the spelling checker Thunder! In order to change the accessory it will launch, use ResEdit. **Immortality Docs** tells how (kind-of).
- (Init - Keyboard f) **Init - Keyboard** Two Inits for System 4.1 Only. The Tilde Init changes the keyboard configuration to retain the old keystroke sequence to get a tilde (~) over the capital letters O and A. The Toggle Init maintains the period and comma keys for shifted characters rather than the > and < keys which are available from the option-shift keys. **Init Keyboard Docs** tells all about it.
- (Init SoftDisk f) **Init SoftDisk** Create partitions on your hard disk with this handy Init. Use these partitions to reduce hard disk fragmentation and for all the other reasons discussed in the **SoftDisk doc**. The **SoftDisk DA** is used to create and open Soft Disks. *Shareware - \$45 for full featured version.*
- (Jclock.31 f) **Jclock.31** Puts the current time in the menu bar. The **JClock.doc** is a comprehensive write-up of the current Init and also tells how to remove older versions using ResEdit.
- (MacWait f) **MacWait 1.2** Puts working hands on the wrist-watch cursor. Don't use it with the latest systems, which have the feature already. **READ ME FIRST!!!** tells what you must do to make it work. **MacWait.asm**, **MacWait.r** and **MacWait.link** are provided for you programmers who want to see how it was done.
- (Narrator f) **The Narrator** An Init which, used in connection with MacIntalk, will speak a speech at startup. **StartupSpeech** is the text that is spoken, replace this text by your own.
- Remember, you need MacIntalk in the system folder of the boot disk. *Shareware - A few dollars.*
- (Randomizer f) **Randomizer** Used in connection with the following, sets a StartUpScreen as desktop background and changes it at random at startup. Also selects (at random, or associated with particular screens, a sound from a StartUpSound file, and a beep from a beeps file. **Random.r** is a listing of Randomizer resources and **Random.pas** is the Pascal listing for Randomizer. **aSound Init** Plays a sound file at startup. **BeepInit** Plays a sound file instead of the Mac Beep. **Randomiser and Backdrop 2.16** How to customize Randomizer with ResEdit so that version 2.16 of Backdrop can be used with it.

#### Mac Disk 121: Utilities XXI

This disk is primarily for users of Microsoft Word for the Mac. **Typewriter** This utility turns your Mac and ImageWriter printer into a standard typewriter. Just like a typewriter, it has no editing capability except for the delete (backspace) key. *Shareware - \$5.*

(Printer Wheel f) **Printer Wheel** This calculator helps you figure the percentage enlargement or reduction necessary to fit a graphic into a specific sized space. **Printer Wheel docs** tells you all about it. Note that Printer Wheel is a Desk Accessory that installs itself when you open it.

(Scholar's Aid 9.72 f) **Scholar's Aid 9.72** This utility uses the print merge capability of MS Word and the sorting capability of MS File to produce automatically numbered lists and references. The **Scholar's Aid Tutorial** walks you through the program and the rest of the files in the folder including **SA 9.72 notes**; **SA Demo Text 1 and 2**; **SA Demo Ref File**; **SA, Ref List Format**; **SA Demo New Refs**; **SA Demo Ref File Index**; **SAWORKFILE** and **ScholAid Packing List**. All of the documents in the folder are in Word 1.XX format but the utility works for Word 1.XX or 3.XX. *Shareware - \$35 gets you a comprehensive 35 page manual.*

(Word Stuff f) This folder contains four MS Word documents that have information that may be useful to Word users. **Word 3.01 Commands** The authoritative listing of MS Word 3.01 commands. It includes listings for Command keys, Command + Shift keys, Command + Option keys, Special Keyboard Commands, Key Pad Commands, Formula Commands, Find/Change Special Codes and Special Hidden Text entries all in only four pages. **Word 3.0 Menu tip** Describes a method to shorten MS Word Menu width with FEdit Plus since Microsoft didn't provide resources that may be easily changed with REdit or ResEdit. **MW 3.01 Bug List** Describes bugs and design errors in Word 3.XX and incompatibilities between Word 1.XX and 3.XX. Also notes design issues raised by users, requests for new or expanded features and solicits reports on new bugs. **MS word referencer** More bugs and limitations of Word 3 along with work-arounds and hints for using some of the features obscured by the deathmore (sorry!) prose in the Word manual.

(Word Count 3.01 f) **Word Count 3.01** Counts the number of words in a Word 3.XX document. As noted in the **Word Count 3.01 Doc**, you must use the Normal Save and not the Fast Save option if you want to use this utility.

contd.

