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Washington Apple Pi

Journal of Washington Apple Pi, Ltd.

Volume 10 September 1988 Number 10

Highlights

- IIGS Stuff: FAD - A Finder/AppleWorks Disk
- Graphicwriter 2.0
- The Aardvark File: Deciphering MouseWrite Dictionary
- GameSIG News
- Macinations: Mac Underground Review
- On HyperCard: Improving Performance

In This Issue

Officers & Staff, Editorial 3
President's Corner ..... Robert C. Platt 4
Apple II Meeting Programs ..... Ray Hakim 5
General Info, Classifieds, Comm. Classifieds, Job Mart 5, 6
WAP Calendar, SIG News 7
WAP Hotline 8
IIGS SIG Meeting Report ..... Paul Tarantino 10
Q & A ..... Robert C. Platt 11
IIGS Stuff: FAD ..... Ted Meyer 12
AppleWorks Speedups: July 23 Meeting ..... Joe Wagovich 14
Using Applesoft Exec Files ..... Brian Mason 16
Labels, Labels, Labels ..... Ray Settle 19
Souping up AppleWorks & Time-Out ..... Ray Settle 20
Graphicwriter v2.0: A Review ..... Jurij Solovij 21
The Aardvark File ..... Richard Fitzhugh 24
GAP for Apple Desktop Publishing ..... Ray Settle 27
Best of the Apple Items from the TCS ..... Paul Schlosser 28
On the Trail of the Apple /// ..... Dave Ottalini 32
GameSIG News ..... Steven Payne 34
Infocomics: A Review ..... Charles Don Hall 34
Border Patrol: A Review ..... David Wood 35
Defender of the Crown (GS): A Review ..... David Wood 36
Dr. Dumont's Wild P.A.R.T.I.: A Review ..... Steven Payne 36
Winter Games for IIGS (Epyx): A Review ...Dunham Swift 37
World Games for IIGS (Epyx): A Review ..... Al Hoffman 38
Epyx Sub Battle Simulator: A Review ..... Paul Tarantino 38
Letter to the Editor 38
WAPAcrostic ..... Dana J. Schwartz 39
International Codes ..... Joseph A. Hasson 40
Annapolis Apple Slice News ..... Katherine M. Cave 48
PI-SIG News ..... Robert Golden 48
AVSIG (Art & Video SIG) ..... Nancy Seferian 48
How To: Useful Down-and-Dirty User Info ..... Jay Rohr 50
FedSIG News ..... John Nelson 51
MacNovice: MacSpeak ..... Ralph J. Begleiter 52
Macinations ..... Robb Wolov 54
Softviews ..... David Morganstein 56
Macintosh Bits and Bytes ..... Lynn R. Trusal 58
PowerPoint: Has MS Made a Coup? ..... Adrien Youell 60
Celebrating the Freedom to Associate ..... Bob Shaffer 62
Findings ..... Larry Feldman 64
HyperExternals I: A Review ..... Robert C. Platt 67
HyperCard SIG News ..... Robert C. Platt 68
Pascal News ..... Robert C. Platt 68
On HyperCard: Improving Performance .... Kenneth Knight 69
Mathematica Report: An Extract ..... Lawrence Wolfarth 76
Views and Reviews ..... Raymond Hobbs 76
Excel SIG Report ..... Larry Feldman 77
Best of the Mac Items from the TCS ..... Bill Baldridge 78
Saturday WAP Tutorials & Virginia Mac Tutorials 84
Mac Disketeria News ..... David Weikert & Martin Milrod 85
Index to Advertisers 86
Disketeria Order Form 87, 88
Tutorial Registration, Index to Authors 88

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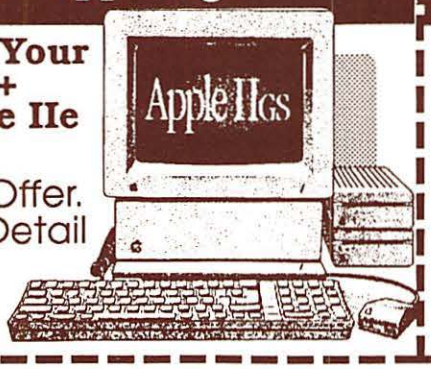

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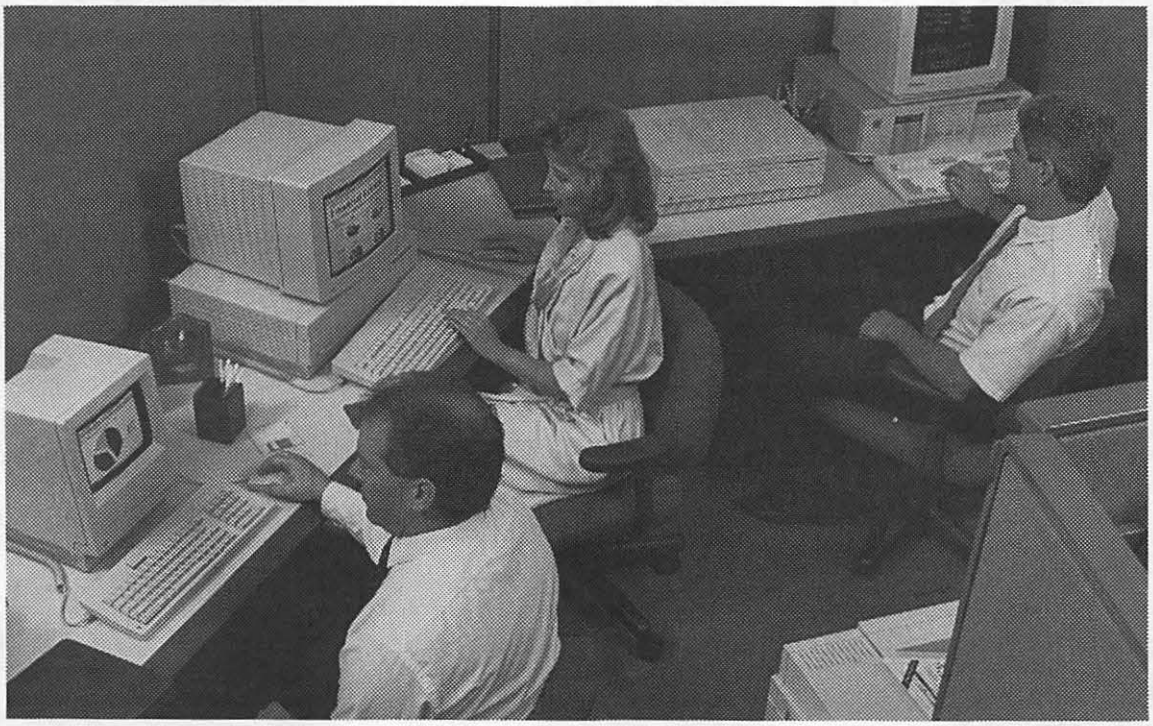

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EDITORIAL

Communications. The ultimate purpose of any user group is to communicate—to enlighten and to inform and to do so effectively, and in as unbiased and absorbing a manner as possible.

Gift wrapping complete with fancy ribbons is nice, but contributes little to the value of what is being communicated. This is the guiding principle of this Journal. We have attempted to keep you informed and entertained over these many years, while simultaneously holding down costs and providing you these materials in as attractive a manner as we know how. The Journal has matured as we have learned, and we are still learning.

Now, Nancy Dunn of *MacWorld* has picked up on a suggestion we have made. She has decided to work with a committee of user groups' editors and graphic artists in redesigning the WAP Journal. She insists that any recommendations coming out of this exercise are non-binding. Thank you, Nancy. We welcome any and all suggestions for improvements from Nancy, her committee and any of our readers. We will keep you informed.

PRESIDENT'S CORNER

by Robert C. Platt

The new team. Last month I shared some of my goals for the next year and this month's column will introduce the people who are working to meet those goals.

The staff. The key to WAP's success has been its hard-working, dedicated staff. Most of you have met *Gena and Bernie Urban*, WAP's co-office managers who have given selflessly to the Pi since its founding. We can't thank them enough for their efforts. Their key assistant is *Bill Baldridge* who assists with sales, members questions, and membership services. *Paul Koskos* fills in for Bill on Mondays and on various other occasions. *Margaret Wetzel* provides clerical support and organizes our library. Many thanks.

The crew. In addition to our staff, WAP relies on many volunteers to bring you services. In alphabetical order, the following volunteers lead our efforts.

Paula and Bernie Benson head up our "NewSIG" orientation activities for new members. *Amy Billingsley* coordinates "Apple Teas," which are informal gatherings of Pi members at the home of a volunteer host. *Jim Burger*, who deserves a title in the nature of "Presidential Counselor," assists WAP's relations with publishers and Apple. *Charles Calkins and Dan Dwyer* are WAP's Legal Counsel. They will lead our efforts in applying for tax exempt status. *Peter Combes*, as Secretary, keeps the WAP's minutes and official records. He also chairs the EdSIG and organizes our AV educational collection. *Walt Francis* organizes our book library and is constantly on the prowl for new titles. *Ray Hakim*, Vice President for Apple Meetings, plans the Apple portion of our monthly programs and our garage sales. *Ray Hobbs*, as Review Coordinator, is the primary contact for software publishers, and monitors the review copies WAP receives. Ray also chairs our Membership Committee. *Harvey Kaye*, a Director-at-Large, indexes the articles in the WAP Journal. *Marty Milrod* coordinates WAP presence at MacWorld.

David Morganstein, who served as President from 1981 to 1985, is our Volunteer Coorindator and reviews Mac software. *Ed and Priscilla Myerson* are Treasurer and Assistant Treasurer, and Priscilla is a Director-at-Large. They do everything from budgeting to filing tax returns. *Lee Raesly*, a Director-at-Large and the Telecommunications System Operator, leads the volunteer staff which implements and maintains our TCS. *Eric Rall*, Vice President for Mac Meetings, plans the Mac portion of our monthly programs and our garage sales. *Dana Schwartz* coordinates our membership records and is currently converting them to 4th Dimension. Dana is also the author of the longest-running acrostic puzzle series in microcomputer journalism. (I bet this paragraph is the source for next month's installment.) *Nancy Seferian*, a Director-at-Large, coordinates our Publications. She and *Jay Williams* deserve special thanks for donating their design talents for our new meeting graphics.

Bob Shaffer, a Director-at-Large, is our SIG and Slice Coordinator. He has already improved our communication with these key groups. *Lynn Trusal*, a Director-at-Large, coordinates WAP's tutorial program, which offers low-cost hands-on instruction to our members. *Tom Wallo* is responsible for distributing copies of the Journal to the stores which sell them. *Tom Warrick*, our Past-President, continues to assist me in Apple Relations. Thanks to Tom's groundwork, WAP's opinions are sought at high levels within Apple. *Rich Wasserstrom* coordinates our Group Purchase Program. *Cynthia Yockey*, a Director-at-Large, coordinates our Public Relations including writing press releases and contacting the media.

There are at least twice as many other volunteers who perform just as important a role at WAP (and who we will honor as a part of our Tenth Anniversary Celebration.) Space does not permit me to list the SIG and Slice Officers, the Disk Library Staff, the TCS Staff or the Journal columnists. All of these people's names and phone numbers appear in the front of each issue of the Journal, and we all welcome your questions and comments about WAP's goals, programs and operations.

Member reference book. The fourth publication of WAP's ***Member Reference Book*** has just come off the press (it is a second edition of the July 1987 version, with appropriate minor changes). It details WAP's services and includes a glossary to help newer members cope with "technospeak." The book is distributed to all members when they join, and copies are for sale at the Office for $2. Special thanks to *Gena Urban* for her work on getting the book out.

Columbia Slice. On August 4, Bob Shaffer and Tim Childers held the organizational meeting for a new Pi Slice in Columbia MD. This group will offer special meetings and programs to better serve the local needs of our Columbian members. Call Tim at 301-997-9617 and watch the Journal and TCS for further details.

CMUF and AppleFest. WAP will have booths at the Capitol Microcomputer Users Forum in Washington on Sept. 7-8 and at AppleFest in San Francisco on Sept. 15-17. Please call the Office if you can help staff these booths.

I'm writing this on my way to the WAP booth at MacWorld Expo in Boston. Next month, I will report on what I find there.

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APPLE II MEETING PROGRAMS
by Ray Hakim

With the coming of July, Ray Hobbs passed the job of organizing the Apple II portion of our meetings to me, and has taken on other responsibilities in the Pi. Thanks, Ray for a job well done.

Looking ahead, I see several exciting meetings on the horizon. For the August meeting—the game extravaganza. Mac and Apple II meet together on this one. For the fall the Apple II folks have a super TCS meeting coming up. Novices and experts alike should come to see what's new for telecomputing. See sleek new modems. Door prizes? I expect the EdSIG will also have an exciting program this fall during national education month. Let's see what new creative approaches are out there to help our children.

In July, we had a neat show on AppleWorks enhancements. Lee Raesly, Ken DeVito and Harvey Kaye showed what the TimeOut series from Beagle Bros. could do for the Apples all time favorite program. They also showed that a supercharged apple (Zip-Chip enchanced) could run AppleWorks like a Bat out of... . Soooo—to follow that show, I am planning to have a presentation on Apple II (and III) desktop publishing in September. Do come, there are lots of new programs for us out there. Finally, the Pi is ten years old this year. How about a party! More on that from Bob Platt.

Looking past the new year I see Music, and Graphics and Art programs, and programs about Apple control of robotic devices, and the ever popular programs on Taxes and Money Matters. The future looks good for the Apple II programs I'd like to bring to you. But I will need your help. Contact me with your ideas for other programs—please offer your special expertise for these presentations. Generally I first look to the SIG groups for expertise. But in the case of Apple II desktop publishing, computer generated art, and robotics we dont have SIG groups that concentrate in these areas. I am looking to the general membership for help. How about it, experts, give me a call. Let's put together some good, informative shows.

EVENT QUEUE

Washington Apple Pi meets on the 4th Saturday of each month (except December) at 9:00 AM. Our meetings are held at the Uniformed Services University of the Health Sciences (USUHS) at 4301 Jones Bridge Road, on the campus of the Bethesda Naval Command.

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:

September 23 - Apple: Desktop Publishing
- Mac: Software demos by Microlytics, Farallon and Layered

October 22 - EDSIG: Computer Learning Month

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

GENERAL INFORMATION

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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.

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Current office hours are:

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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.

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Not-For-Profit Financial Management & Computer Applications Third Annual Seminar is all day October 26th. The seminar, co-sponsored by the Public Interest Computer Association, includes a choice of three sessions from a dozen classes, lunch, materials and a vendor exhibit. Price is $85/person ($70/person if registration is received by September 1st). For a brochure call PICA at 775-1588.

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FOR SALE: Apple //e, 1 Meg RamWorks, 2 floppy drives, hard drive, Prism color printer, clock, mouse, Super Serial Card, lots of software, manuals, books. $2700. (703) 378-0750.

FOR SALE: Microsoft Word 3.01, new in box, never used, asking $125 or best offer. Call Joe Bohr at (703) 979-9200 work or (301) 977-2320 home.

FOR SALE: Mac software, all with documentation, some unopened. FullPaint, $40; MacDraft, $110; PageMaker 2.0, $240; PowerPoint 1.0, $150; Thunderscan, $150; Typing Made Easy, $20; MacLightning 2.0, $20; SystemSaver Mac, $50. Call Nick at (301) 828-7009.

FOR SALE: Apple][+, 64K Ram, 2 disk drives, monitor, 80-column card, modem, Apple dot matrix printer, StarCard for CP/M, WordStar and lots of children's programs. Call Saverio Grimaldi at 384-3468.

FOR SALE: 1 to 2 megabyte RAM upgrade kit for Mac II. Asking $325 or best offer. Will install gratis. Call Peter after 7:00 PM at 564-1389.

COMMERCIAL CLASSIFIEDS

Low Cost Virginia Wills produced on Macintosh and Imagewriter II. Stuart V. Bradley Jr. Attorney at Law. (703) 683-2335.

FOR SALE: //c, disk drive, mouse, Imagewriter I, software. (703) 790-0919.

FOR SALE: Apple //e, 2 floppy drives, mono (green) monitor, 80-col. card w/64K extended memory, Grappler+ card, ProDOS, AppleWorks, manuals. $600/best offer. Must sell—college requires Mac. (703) 549-2375.

JOB MART

PROGRAMMER WANTED—To help port **4000-line Amiga Basic program** to Mac II. Must know Microsoft Basic, Toolbox routines, and use of Mac II digitized sound. Any age/background with required experience considered. Contact Pangolin Software, 527-4880 in Arlington.

PART-TIME POSITIONS AVAILABLE: Positions available as **production assistants** for the Council on Hotel, Restaurant and Institutional Education (**CHRIE**). CHRIE is a non-profit international organization located in downtown Washington, DC. The assistants will be responsible for assisting CHRIE's publications program using a Mac/desktop publishing system. Experience with PageMaker and MS Word preferred, but will train. CHRIE produces a semi-monthly newsletter, magazine, journal, directories, conference materials, etc. Assistants may be students or other individuals seeking experience in desktop publishing and will be paid an hourly wage for 15 to 20 hours/week, with a flexible schedule—may work more hours if desired. For more information contact Karen Stiegler (202) 331-5991.

Looking for someone in Bethesda area to do typing and PageMaker layout (20 pages every 3 months). Please send response to M. Frankel, 12 Wellesley Circle, Glen Echo MD 20812.

Editorial and Desktop Publishing Assistant: If you are a Macintosh techie/enthusiast with 40 wpm typing and good English language skills and would enjoy working at the **Library of Congress**, call or leave message for Susan Kames, Recruitment and Placement Specialist, (202) 287-5627. Vacancy Announcement has been extended. There are very few Mac desktop publishing specialists in the federal government. Why not try out for this "pioneering" group? (The Vacancy Announcement No. is 80333.)

Publication Manager to produce national aids publications, including monthly newsletter. Quarterly magazine, news releases, promotional and instructional materials, and directories. Experience required: Mac desktop publishing, strong writing and editing skills, thorough knowledge of layout, design and manuscript to blueline production phases, ability to negotiate with designers, typesetters and printers. Knowledge of aids and public relations desirable. Salary low to mid thirties. Resume and application to National Aids Network, 2033 M Street NW, Suite 800, Washington, DC 20036.