## Mac Disk 122: DAs XIII

(Illus.DA f) **Illust.DA** Another of those superb looking DAs that list the short cuts for applications, this one for Adobe Illustrator. The commercial and a copy of the DA screens are provided in the *Illustrator DAs Doc*.

(LockOUT™ v1.2 f) **LockOUT™ v1.2** Protect your work from prying eyes and roving fingers. This DA allows you to password protect your work from casual observation or change while you are away from your desk. This is not foolproof protection however, the password is removed by re-booting. *Release Notes (LockOUT)* describes Lockout.

(Lookup DA v1.00 f) **Lookup DA v1.00** A generic DA that accesses up to five columns of data stored in a text file. You can create your own data lists of telephone numbers, names, etc. using a word processor or DA such as *MockWrite* or *miniWriter* that creates a text file. The DA is described in the file. **OpenMeWithLookup**. The *ASCII Table* is an example of the type of data that could be generated for Lookup.

**Mac's Headroom** That electronic character, Max, animated in a Desk Accessory.

(Macros.Demo f) **Macros.Demo** A demo version of a DA that generates keyboard sequences including control key sequences (control-C, control-M (carriage return), control-[ (escape), etc.). Up to ten of these macro sequences may be invoked in the full version which is available for \$20. The *Macro File* is the demo file and this may be edited with a resource editor to change the key sequences. The *MACROS.TXT* file describes the program and where to send the fee for the full version. **McSink.da** This one is aptly named; everything but the kitchen sink. For files it lists (catalogs), renames, saves, reads, locks and deletes. For text strings it adds/removes line numbers, adds/removes prefix or suffix strings, indents/outdents, entabs/detabs, upper/lower case change, capitalizes words and sentences, makes/unmakes paragraphs and sorts lines. It also columnizes text and can even print. Folks, this handy Ginsu knife and DA is yours for only ...

(MegaCalculator f) **MegaCalculator** This calculator fills the entire screen. However, its operation is not intuitive so you need the *MegaCalculator Docs*, a help file in *MacPaint*.

**Mem Watch DA** Examine and change the data in any memory location in your computer.

**Message DA** This oldie that we somehow missed in our earlier disks scrolls a message that you enter across your screen.

**Mickey Mouse Clock** Mickey's hands show the hours and minutes.

**Molasses** This DA slows your Mac down. There are three degrees of slowness, from slow to excruciatingly slow.

**Mouse-o-Meter** Displays the location of the mouse pointer in screen coordinates (pixels).

(New Idle1 f) **New Idle!** A screen idle with a bouncing Mac. See *New Idle1 Doc* to see how to change the icon. **pattern mover** Moves patterns between paint type files (*MacPaint*, *FullPaint*, etc.) without disturbing the file's pictures.

(PocketDA f) **PocketDA** This appears to be an implementation of Forth as a desk accessory. **Pocket DA** and **Pocket.Glo (Forth)** are related documentation but they don't explain the DA. Sorry folks, I am not familiar with Forth (and don't think that I want to be) so this one has not been tested other than to

ensure that the DA can be called up. Any volunteers to document this one?

**Poker Game** Las Vegas style five card draw video poker in a DA. *Shareware* — \$5.

**poly.da** A screen idle that generates a moving pattern of lines formed from polygons.

(Preferences 1.01 f) **Preferences 1.01** A replacement Control Panel with more features than Apple's 3.1 version. The *Preferences 1.0.txt* tells you all you need to know.

## Mac Disk 123: Graphics II

**BlockBall** A block and a ball bounce around your screen, tracing patterns as they go. As the traces cross over one another, the patterns grow more intricate. Click the mouse to exit.

**Lines** When you start the program, groups of "sticks" move rapidly across the screen, tracing patterns as they move. Under the *Variations* menu you can change the sticks pattern to boxes, ovals, and wave plots. The program allows you to open multiple windows, so you can fill your screen with several windows with different patterns being traced simultaneously.

**Pattern Maker 2.0** This one is billed as a tool to help you explore the many patterns available on a Mac screen. Available displays include *Bouncer*, *Wiggler*, *Life*, *Pattern Soup*, and *Arcs*. You can open multiple windows and you can capture patterns to the Clipboard. *Shareware - \$10.00 (Extra \$10.00 for manual)*.

**SpeedBlockBall** Very similar to *BlockBall*, with a ball and a block bouncing around the screen tracing patterns. Click to exit.

**Tree** A *QuickDraw* demonstration that draws a tree using recursive algorithms. The shape and size of the tree changes as you vary factors such as complexity and scale, pen shape mode, pen pattern, and background pattern.