* September 1988 *

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 GameSig 7:30 PM Office	2	3
4 Deadline for Journal articles is Wednesday September 7 -->	5 Labor Day Office Closed	6 Apple II+,e,c Beginning Tutorial #1 7:30-9PM Office	7 Mac Progmrs. 7:30 PM Office; dPub SIG 7:30 PM PEPCO	8 Stock SIG 8:30 PM Office	<-- Thursday Sept. 8 No. VA Mac Intro. Tutorial	10 Music SIG 1:00 PM. Call Chairman
11	12 Introduction to Macintosh Tutorial - Office 7:15 - 10 PM	13 Apple II+,e,c Beginning Tutorial #2 7:30-9PM Office	14 Executive Board 7:30 PM Office	15 Pascal SIG 8:00 PM Office	<-- Thursday Sept. 15 No. VA Mac Intermed. Tut.	17 HyperCard for Beginners Tutorial 9-12AM Office
18	19 Intermediate Mac Skills Tutorial - Office 7:15 - 10 PM	20 Apple II+,e,c Beginning Tutorial #3 7:30-9PM Office	21 Excel SIG 7:00 PM Office; AVSIG 6:30 PM 1130-17th St DC	22 Telecom SIG 7:30 PM Office	<-- Thursday Sept. 22 No. VA Mac Productivity Tut.	24 WAP Meeting 9:00 AM USUHS
25	26 Productivity on Your Mac Tutorial - Office 7:15 - 10 PM	27 Mutual Fund Sub Group (Stock SIG) 8:00 PM Office	28 Apple /// SIG 7:30 PM Office	29	30	

* October 1988 *

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 HyperTalk for Beginners Tutorial 9-12AM Office
Deadline for Journal articles is Wednesday Ocotber 5 -->	3 PI-SIG 7:30 PM Office	4 Apple IIgs Beginning Tutorial #1 7:30-9PM Office	5 Mac Progmrs. 7:30 PM Office; dPub SIG 7:30 PM PEPCO	6 GameSIG 7:30 PM Office	7	8 HyperTalk for Intermediates Tutorial 9-12AM Office
Monday October 10 --> Columbus Day Office Closed	10 Introduction to Macintosh Tutorial - Office 7:15 - 10 PM	11 Apple IIgs Beginning Tutorial #2 7:30-9PM Office	12 Executive Board 7:30 PM Office	13 Stock SIG 8:00 PM Office	<-- Thursday October 13 No. VA Mac Intro. Tutorial	15
16	17 Intermediate Mac Skills Tutorial - Office 7:15 - 10 PM	18 Apple IIgs Beginning Tutorial #3 7:30-9PM Office	19 Excel SIG 7:00 PM Office; AVSIG 6:30 PM 1130-17th St DC	20 Pascal SIG 8:00 PM Office	<-- Thursday October 20 No. VA Mac Intermed. Tut.	22 WAP Meeting 9:00 AM USUHS
23	24 Productivity on Your Mac Tutorial - Office 7:15 - 10 PM	25 Mutual Fund Sub Group (Stock SIG) 8:00 PM Office	26 Apple /// SIG 7:30 PM Office	27 Telecom SIG 7:30 PM Office	<-- Thursday October 27 No. VA Mac Productivity Tut.	29
30	31					

SIGNEWS

Apple IIGS SIG meets on the Monday after the regular WAP meeting. See IIGS SIG Meeting Report elsewhere in this Journal or call Ted Meyer at (703) 893-6845 eves., 7 - 8 PM.

Apple /// SIG meets on the 4th Wednesday at 7:30 PM in the WAP office. The next meeting will be Sept 28.

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

AV-SIG (arts and video) meets on the 3rd Wednesday at 6:30 PM, 1130 - 17th St NW, DC. Next meeting is Sept. 21.

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 September 7.

EDSIG is the education special interest group. For information, call Peter Combes at 251-6369.

Excel SIG meets on the 3rd Wednesday of the month at 7:00 PM at the office. See their news elsewhere in this issue.

Fed(eral) SIG - See their news elsewhere in this issue.

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

HyperCard SIG meets after the WAP monthly meeting.

Mac Programmers meet on the 1st Wednesday of the month at the office, 7:30 PM. The next meeting is Sept. 7.

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. The next meeting will be on Sept. 15.

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

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

Telecom SIG meets on the fourth Thursday of each month at 7:30 PM at the office.

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 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.

Apple II

General (after 2:15 pm)	John Wiegley	(703) 437-1808
Accounting Packages		
BPI Programs	Jaxon Brown	(301) 350-3283
BPI & Howardsoft (Tax)	Otis Greever	(615) 638-1525
Dollars & $ense	Barry Fox	(717) 652-2899
Home Accountant	Leon Raesly	(301) 431-0853
APPLE SSC	Bernie Benson	(301) 951-5294
AppleWorks	Ken DeVito	(703) 960-0787
	Bob Martz	(301) 795-5689
	Ray Settle	(301) 647-9192
	Harry Erwin	(703) 391-0295
	Michael Osborn	(301) 505-1637
AppleWorks Data Base	Morgan Jopling	(301) 261-3886
Communications Packages		
ASCII Express	Dave Harvey	(703) 578-4621
ProTerm	Allan Levy	(703) 340-7839
Talk is Cheap/Pt. to Pt.	Barry Fox	(717) 652-2899
Data Bases		
dBase II	John Staples	(703) 255-6955
dBase II&III,Data Perfect	Leon Raesly	(301) 431-0853
Profiler 3.0	Barry Fox	(717) 652-4328
Dvorak Keyboard	Ginny Spevak	(202) 362-3887
Hard Disks		
CMC (not CMS)	Barry Fox	(717) 652-4328
Corvus & Omninet	Tom Vier (BBS)	(301) 986-8085
Corvus	Leon Raesly	(301) 431-0853
Sider	Jaxon Brown	(301) 350-3283
	Otis Greever	(615) 638-1525
Hardware - //c	Michael Osborn	(301) 505-1637
Languages (A=Applesoft, I=Integer, P=Pascal, M=Machine)		
A	Louis Biggie	(301) 967-3977
A	Peter Combes	(301) 251-6369
A	Leon Raesly	(301) 431-0853
A, I,M (after 2:15 pm)	John Wiegley	(703) 437-1808
A,I,M	John Love	(703) 569-2294
M	Ray Hobbs (BBS)	(301) 490-7484
P	Michael Hartman	(301) 445-1583
C and TML Pascal	Harry Erwin	(703) 391-0295
Operating Systems		
Apple DOS (after 2:15)	John Wiegley	(703) 437-1808
CP/M	Art Wilson	(301) 774-8043
ProDOS	John Love	(703) 569-2294
(after 2:15 pm)	John Wiegley	(703) 437-1808
ProDOS 8 and 16	Barry Fox	(717) 652-2899
RWTS, Disk structure	John Wiegley	(703) 437-1808
Print Shop	Thomas O'Hagan	(301) 593-9683
Newsroom		
Spreadsheets	Walt Francis	(202) 966-5742
MagicCalc&SuperCalc2.0	Leon Raesly	(301) 431-0853
	Terry Prudden	(301) 933-3065
Telecommunications	Allan Levy	(301) 340-7839
TimeOut Series	Morgan Jopling	(301) 261-3886
Utilities: ProSel	Barry Fox	(717) 652-2899
Word Processors	Walt Francis	(202) 966-5742
Apple Writer II	Dianne Lorenz	(301) 530-7881
	Leon Raesly	(301) 431-0853
Letter & Simply Perfect	Leon Raesly	(301) 431-0853
Mouse Write	Barry Fox	(717) 652-2899
ScreenWriter II	Peter Combes	(301) 251-6369
	Gene Carter	(202) 363-2342
Word Handler	Jon Vaupel	(301) 593-3316
Word Perfect	James Edwards	(301) 585-3002
	Henry Donahoe	(202) 298-9107
Word Star	Art Wilson	(301) 774-8043
	Michael Osborn	(301) 505-1637

Apple IIgs

General	Barry Fox	(717) 652-2899
General/Monitor	Neil Walter	(301) 946-4526
General/Paintworks Plus	Paul Tarantino	(703) 455-7670
//e Upgrade	Morgan Jopling	(301) 261-3886
APW	Andy Gavin	(703) 734-3049
	Jim Frison	(703) 525-9395
Deluxe Paint II	Rich Sanders	(703) 450-4371
GS-BASIC	Barry Fox	(717) 652-2899
Multiscribe GS	Ray Settle	(301) 647-9192
Newsroom/Pinpoint	Chuck Ward (til 9 pm)	(703) 830-3720
Telecommunications	Dale Smith	(301) 762-5158
	Allan Levy	(301) 340-7839
TimeOut Series	Chuck Ward (til 9 pm)	(703) 830-3720
& Utilities: ProSel	Barry Fox	(717) 652-2899
VIP-Pro/Multiscribe	Jim Frison	(703) 525-9395
816 Paint/Writr's Ch. El.	Andy Gavin	(703) 734-3049

Macintosh

General	Jeff Alpher *	(301) 630-2036
	Bob Wilbur	(703) 379-2960
	Donald Schmitt	(717) 334-3265
Art and Video	Jay Williams	(202) 728-5932
Borland Products	Doug Ferris (day)	(800) 826-4768
Data Bases		
4th Dimension	Bob Pulgino	(202) 474-0634
FileMaker Plus	Tom Parrish	(301) 654-8784
Helix	Jim Berry *	(703) 662-0640
	Harvey Levine	(301) 299-9380
MS-File	John Love	(703) 569-2294
	John Spencer	(301) 730-1084
Omnis 3 and 3+	Paul Tabler	(703) 278-8657
	Jeff Alpher *	(301) 630-2036
OverVue	J.T.(Tom) DeMay Jr.	(301) 461-1798
	Tom Parrish	(301) 654-8784
Desktop Publishing	Jay Rohr	(301) 655-0875
PageMaker	Kate Burton	(301) 621-6351
	Eleanor Sontag	(301) 251-0695
ReadySetGo	Jim Graham	(703) 370-5737
	Marty Milrod	(301) 464-5981
Graphics - General	Bill Baldridge	(301) 779-8271
	Jay Rohr	(301) 655-0875
Adobe Illustrator	Ling Wong	(703) 378-5102
Canvas	Bill Baldridge	(301) 779-8271
	Tom Parrish	(301) 654-8784
HyperCard	John Love	(703) 569-2294
	Holger Sommer	(301) 474-3467
	Rick Chapman	(301) 989-9708
Inside Mac	Jon Hardis	(301) 330-1422
Languages		
Pascal	Michael Hartman	(301) 445-1583
Machine	Ray Hobbs (BBS)	(301) 490-7484
MacDraft	Bob Wilbur	(703) 379-2960
MacDraw	Tom Berilla	(301) 434-3256
	Tom Parrish	(301) 654-8784
	John Spencer	(301) 730-1084
MacMoney	Chuck Sicard	(301) 963-2879
MacProject	Jay Lucas	(703) 751-3332
Programming, MS-BASIC	John Love	(703) 569-2294
Spreadsheets	David Morganstein	(301) 972-4263
& Graphics	Bob Pulgino	(202) 797-0879
Excel	David Morganstein	(301) 972-4263
	Mark Pankin	(703) 524-0937
	Jim Graham	(703) 370-5737
	Dick & Nancy Byrd	(703) 978-3440
Multiplan	John Boblitz	(301) 356-9384
	John Love	(703) 569-2294
Sidekick	Ray Hobbs (BBS)	(301) 490-7484
Telecommunications	Allan Levy	(301) 340-7839
ThinkTank/More	Jim Graham	(703) 370-5737
	Tom Parrish	(301) 654-8784
Word Processors		
Word	Marty Milrod	(301) 464-5981
	Harris Silverstone	(301) 435-3582
WriteNow	Bill Baldridge	(301) 779-8271

General

Franklin & Laser 128	Bob Martz	(301) 795-5689
Games - Apple II	Charles Don Hall	(301) 864-2715
(2:15 on)	John Wiegley	(703) 437-1808
Games - Mac	Perri Mongan	(301) 572-5459
IBM	Ray Hobbs (BBS)	(301) 490-7484
	Leon Raesly	(301) 431-0853
Math/OR Applns.	Mark Pankin	(703) 524-0937
Modems - General	Allan Levy	(301) 340-7839
Hayes Smartmodem	Bernie Benson	(301) 951-5294
Practical Peripherals	Allan Levy	(301) 340-7839
Music Systems	Ray Hobbs (BBS)	(301) 490-7484
Printers - General	Walt Francis	(202) 966-5742
	Leon Raesly	(301) 431-0853
MX-80	Jeff Dillon	(301) 662-2070
Stat. Packages	David Morganstein	(301) 972-4263
Stock Market	Robert Wood	(703) 893-9591
Time-Sharing	Dave Harvey	(703) 578-5621

* Calls until midnight are ok.

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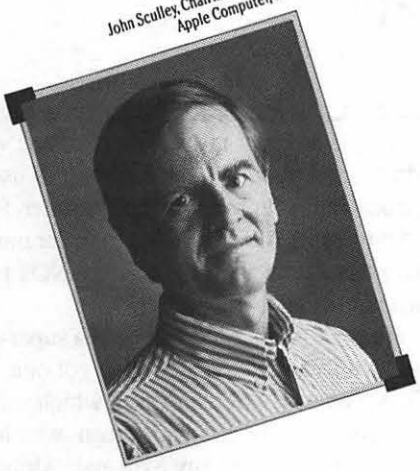
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Please circle desired date of seminar: Sept. 15 Sept. 16 Sept. 17

Individuals may attend two seminars for $150.

Hotel Reservations* (indicate number of rooms desired)

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IIGS SIG MEETING REPORT

by Paul Tarantino

The Pi's IIGS SIG returned to Thomas Pyle Intermediate School in Bethesda for our July meeting. The flood waters in the cafeteria had receded since our May session, but the ceiling sections that had dramatically collapsed during the storm had not yet been replaced.

Undismayed, we began with a discussion of the hot news, gleaned from various bulletin boards and magazines, that Claris, Apple's captive software company, has purchased Styleware, the Houston firm responsible for MultiScribe, TopDraw, and the recently announced (but as yet unreleased) GSWorks integrated software for the IIGS. This move obviously gives Apple (oops, I mean Claris..) the "Appleworks GS" package that we IIGS people have always felt that they should produce. But several questions need to be answered, like: Will Styleware's 1 August release date be delayed? (Chairman's note: Yes. Claris said it won't release the software, now titled: "AppleWorks GS," until late this year or early next.) Will upgrade paths be available for owners of AppleWorks and/or MultiScribe? Will GSWorks be (shudder) copy-protected? What color will the box be? Our rumor control branch (i.e. those SIG members who have and use modems) will keep us posted.

Rumors about new IIGS system software were also bandied about. System disk 3.2 reportedly exists, but is apparently only in the hands of software developers, and may be an interim upgrade which will never be officially "released" for dealers to distribute to us less sophisticated types. 3.2 is supposed to boot more quickly, have a cache capability for fonts and menus, and include improved printer drivers for Imagewriter II and LQ. Too soon to tell whether the Pi will get this one.

SIG members with access to some of this nebulous information also talked about the more extensive IIGS system revision known as GS-OS, which may be available later this year, may or may not require another ROM upgrade, and perhaps maybe might be able to read Mac and MS-DOS files. Remember, you read it here first. (But please don't blame me if it's wrong.)

Turning from rumor to demonstrable fact, witnessed by all of us, I will boldly report that Ted distributed review copies of three new Epyx games for the IIGS, which were subjected to "bangert" testing on the spot. (Bangert testing attempts to answer the following question: is this software capable of being used for its intended purpose without the user needing to read the documentation, or maybe even the back of the box?) Review reports on the games may be found elsewhere in this issue (I think. At least, that's the promise squeezed from those who went home with the goodies.).

Our fearless leader then provided us a multi-media (well, two screens) demonstration of Datapak's GraphicWriter, a IIGS-specific word-and-graphic processor with enough bells and whistles to make a fairly formidable desktop publishing system. GraphicWriter will import and modify graphics from IIGS SHR paint programs, wrap text around embedded pictures, and produce publications in up to four-column format. Pretty slick.

Handy hint #1: If (like me) you are having a hard time figuring out all the tricks in the IIGS Finder (on system disk 3.1), and Apple's Finder manual didn't come with your computer (it didn't, unless you're a very new IIGS user), you can order the manual from your friendly Apple dealer, for about $17. Apple's part number is A2D6001. Your dealer may not know this, so be patient with him. (The Finder does NOT pass the bangert test, at least not for me.)

Handy hint #2: Do you need a super-hires screen saver? If you own DeluxePaint II, you've got one. It's a desk accessory (CDA) named EA Screen Saver, which will create a SHR graphic file from any SHR graphic screen, which can then be manipulated or printed from any SHR paint/draw program. The CDA should be copyable into the /SYSTEM/DESK.ACCS subdirectory of any other PRODOS 16 disk, and you can then access it from the control panel.

Nominations and an election for the SIG's only elective office, that of chairman, is being conducted by phone between the August and September meetings and at the September meeting. Ted Meyer already announced that he would be running. If you're interested in running call Giana (pronounced: Gina) Jowers and let her know as soon as possible. Her number is (301) 474-2562. You can leave a message on her answering machine but don't call after 10p m. You can also register your vote by calling her and leaving your name, WAP membership number, and preference.

Upcoming Meetings

August's meeting will be at the Dolley Madison Library in McLean, Virginia on August 29th from 7:00 to 9:00 pm. From the Beltway, take Dolley Madison Boulevard (Rt 123) east towards McLean. Continue to the stoplight at Old Dominion Road. (Charley's Place Restaurant is at the corner.) Go straight through this light and make the first left onto Ingleside Road. Go straight for two blocks and the library will be on your left. We'll be in the downstairs meeting room. Hopefully, we'll be demonstrating some sound hardware and software.

September's meeting will be on the 26th, from 7:00 to 9:30 pm, at Thomas Pyle Intermediate School in Bethesda. From the Beltway, take River Road (Rt 190) east for about 1 mile to Wilson Lane (Rt 188). Turn left on Wilson and go about 1/2 mile to Thomas Pyle on the left. Park in the back. We'll be in the cafeteria.

Q & A
by Robert C. Platt

Q. I am overwriting text in Applesoft on the Apple //e. How do I erase to the end of the line?

A. The ROM in the Apple //e's 80 column mode recognizes a control-] as a special code to clear to the end of the line. Placing a control-] as the last character in your WRITE will cause the rest of the line to be cleared. In 40 column mode, you can CALL the CLREOL routine at address $FC9C to clear the rest of a line.

Q. How do I erase to the end of line on an Apple IIgs?

A. The above method does not work for bit mapped graphics output in IIgs native mode. As a result, you must "draw" a rectangle from the cursor location to the right edge of the window that is filled with the current background color. Peter Combes has written the following sample program in AC BASIC to demonstrate this technique:

```
' Demo using default window in AC BASIC
      gbgd = 255  ' white background
      while mouse(0) = 0
      locate 10,10
      print "This is a nice long sentence to demonstrate the CLREOL function";
      input q$
      locate 10,10
      print "Clear from here:";:gosub clreol
      input q$
   wend
   end
 clreol:
      ox% = window(4)   'current graphics position in pixels
      oy% = window(5)   'current graphics position in pixels
      x1% = ox% - 1
      y1% = oy% - 9
      x2% = window(2)   'current window width in pixels
      y2% = oy% + 1
      line (x1%,y1%)-(x2%,y2%),gbgd,gbgd,bf 'filled
                                            rectangle
      moveto ox%,oy%    ' restore cursor position
      return
```

Q. What is the easiest way to rename a file or folder in the IIgs Finder?

A. I previously reported that you can highlight the item and then select RENAME from the menu. David Lyons of North Liberty IA correctly notes that the quicker way is to highlight the icon and then click again on the name below the icon. A rectangle wide enough to hold the longest permissible name will then appear to surround the name. You can then use the mouse and keyboard to edit the name.

Q. I'm a teacher who constructs a very wide spreadsheet for my class grades. Each row is a separate student's grades through the term and I want to print each student's grades on a separate page. My spreadsheet is too wide to print on my printer. What should I do?

A. Write out each row of your spreadsheet as a DIF file. Then from the desktop, create a new spreadsheet from the DIF file treating the data as a single column.

Q. What color monitors will work with an enhanced Apple //e?

A. There are three basic types of monitors. "Monochrome" displays only black and a single other color determined by its phosphors. "Composite" uses a single signal to send color information, in a manner similar to the signal on your color TV. An example is the Apple Color Monitor //e. Composite monitors will work with a //e or a IIgs in //e mode. A "RGB" monitor receives three separate signals from the computer for red, green and blue colors. There are two types of RGB monitors, digital and analog. The IIgs displays colors best with an analog RGB monitor.

Q. What are GIF files?

A. GIF stands for Graphics Interchange Format, a data standard developed by CompuServe to allow high quality graphic images to be exchanged between computers. To display a GIF file, you need a copy of the program IIGIF which is available on CompuServe or other bulletin boards. An impressive variety of graphics have become available as GIF files because they can be created on Apples, Amigas, and even MS-DOS machines.

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IIGS Stuff: FAD - A Finder/AppleWorks Disk

by Ted Meyer

At a few of the IIGS SIG meetings, and at the IIGS Beginners Tutorials, I have demonstrated setting up a single 3.5" disk with both AppleWorks and the Finder. Since there has been a lot of interest in this setup, I thought that I would describe how to produce this disk.

AppleWorks is one of the best productivity tools available for any computer. The Finder is a powerful and easy-to-use utility and startup program. Together they provide an excellent environment for working on your IIGS, with the Finder providing a gateway to other 8 and 16 bit applications. It takes about 10 seconds to go from the Finder to AppleWorks and about 30 seconds to get back to the Finder from the final "Do you really want to do this? No Yes" in AppleWorks.

After setting your disk up, there is about 300K of storage remaining on the Finder/AppleWorks Disk (FAD). This free space can be used to store AppleWorks data files for later reorganization with the Finder or to move text files from other sources so you can look at them with AppleWorks. This space can also be used to include AppleWorks add-ons like the Time-Out Series or PinPoint. It can also be used to include Classic and New Desk Accessories for use from within AppleWorks or the Finder. And if you have Beagle Brother's SuperFonts you may want a set of fonts available. A variety of utility applications can fit in this extra space and still leave you space for data files.

To start with, make a copy of your System.Disk Version 3.1. If you don't have it, go get it. Any Apple dealer should make you a copy for free. Or get it from the Pi's disk library. Name your copy of System.Disk something short like "FAD." (Short names mean less typing of pathnames in AppleWorks.)

The next step is to create a stripped-down version of the System.Disk. Once you've stripped it down, you should make a copy of it. It's handy for making other Finder/ (Your-own-favorite-program) Disks. Stripping down a system disk simply means to remove superfluous folders, files, and applications. How do you tell which are unneccesary? It depends on your needs. I'll step through the process to show you.

When you open a system disk from the Finder, in this case FAD, you can usually see nine icons in the window, four folders and five files of various types. The four folders are: System, Sys.Utils, Appletalk, and Icons. The files are: ProDOS, Basic.System, Basic.Launcher, Dialog.Icons, and Copy.Me.

Now, what should we get rid of to make more space? Well, unless you're hooked up to a LaserWriter or are using an Appletalk network the Appletalk folder is useless to you. Drag the whole thing to the trash can and put it in.

Are you planning on doing any Applesoft BASIC programming while using FAD? Probably not. Trash the files Basic.System and Basic.Launcher. While you're at it, throw away Copy.Me, it's only there as an example anyway. (Another version of FAD could be a Finder/Applesoft Disk if so desired.) Just to clean up the desktop a little, move the Dialog.Icons into the Icons folder. (I'll tell you what the Icons files and folder are all about in a later article.)

Are you planning on transferring text or other files from DOS 3.3 or Apple Pascal disks? If not, remove the entire Sys.Utils folder into the trash. The Finder does almost everything this utility does, usually more efficiently. It is mainly there to support users who have less than the neccesary memory to run the Finder. If you are planning to transfer stuff from DOS 3.3, at least remove the Fastcopy.System, which, depending on your RAM-disk configuration, is slower than the Finder.

Now let's open the System folder and clean it out a little. When you open the System folder window all the way you will see ten icons, five folders and five files. The folders are: System.Setup, Tools, Desk.Accs, Drivers, and Fonts. The files are: P8, P16, Start, Finder, and Launcher. As long as you never configure your RAM-disk so large that you don't have 512K free memory available, you can delete the Start and the Launcher files. Normally the Start program is run first. Start is a program that tests your IIGS to determine how much non-RAM-disk memory is available. If there is more than 512K it starts the Finder, otherwise it starts the Launcher. Rename the Finder file to "Start." Now the Finder will run first, regardless of how much memory is available. (And the system will crash if you don't have enough.)

Some of the contents of the folders within the System folder can be removed. Open the System.Setup folder and trash Atinit and Atload.0. These files initialize Appletalk, so if you're networking you may want to keep them. Close System.Setup and open the Drivers folder. Again, unless you're using a LaserWriter or Appletalk, trash the Appletalk, Laserprep, and LaserWriter files. If you don't have a modem, trash the Modem file. If you do, decide whether you want FAD to use it, and trash it if you don't. Close the System.Setup folder and open Fonts. If you have a utility like Superfonts, mentioned above, you might want to leave the font files in this folder. If you don't, then use the "Select All" option from the "Special" menu and drag all of the font files to the trash can.

By this time, if you've deleted everthing I've suggested, you should have more than half of FAD available for AppleWorks. (Or any other application, for that matter.)

The next step is to put AppleWorks onto FAD. This can be done in various ways, but just to keep things organized, I recommend putting the AppleWorks files into their own folder. Click on "New Folder" from the "File" menu. A folder called "UNTITLED" will appear. Rename it to something like "APPLEWORKS." Or "APW" if you like short, vague names like I do. Now from your AppleWorks disk or disks move the following files into the new "APPLEWORKS" folder: Aplworks.System, Seg.00, Seg.EL, Seg.M0, Seg.M1, Seg.PR, Seg.RM, and Seg.XM.

Table 1 illustrates the final disk configuration. To make things a little more efficient move the Aplworks.System icon onto the desktop and close all of the windows. That is, after you have copied Aplworks.System (and all the Seg files) into the Appleworks folder, then click and hold your mouse on the Aplworks.System icon and move it to the blue area of the desktop. Now, when you close all the windows on the desktop,

contd.

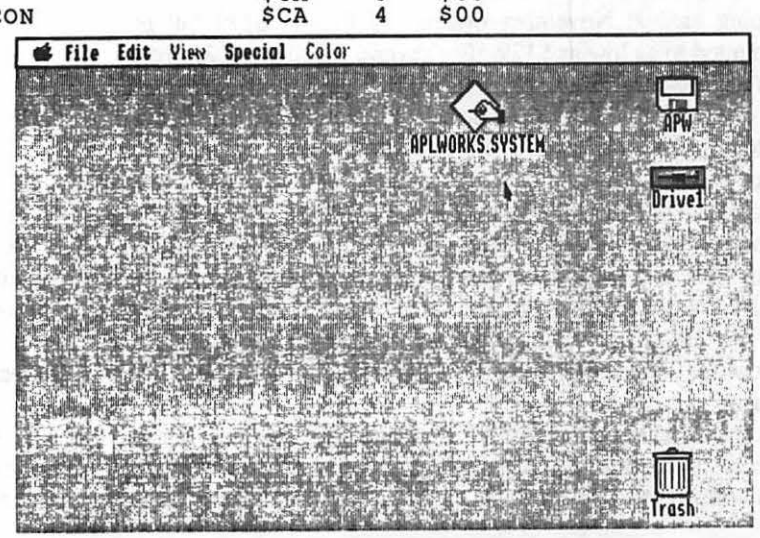
the Aplworks.System icon will still be available to double click and start. See Figure 1. You won't have to open several windows to get to it.

Once you have finished putting AppleWorks on the disk you should have about 300K left for whatever you want. If only there was a desk accessory that moved the contents of AppleWork's clipboard to the Finder's clipboard.

I wonder if the new AppleWorks GS, due out late this year or early next, will make this a short lived FAD. That's it for this month.

AppleWorks - Finder Disk Setup

Volume/File/Directory Name	File Type	Size 512s	File Subtype
APW-+			
+-PRODOS	SYS	39	$00
+-SYSTEM-+			
+-P8	SYS	32	$00
+-P16	$F9	75	$00
+-START	S16	1	$100
+-FINDER	S16	102	$100
+-SYSTEM.SETUP-+			
+-TOOL.SETUP	STR	68	$100
+-SOUND.INIT	STR	1	$100
+-TOOLS----+			
+-TOOL014	$BA	28	$100
+-TOOL015	$BA	17	$100
+-TOOL016	$BA	16	$100
+-TOOL018	$BA	30	$100
+-TOOL019	$BA	16	$100
+-TOOL020	$BA	15	$100
+-TOOL021	$BA	26	$100
+-TOOL022	$BA	7	$100
+-TOOL023	$BA	23	$100
+-TOOL025	$BA	12	$100
+-TOOL027	$BA	23	$100
+-TOOL028	$BA	8	$100
+-DESK.ACCS--+			
+-VISIBELL	$B9	3	$100
+-CLOCK	$B8	3	$100
+-TYPEIT.DA	$B9	8	$00
+-DRIVERS---+			
+-IMAGEWRITER	$BB	49	$01
+-PRINTER	$BB	5	$02
+-FONTS----+			
+-<Fonts for Superfonts>			
+-APW--+			
+--SEG.XM	SYS	9	$00
+--SEG.M1	$00	219	$00
+--SEG.PR	SYS	9	$00
+--SEG.RM	SYS	9	$00
+--SEG.00	SYS	9	$00
+--SEG.M0	$00	46	$00
+--APLWORKS.SYSTEM	SYS	18	$00
+--SEG.EL	$06	12	$D000
+-ICONS-+			
+--FINDER.ICONS	$CA	22	$00
+--DIALOG.ICONS	$CA	8	$00
+--APPLEWORKS.ICON	$CA	4	$00



APPLEWORKS SPEEDUPS AND ENHANCEMENTS: July 23 Apple II Meeting

by Joe Wagovich

The Zip Chip is a whiz. And Beagle Bros.' TimeOut series has more AppleWorks tricks than you can imagine. Apple II attendees of the July WAP meeting were treated to an exciting array of productivity enhancements to II-series machines.

With the nimble-fingered assistance of audience volunteers ("Now everybody together, hit 'RETURN'"), Lee Raesly demonstrated the zip in Zip Technology's long-awaited speedy replacement for the venerable 65C02 microprocessor. He was followed by Harvey Kaye, whose score of handy Desktools popped up from AppleWorks folders as if they were part of the program's original design.

First, the Zip Chip. The same Basic programs were loaded into three computers by Lee Raesly. The computers included a IIGS and two IICs, one with the new microprocessor and one without. The IIGS and ZIP system were displayed by overhead projectors recently purchased by the WAP. The standard IIc was displayed on a large-screen monitor.

Initially tested was a program called SIEVE.PRINT, designed to print all prime numbers between 1 and 1000. Loaded. Hit "RETURN." After an initial second's wait for all three machines, the numbers began to fill the screen. The ZIPped IIC edged out the IIGS by a second or two in reaching the 1000 mark. The "without" IIc easily took 10 seconds longer. ("Look—it STILL isn't finished!")

A graphic circle took 7 seconds for the Zip IIC, 10 for the IIGS, and 20 for the plain IIc.

A low resolution graphics program, "GR.TEST" took 5 seconds to complete with a ZIP CHIP, 6 seconds on a IIGS, and 15 on the IIc.

With only one exception, the Zip Chip beat all contenders: Running an adding program called "Basic.Test.Print," the IIGS won. The difference? In the printing mode, a IIGS has a screen refresh which is more efficient. But "Basic.Test" without a print requirement resulted in a IIc victory.

About 20,000 Zip Chips have been sold to date, Lee said, and most customers have a wait ahead. The company is only now shipping against November orders. It lists at $179 but is discounted to as low as $129. For several months, the Zip has been dismissed as so much "vaporware" with more promises than deliveries. Much of the delay has been due to the chip's creator's decision to leave the company to develop Bits & Pieces' new Rocket Chip. While the Zip Chip offers a 3 MegaHertz speed improvement, the Rocket boasts 5. The three prototype Rocket Chips have been turned over to Apple, Lee noted. The new chip has so much promise that the rumor mill puts Berkeley Softworks bundling Rocket with its GEOS product. The GEOS world could stand some speeding up, according to those familiar with the GS/MAC/Mousetext operating environment.

AppleWorks enhancements have come of age with the latest TimeOut programs, including UltraMacros, FileMaster, and Deskworks II. WAP's Harvey Kaye began his presentation with a ProSEL menu of several Beagle treats. While most of the session dealt with DeskWorks, he just *HAD* to show off the wonders of UltraMacros, which automates a succession of key punches. In barely the blink of an eye, a word processing document was transformed to a letter with new dates and formats and a "sincerely yours."

He also *HAD* to demonstrate the Thesaurus, which produced a dozen or so synonyms for a word highlighted in AppleWorks: "Note" = "Card, Memorandum, etc." From the standard filefolder came a screen, with the top two-thirds containing lists of synonyms; the bottom third contained a clipboard holding the original text and highlighted word of "note." Punch the synonym of choice, and there's an instant substitute in your AppleWorks text.

Some words defy synonym-izing, however. (Such as "synonym-izing") The word "carton" produced an error message reading: "There are no synonyms for carton."

Harvey's TimeOut tricks included:

* Area Codes. Name a city and get a code to dial.
* Directory. Shows all subdirectories and files in outline form.
* Screen Out. Blanks out the screen when you quit work yet want to keep the system up 'n' running. Get back in with or without a password, for security of course.
* UM Commands. Commands for macros.
* Triple Clipboard. This is GREAT! Holds three separate clipboards in the buffer for your use.
* A regular calculator AND a special scientific calculator.
* A bevy of measurements. Feet and inches, metric and English, liquids and solids.
* A stop watch.
* A dialer you can use with a modem. Call your friends on this voice line and forget their phone numbers.
* A puzzle, of course, for the escapists among us.
* ASCII values.
* An AWP-to-TXT utility, one-way only, for the exporters.
* A desktop sorter, by position or alphabetically.
* A line sorter. In a word processing document, you can sort each line's 1st character by alpha or number. Harvey uses this for "To Do" lists. Good, simple use!
* A program selector. Forty or fifty picks from within Appleworks.

A Q&A session concluded the morning's activities. Ken DeVito, AppleWorks SIG chairman, joined Lee Raesly and Harvey Kaye for the remainder of the period.

The July 23 program was a winner. Our return to USUHS was a pleasant surprise. Moreover, the prime 9:30-11 a.m. "auditorium" time slot again goes to Apple people. With the beginning of WAP's new fiscal year, the Mac crowd will be doing Q&As in the cafeteria until 11, when the auditorium becomes theirs. At 11 a.m. Apple II moves to the cafeteria for Q&As. The change

contd. on pg 18

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USING APPLESOFT EXEC FILES

by Brian Mason

Those of you who have learned to use that other disk operating system known as MS-DOS have learned that it is relatively simple to create a text file of commands which the computer will execute as if they were typed from the keyboard. These files generally end with the extension ".BAT".

Apple's disk operating systems, DOS and Pro-DOS, have a similar capability through the use of EXEC files. A whole Applesoft BASIC program can be created using a word processing program if the word processing program can save a file to an ASCII text file. This text file can then be called from the disk on which it is stored with the command, "EXEC filename", which will read the file into the Apple's memory and start it running. You can then type the command "Save newfilename", which will save it as a BASIC program. From that point on it can be called with the command, "RUN newfilename".

Many times when you get a new commercial program for an IBM compatible system, you will call an "install" program which will then direct you through the steps of taking the master disks and copying them to a hard disk if you have one, or to other floppy disks which will serve as your work disks. That way the master disks can be kept pristine in case there is ever a problem with the work disks.

Some of you may recall that I wrote a home budget and checkbook balancing program called the Family Home Money Manager, the source code for which was explored in these pages two years ago. Some readers asked for copies of a disk with this program on it so they would not have to type it in from the Journal. There was a problem with the printing of the yearly reports on some printers, however. I rewrote this part of the program to solve that problem and wanted to be able to send a disk with the updated programs to those people who got the original program on disk.

I also wanted to make the process as simple as possible. I wanted the update disk to have an "install" program on it which would print messages to the Apple screen, load the revised program from the update disk and save it to the users disk. Since the original disk was in DOS 3.3, I would be using that disk operating system.

The task would progress as follows:

The first program would be loaded into the Apple from the update disk. The user would then be instructed to put his disk in the disk drive and the program would save the program onto his disk. Then the user would be instructed to remove his disk and put the update disk in so another program could be loaded into the Apple. He would then have to take the update disk out, put his disk in, and the second program would proceed to be saved on his disk.

I admit it. I am a hacker. If I do not understand how to get things done, I'll just try one thing after another until I get whatever program I am working on to work. Sometimes I do not understand why things behave they way they do, but I'm always willing to experiment to see what the results are.

I first thought to write my "install" program in regular Applesoft BASIC. The problem with that is that when you load the first program from the update disk, it wipes out the BASIC installation program. An EXEC file, however, is not affected by other programs which can be loaded, run, saved, deleted, or whatever, while the EXEC file stays in memory. This is one place where the MAXFILES command in DOS 3.3 comes into play. In default mode, you can have up to three files open at the same time. If you need more than that, you can set the number with the comn and, "MAXFILES n", where n is any number up to 16.

Therefore, using a text editor, a program that will create a straight ASCII text file, I set about to create an EXEC program which would do what I needed done. One of the first problems was how to get the program to wait while the user took one disk out and put the other disk in. An EXEC file can not use the usual "wait for input" commands, GET or INPUT. If you will look these commands up in your Applesoft Reference Manual, you will see that they work only in the deferred mode and not the immediate mode. This means that they only work in programs. They do not work when typed directly from the keyboard at the Applesoft prompt. (Try it!) It only makes sense. Commands such as "LOAD filename" will work in the immediate mode. You type a command such as that at the Applesoft prompt, and the Apple will obey your command. But how can you be typing commands at the keyboard such as "GET A$" and wait for A$ to be typed at the keyboard? The Apple will give you an "ILLEGAL DIRECT ERROR" message.

Since an EXEC file takes each line of the file as a command typed from the keyboard, every line has to be a command that works in immediate mode. I discovered that there are three ways to get the program to wait for a keypress in the immediate mode. One way is to use the WAIT statement. The explanation for the WAIT command in the Applesoft Reference Manual is very opaque to me. When it starts talking about high bits and low bits and XORing and ANDing, it leaves me behind. What I do know is that if you type the command "WAIT -16384,128", the Apple will sit there with no cursor blinking until a key is pressed. You then need to reset the keyboard strobe with "POKE -16368,0" according to everything I've read about the subject.

Another way to make the Apple pause during an EXEC session is with a FOR - NEXT LOOP. A FOR-NEXT loop will work in immediate mode if it is typed all on one line. The loop which will cause the Apple to wait until a key is pressed is this:

```
FOR I = 1 TO 128: I = PEEK(-16384): NEXT
```

This statement again should be followed by "POKE -16368,0" to reset the keyboard strobe. Nothing is causing "I" to change in value in this loop except what is stored at memory location -16384. As soon as a key is pressed, the value at that location becomes greater than 128, which tells the Apple that the loop has been completed, and it moves on to the next statement.

The third way to force the Apple to pause during an EXEC session is to fool it into accepting an INPUT command. This solution was submitted by Bob Schmidt in the March 1985 Washington Apple Pi Journal and repeated by Tom Weishar in Open Apple, June 1986.

contd.