**Tree & Fish** This is a demonstration of picture animation functions with balloons and a witch flying across a picture of a tree. You can move a giant fish across this scene by moving your mouse. (Requires a Mac Plus.)

**Vanlandingham** The Mac's answer to the Amiga's "boing" demo, this amazing animation shows a three-dimensional ball bouncing across the screen. It takes a while to "warm up," but during the wait you can read the advertisement for the Boston Computer Society. It doesn't work on the Mac XL.

**ViewPaint 1.5** A utility that allows you to manipulate *Paint* and *StartUp Screen* documents. Has a nice built-in help function. *Shareware - \$5.00*.

(Super MandelZoom 1.01 f) **Super MANDELZOOM 1.01**

This is a tough one to describe, so I'll quote from the author's abstract "The Mandelbrot Set and a program for plotting pictures of it are described. The program presents a simple, modeless user interface which allows the user to easily select the desired region to plot on the screen, adjust the settings and shading tables used to draw it, and select portions of the image to be drawn in greater detail. The user may select a point in the image and obtain its count value, the period of its attractor and a plot of its Julia curve. The program has highly optimized math routines, and a sophisticated executive which prioritizes the execution of multiple commands from the user." *Shareware - Public Domain, but "small donation" if you REALLY like it*. **Super MZ doc (Read me first)** is a short *MacWrite* document that explains how to use the lengthy documentation contained in *Parts 1 and 2*. **Super MZ doc part 1** is a 19-page contd.

document that is formatted in a 6-point Monaco font. Before reading or printing the documentation, you must install the Narrow Monaco 9 font. The author explains how to do this in the "Read Me First" file. Super MZ doc part 2 The rest of the documentation.

(XVT-Draw f) XVT-Draw 1.0B2 A neat little shareware drawing program very much like MacDraw. It is the first application written under the Experimental Virtual Toolkit (XVT), which is an attempt to make applications with modern user interfaces, such as Macintosh and Microsoft Windows, portable across computers and operating systems. *Shareware - \$25.00.* XVT-Draw.hlp This is an indexed help system that is available within the program or outside of it. The help function serves as the documentation for the program.

### Mac Disk 124: Paintings VI

This disk contains a series of MacPaint compatible files with the theme of human figures. There is a Japanese Ukiyo-e painting of a wrestler done around 1835, A Sumo Wrestler, Kunisada 1835. There are a number of scanned images including Beatles, Circa 1964, Clint (Eastwood) with a message for the IBM'ers, Kareem and Larry from the 5th game of the 1987 NBA finals, Lynda (Ronstadt), an unidentified blond in Prone and Moe, Curly and Larry as the three Stooges. Other offerings include Broken Family, Mother & Child, and Lisa. For those not quite so real figures there are MAC HEADROOM through MAC HEADROOM IV and Scrooge McDuck in Papparone 2. Make no bones about it, the last drawing is Anatomy. Any one of these would make a unique startup screen or desktop for your daily pleasure. ☺

## IIGS DISKETTERIA NEWS

by David Todd

The big news this month is the release of System Disk 3.1 (8-27-87) with the long awaited FINDER. Some of the tools have been slightly updated to eliminate bugs.

Your prayers and curses have been heard. /WAP2001 and /WAP2002 have been revised as bootable disks. There were no new programs added on these disks, only operating systems.

One of Apple's older operating systems, DOS 3.3, took less than 16K of disk space. ProDOS8 with a Basic Interpreter takes about 26K on the disk. In contrast, a stripped down ProDOS16 system uses around 320K of disk space. It would be impractical for us to dedicate this much space on each library disk since every GS owner should already have a SYSTEM DISK.

As a general policy we will issue GS library disks that will boot under ProDOS8 and display a disk description. In order to run the programs you will have to either boot up with a system disk or install the programs on a "Startup" disk. Help files will describe how to setup and use the programs. See the article

elsewhere in this journal on how to setup a stripped down System Disk.

This month's GS Disk is a collection of courses for Mean 18 Golf. NOTE: you will need to have Accolade's Mean 18 Golf in order to use this disk.