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AMR floppy drive (143k, datsychain port, for][gs) 149
Floppy controller (for][+,][e) 49

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SerIAll (serial interface for modems or printers) 95
Quadram MicroFazer (8k--128k parallel buffer) 139
SMT No-Slot-Clock (for][+ or][e) 45

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pfs:Write (w/speller) 69
MouseWrite 95
Bank Street Writer (64k and 128k versions) 49/55
Springboard Publisher 89
Newsroom 42
Publish It ! 79
Sensible Speller/Grammar 75/65

•SPREADSHEETS

SuperCalc 3a 75
VIP Professional (][gs version) 195
Multiplan 69

•DATABASE

pfs:File w/Report 69
dBASE II (requires CP/M) 299

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Dollars & Sense 79
DAC-Easy Accounting 69
Peachtree Back-To-Basics Accounting 139

•COMMUNICATIONS

Ascii Express Professional (DOS & PRODOS versions) 79
MouseTalk 65
Hayes Smartcom I 79
Compuserve Starter Kit (password & $25 usage credit) 29

•MISCELLANEOUS SOFTWARE

Beagle Timeout SideSpread/FileMaster/DeskTools 32
UltraMacros 39
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```
POKE  118,0: POKE 43699,0: INPUT "";X$: POKE
      43699,1
```

This will cause the Apple to pause with the cursor blinking, and it will print on the screen whatever is typed for X$.

For my purposes I chose to use the first method. OK, so my EXEC file so far would read as follows:

```
LOAD first program
PRINT "Take the update disk out and put your disk in
      the same disk drive the update disk was in and
      press <RETURN>."
WAIT -16384,128
POKE -16368,0
UNLOCK first program
SAVE first program
LOCK first program
PRINT "Take the program disk out and put the update
      disk in the same disk drive and press <RETURN>"
WAIT -16384,128
POKE -16368,0
```

This seems straight forward enough so far. However, there is one problem. If you have ever worked with any kind of a text file in Applesoft, you will recall that as the Apple is reading the file into memory, the disk will spin and then stop, spin and stop while there seems to be a cursor or an attempt to display a cursor, flickering on the screen. Apparently what is going on, and someone who is more expert than I can confirm or deny this, the Apple is getting a block of data off the disk, processing it, then getting the next block of data, etc.

Well, an EXEC file seems to work the same way. In other words, a number of the command lines are read into the computer and executed. Then the next series of command lines are read in off the disk and executed, etc. This is no problem if you keep the disk with the command file in the disk drive all the time. But our application calls for switching disks. Consequently, when the computer is ready to read more commands in from the disk, the wrong disk might be in the drive. The computer will go to the disk where it expects to find the next block of data, and instead will read in whatever is there—from the wrong disk!

There is only one way to get around this that I have been able to figure out. That is to simply make the amount of data the Apple has to gather and process short enough that by the time it needs to get more command lines from disk, the right disk is back in the drive.

There is one more thing I discovered in trying to get this application to work. That is that you must have the keystrobe reset on the same line when you have the disk in the drive that has the EXEC file on it, and on a different line when you have the other disk in the drive. In other words, the keystrobe reset must be called when the disk that has the EXEC file is in the drive.

And finally, there was one more oddity I discovered that was required in order to get this application to work. (Like I say, I just hack until I find out what works. I don't always understand why things are the way they are.) The first command which called for disk access had to be presented as a DOS command though the remaining disk access commands did not. That is, it had to be preceded by Control-D to wake up Uncle DOS, as Bert Kersey used to say. Otherwise, the program would just die when the second disk was put in the drive. The disk would spin and then stop, but nothing else would happen.

The final EXEC file, therefore, looks like this:

```
D$=CHR$(4)
PRINT D$;"LOAD first program"
PRINT "Take out the update disk and put your program
      disk in the same drive the update disk was in"
PRINT
PRINT "Then press <any key>."
WAIT -16384,128:POKE -16368,0
UNLOCK first program
SAVE first program
LOCK first program
PRINT "Switch your program disk and the update disk"
PRINT "Then press <any key>"  [Note —Keep it
      short!]
WAIT -16384,128
POKE -16368,0
LOAD second program
PRINT "Switch the update disk and the program disk"
PRINT "Then press <any key>"
WAIT -16384,128:POKE -16368,0
UNLOCK second program
SAVE second program
LOCK second program
PRINT "Update Completed"
PRINT "Switch disks again & hit key when ready"
 [Get the disk with the EXEC file back in the drive!]
WAIT -16384,128
POKE -16368,0
PRINT "You may now use your updated program by
      typing "RUN program" at the prompt (]) after
      switching disks one more time."
```

The final step in creating my disk was to make the install program run automatically. In other words, the user would simply put the update disk in his disk drive, turn on the computer or type "PR#6", and the install program would begin to run.

The way to do this was for me to make sure I had the disk operating system running on my Apple by booting any bootable disk. Next, I cleared the computer's memory of any other programs by typing "NEW" at the Applesoft prompt. Then I typed in the following Applesoft program:

```
10 D$ = CHR$(4)
20 PRINT D$;"EXEC execfilename"
30 END
```

Finally, I typed "INIT HELLO" at the Applesoft prompt. This will format the new disk and install this three line program as a program called "HELLO" which will run whenever this disk is booted. Of course I then had to save my EXEC file to this disk. This way, whenever this disk is booted, the EXEC file will be executed automatically, which is what I wanted to happen.

I hope these hints prove useful to some of you and that it will now be a little clearer about how to use EXEC files.

AppleWorks Speedups contd. from pg 14
will last a year.

As a recent observer of the capabilities of "AT" machines, I was most impressed with the speed and enhancements of our own Apple II and AppleWorks' capabilities. Gave true meaning to the Apple II promise to stay with us "forever."

LABELS, LABELS, LABELS

by Ray Settle, The Annapolis Slice

Another useful program from The Big Red Computer Club for Print Shop users is Labels, Labels, Labels. This program combines the two most popular programs for the Apple II, Print Shop and Appleworks, or stands alone as a first rate label maker.

LLL comes on one 5.25 inch unprotected disk and a forty page 8 X 6 manual. Its purpose is to enable the user to print tractor-fed labels of various sizes either singly or in great numbers with or without Print Shop graphics and with or without accessing an AppleWorks data base file. For those who don't wish to use an AppleWorks data base file, LLL has its own data base program for setting up a label file.

In creating a label the user works through a series of menus not unlike those from Print Shop. Borders for the label can be either partial or full and can be selected from Print Shop graphics disks. Fonts can also be accessed from any Print Shop compatible disks such as the companion and even the program disks. In addition LLL provides its own fonts and borders. Both can be printed in color if a color capable printer is available. It's best not to use a full border on a label unless it will only need about two lines of text.

Graphics can also be from any Print Shop compatible disk and, with the help of some other Print Shop utility disks (such as P.L.U.S. or SHRConvert) even from any other DHR or HR graphic. Graphics can also be printed multi-colored, while the fonts and borders can be single color.

Graphics and text can be positioned Left, Right, or Centered on the label. Font sizes available are large (about 2 lines per label) to small (about 6 lines per label) or a combination of the two.

Six sizes of labels are automatically available from the menu, but any size can be used with the custom size option. Beware, you will need a calculator to figure out the parameters of an odd-sized label. A chart in the manual helps, but it's best to figure it out by hand just to be sure. One handy option is the preview which allows the user to see the label on screen before printing.

Be careful when using tractor-fed labels. Never roll the labels backward even for a quarter of an inch. If one comes loose and gets stuck on the printer's platen, you will have a big problem cleaning the glue off the platen. Glue residue will cause so many paper jams that the printer will become almost useless. Also be sure to watch the labels as they're printed especially if you are printing a large quantity at one time; they may tend to peel off as they roll up from the platen and may stick to the paper guide rollers. This problem seems to afflict the Imagewriter I more than the II.

Once a label design is completed it can be saved to disk for future reference. In designing a label, ESCAPE always take you back one menu so changes can be effected. This feature is not well documented in the manual but does exist.

Labels are printed in double strike mode and so are heavy enough to look professionally done.

If you have some use for producing labels, such as, data disks, VCR tapes, mailing labels, gift tags, name tags, etc., LLL is the perfect program for you. You do not need to use either Apple

contd. on pg 20

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SOUPING UP APPLEWORKS AND TIME-OUT EVEN MORE: PowerPack and PathMaster

by Ray Settle, The Annapolis Slice

One of the programs I brought back from AppleFest was TimeOut PowerPack by Beagle Bros. PowerPack adds another 10 enhancements to whatever other TimeOut enhancements you may already have installed. They do small tasks, but each has its usefulness.

The two major enhancements, and the two for which I purchased the program, are the Triple Desktop and Triple Clipboard options. The first gives you three Desktops, each of which can hold 12 files (memory permitting of course). If you are working on a large number of files simultaneously (perhaps spell checking or converting them to ASCII files), this option can save a lot of time and energy. The program gives you the option each time of selecting which desktop to make current.

The second enhancement is the Triple Clipboard which can be a godsend for those who like to boilerplate their files. Each clipboard can hold information from any of the modules. The only trick here is to be sure to designate which clipboard is current before copying or moving information to it. This maneuver can get tricky so be careful. It only takes a few keystrokes to designate which one is current, but it must be done to avoid copying over information on a clipboard.

This feature does not work with the Applied Engineering expanded clipboard, so you will be restricted to the standard AppleWorks clipboard. I suggest that if you have an AE RAM board you configure another copy of AppleWorks with the AE expansion so you can use the Triple Clipboard.

Another enhancement on this disk that I didn't think would be as useful as it turned out to be is File Librarian. This is a neat little database producer that will read any directory or subdirectory you designate and produces an AppleWorks Database file providing all the pertinent file information plus leaving one category for your own notations. One database can catalog any number of disks up to the limits of AppleWorks. It will do a hard drive but only if you specifically select one subdirectory at a time.

The other enhancements on the disk have somewhat less spectacular functions although some users may find the one enhancement they really wanted. They are:

AWP to TXT - Converts AWP files to ASCII text tiles (great for telecommunications).

ASCII Values - Shows the ASCII, HEX or Decimal equivalents of characters (Macro writers will find this one useful).

Category Search - Allows you to specify which category in a data base should be searched (speeds up the search).

Desktop Sorter - Sorts the files on the desktop into any order you wish (possibly useful to someone using the SA-Q macros to boilerplate a document).

Help Screens - Lets you designs your own custom help screens (great for giving directions for using templates).

Line Sorter - This one seemed useless until I figured out that it would allow the alphabetizing of a list of names from within the wordprocessor.

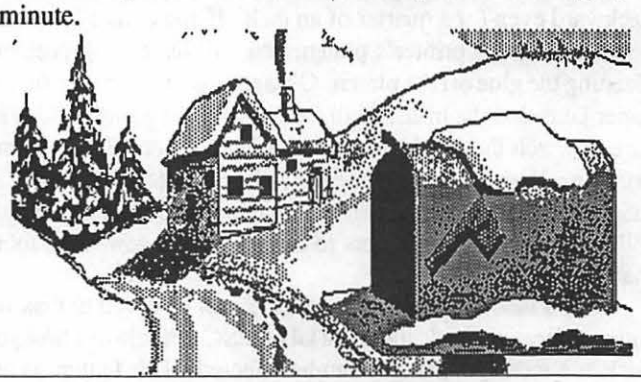
Program Selector - This one can be very useful but dangerous. It allows one to run any other program from within AppleWorks from a ProSel-like menu. The bad news is that you better save your files before you go off into something else. It returns you to AppleWorks automatically when you leave the other program, but it does so by REBOOTING AppleWorks, so any unsaved desktop files become history. I have had some problem running programs from this selector. I use it primarily to run Cat.Doctor from the ProSel disk for file and disk maintenance routines from within AppleWorks.

All in all I am quite pleased with the enhancements from PowerPack, although the ones that attracted me to it are not the ones I use most.

Probably the most useful enhancement to my AppleWorks program next to QuickSpell is PathMaster by Randy Brandt's Jem Software. If you have a hard drive with multiple subdirectories for your Appleworks files, this enhancement is a must have. This is also one TimeOut enhancement to load to memory. (NOTE: This is not a TimeOut enhancement per se but is TimeOut compatible.)

The program provides a means of specifying pathnames for loading and saving files from a menu rather than by typing in three or four subdirectory levels each time a particular file is to be loaded. The full pathnames of text files, however, must still be laboriously typed in. By allowing the user to drop or add subdirectories or change disk drives altogether, this enhancement makes life with a hard drive and Appleworks productive and enjoyable.

The TimeOut series of AppleWorks enhancements has ruined me for regular AppleWorks. I find myself unable to help my less enabled colleagues with their AppleWorks questions because my answers invariably entail the use of a macro or some other special trick file. Altogether, my TimeOut menu lists 30 enhancements, without such giants as Graph and SuperFonts. I am resisting these last two but feel myself weakening by the minute.



Labels, Labels, Labels contd. from pg 19

Works or Print Shop to make an attractive label, but those programs do add an extra level of attractiveness to a label.

Labels, Labels, Labels. Big Red Computer Club, 423 Norfolk Avenue, Norfolk, NE 68701. (402)-379-4680. $39.95 ($24.95 members). $12.00 membership fee (recommended).

GRAPHICWRITER v2.0: A Review

by Jurij Solovij, Annapolis Slice

DeskTop Publishing with Graphicwriter 2.0. As I sit here, working with Graphicwriter 2.0, I realize that some of the promise of the Apple IIGS is finally being realized. How many MS-DOS and Macintosh programs combine wordprocessing, bit mapped painting, object oriented drawing, page layout, and graphics filing? Graphicwriter can do all of these, with very few compromises.

Taken in the context of prior generation wordprocessors, such as AppleWorks or WordStar, GW delivers all of the standard features. And in comparison to newer programs, such as Macwrite or Multiscribe, GW not only delivers all their capabilities, but also adds a few unique, "How did I ever do without", features of its own. Of course with the broad scope that this program covers, there are also a few things missing. Consider the implications of computerized text processing. Not only are we now able to manipulate words easier, but we are being given the personal ability to present those words in a way that suits our ideas, and possibly delivers our message better. No longer can we be satisfied with just "Near Letter Quality" printed text. Now the state of the art allows, and will dictate that we "present" our thoughts. So much for "waxing philosophical"; the point is we react to the "visual". Combine that with words and every II GS owner has a powerful tool to maximize the impact of their ideas.

The point of this is "Desktop Publishing", which in the broader sense, is idea presentation. In it's strictest meaning, it is the ability to format a document without the need for the traditional stages of writer through final proof; steps that usually involve many specially trained personnel. All these can combine into one function/person if the training, ability, and talent are there. Given that concept, there are features that every standard word processor should have, and then there are the tools, to manipulate the elements of a page, that are the basis of "Desktop Publishing".

Graphicwriter, as a text editor, can cut and paste anywhere in a document, or to the clipboard for use in other documents. Selecting text is done with the mouse—no keyboard method is provided. The majority of major commands outside of text and object selection can be both mouse selected as well as "command key" activated with open Apple key combinations. Editing includes "cut", "copy", "paste",and "find" functions. The "find" functions are fully featured with any combination of searching for, and replacing text. Fonts can be selected with the mouse and are limited to the 15 typefaces that fit into the font pulldown menu (or the size of the font folder). The GS has this method of implementing fonts in common with the Macintosh. There seems to be a small problem in using some of the converted Macintosh fonts. Some are not properly recognized, even though they show in the font selection menu. Some further investigation into the font files themselves may provide a solution, but that's for another time.

The vast majority of fonts do work well. Typeface styles include: Plain, Bold, Italic, Underline, Outline, Shadow, Superscript, Subscript, etc. The point size of the fonts are limited to under 72 pts. or the size constraints built into the fonts themselves. Most fonts can be scaled to the maximum. An excellent feature is the quick selection of some standard point sizes on the menu, but in addition the typefaces can be scaled to any required size by using the "make your own" selection. Standard formatting includes, centering, left, right and full justifying, with tabbing that includes "numerical" decimal point tabbing for lining up numbers. Running Headers and Footers are also available, along with normal and reverse indenting for hanging paragraphs and outlining.

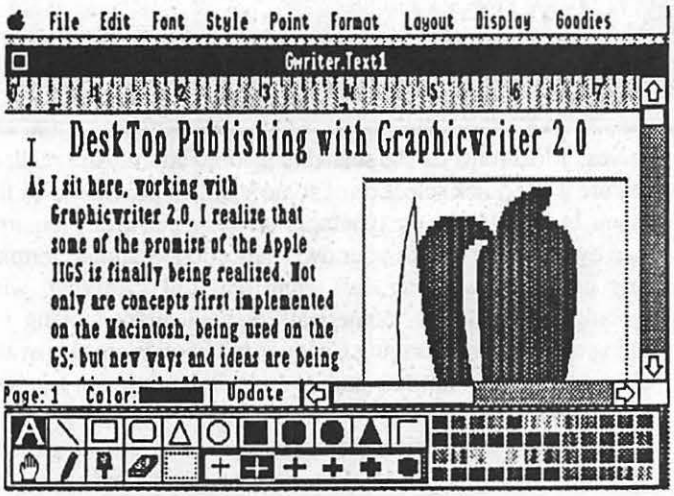
On the nitpicking side, the most glaring and annoying omission is the lack of function of the arrow keys in moving the text cursor—this can only be done with mouse. This, of course, is not a complete list of functions, but suffice it to say that most of the important ones are included. The text or wordprocessing part of Graphicwriter by itself it would be considered a top notch wordprocessor. But the key is that this is a graphic design, page composition, and page production program WITH AN EXCELLENT WORD PROCESSOR!

How does this all work, as an integrated package? Let's consider it from each aspect that it functions in—graphic design, page composition, and ultimately page production. The first thing that becomes apparent is that GW is for production of a limited number of pages (dependent upon machine memory size) and is not meant for those who may be writing novel length documents. Longer documents must be split into multiple files to work in GW. Leave the long ones for the more conventional wordprocessors, such as WordStar, or the newer ones such as WordPerfect, that are specifically designed for this kind of writing. GW is best for the single to low multiple page documents that require extensive variation of layout and inclusion of graphics.

Let's look at the work environment. Upon entering the program, the top of the screen pulldown menu bar is present, and is implemented in the prescribed Apple format. The program presents a dialog box that offers a number of different blank page formats—letter size, legal size, A4 (European standard), and landscape (which is "letter" turned sideways—this is independent of any sideways printing feature available in the "print" commands). Additionally, there is the ability to access a user defined template that was saved as such. The template needs no special formatting—it can be any document, in any stage of completion, as long as it is saved as a template. Great for those standard forms or formats for newsletters, etc. The work screen presents itself after a blank page is selected, or a document is opened through the file menu. Under the "top of screen" menu bar is a file name bar with a ruler, margin and tab indicators. The margin and paragraph bars are formatting indicators and allow dynamic formatting (they can be altered after each carriage return to different settings for each block of text or graphic). The work window of the screen is the middle two thirds with a portion used for slide bars that allow movement through the document vertically, or horizontally.

Below the bars is the graphics command menu. A section is for color selection, and the rest is for selecting the different

contd.

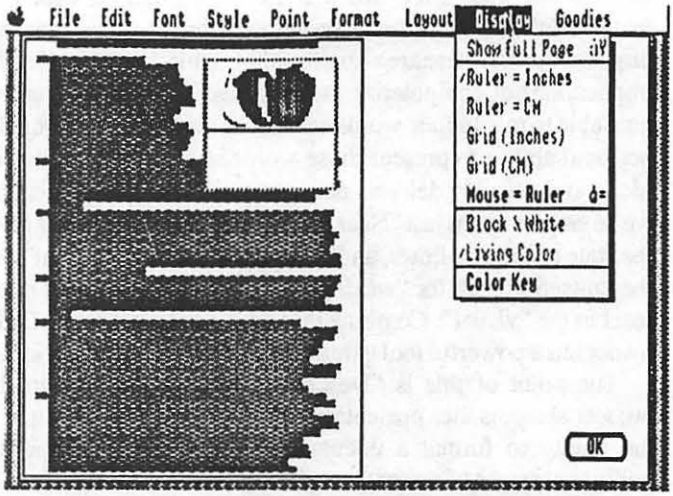


Graphicwriter Main screen Display

graphics tools available. The current page number and selected color are also provided here. The visual interface is organized, well positioned, and as complete as possible (excluding one "cursor position" feature I personally would like—more on that subject later). GW is very intuitive and invites exploration. Now, is the program really intuitive for "desktop" publishing work? For that consideration, one should leave behind the general concept of a standard word processor.

For page composition a different set of rules apply. A layout designer considers each element as a block. Each block as an entity that should be independent, but related to the whole, and plastic enough to be molded within the design ideas of the whole. And for that, one must start thinking in discreet blocks. Graphicwriter works the way the designer thinks. The entire work area can be defined with an unlimited (almost) number of "regions". These regions are self-contained and can be shaped and reshaped, depending upon the changing design requirements. Nothing is permanent, everything can be altered, from formatting to graphics work. Each region can be moved, sized and reconfigured as needed. Think of these regions as "overlays", much as one would "paste up" a "mechanical" with different elements. A mechanical with one major advantage—each overlay can be changed at any time by new ideas or requirements! In fact each region is an overlay that can partially or totally obscure regions that have been defined earlier. The regions are treated as layers, earliest on the bottom, latest on top, and they are tracked by the program in that order, even if they do not interface directly. Each region can be defined in a number of ways. An "object" region allows text entry and/or object oriented graphics, or "Drawing". The other region is called a canvas region, which is the area for "painting", or bit mapped graphics—no text is allowed here. In the "object" regions one can import text from other GW documents, or from any ASCII text file. A typeface, point size, and style are selected for the region. The cursor is positioned at the beginning of the region and the "import" command is selected from the menu. A dialog box (similar in all disk based functions) allows the selection of the file. The imported text flows through the entire region and from one column to the next, if the region is divided into columns.

GW documents can be saved in GW, ASCII text, or template format. The regions can be "laid out" in up to 4 column formats. Because there is no practical limit to the number of regions you may have side by side, the number of columns on a page are limited only by good sense. These columns can be bordered, or without borders. The regions can individually be bordered or not, and they can have either a white or black background. Text can flow around graphics or other regions; however, this is not automatic—you need to instruct the program on how the flow should be implemented. Once you have laid out a page, the "look" of the page is difficult to imagine, so a stylized full page is drawn on the screen with the "Show Page" feature. Text is represented as gray blocks, and graphics are recognizably drawn to scale on the page. Importantly, the regions can be worked on while the full page is displayed. This eliminates much of the need to shuffle back and forth when working with the larger elements of the page layout. Only the full page display shows the true "WYSIWYG".



Graphicwriter Full Page Display

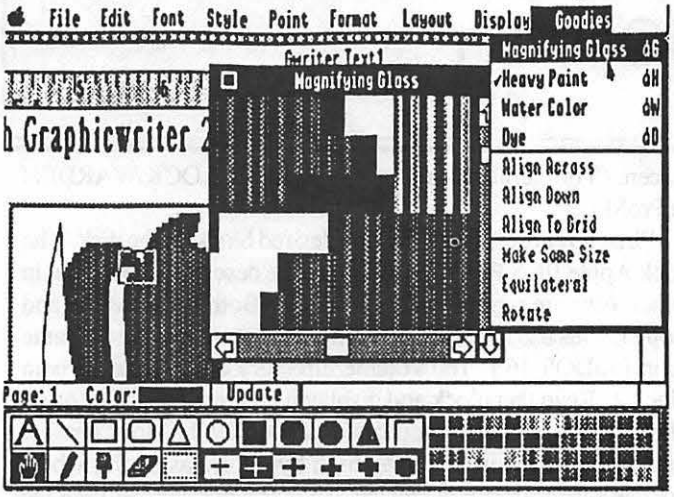
The aspect ratio problem of a CRT screen is compensated for by giving the true aspect for text when you are in text mode, and true aspect for graphics when you're in Graphics mode. But they are seemingly out of proportion to each other until you view the page or print it out. At this point each element is accurate to the viewer. GW is obviously built with the idea that most users would not have access to the very expensive "1 to 1" aspect monitors of dedicated DP workstations.

Speaking of graphics, GW as a graphic design program has the ability to work in different environments, IN THE SAME DOCUMENT, with no limit to the number of times they are implemented. In the object graphics mode, most graphic shapes can be drawn and filled. Objects can be duplicated, cut, copied and pasted as well as rotated, aligned on both 2 dimensional axis or to a grid, made the same size or equilateral.

All considered, this has 90% of the features of some advanced "drawing" only programs. Objects are saved with the file or can be placed in a special "scraps" file for easy use in other documents. This scrap feature works for both object oriented graphics as well as bit mapped graphics. This saves great time in either redrawing often-used images, or eliminates the necessity of always importing graphic images. Graphics can be imported if they are in GS SHR format. Hires and Double Hires images need to be converted to SHR before they can be used. Canvas regions allow "painting" of bit mapped graphics. These paint areas can

contd.

be edited with a selection tool or eraser, or a "Magnifying Glass" (or Fat Bits) that allows minute work on the bit level. Again GW



Graphicwriter "Fat Bits" Edit Window

has many of the features of good paint programs. Text processing, graphic design, and finally page layout and production.

The test of the Desktop Publishing system is its ability to "precisely" provide the desired layout and to reproduce that design as faithfully and sharply as modern technology allows. Beautiful design "on screen" is only gratifying to the designer. Providing that beauty on a finished page is the final "must" for GW 2.

To allow for the most precise placement of the regions and elements within a region, the designers/programmers of GW chose to offer a cartesian coordinate readout system for precise positioning of the cursor, text, graphics. This readout is available in inches or centimeters and reads to the hundredths of inches—very precise. Ultimately this is more precise than the moving rulers found on many other programs. With this precision come some sacrifices. The coordinate readout can be activated at any time; however, when activated it no longer allows use of the document scroll bars, which provide the only movement through the document. So the coordinate readout must be deactivated, the document scrolled to the desired location and then the readout may be reactivated. I found this very annoying. In future versions, I will suggest that the readout be allowed to remain active at all times, with the scrollbars functional, or a second placement system needs to be provided, such as the moving rule system.

Kerning is not available in Graphicwriter—a feature I consider a must for truely professional results. Leading can be achieved in a roundabout fashion. It is done by changing the "lines per inch" setting as opposed to the use of "points" of leading, standard in page composition. This aside, the program is as close to "WYSIWYG" as any I have worked with (I have used both Mac and MS-DOS DP programs). "WYSIWYG" on most programs is not possible because of aspect ratio problems with CRT displays. There is a very small discrepancy in the margin measurements, but that is within acceptable, "workaround" tolerances. This margin problem seems to be common in many DP packages, in Mac and MS-DOS environments as well.

The printout capabilities for Graphicwriter are really where this program shines. On the Imagewriter (as is typical with most GS programs only the Imagewriter and Laserwriter are supported) both text and graphics are printed in excellent resolution. In fact, I would say that Graphicwriter produces better text on the Imagewriter than most of the Mac programs I have used. GW has Imagewriter drivers written especially for it to allow very fine printing. Object oriented graphics reproduce much finer than bit mapped graphics. Part of the reason text reproduction is enhanced is that GW will search the font for a font that is twice the size of the one specified, to provide a finer dot pattern. Of course, the larger font size must be available in the font folder.

Reproduction on the LaserWriter is as versatile and spectacular as any produced on a Mac. Note: the three screen shots used in this article are bit mapped graphic shots of the actual screens and were printed to the LaserWriter through Graphicwriter at 45% of full scale! But there are problems in "OZ". All programs have possible inherent problems in working 100% with Apple LaserWriters, and Graphicwriter is no exception. Contrary to popular belief, GS programs do not fully implement all the LaserWriter Plus typefaces, even though an extended set of 7 additional typefaces is available on the LW+. The GS can only call for the basic typefaces of Courier, Times, Helvetica, and Symbol—all others default to Courier. But that is a topic for another time.

The weakest part of the program is the documentation. It is brief, and mentions all the features but fails to elaborate on many of the important possibilities of these features. There is no index (inexcusable), and the more advanced features are glossed over. Thankfully, the program is predictable, and so, open to easy exploration. But a good manual would greatly enhance this first true "Desktop Publishing" program for the IIGS. My wish list for future revisions or additions: Kerning, Open apple 1 through 9 commands to quickly move through a document (Lissner definitely had a better idea!), automatic gutter formatting, more graphics tools (more, more, more!), Macros (Gotta Have!), Spell Checker (hard to live without one now!), Thesaurus, and finally but certainly not the least important—THE RIGHT LASERWRITER, LW+ DRIVERS and LASERPREP files (are you out there, Apple?). Finally the IIGS should have Macintosh compatible formats for "Object Oriented Graphics Files", (PICT format) and for Postscript Compatible Files (Encapsulated Postscript format). GS programs should be able to use these formats as standard. So far, no two GS programs have the same "Object" utilization. Come on DataPak, lead the way!

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THE AARDVARK FILE: DECIPHERING THE MOUSEWRITE DICTIONARY

by Richard FitzHugh

The word processing program MouseWrite (Roger Wagner Publishing, Inc.) includes a spelling checker. It uses 3 dictionaries: (1) the Main Dictionary, which contains about 61,000 words, (2) the Fast Check, which lists short, frequently used words, such as the, and, it, etc., and (3) the Custom Dictionary, to which the user can add his own words. (3) is just a text file which can be edited by MouseWrite itself. I will briefly describe (2) at the end of this article. (1) is contained in the file MAIN.DICT in MouseWrite's folder /SPELLER.

I became interested in finding out how a large dictionary was stored in compressed form in a disk file. I used my IIGS with MouseWrite on a 3.5" disk. This article is a sort of mystery story describing the unscrambling of a secret code, from some rather puzzling clues.

For a first look at MAIN.DICT, run BASIC.SYSTEM from the Finder. Type "PR#3" to set 80 column mode, and with the MouseWrite disk in a drive, type "PREFIX/MOUSEWRITE/SPELLER" and "CATALOG". The file MAIN.DICT is shown to be of type BIN; it occupies 212 blocks and has its endfile at 107776. The last number is the number of bytes in the file. Since a block contains 512 bytes, this is equivalent to 210.5 blocks. Files are stored on the disk in whole blocks, and one extra block is needed for an index block; this adds up to 212 blocks.

If 61,000 words are stored in 107776 bytes, this comes to only 1.8 bytes per word, far less than would be required if all the words were stored in a regular text file, with one byte per character. It is evident that data compression techniques have been used to compact the dictionary. This is possible because there is a great deal of redundancy in a dictionary where words appear in alphabetical order, because adjacent words share many of their initial letters.

There are several ways to examine the contents of this file. Run BASIC.SYSTEM from the finder. If you then type "BLOAD MAIN.DICT, A$1000" to load it into memory at hexadecimal address $1000, that doesn't work. The file is too long to fit into the first bank of memory, and you get an error signal "PROGRAM TOO LARGE". However you can still look at the beginning of the file by typing "BLOAD MAIN.DICT,A$1000,L$1000. Next type "CALL-151" to enter the monitor, then "1000.1100" to see the first 256 ($100 hex) bytes of the file. By varying the L (length in bytes) parameter in the BLOAD command, and by adding a B parameter to it to indicate the first byte loaded (e.g. ,B$2000), you can load and examine other parts of the file.

A second way is to set the RamDisk size to 128K (1K holds 2 blocks) with the Control Panel, use the Finder to load MAIN.DICT into the RamDisk /RAM5, and search through memory with the monitor. I found the file starting in bank 2, at address 02/EDE1, and ending in bank 4.

It is more convenient to use the program Copy II Plus (Central Point Software), which contains a utility called Sector Editor. With this one can read a block from the disk and display it on the screen. (You can also do this with the utility BLOCK.WARDEN in ProSEL.)

First, it is necessary to find the desired block on the disk. The book Apple IIGS ProDOS 16 Reference describes the format in which files are written on a 3.5" disk. (Both MouseWrite and Copy II Plus use ProDOS 8, but the file structure is the the same as in ProDOS 16.) The volume directory of the disk starts in block 2. Read that block and display it on the screen. The name of the folder SPELLER appears, followed by the block number (hex 0269, coded in low byte, high byte form as 69 02) where Speller's index block is located. In that block you will see the name MAIN.DICT, followed by the block number (026B) of its index block, which in turn contains the block numbers of all the blocks for that file (the low bytes appear starting in the first line of the block, the corresponding high bytes starting in the 16th line). The first block of MAIN.DICT is 026A, the second is 026C, and the rest of them follow in numerical order. (At least this is how they appear on my disk.)

The first 11 lines of the first block (026A) are shown in Fig. 1. In each line, the first 3 symbols give the byte number at the beginning of that line in hexadecimal notation (below I will use that number to identify a line in the block). The rest of the line shows the first 8 bytes of the file in hex, a hyphen, 8 more bytes, and then at the right, the same 16 bytes repeated in ASCII. Non-printable codes are shown on the right as periods, except for FF, which is omitted entirely, shortening the line. (See Fig. 1)

First comes a copyright notice, then the alphabet in caps, followed after an interval of several bytes by the alphabet again, this time in scrambled order. Only upper case letters appear; the Speller evidently converts lower case to upper case before searching the dictionary. The whole block occupies 32 lines (512 bytes at 16 bytes per line). At first sight, the subsequent lines appear to be gibberish, as do subsequent blocks.

The last 3 lines in Fig. 1 contain the scrambled alphabet. In addition, some bytes represent small integers, interspersed among the letters. The ordering of the letters suggests that they are arranged according to their statistical frequency, or probability of their appearance, in the dictionary. An early ordering of letters in decreasing frequency is the sequence ETAOIN-SHRDLU of the old linotype keyboard. Different authors give different orderings, depending on what sample of English text was analyzed. The article on Cryptology in the Encyclopaedia Britannica (15th ed.) gives the ordering ETNROAISDL-HCFPUMYGWVBXQKJZ.

The letters on line 080 are among the most probable; those on line 0A0 the least. The interspersed integers appear in increasing order, except for 01, which occurs at byte 08F, between 04 and 05. This will all make more sense if you read on.

In lines 100 through 160 there is a group of 104 (= 4x26) bytes, suggesting that there are 4 bytes for each letter of the alphabet. Every 4th byte is 00, and the preceding 3 bytes show a certain pattern. They can be interpreted as a memory address,

contd.

```
Block $26A on disk (block $00 of file):

000- 50 6F 70 53 70 65 6C 6C - 20 63 6F 6D 70 72 65 73  PopSpell compres
010- 73 65 64 20 64 69 63 74 - 69 6F 6E 61 72 79 20 76  sed dictionary v
020- 65 72 73 69 6F 6E 20 34 - 2E 30 0D 0A 43 6F 70 79  ersion 4.0..Copy
030- 72 69 67 68 74 20 28 63 - 29 20 53 6F 66 74 77 61  right (c) Softwa
040- 72 65 20 48 65 61 76 65 - 6E 2C 20 49 6E 63 2E 1A  re Heaven, Inc..
050- 00 00 00 00 00 00 00 00 - 00 41 42 43 44 45 46 47  .........ABCDEFG
060- 48 49 4A 4B 4C 4D 4E 4F - 50 51 52 53 54 55 56 57  HIJKLMNOPQRSTUVW
070- 58 59 5A 2E 27 2E 2E 2E - 2E 13 B9 0B 3D 99 01 00  XYZ.'.....9.=...
080- 00 45 02 4E 49 53 03 54 - 44 4C 41 52 4F 04 59 01  .E.NIS.TDLARO.Y.
090- 05 47 43 06 55 4D 48 07 - 42 50 08 4B 56 46 57 09  .GC.UMH.BP.KVFW.
0A0- 5A 0A 58 51 0B 4A 0C 27 - 1F 0D 0E 0F FF 00 00 00  Z.XQ.J.'........
```

Fig. 1

with the lowest order byte first and the highest order byte last. When interpreted in this way, the 26 successive addresses are, in increasing order, 000300, 00336D, 005D77,..., 032E9B, 033107. Assuming that the first byte in the whole file is numbered zero, could these be pointers to the byte in the file where each of the 26 letters of the alphabet start in the dictionary? Unfortunately, the last number, $33107 (= 209159 decimal), is almost twice the number of bytes in the file! They do make sense, however, if they refer not to 8-bit bytes, but to 4-bit half-bytes or nibbles. I examined the nibbles pointed to by several of these nibble pointers and found that in each case 3 nibbles (FFA) appeared there. This then appears to be a signal that a new letter of the alphabet starts at that point in the file.

It is easy to read disk blocks with Sector Editor. When a block is read with the R command, the first half of the block is displayed on the screen. The arrow keys are used to scroll through a block. Typing + or - moves forward or backward from block to block. By searching later blocks, I found near the end of the file a section containing about 200 readable words in alphabetic order, from AARDVARK to YAQUI (Fig. 2 shows the first 3 lines).

```
Block $337 on disk (block $CC of file):

130- 3F 74 34 F4 9F 52 B4 F3 - F7 FF AF FE FF 41 41 52  ?t4t.R4sw/~AAR
140- 44 56 41 52 4B 00 0D 03 - 00 01 00 41 43 43 45 4E  DVARK......ACCEN
150- 54 00 04 07 00 2F 01 41 - 44 41 50 54 41 54 49 4F  T..../.ADAPTATIO
```

Fig. 2

This looks like a coarse index used to approximately locate an English word being examined by the Speller, in order to enter the dictionary at the best place to start searching for it. Each word ends with a 00 byte, and following that there are 5 bytes before the start of the next word.

The first 3 bytes appear to be nibble pointers to the place in the file where each of these words ends. For instance, following AARDVARK comes 0D 03 00, which converts to the pointer 00030D, just 13 nibbles greater than the pointer for the letter A found above. By looking ahead in this index, the last A word (AWNING) and the first B word (BALZAC) have the pointers 3304 and 3706. The pointer for the letter B (see above) in line 100 of the first block is 336D, which is between the other two, as expected.

The next 2 bytes also form a number, from 1 for AARDVARK to 61023 (decimal) for YAQUI. This seems to be the position of each of these words in the dictionary.

How does the Speller find the place where the coarse index begins? The address of the first letter of AARDVARK in the coarse index is 1993D, and lo and behold the bytes 07C - 07E in the first block are 3D 99 01!

To try to find out which words actually appear at the beginning of the dictionary, I made a text file with MouseWrite containing words taken from an unabridged dictionary, together with some nonsense words. The latter were rejected by the Speller, and corrected spelling suggested. In this way I compiled a tentative list of words at the beginning of the dictionary: AARDVARK, AARDVARKS, AARDVARK'S, AARON, AARON'S, ABACK, ABACUS, ABACUSES, ABAFT, ABANDON, ABANDONED, ABANDONING, ABANDONS, etc. The last 3 words are ZUCCHINI, ZULU, ZURICH. The dictionary thus contains proper names as well as plurals, possessives, and inflected forms of verbs. The next question was, how are these words coded?

Before going on, let us consider possible data structures for a dictionary. The book Data Structures and Algorithms by Aho, Hopcroft & Ullman describes a standard way to represent an alphabetically ordered list of words in the form of a special type of tree known as a "trie". This word was excised from the middle of the word "retrieval" but is pronounced "try" to distinguish it from "tree". A trie is often drawn in books as a set of nodes joined by branches, but a more compact way is shown in Fig. 3, where the beginning of a tentative list of root words is shown in trie form. For the moment, ignore the numbers that appear on the right. After each word, the next word appears on the following line. If it is simply a continuation of the word above, its additional letters appear following the position of the last letter of that word. If however this word does not use all of the letters of the previous word, then it must backtrack a certain number of places before its new letters appear. In Fig. 3, the first word is AARDVARK. After backtracking 5 letters, the second line shows ON, the continuation of the word AARON, and so on.