/WAP2007 M18 COURSES contains:

- Watery.M18
- Desert.M18
- Bungle.M18
- Snake.M18
- Mule.M18
- PGA.M18
- Walden.M18

We currently have members who scan Compuserve and Genie for GS Public Domain and Shareware. Are there any volunteers willing to keep an eye on other systems? Contact Ted Meyer, Sherman Lewis, or David Todd if you are interested. ☺

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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

### Eamon Series Volumes

- ( ) 180 Dungeon Designer
- ( ) 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
- ( ) \* 191 The Tomb of Molinar
- ( ) \* 192 Lost Isl. of Apple
- ( ) \* 193 Abductor's Quarters
- ( ) \* 194 Quest for Trezore
- ( ) \* 195 Underground City
- ( ) \* 196 Merlin's Castle
- ( ) \* 197 Horgrath Castle
- ( ) \* 198 Deathtrap
- ( ) \* 199 The Black Death
- ( ) \* 200 The Temple of Ngurct
- ( ) \* 201 Black Mountain
- ( ) \* 202 Nuclear Nightmare
- ( ) \* 203 Feast of Carroll
- ( ) \* 204 The Master's Dungeon
- ( ) \* 205 The Crystal Mountain
- ( ) \* 206 The Lost Adventure
- ( ) \* 207 The Manxome Foe
- ( ) \* 208 The Gauntlet
- ( ) \* 209 Caverns of Langst
- ( ) \* 210 Future Quest
- ( ) \* 211 House of Secrets
- ( ) \* 212 Sewers of Chicago
- ( ) \* 213 Slave Pits of Kzorland
- ( ) \* 214 Alternate Beginner's Cave
- ( ) \* 215 Lifequest
- ( ) \* 216 Swordquest
- ( ) \* 217 Priest of Xim!
- ( ) \* 218 Heros Castle
- ( ) \* 220 Utility II
- ( ) \* 221 Utility III
- ( ) \* 223 Temple of Dead
- ( ) \* 224 Quest for Holy Grail
- ( ) \* 225 Caves of Mondamen

### Eamon contd.

- ( ) \* 226 Orb of Polaris
- ( ) \* 227 Death's Gateway
- ( ) \* 228 Esc. from Orc's Lair
- ( ) \* 229 City in the Clouds

### 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:

### CP/M Volumes

- ( ) 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

### Apple /// Volumes

- ( ) 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

### 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

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- ( ) 17.3a Red Ryder 9.2
- ( ) 17.2b Red Ryder Doc.
- ( ) 31.1 Dun.Doom/Eliza Talks

For disks 32-42 see Sep. Jrl.

- ( ) 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
- ( ) 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
- ( ) 67 Desk Accessories VII
- ( ) 68 Utilities VII
- ( ) 69 Utilities VIII
- ( ) 70 Utilities IX
- ( ) 71 Utilities X
- ( ) 72 Utilities XI Sys./Grph.
- ( ) 73 Word Processing
- ( ) 74 Fun & Games IX
- ( ) 75 Fun & Games X
- ( ) 76 Fun & Games XI
- ( ) 77 Fun & Games XII
- ( ) 78 Fun & Games XIII
- ( ) 79 Fun & Games XIV
- ( ) 80 Fun & Games XV
- ( ) 81 Utilities XII
- ( ) 82 Utilities XIII
- ( ) 83 Telecom III
- ( ) 84 Fun & Games XVI
- ( ) 85 Fun & Games XVII
- ( ) 86 Utilities XIV
- ( ) 87 Utilities XV
- ( ) 88 DAs & Fkeys VIII
- ( ) 89 Fun & Games XVIII
- ( ) 90 Utilities XVI
- ( ) 91 Fun & Games XIX
- ( ) 92 Education II
- ( ) 93A & ( ) 93B Fonts VI
- ( ) 94 Paintings IV
- ( ) 95 Fun & Games XX
- ( ) 96 Fun & Games XXI
- ( ) 97 Fonts VII
- ( ) 98 DAs IX
- ( ) 99 Inits I
- ( ) 100 Fonts VIII
- ( ) 101 Fonts IX
- ( ) 102 Sounds I
- ( ) 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

\*Vol. 181 required with these disks.

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# 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 IIs 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.

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|---|--|
| <input type="checkbox"/> November 3 - WELCOME TO THE WORLD OF APPLE<br><input type="checkbox"/> November 10 - HOW TO USE YOUR APPLE SOFTWARE<br><input type="checkbox"/> November 17 - POPULAR APPLICATIONS: APPLEWORKS | <input type="checkbox"/> December 1 (IIs specific)<br><input type="checkbox"/> December 8 (IIs specific)<br><input type="checkbox"/> December 15 |
|---|--|

**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.

- |  |   |
|--|---|
| <input type="checkbox"/> Monday, November 9 or<br><input type="checkbox"/> Monday, November 16 or<br><input type="checkbox"/> Monday, November 23 or | <input type="checkbox"/> December 14 - Introduction to Macintosh. Prerequisite: Guided Tour to Macintosh.<br><input type="checkbox"/> December 21 - Intermediate Mac Skills. Prerequisite: Familiarity with Desktop, disk copying, etc.<br><input type="checkbox"/> December 28 - 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.