```
A A R D V A R K                 0 6
      O N                       4
  B A C K                       1
        U S                     0
            E S                 5
      F T                       2
      N D O N                   0
              E D               2 3
              M E N T           0 5 5
      S E                       0
          M E N T               0 5 2
        H                       0
          E S                   2 4
        I N G                   4
      T E                       0
          D                     1
          M E N T               0 5 2 5
```

Fig. 3

contd.

If a trie is to be coded, then two kinds of information must appear: letters and backtrack numbers. It seemed likely that backtracks are represented by the integers interspersed among the letters in the lines 080-0A0 in Fig. 1. I will refer to these three lines as "the table" from now on.

There are various ways of encoding a trie into a string of bytes. The best hope of discovering which one is used here seemed to be to examine the dictionary file directly.

One of the cruder experimental methods for studying brain function in animals is to make a localized injury, or lesion, in the brain and observe the resulting changes in the animal's behavior. The same method can be used to study this dictionary file. The scalpel is provided by the Sector Editor of Copy II Plus. With it one can change individual bytes in a block that has been read from the disk into memory, and then write the revised block back to the disk (a special copy!). If this is done with MAIN.DICT, and the MouseWrite Speller is then run, one can hope that its resulting aberrant behavior can give clues as to how the dictionary is coded.

I started by inflicting lesions in the first line of the compressed part of the dictionary, in the first block:

```
180-FF AA AB 8F DA BF C0 F4 - C3 DF 9A F3
    FC F0 F5 50  *+.Z?OtC_.s|puP
```

The change of behavior of the Speller was a strange form of amnesia, in which a word was forgotten and replaced by a similar but non-existent word. I decided to study the effect of lesions on the second nibble (0) of the byte C0 in the above line, where the next word after AARDVARK ought to begin, if my hypothesis regarding nibble addresses in the coarse index was correct. When this nibble was changed, the first word, AARDVARK, was rejected and a non-existent substitute, formed by adding a single letter to AARDVARK, was recommended (for example, AARDVARKE). When the nibble was replaced by 1,3,4,5,7,8,9,A,B,C or E, the corresponding erroneous endings turned out to be, respectively, E, N, I, S, T, D, L, A, R, O or Y, the letters of the scrambled alphabet appearing in line 080 (Fig. 1). Moreover, the position of the added letter in the table was in each case the same as the modified nibble. PAY DIRT!

This is in fact a standard method of data compression, described by Aho et al, using a sequence of pointers to characters in a lookup table. Evidently the changed nibble is a pointer to bytes in line 080, counting the first byte as byte 0.

So far I had not been able to access the letters on lines 090 and 0A0 of the table. I next tried to retrieve the word AARDVARK itself, which should start with the first nibble following FFA at the beginning of line 180. Decoding nibbles 3 - 12 (AAB8FDABFC), using the key, I found the pointers (A, B, 8) to the letters A, R, D in line 080, as before. The letters V and K, which occur on line 090, were apparently coded by 2-nibble codewords, namely FD and FC, which must therefore correspond to positions 28 and 27 in the key. If you add F + D, you get 1C (28 decimal), and F + C = 1B (27 decimal). It looks therefore as if the way to access line 090 is to specify first F, then a second byte, and add them together to get the pointer to the letters G through F in the table. Extending this idea one step further, if 2 F's appear in succession, add them together, plus a third nibble, to get a 3-nibble codeword which is a pointer to the letters W through J. This idea works. It is always possible to tell 1-, 2-, and 3-nibble codewords apart, because the last nibble of a codeword cannot be F. It also explains why the letters in the key are rearranged in order of their frequency of occurrence. Pointers corresponding to the most frequently occurring letters can be coded by a single nibble, those of intermediate frequency by 2 nibbles, and the rarest ones by 3 nibbles. On the average, this should minimize the number of nibbles needed in the dictionary.

Some codewords point to integers in the table, which I have assumed represent backtracks. As mentioned above, the place in the dictionary where a new initial letter begins always starts with the codeword FFA. This points to the byte 1F (= 31 decimal) in the table, which must mean to backtrack to the beginning of the current word.

How are word endings coded? Clearly a backtrack ends a word. Referring back to Fig. 3 again, the numbers on the right show backtrack numbers from the table which are pointed to by the codewords in the dictionary following each word on the left in Fig. 3. There can be 1, 2, or 3 such numbers in succession. It would seem to make no sense to have 2 or more backtracks in succession; it would be more economical to combine them into a single backtrack equal to their sum.

I noticed however that for every instance of repeated backtracks, certain words accepted by the Speller as valid were missing from the dictionary. These were always words formed by appending the endings S or ING to the preceding word. Apparently one of these 2 endings is implicitly assumed to come between each successive pair of repeated backtracks. Following a backtrack of 2, the ending is ING; otherwise it is S. This provides an economical way to encode these frequently used suffixes without having to repeat them each time they are used.

First look at the single backtrack numbers on the right in Fig. 3. After AARON, the number 4 means to backtrack 4 letters to the point where BACK is appended to A to form ABACK. After ABACUS comes a 0; this means don't backtrack, just add the letters ES, which are therefore simply appended to the word ABACUS.

As an example of two backtracks in succession, the two numbers 0 6 follow AARDVARK. According to the above rules, S is appended to AARDVARK to form its plural. Then it is necessary to backtrack 6 letters (not 5) to the place to insert ON to form AARON. Following ABANDONED come the numbers 2 3. This means to backtrack 2 letters, removing ED, and append ING to ABANDON; then backtrack 3 letters and continue with MENT to form ABANDONMENT. In the same way, the three numbers 0 5 2 following ABASEMENT generate ABASEMENTS and ABASES, before continuing with ABASH. The two numbers 2 4 following ABASHES generate ABASHING, then backtrack 4 to generate ABASING (note that this last ING ending had to be written explicitly in the file; it couldn't be generated by a 2 backtrack).

A couple of peculiarities are present in this dictionary and speller. Any word at all followed by the ending 'S is accepted by the Speller. Because of this, some rather peculiar words pass inspection, including ABACK'S, ABACUSES'S, and ABAFT'S. In addition, the past tenses of some verbs do not appear in the dictionary and are therefore not accepted by the Speller, such as ABASED, ABASHED, ABDUCTED. These would appear to be bugs worth fixing.

I have written a program in TML Pascal which will print out

contd.

words from the dictionary. The user specifies either a starting letter or a starting word, and then the number of successive words wanted from the dictionary. If the starting word isn't in the dictionary, then it starts with the next preceding word. The coarse index is then searched for the approximate location of the word, and then the compressed part of the dictionary. This program is too long to reproduce here. If any one is interested in this program, you can call me at (301) 949-6490 during the day or before 8 p.m.

One might write a similar program to retrieve English words from the MouseWrite dictionary for making word puzzles or testing a student's vocabulary.

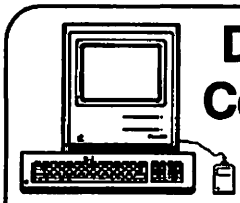
Finally, to locate the Fast Check dictionary, I used the SCAN operation in Copy II Plus to search the MouseWrite disk for the word THE. This occurs in several different files, but I finally located this dictionary in the file MW.DI in the ACCESSORY folder. The dictionary starts in file block $10 (disk block $1A3) and ends in file block $17 (disk block $1AA), occupying 8 blocks. The first line of the first block reads as follows:

```
000- 41 42 4C C5 41 42 4F 55 - D4 41
     42 4F 56 C5 41 43  ABLEABOUTABOVEAC
```

There are about 800 words in this dictionary. The words appear one after another with no intervening spaces. To see how the program can tell where one word ends and the next begins, look carefully at the bytes in the line shown above.

Incidentally, the words A and I do not need to appear in either of these dictionaries, since the Speller will accept any single letter as a valid word.

I do not know how the Speller chooses alternate spellings for the ones it rejects. To do this would require disassembling the Speller file MW.DI, a job for someone else!



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GAP: Graphics and Pictures Conversion for Apple II DTP

by Ray Settle, The Annapolis Slice

If you're like me, no matter how many graphics you have for Print Shop or Publish It! or any other desktop publishing program, it's never enough. And how many times have you wished that the graphics from one could be used in another. Well the answer is finally here, and I guess it took the recent deluge of DTP programs for the Apple II to provide the demand for graphic conversion from one to another. John Wrenholt, the creator of Labels, Labels, Labels, has satisfied the desire of many budding desktop publishers to use all their various graphics files in any program.

The program is available through the Big Red Computer Club in Norfolk, Nebraska, and costs a refreshingly reasonable $9.95 for an unprotected 5.25 inch disk with four 5 1/2 X 7 pages of documentation plus one half page of update additions. You really won't need any more than that.

The program is simple to use. Just select the graphic type to be converted and then select the device on which to save the conversion and you're practically done. It reads Print Shop and Newsroom graphics disks but not the graphics on the program disks, although the documentation provides a way to get to these graphics also.

The following conversions are possible using GAP:

Print Shop to Single HiRes
Print Shop to Double HiRes
Print Shop to Super HiRes
Single HiRes to Double HiRes
Single HiRes to Super HiRes
Double HiRes to Super HiRes
Double HiRes to Single HiRes
Newsroom Clip Art to Single HiRes
Newsroom Clip Art to Double HiRes
Newsroom Clip Art to Super HiRes

Another utility (Print Shop Lover's Utility Disk—P.L.U.S.) will convert graphics to Print Shop format from many of the above.

Each conversion routine gives you several choices. The graphic can be sized to any of 7 different magnifications or alternatively can be saved as a variety of 5 different magnifications on one screen. Graphics can also be saved as regular (for some reason this is white on black background) or inverted (what I would call normal—black on white background). I suggest saving most graphic as inverted. The program displays the graphic on screen so you can decide how you want to save it.

Why would you want to do all this conversion? Simple, with GAP you can use Publish It! graphics in Springboard Publisher, Print Shop and Newsroom graphics in both plus Personal Newsletter. With the SHR conversion option, you should be able to use any of the above programs' graphics with any of the GS paint programs or with the coming GS desktop publishing programs. The DHR option allows you to use any of these graphics with Beagle Brothers SuperFonts in AppleWorks wordprocessor documents. So you see, GAP is an exceptional bargain at $9.95 as it effectively multiplies the graphic capabilities on numerous DTP programs. With GAP I should have very little trouble finding that one perfect graphic for whatever DTP program I happen to be using. GAP, Big Red Computer Club, 423 Norfolk Avenue, Norfolk, NE 68701. (402)-379-4680. $9.95 for GAP. $12.00 membership fee (recommended).

BEST OF THE APPLE ITEMS FROM THE TCS

by Paul Schlosser

MouseTalk and AppleWorks

FROM TOM O'HAGAN

I just tried to send a file which was composed in AppleWorks and has an AWP file type and nothing happened. I am using Mousetalk. Won't Mousetalk do this or am I doing something wrong?

FROM DALE SMITH

Sorry, MouseTalk (unlike ProTERM) cannot read AppleWorks files. I'm assuming you were trying to send by ASCII upload to a message. The easiest way around this limitation in MT is USE the MouseTalk Editor—I always found it better than AppleWorks anyway for my general editing work such as I would do for telecomm. I personally use ProTERM more than MouseTalk now and so I don't have that problem since ProTERM will read and write AWP files for the dedicated AppleWorks user.

FROM HARRY BACAS

If you use AppleWorks to "print the file to disk" (an option offered you when you have the file on the screen and press OA-P) it will convert the file to ASCII Text (TXT type). Then MouseTalk will send the file for you.

Modem Protection

FROM JIM ENGLISH

Is there anything like a surge protector I can put on my 1200 Avatex modem which will ensure that I won't get jabbed by some phone surge. My son just experienced such an incident with his internal 1200 and I'm a bit concerned about my status during storms which roll through Baltimore.

FROM DALE SMITH

I have seen some power strips (or boxes) that offer 4 AC sockets (surge protected) and two phone line connectors with surge protection too. I think I have seen them in the Devoke computer supplies catalog.

FROM KEN HUTTON

You might drop by your nearest Radio Shack. They have surge protectors for phone lines for around $15. A friend of mine in Pensacola just had a Datalink fall prey to a bad storm. He was using his IIGS during the storm. Bad idea! Anyway, his GS didn't suffer a thing. But, his Datalink was zapped and it wasn't even being used. Now that you have brought up the idea again, I too will beat a path to Radio Shack for the same reason.

AppleWorks to TXT

FROM ROCKY RAGANO

I would like to find a program that can convert Appleworks files to ASCII (TXT) files. Can anyone give me any leads?

FROM STEPHEN SCHERRER

If you have AppleWorks, when you enter OA-P, select the printer called ASCII text file. You will then HAVE to give a complete pathname for the file so be sure you know a little about ProDOS path names before you try.

FROM HARVEY KAYE

You can convert any AppleWorks file to an ASCII text file by printing your file to a disk instead of printing it to a printer, and this option is provided to you by your AppleWorks program every time you print a file using the open-apple "P" command.

AppleWorks and CPI

FROM PAUL HORN

Is it possible to change the Characters per Inch in the middle of a word processor line? What I want to do is change from the default cpi to another one and then change back to the default in one line. I have version 2 with Timeout Ultramacros running on a IIgs. I tried doing this but couldn't get it to work.

FROM LOU PASTURA

Since the AppleWorks CI command works only on whole lines, the only way to change characters per inch within a line is to set up a custom printer and use one of the commands that can be inserted for part of a line (like boldface, for example). Remember, however, that AppleWorks will still think the line contains the original number of characters, even though your printer now knows better. To get the word wrap in the right place for your document, you may have to play with increasing or decreasing the margin settings for the affected lines (increase the right margin if you're switching "illegally" to a larger font and decrease it if your second font is a smaller one).

TimeOut and Special Fonts

FROM PAUL HORN

Does TimeOut superfonts have a greek alphabet available and-can I switch from one font to another within a line. I am trying to write a TimeOut macro to switch to the downloaded character set which I designed using Beagle Brothers Power Print. The problem is that the downloaded character set does not print at the same cpi as the resident char set, hence my need to change cpi in the middle of the line. The reason I want to do all this is that my wife who is a math prof at NVCC uses greek chars in some of the lectures and papers she prepares. Using our old II+, our NEC 8023 printer and Supertext I was able to give her this, along with sub and super scripts which she also needs. The downloadables are nice, since I can also design some special math symbols for her to use also. I thought I had tried the custom printer route, but I will try it and see what happens. Is there a program anywhere which allows one to design fonts for TimeOut superfonts?

FROM LOU PASTURA

If TimeOut has a Greek font your problems are solved. I THINK it does, but I wouldn't swear to it. TimeOut uses GS fonts which are (mostly, I think) converted MAC fonts. The WAP Disk Library has 3 disks full of GS fonts that will work with TimeOut. You'll have to take a look at those disks to see if Greek is available there. Best way to do that is drop by the office when they're not too busy and ask if you can catalog them. An alternative would be to call the office and ask someone there to check the disks for you.

contd.

FROM RAY COOPER
Paul: cannot answer all your questions; however, with about 350+ fonts available for use with the TimeOut SuperFont software, I'm willing to bet that the Greek alphabet is one of them. And yes, you CAN mix fonts on a single line, when you use the SuperFont protocol and rules. In fact, based only on the limitations of the software package, you could have every letter on the line in a different font and different pitch. Including some which are graphics!

FROM BILL WYDRO
TimeOut Superfonts comes with a Greek alphabet, which it calls "symbols", in four different point sizes - 9, 12, 18, and 24. (The point sizes don't correlate too well with Characters per Inch, or Lines per Inch in printouts.) There are approximately 400 fonts available from the WAP disketeria on three 3.5" disks (#2009, 2010, 2011) which work with TimeOut SuperFonts. There are 35 fonts, many offered in a range of point sizes, downloadable from area 15 "GS Fonts" in Conference 1 that work with TimeOut SuperFonts. It's hard to imagine why one would want to design a whole font set with so many available for SuperFonts, but I CAN imagine still running into problems finding a particular symbol or custom character. Can't help you there. The TimeOut SuperFonts manual talks about "extra characters" you can access by re-mapping ASCII characters, but I really don't understand that part. Check out Paul Koskos review of SuperFonts in the April WAP Journal before buying. In a nutshell the print quality and flexibility are terrific, but getting some files to print out exactly the way you want them
can be tedious, even with the 'preview' feature (poor-man's WYSIWYG).

FROM JON THOMASON
Good GS fonts for math/Greek are Equations (disk 2), Script Math (3), Vectors (3), and Symbol (1). Also, some of the smaller fonts from all three disks may be useful for the super/subscript. Beagle has announced a "universal font editor," but I have yet to believe it.

Getting Errors Trying To Read

FROM JOHN WAAK
Well, I finally encountered a 3.5 AW datadisk that somehow got trashed. Symptom was the usual "getting errors trying to read.....". AW also refused to catalog the disk. However, Copy II+ version 7.4 will display the catalog. Unfortunately, it will not copy the files (does not display the filenames for copy selection. I did copy the "disk" to another 3.5 using Copy II+ 's copy disk feature. In so doing it gave "read error" for blocks $0004 and $0018. The copied disk will catalog in AW, but gives garbage at the end of the catalog in ProDOS. The original disk had only about 25 free blocks, and I don't relish the thought of having to examine each of these AW datafiles on the copied disk to verify that each is indeed OK. I would feel better if I could fix the original. Any suggestions as to how accomplish this. Yes, I know "use your backup!" I had gotten careless about backing up because in over 2 years of using the 3.5's this is the first problem I encountered. Any suggestions on how to repair the original?

FROM PAUL SCHLOSSER
I'd run Glen Bredons 'Mr Fixit' program on the copy of your disk. It can do some amazing things. Mr Fixit is a part of Bredons 'ProSEL' package.

FROM HARRY BACAS
I'd suggest the first thing you do is copy file-by-file everything you can from the disk, then use Bredon's File.Fixer to see if you can repair the damage. Once you're satisfied that you can't do anything more, wipe the disk clean and copy another full disk to it and see how it behaves. You may find that the disk has some physical damage and won't work right. If so, trash it.

FROM STEPHEN SCHERRER
I think it is the same problem I had last year. It turned out that my 3.5 disk had a bad area on it. (ProDOS doesn't check a disk's integrity when it formats like some other operating systems I know.) What's worse, the file had been saved so the bad block was pretty much in the middle of my file. I did figure a way to recover about sixty percent of the file by using Pinpoint's Mail Merge program. I simply made a generic template in the word processor and had the output printed to a disk file. This worked because the mail merge reads the file one record at a time. AppleWorks, on the other hand, reads the entire file at once. Thus the unrecoverable error.

GIF or RLE?

FROM DAVE RANDALL
O.K., I'll admit that I'm sort of embarrassed to ask—but what does GIF and RLE stand for and are they IIgs graphics pixs? I'd been hoping to discover what these acronyms stood for the past few months. Thanks in advance!

FROM JON THOMASON
Actually, it's Graphics Interchange Format and Run Length Encoded. I don't know that much about RLE, but GIF was set up by a committee in CompuServe to allow graphics to be created and viewed on different machines. Machine-specific codes are included in machine-independent format, such as color palettes, which can be translated to GSs, Ataris, Amigas.

FROM HARRY BACAS
The pictures in the GS Graphics area of the downloads here were until recently usable (viewable) only by people with a GS. But they are being converted into the GIF format so people with other computers, like the //c and //e, can use them as well as GS-ers. There is a convention of ending the filenames with .GIF so you can tell which ones are viewable on other machines. Try some.

The Mouse vs Dollars and Sense

FROM HENRY FEINGERSH
Just bought a mouse for my Apple //c and wanted to use it with Dollars & Sense. My manual shows mouse capability but my program menu doesn't have the option! I have Version 1.5 (1.11) of D & S. Can you help?

FROM DAVID PAGE
You have to get to the Util menu to change from Keyboard to Mouse. Let's see—if I remember right it is the "System Configu-

contd.

ration" Menu. Then select Option G to switch input devices.

ProSel and You

FROM JOHN JENNINGS
I read your other reply and thanks again. Now, please tell me more about 6ProSel. I am interested in how it is used and how it will help a "tinkerer" like me. I use the computer for reading BBS's, writing letters, and keeping my grades organized. Will ProSel be useful or just another program to sit in my Disk holder?

FROM HARRY BACAS
ProSel stands for Program Selector. That's its original function—selecting programs. It was devised for users of hard disks who had lots of programs on the disk and wanted to be able to go quickly from one to another without rebooting or typing pathnames. But it is useful for people running off 800K 3.5 disks too, because those disks will hold several programs. But the program (which costs only $40 and offers free updates you can download from this TCS) also comes with a bunch of utilities, I mean a LOT of utilities which are better than you can find anywhere else. Like a file manager called Cat Doctor, which lets you read, print, rename, move, copy and delete files, format disks or wipe them clean. And others that let you backup and restore your hard disk.

FROM CHARLIE BROWN
In your reply to John, you said that Prosel's Cat.Doctor can be used to format a disk. Please tell me how—I have Prosel 3.1 (haven't added any updates from the WAP BBS) and I have read and reread the documentation but haven't been able to figure formatting out.

FROM DALE SMITH
You have to have CAT.DOCTOR v6.4 and make sure you have the external module CD.EXT in the same directory with CAT.DOCTOR when you run it. The Main Menu should show TAB about 2/3rds of the way down that will switch to a second menu with the Format command.

A New ProDOS?

FROM DAVE HARVEY
Has anyone heard about the availability of version 1.5 of ProDOS 8? I wonder if WAP has gotten this version yet. One feature, I understand, of this new version is that it allows hidden files in directories.

FROM JOEY SCHOBER
Oh, yes—versions 1.5 and higher of ProDOS now support the Invisible flag, which is contained in the ACCESS byte of a file's info block. Of course, that doesn't mean too much, if the system program you're running doesn't actually recognize that bit of the ACCESS. (I think it's bit 4 or 5—one of the previously reserved ones.) I believe Morgan Davis' new programs (ie., MouseTalk 1.5 and ModemWorks 2.0) support the Invisible flag.

ProDOS and the Mockingboard

FROM WILLIAM COOK
I just bought a MockingBoard for my //c at the Garage Sale recently. I would like to know if there are any later ProDOS versions of the software for the board's utilities. Also, aside from Music Construction Set, what other programs use the board's capabilities? (By the way, Sweet Micro, the board's developer, is now only doing work in dental radiology—not computers, these days.)

FROM ROBERT GURSKEY
According to some old bulletins I received from Sweet Micro Systems, the following software used the Mockingboard:

Sky Fox, Electronic Arts
Lancaster, Silicon Valley Systems
Thunderbombs, Penguin Software
Maze Craze Construction Set, DTI Data Trek
Spy Strikes Back, Penguin Software
Apple Cider Spider, Sierra On-Line
Bouncing Kamungas, Penguin Software
Willy Byte in the Digital Dimension, DTI Data Trek
Under Fire, Avalon Hill Game Company
Guitar Master, Master Soft
Music Star, Siegfried Inc.
Music Concepts, Ventura Educational Systems
At the Gates of Moscow 1941, Strategic Games Publications
Adventure Construction Set, Electronic Arts
Ultima IV, Origin Systems
Silent Service, MicroProse Systems
Bank Street Music Writer, Mindscape Software
The Band Series, MasterSoft
Operation Conrad, Strategic Games Publications

DiversiTune and the Apple Interface

FROM SAM KNUTSON
I don't resent the "extreme lengths" the author went to avoid using the Desktop interface—instead I revel in it! Bill Basham has always been a rebel and frankly I prefer the speed of DiversiTune or PrintShop IIgs or Alien Mind to the Flounder and the Apple Human Interface Guidelines. I hope to see more products that take advantage of the IIgs' best features and that ignore P16 until it stops being the dog that it is.

FROM JON THOMASON
But come on—black-and-white text menus with numbers down the side? Arrow key selection? Bill can be more creative than that, as he's shown in some of the other "features" of the program. Now, if he'd gone the way of AppleLink and provided boxes with pictures describing each section, THAT would be fast and rebellious, and would still be presentable.

Add Memory or a New Hard Drive?

FROM HARRY ERWIN
I currently have a 3.5" drive, 2-5.25" drives, and a megabyte on an Apple card I need more working space for development. I could go with another 3.5" drive, a hard disk, or more memory on-board. What are your recommendations? Price is of major concern.

FROM JON THOMASON
I had the same problem. Cost was suggesting that I set up a bootable P16 nonvolatile RAM volume, but with APW, that still

contd.

didn't help much. A hard drive became inevitable, and I've found it to be invaluable. The APW environment is much smoother and less restrictive. I don't know how I did without it (actually, I do—I didn't use APW when I could avoid it).

FROM KIM BRENNAN
Harry, I'd suggest the hard disk. Either the CMS 60 meg or the Sider 40 meg. Being able to stick ALL of APW and its libraries, languages, utilities and source code, and have all of that available at your fingertips without having to swap disks, is really worthwhile. I have 1-5.25, 1-3.5 and a 10meg hard disk. It's just a bare minimum (as I'm constantly needing to purge the excess files from the hard disk).

FROM DAVID PAGE
Harry, I think and most everyone else will also, that you need a hard disk. You should buy the biggest, up to about 60 Megs, that you can afford. I don't know how I got along with out one. Yes, I do—I was like you. There is a speed up when using the hard disk also. Yes a RAM Disk is a lot faster, but check prices of chips now—WOW.

The GS and Batteries

FROM STAN PALEN
I'm having a terrible time getting my machine to start. Usually it comes up with the screen trashed and nothing works. If I leave it on for a couple of minutes it will start fine. This started during the winter when it was colder. Now I get the problem any time I turn it on. It will usually go after a number of starts. Sometimes it trashes my control panel settings. I saw that sometimes this was caused by the video display chip. Would it be something to try—to take out the chip and reinsert? I know this sometimes helps with other IC chips. Pulling and reinserting seems to restore contacts. Is it a ticklish job?

FROM JON THOMASON
People are reporting similar symptoms—apparently the clock/battery RAM battery is running out, and requires a motherboard swap. Check with your dealer. I'd be interested in your results.

FROM DAN HUGHES
For the last two or three days, when booting up the GS, I have been coming up with all standard defaults set. This seemed odd, so I checked the clock, and sure enough, the GS said today's date is Feb. 2, 1938! Just to check it out, I set my custom defaults and the correct time/date and turned off the machine and rebooted. Same thing, almost. Standard defaults and today's date had moved up to 1967. At least that was a much better year. I thought these lithium batteries were supposed to last for 5 years! Is it possible I could have damaged the connectors on the battery when I recently removed the power supply to show my son the chip's underneath? How much is it for a new battery and can an ordinary non-techie replace it?

FROM DALE SMITH
I am not sure that a "non-techie" would want to try this one—for two reasons: 1) I shiver when thinking of taking a soldering iron to the motherboard; and 2) The lithium batteries are an environmental hazard and are required by law/regulation to be disposed of in certain ways (which the dealers MUST follow). Unfortunately this does mean a service charge.

FROM ED DONNELLAN
My wife's gs has been coming up with the wrong date for over six months, with no other discernible problem, and I've wondered if something is wrong with the clock-calendar logic (the date clock writes to battery-protected RAM, as do many other things, and—were the problem just a weak battery—one would expect multiple other malfunctions). We haven't had the motivation or time to take it in for servicing.

FROM MATTHEW RUSSOTTO
I thought it was a 10-year battery. Anyway, I think it is soldered in, so you would have problems replacing it—I'm not sure about availability either. Dealers must follow the rules, but individuals don't (at least, it isn't likely you will be attacked for one battery). But I would be a bit squeamish about taking a soldering iron to the battery.

FROM DAVE HARVEY
Yours is not the first to go. I've heard quite a few people say that their GS batteries lasted only one year and that they had to take the CPU into a dealer to have him replace the battery.

Satellite Scientific

Practical Peripherals 2400 Modem	$190
Avatex 1200HC Modem	$125
New - Avatex 1200e Modem	$90
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ON THE TRAIL OF THE APPLE ///

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

We start our column this month, /// SIGers, with the news that On Three has moved. It may not seem that big a deal, except for the fact that it's another indication that the /// market continues to contract and those still trying to support our wonderful machine are having trouble doing that (which is, of course, an indication we, the users, are NOT supporting the vendors).

On Three's President, Bob Consorti says in the June issue of On Three Magazine that while this is a "transition", it does not indicate On Three is going away. But he adds that:

"Our GS products, which we hoped would start carrying the burden, have not been selling as well as we had hoped. You see, in the Apple /// world, we create a product, advertise it and we get immediate sales—even if they aren't tremendous.

"In the Apple II market we create the product and then advertise it in someone else's magazine. We don't have the ability to directly mail to all the Apple II users as we do in the /// market. Because of this and the fact that it's next to impossible to get an honest review within a year of release of a product, our II products have been sporadic at best."

What Consorti is talking about here is the fact that the GS version of Desktop Manager has not been doing all that well. The AppleWorks folks have basically embraced other background utility products, such as the TimeOut series, despite the fact that they are USELESS outside AppleWorks. The beauty of DTM is that it will work with ANY GS application, just as DTM for the /// will work within any /// application.

Frankly, On Three does not have the finances to buy massive advertising like Beagle Brothers and the others can. That's a fact of life and if you can't advertise, you're not going to sell. Reviews, whether good or bad, are too few and in-between to really do much good in the long run.

So, the bottom line here is that On Three is moving, basically to streamline costs. Consorti stresses that there will be no change in service and support. Their full line of products and services continue as before. Here's their new address: On Three, Attn: Bob Consorti, 8920 Yolanda Ave., Northridge, CA. 91324.

The 800 line for orders remains the same (1-800-443-8877) but it is no longer a direct line to On Three. Instead, you will be getting an operator who will only be able to take your order and not answer any real questions (the operator is in Washington state). There is a new support line number, however, which is 1-818-701-1355.

Bob also tells me that there is a good chance On Three Magazine will be going to every other month, beginning with the September issue. There are only about 500 subscribers. If you are not getting this magazine, especially all you new /// folks out there, I would urge you to subscribe (currently $40/year). There are a number of excellent articles each month, and lately there's been a super series especially for new users.

Sykora Software

Lt. Dale Sykora keeps improving his Trackball Driver. This latest, and now last, version adds some additional features and cleans up any last-minute bugs. For our new SIG members, the Trackball is an excellent substitute for a mouse if you are interested in using one. The Trackball works from within any application, even Desktop Manager or PowerKeys, and is excellent for graphics programs, like our Sketchpad PD program (1012). It's $89.95 from On Three complete with Driver and the Trackball itself (that verses $160.00 for a //e mouse, which also works in the ///). Uses one slot.

Dale also reports that he is nearly finished with a GS version of the Trackball driver! He has not indicated who will market that for him, but we would also suspect On Three. Watch this column for availability.

July SIG Meeting

Our final SIG meeting of the summer was one of the year's best. Certainly the best turnout, with nearly 10 people in attendance, including some new ///ers. Much of the evening was spent answering questions and helping get folks up and running. We also helped one member, Jim Jentzin, get 3EZ Pieces set up properly for his system.

I know how difficult it is to get a system up and running, but I continue to believe that the /// remains an excellent home machine (especially for someone who has never owned a computer before). The cost is certainly right. Whole systems can be had for $500 and less. In many cases, I hear of or talk to people who were able to get a /// from work for free, since it usually is gathering dust in a closet somewhere. The /// does not deserve the closet. It deserves to be used and the home is the best place for it now (but don't get me wrong, there are still a number of folks, like member Joe Brown, who continue to use it at work.)

Software Sources

For our newer members who may not know, the best place to start looking for software is right in the WAP library. It can provide the help you are looking for. On the "hard copy" side, the WAP library offers a video tape tutorial for the ///, as well as a set of tutorial cassettes you can use. They may both be taken out with a deposit. There are also textbooks, like the McGraw Hill Guide to the Apple ///, that are an excellent source of basic information. The library even has manuals, technical information, magazines and other information.

On the software side, our PD disks are spectacular buys at $3.00 each. Most are self-booting and double-sided. Our excellent Menu.Maker program allows you to run any program directly or read any text file directly. And in our latest version, you can even print a file during or after reading that file.

So which PD disks should you begin with? When you become a member, you get one of the best disks around, our New Member Disk. It contains a wealth of information about the Apple /// from a basic description of what it is, to how to set up your SOS.Driver file. Beyond that, here are my recommendations for some initial disks to purchase:

1000: PD Catalog. This contains a detailed list of all our PD offerings and what each disk contains.

1004: System Utilities and Data. If you do not have this disk,

it is a must-have. This disk allows you to make copies, format disks, set the time and other functions. It also contains the System Configuration Program needed to set up your SOS.Driver file for your system. Includes additional drivers, character set and other items.

1005: New Member Disk.

1008: The Best of MAUG. This disk contains a wealth of information from the /// section of CompuServe. Good, basic information.

1009: The Best of The Source. More basic /// information, from the old /// SIG on the Source.

1010: The Best of TAU. Articles and other material from early editions of the Third Apple User's newsletter, TAU Tales.

1015: The Best of ///'s Company. How-tos for hardware and software, and other information from the ///'s Company BBS.

1013: A3 Diagnostics. If your /// has a headache, this disk may help you find out the source.

1014: Basic Boot Disk. Developed by member Jim Salerno. It contains a number of fine utility programs.

For those interested in word processing, we have a couple of offerings:

1006: Word Processing and WPL. This disk contains the 4.1 version of Apple Writer which was never issued by Apple. It includes a set of ///-SIG developed help files and other information.