- A Non-Programmer's Introduction to HyperCard** - David Michaelson - Saturday, October 31, 9 am-12 Noon, Office. Fee \$15 (\$20). Hands-on introduction to Apple's new data base and presentation driver. Bring your Mac, HyperCard, and hard drive.
- ReadySetGo 4** - Martin Milrod - Saturday, October 31, 1 - 4 pm, Office. Fee \$15 (\$20). Learn how to use this popular page layout program. Bring your copy of RSG and a blank disk.
- 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.

**Using PageMaker 2.0** - Jim Stewart - 4 Tuesday Evenings, Oct. & Nov., 7:30 - 9:00 pm, 1101 16th St.NW, Floor 1C. Fee \$15 (\$20) each session - \$60 (80) for all 4. Learn this popular desktop publishing program. Bring Mac and PageMaker. Enrollment limited to 10.

- |   |  |
|---|--|
| <input type="checkbox"/> October 27 - Designing Your Publication<br><input type="checkbox"/> November 3 - Graphics in PageMaker | <input type="checkbox"/> November 10 - Preparing and Placing Text<br><input type="checkbox"/> November 17 - Typographic Commands |
|---|--|

Please check the desired tutorials and return this form with fee(s) made payable to Washington Apple Pi, Ltd. to:

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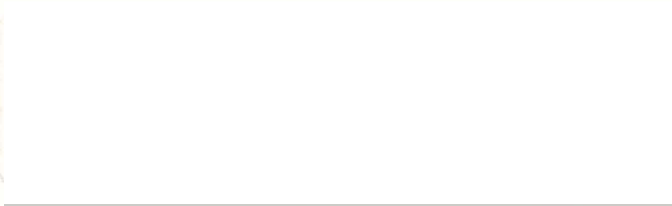
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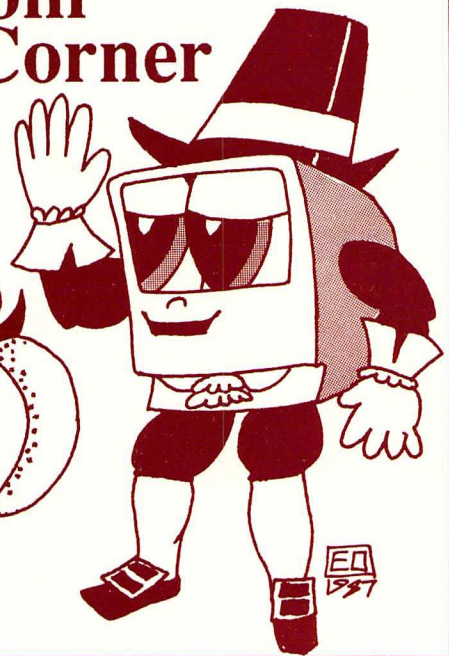
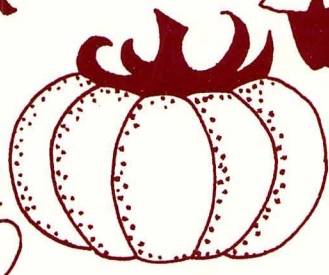
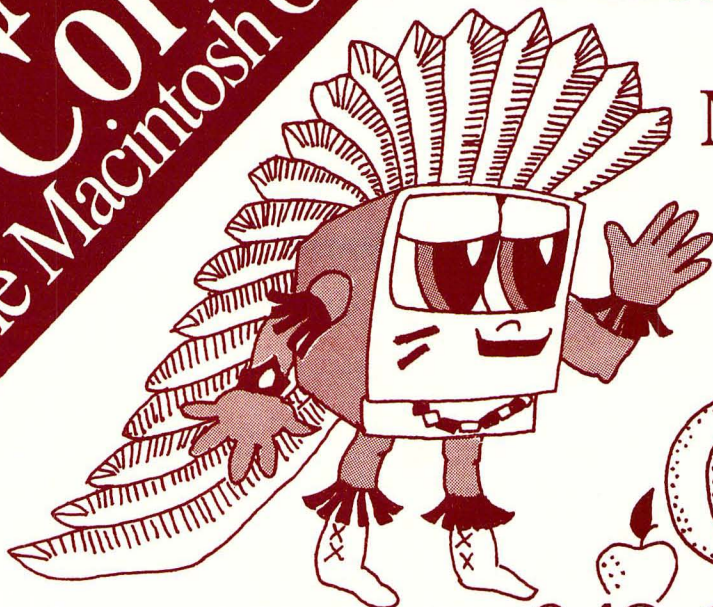
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