1029/1030: Ink Well. Ink Well was recently placed into the PD by Foxware and is an excellent Basic-based word processing program. 1029 is the manual and 1030 is the actual program.

That should get you started. The library also contains games, utilities and much, much more. This month, I am happy to report that the final three disks in the Taylor Pohlman series are finished and now available in our library. This brings the /// PD offerings up to a full 30 disks. Coming next month will be two more Foxware programs and Daryl Anderson's PowerKeys DM+.

We continue our efforts to get other, former commercial programs placed into the PD and can report some luck in the past month or so. Watch The Trail for future announcements!

WAP TCS

I'm happy to announce that we have a new Sysop for our /// SIG board on the WAP TCS. SIG member Jim Suthard has agreed to take over the board's helm and work to get it back up to speed. The TCS is a fantastic resource for members, containing four separate conferences of 32 boards each. Our /// SIG board is on Conference #1. If you haven't joined up, it's only an additional $6 per year and a good way to learn the fun of telecomputing. Remember, you can get a good, cheap 2400 baud modem through the WAP Group Purchase program. The best communications program for the /// is called Com Manager from On Three. Or you can try TerminALL, soon to be in the PD library.

Finally

A belated thanks to all of you who voted for me during this last WAP Board election. I came much closer this time than the first go-around. Who knows, maybe by 1992.....

Smart Computer:

Our Generic PC, Built with Care and Intelligence

by Bud Stolker

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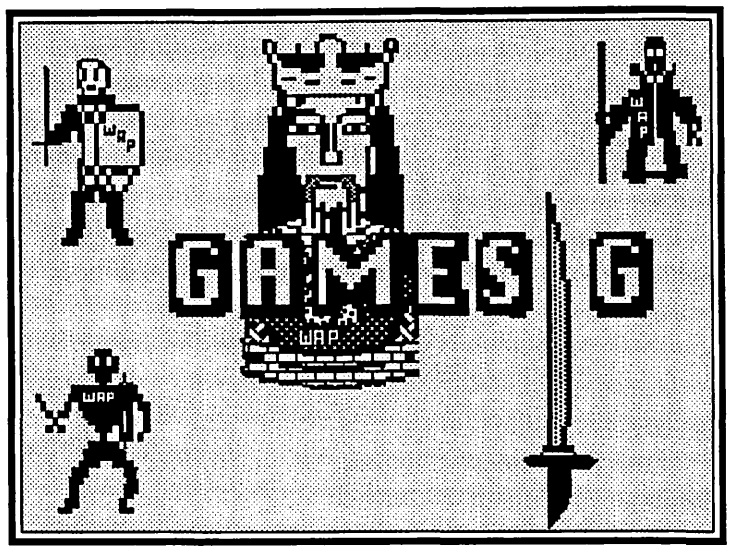
GameSIG NEWS
by Steven Payne



Guided by an urgent message from Gena the Wise, GameSIG members successfully completed their quest for the fabled Key of Urban (unlocking the gates to WAP Castle in the Kingdom of Bethesda) and held their regular monthly gathering in the WAP tutorial room on August 4th.

In a brilliant recruiting ploy, GameSIG Chairman Charles Don Hall began by requesting information for an updated GameSIG membership list. Then, with that incriminating data on record, he announced plans for the annual GameSIG-sponsored main WAP meeting on August 27th, and drafted "volunteers" to help with the details. Gaming celebrities expected to attend include Lord British and Steve Muchow from Origin Systems, along with representatives from Sir-Tech, Brøderbund, Infocom and Greene Software (publishers of "Crystal Quest"). Also on hand will be Roe R. Adams, III and our own Ron Wartow, serving as guest host. (Last month this hearty adventurer found Wizard Wartow alive and well near Fortress Woodhead in the land of Ithaca, tending his dreaded red porschebeast.)

Afterwards, GameSIG members will continue the celebration with their traditional party at the home of David Granite ("Doc Rock"). Look for detailed reports on these festivities in the next issue of the WAP Journal.

Next on the agenda was the second monthly "Robot Wars" tournament, using a beta-test version of Jeff Stetekluh's game, along with combatants designed by other members (Jeff's robot lost!). The meeting ended with our regular "Games People Play" segment, where members discussed their current joys and heartbreaks in **Questron II, Balance of Power** (with a few uncomplimentary asides about designer Chris Crawford), **Might & Magic** (Mac version), **PT 109, Defender of the Crown, Falcon, Wizardry IV, Ultima V, Bard's Tale III, Wasteland, Beyond Dark Castle, Orb Quest, Space Quest, Police Quest, Shadowgate, A Mind Forever Voyaging,** and **Alien Minds** (IIGS).

The only software distributed for review this time was **ZorkQuest**, part of the "Infocomics" series dissected by Charles the Benign in another article this month. (By the way, did anyone else notice how similar "Infocomics" sounds to Tom Hanks's allegedly brilliant new toy manufacturing idea toward the end of "Big"?) Meanwhile, look for additional GameSIG reviews of **Border Patrol, Defender of the Crown** (GS version), and **Dr. Dumont's Wild P.A.R.T.I.** elsewhere in the current issue. (Ed. Note: Three reviews of games from **Epyx** for the IIGS are also incuded.)

The next regular GameSIG meeting will be held on September 1st at 7:30 PM in the main WAP Office. Come and enjoy!

INFOCOMICS: A Review
by Charles Don Hall

Infocomics is the generic name for a newly-created series of products by Infocom. The first three are "Lane Mastodon vs. The Blubbermen," "Gamma Force in the Pit of a Thousand Screams," and "ZorkQuest: Assault on Egreth Castle." Each lists for $12.

As the packaging emphasizes, **Infocomics** are NOT games. Instead, they are computerized comic books; you watch the story unfold but have no control over the plot. To simplify viewing, there is a bookmark facility, and rewind and fast-forward controls. The big selling point seems to be that you can select the point of view from which you see the story. When the story begins, you follow the activities of one character. Shortly thereafter, this character will interact in some way with someone else, and the program will indicate that you may continue to follow the current character, or else switch to the point of view of the new one. By the middle of the story, there will be about half a dozen different characters meeting and separating. By the end, all of the threads will have come back together as heroes reunite and villains get killed off.

"Lane Mastodon" is a science-fiction story by Steve Meretzsky. The style is quite close to that of Meretzsky's game, "Leather Goddesses of Phobos," except that there is no sex in it. The consensus is that this Infocomic is by far the best of the three. "Gamma Force" is sort of a science-fantasy about a trio of superheroes, and I didn't enjoy it very much. In fact, the experience was so bad that I could never get motivated to boot up "ZorkQuest," a fantasy set in the world of the "Zork" and "Enchanter" trilogies.

The most disappointing thing about the series is the sheer lack of imagination that went into the plots. This may sound harsh, but it really seems as if 90% of what happens involves characters: (1) running around at random; (2) shooting things; or (3) casting "Lightning Bolt" spells at things. This seems awfully unfair to the reader. I mean, *we* weren't allowed to finish "Starcross" and "Stationfall" by taking the laser gun and using it to blast open every locked door and kill everything that moved. Why should Infocom be allowed to get away with it? In "Lane Mastodon," for example, I counted exactly three times that characters demonstrated any kind of ingenuity. (One character disguised himself as another, one character secretly changed some settings on the dreaded "Enlarger Ray," and this same character also

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escaped from a prison cell by running electric wires to a grate, so that the sparks would blast the grate open. This doesn't work in real life, by the way.) The humor is also somewhat lacking. I laughed myself sick in "Leather Goddesses of Phobos," but laughed out loud exactly once in "Lane Mastodon," at the line "I can fix anything with my sonic hammer!" By way of comparison, in what I read of "Gamma Force," there are no jokes, and no one shows any problem-solving ability whatsoever.

The second most disappointing feature is the progam's big selling point: the ability to change your point of view. Once the novelty wears off, you realize something terrible, which is best illustrated by the printed documentation that accompanies the programs. In the first panel, the wizard Aksys is having a disagreement with the monster Gordo. They separate, and you are given the choice of following one or the other. If you follow Gordo, he wanders off and lies down on the grass to rest. Suddenly, he turns into a newt! Your next step is to rewind and follow Aksys. You'll discover that there aren't any big surprises. I went through every pathway in "Lane Mastodon" and by the time I was down to tracking some of the minor characters, I felt like the victim of some exquisite Oriental torture. I only followed a few of the main characters in "Gamma Force" before I got fed up.

Since each program fits on one double-sided disk, the graphics are pretty crude. For the most part, pictures are all displayed as collections of vectors, and color is used only rarely. I was reminded of James Thurber's cartoons. Although there is a lot of well-done zooming and panning, this isn't a good program to boot up when you want to impress your friends with what your computer can do.

BOTTOM LINE: The most easily remedied flaw in **Infocomics** is the weakness of the plots. However, if more imaginative plots were developed, the point-of-view switch would still get in the way. The software would be much more entertaining if this were taken out. Then, the authors could use the tried-and-true technique of making the story a series of "cliffhangers," where one group of characters gets in a jam and the point of view is abruptly switched to a different group. But once you've done this, what do you have? For the $12 list price, you can buy 12 to 15 real comic books, or go to a discount bookstore and get a comic book anthology such as one of the "ElfQuest" volumes. These have several advantages: the graphics are better, the total story length is greater, you don't have to flip disks from side "A" to side "B" and back, and you can read them in bed instead of having to crouch over a hot computer. Quite simply, comic books are non-interactive entertainment, and computers aren't the appropriate medium for such things.

BORDER PATROL: A Review

by David Wood

You're just leaving the Iron-Curtain country of Frobnia, and you're getting ready to cross the border, when someone identifying himself as an American agent gives you a document warning of an assassination, and tells you to get it to a contact at the train station. Then you're the American agent in the previous situation, trying desperately to get across the border yourself. Finally, you're a KGB agent, trying to stop the assassination warned about in the document above for your own personal reasons, while having to contend with the American agent mentioned above.

Sounds like Robert Ludlum developed a split personality? Have Ian Fleming and Rod Serling collaborated on a posthumous project? Infocom thinks not, for the three descriptions above are taken from the introductions to the three chapters of their game **Border Patrol**. Yes, you play the main character in each chapter.

The second special characteristic of these stories is the time display on the right side of your status bar. Time of day (or night) plays an important part in each chapter, as events occur around you. A car navigates a road in real-time, the train comes into a station at the same time (you've gotta admit, Frobnia runs their trains by a tight schedule!), the assassin fires at a chosen moment. Things happen around you in real time, and the only control is the commands you type in. The fast typists will have a little edge, but the slow ones will thank Infocom for including a command to slow time.

The third special effect is the Invisiclues section. If you're stuck someplace, you can type HINTS twice (the first time, it prints a little message to kickstart your willpower) and then get clues to answer whatever question is bothering you. With these, Charles Don Hall got through it in two days. I, uh, would rather not say how I did.

The fourth effect is actually the collection of props Infocom includes with each game to keep it from being just another text game. This one included a phrasebook and tourist's guide ("Thank you" = *Prep tipna;* "You're welcome" = *[no translation]).*

There is a fifth effect which only comes into play in the second session. The status bar consists of several text lines, and when you do something (important if you want to finish), it will show you in text-graphic representation what you're watching. It's a small effect, but one that enhances that chapter and provides some semblance of action, and not with any memory-chomping graphic system either.

It's Infocom, it's entertaining, it's witty in places, and it provides some considerable challenges. It also has a few problems (what program doesn't?). First, each chapter consists of one major task, composed of lots and lots of little puzzles—a bit small. Infocom originally started producing text adventures over graphic ones because they could put more detail into descriptions and plot. And in this one they put a real-time parser and three hint books?

Second, if your game is ended due to death, arrest, or just incredible delays (and in an Infocom game, expect it to happen at least twenty times until you figure out exactly what's going on) you have to restart the game virtually from scratch. This involves inserting side 1, waiting several moments, and then flipping the disk to the game side for a few more moments. The delay between game finish and game start is another temptation to use the on-line hints. You should have a second game-save disk ready so you can restore to the start of each chapter; RESTARTing takes a few minutes, but a RESTORE is measured in seconds.

I think they overdid it slightly with the on-line hints, but the

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game has the right Infocom-esque stuff: witty descriptions and difficult puzzles. It didn't have tremendous graphics or sounds, but then again, it's not supposed to.

LOOK: N/A (It's a *text* adventure. Whaddya want?)

FEEL: 9/10 (In a text adventure, non-obvious commands are a nuisance. **Border Zone** didn't have any. Good.)

PLAY: 8/10 (They would have had longer chapters if they didn't include the temptation of the online hints.)

OVERALL: 8/10 (A chain is only as strong as its weakest link. I usually give the lowest mark from the three above.)

DEFENDER OF THE CROWN (GS): A Review

by David Wood

"It is a time of legends. A time for heroes. A time of bitter strife, when great men rise above their peers to perform great deeds. A chapter of history is in the making." This is the first paragraph of Master Designer Software's presentation of **Defender of the Crown**, and it describes the game accurately in several ways.

The king passed on, leaving no ruler in his place. This has caused considerable trouble, as his three Saxon and three Norman knights (you play a Saxon) battle for power over Britain. To win, you must take over the three Norman keeps in the south.

To aid you, you can raise armies, attack and take territories to increase your income, hold jousts to improve your leadership and maybe win land, and raid and sack castles. Also, your friend Robin of Locksley has promised to help you three times in your (uphill) quest for the throne.

The game isn't easy. The Norman pig-dogs are richer, they're often better jousters, swordsmen, or leaders, and there's a knack to each event that takes time to master. In jousting, for instance, you have to hit as close to the center of your opponent's shield as you can while he's moving at you. Siege is somewhat simple, but you have to know a few things to do it effectively (for instance, you have to knock down some of that castle wall before you can launch that dead horse). Swordplay is so simple and straightforward that I'm not even sure there *is* a knack to it—I can't tell you how many raids I've been caught on.

The game is also rich in details that make me glad I got a IIGS. The castle shots in the game were taken from pictures and embellished beautifully. The pictures of the jousting lists are also impressive. There are also four damsels in distress, one of which might show up in any game, and if you can successfully raid the castle where she's being held, well . . . .

There's music and sound too. Each type of action has its own introductory theme, and while the arrangement is sort of interesting, they only use one instrument. I was a little disappointed when the trumpeters showed up unaccompanied by a characteristic *blat-bla-bla-blat*. There were other sound effects as well, like the *poong* of lance hitting shield, or the *crumble* of boulder smashing into castle wall during a siege.

The electronic wargamer should like this game because of its strong strategic element. Let's face it—with all this action and detail in the background, it's not hard to forget the main task of the game: to be the Saxon who takes over all three Norman castles.

Defender of the Crown, as I said, is a Cinemaware production from Master Designer Software, distributed through Mindscape, and the GS version takes (hang on to your hat) 768K of memory from two disks. It is not copy-protected, so it can be backed up and put on a hard disk if you like. [NOTE: If you put it on a hard disk, make sure you put TOOL.026 into your SYSTEM/TOOLS folder. Tool 26 is the Note Sequencer, and **Defender of the Crown** is the first game I've seen which uses it. It can also be started from the Finder, and in fact, the Finder comes on Reel (disk) 1. If you have the memory, I highly recommend it. I bought my copy, and if I didn't like it, I'd blast it into flaming itty-bitty little pieces.]

All in all, it's a well put-together package full of action, thought, and to some degree, excitement and a sense of accomplishment when you finally give the Normans the boot.

LOOK: 10/10 (tremendous graphics and good music, even though there's only one instrument)

FEEL: 10/10 (the whole thing is played by mouse, and it feels natural, smooth, and somewhat instinctive)

PLAY: 9/10 (the computer is a rather simple player, and once you learn its strategy, the game loses something)

DIFFICULTY: 9/10 (not only is strategy important, but good reflexes as well. And how many have mastered both?)

OVERALL: 10/10 (an excellent package—this movie on a disk does not disappoint!)

DR. DUMONT'S WILD P.A.R.T.I.: A Review

by Steven Payne

Some months ago you may have read about *RAGER*, a forthcoming all-text adventure by Michael and Muffy Berlyn, the same team that brought you Infocom's *Infidel*, *Suspended*, and *Cutthroats*, as well as *Oo-Topos*, *Cyborg*, and *Tass Times in Tonetown*. Now the game has finally appeared, but as *Dr. Dumont's Wild P.A.R.T.I.* (First Row Software, Mac, $39.95 list). The name change may be no improvement, but the game deserves serious consideration, especially now that Infocom seems to have ceded the all-text adventure field to its competitors.

Those who have played the earlier programs won't be surprised to learn that once again in *Dr. Dumont* you are connected up to a computer, which affects what you experience during gameplay. This time around, you begin as an unsuspecting college student, headed off to physics class with Dr. Dumont (as in Margaret?), whom you find showing the Marx Brothers' "Duck Soup" to an empty classroom. Excited by your arrival, Dumont shows you his latest project in particle physics: a

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contraption called L.E.T.S. P.A.R.T.I. (Laboratory Experiment and Theoretical Study Using Particle Accelerator and Reality Translation Integrator), which links the university's cyclotron to an Artificial Intelligence computer and a human subject hooked up inside a black shell. The purpose of this setup, Dumont explains, is to view the elusive particle "X," with its millisecond lifespan too brief for the usual methods of observation. By loading metaphors of what is happening in the cyclotron into the brain of a human "subonaut," and monitoring the subject's thought processes, PARTI will learn to observe sub-atomic events on its own, and the subject will be free to return to the ordinary world.

Needless to say, while trying the shell on for size, you accidently close the lid, and become the human "subonaut" yourself. Now your adventure really begins! You find yourself projected into an environment strangely familiar yet disturbingly different. You first "wake up" seemingly at home in bed, yet your usual furniture now turns out to be two dimensional, merely perspectival paintings on the wall. After looking around, you leave the house heading west (don't forget to dress!) and step into a computer-induced world of crazy images, consisting of equal parts physics, Zen, and the Marx Brothers. The basic geography is laid out like the spokes of a wheel, with a lab at the hub and different mini-adventures branching off from there at each of the eight compass points (so simple that no mapping is really necessary).

From the lab you should head immediately north to the "School of Thought," where you meet Professor Parti, sit down at your desk, and learn what you must do to escape from this strange "dream." Your objective is to find five keys scattered throughout the game, which (when inserted and turned in the desktop) entitle you to a diploma from the school; clues for your quest are given in a set of five koans (e.g., "What is the sound of one duck quacking?") which you can refer back to at any point. Once graduated, you can use your diploma for admission to the "Point of View Theater," where you finally get to see "Fred, a Star" (alias particle "X") perform. When this happens, it means that PARTI has now learned to observe particle "X" by itself, so you quickly grab up some of additional items needed to "snooze" your way back to reality, head for home, and wake up where you started, happy in the knowledge that you have finished the game, achieved a major scientific breakthrough, and made the world safer for all-text adventures.

So off you go to look for the keys. But before you leave the School of Thought, you should first check out some of the other classrooms, where you will find Dr. Chaos Cohen (i.e., Groucho) presiding over a philosophy class, Dr. Gravity (Chico) giving instruction in metaphysics, and Lorenzo 'Buck' Way (Harpo) teaching Zen meditation. Each of these Marxists has an item you will need (and two of them together will help you get the third). From there on you can solve the puzzles in virtually any order, since most of the subsequent mini-adventures are more or less self-contained. As the game progresses, you will visit an Agricultural Fair, the Planetarium, the Science Art Museum, your old neighborhood, the catwalk and dressing rooms backstage at the Point of View Theater, the Blue Prairie and Kite Race Course, plus several other locations. Along the way, you will learn at least a little about light, heat, astronomy, tachyons, etc., but the education is relatively painless, and requires no advanced knowledge of physics. To describe the locations and puzzles in any more detail might spoil the game for potential players. Suffice it to say that *Dr. Dumont* has a quirky, whimsical sense of humor throughout, with a fair number of surprises.

The Mac version of *Dr. Dumont* (it is also available for IBM compatibles) comes on a 400K single-sided disk and is not copy-protected, though you would have a difficult time finishing without some crucial information contained in the documentation. The parser seems very sophisticated, though once in a great while you get odd feedback (such as "what do you mean, the chair, the chair, the lower seats or the seat?" in response to the command "type 'chair'"). The game allows for four saved positions, which can be restored directly at any time by simply typing "restore" and the number of the saved game in question. These are easily accessible from a pull-down menu, though if you're not careful you may click on "save" when you mean "restore," thus writing over the saved position you really want. (There is also a curious "0 point" font option in the style menu, which doesn't seem to do anything; I thought at first that it might be a "super-duper-brief" mode, or a "maximum difficulty" setting for diehard adventurers who want to try finishing the game without even being able to read the text!)

I suspect that *Dr. Dumont* is intended for beginners and intermediate-level adventurers. The game is not too difficult. Sometimes the puzzle solutions seem a tad arbitrary. (For example, why are flying glass shards stopped by a blanket and not a pillow? Why can't an aggressive cat be placated with milk?) Yet I was able to solve most of the puzzles before realizing that some on-line hints were available by "meditating" on the proper objects with the proper equipment. My main complaint is that the game seemed a bit too small, and was over too quickly; I'm not sure either that I ever fully grasped the logical connections between its parts, the significance of some its images, or the underlying scientific principles.

The packaging of *Dr. Dumont* is fairly basic and unimaginative. Its worst feature is the Player's Manual, which gives you no clue about what to do with the Zen-inspired features of the game, and is full of typographical errors. It ought to be redone, and soon! But all things considered, *Dr. Dumont* is well-constructed and enjoyable all-text adventure. Thanks to the Berlyns for helping to keep a venerable tradition alive and healthy!

WINTER GAMES FOR THE IIGS (EPYX): A Review

by Dunham Swift

"Winter Games" is a set of six winter olympic type games featuring Ski Jump, Bobsled, Figure Skating, Freestyle Skating, Hot Dog Aerials, and Biathalon competitions. You can play by yourself in a "practice" mode or play from one to eight players competitively. Winter Games provides judges, keeps score, and awards medals (Gold, Silver, and Bronze) to the winners. If you break a "world record" it keeps track of the highest score attained for each sport. Games can be played with either a joystick or keyboard, but the joystick is best for all except the Biathalon (cross-country) competitions.

From an entertainment standpoint this set of games is best when you play against other players. If there's competition there's fun, with some zany, humorous, and dramatic falls and spills. (Unless, of course, you're able to navigate all maneuvers correctly each time—not likely for most of us!)

I put the games through the "kids test" with my 6 and 9 year olds, along with some neighbors the same age. Throughout a week's period they played one to two hours at a clip and would always return later for more. They appeared entertained, (lots of laughs) as well as challenged. The general consensus was they favored Ski Jump, Hot Dog Aerials, and Bobsled, in that order. The skating games seemed to require detailed attention to skating movement dynamics in order to receive any score at all. Takes a lot more practice to get this one right. The Biathalon is sort of slow and tedious and requires alternating left/right movements of the joystick to move the skier along. It also takes between 5 to 10 minutes to complete each turn. It's still fun and is interspersed with some clever rifle target shooting and is pulse rate sensitive. (Chances of hitting a target are less when the skiers pulse rate is too high.)

Winter Games is an entertaining program with enough variety to keep your interest when competing. The graphics and music are good and the olympic setting and background are cleverly done. Each game provides its share of eye-to-hand and timing coordination, as well as some fundamental lessons in techniques. For the kids, I recommend it. For adults, it depends.

WORLD GAMES FOR THE IIGS (EPYX): A Review

by Al Hoffman

World Games is an Olympics-like sports simulation that allows from 1 to 8 competitors to compete in up to 8 regional sports events. Action is controlled either by a joystick or the keyboard (but not the mouse). Strategy is equally as important as a fast finger on the fire button.

The greatest strengths of World Games are the outstanding graphics and sound that fully take advantage of the GS' capabilities. The only major weaknesses are that it doesn't support the mouse and one must read the manual (it's short). My one nitpick is the advertisement for Continental Airlines at the beginning of each event—if Continental had really transported the contestants they would have lost their luggage and the games would be called the Nude World Games.

In each of the events one can compete or just practice. I found Slalom Skiing the most challenging event, and never completed the course on my feet even after several practice runs. I might have done better had the window with the close-up of the course given a better preview of the upcoming gates.

The funniest events were Caber Tossing (the Scottish version of C&P installing telephone poles) and Barrel Jumping. The easiest were Cliff Diving (although I still can't tell the difference between a fault and a good dive) and Weight Lifting. The latter was a great confidence builder and quite realistic. Log Rolling was a lot of fun but the scoring was somewhat counterintuitive—I got more points for losing fast than for winning slowly.

The awards ceremony for each event and the championship ceremony at the end of the games are well done. All in all I enjoyed World Games so much that I'm going to get a joystick.

EPYX SUB BATTLE SIMULATOR: A Mini-Review

by Paul Tarantino

Sub Battle Simulator, a new IIGS-specific game in Epyx's "Master Collection" series, enables you to act as skipper of one of six different WWII submarines from either the American or German navy, with missions ranging in complexity from basic "target practice" against an escorted convoy to extended campaigns covering extended periods in the war. The game appears to have been initially written for other computers (the manual is for the Atari ST), but reference cards are provided for the IIGS, and the game is very user-friendly to anyone familiar with the standard IIGS interface. The game can be run almost entirely with a mouse, although alternate keyboard commands are also available.

These features make it easy to get started and stay entertained by Sub Battle Simulator without having to go too deeply into the 31-page manual. My twelve- and ten-year-old bangert testers were up and running (although the boot-up process is as long as usual for IIGS software), launching torpedoes and evading strafing aircraft, before they even found the instructions. Wargaming enthusiasts will doubtless appreciate the finer points and the technical differences among the submarines available for command. Graphics and sound were typically good basic IIGS stuff, adding to enjoyment without being a distractor for what is fundamentally a tactical simulator rather than an arcade shoot-em-up.

Good game. Sub Battle Simulator requires a 512K IIGS, and comes on a single copy-protected 3.5" disk. List price is $39.95.

LETTER TO THE EDITOR:

Powering Down the Mac II

I have found an interesting "feature" in the Mac II that I thought I'd share with your readers. One day one of our people decided to run the switcher on top of MultiFinder on our Mac II. Not surprisingly, the system became very confused and promptly locked up. "Oh," I exclaimed, "we should shut the sytem down and reboot." The problem with this idea was that the window system, along with all keyboard and mouse input, had seized up. The power-on button (located at the top righthand side of the keyboard) was useless.

Taking authoritative charge, I said, "Right... hit the power

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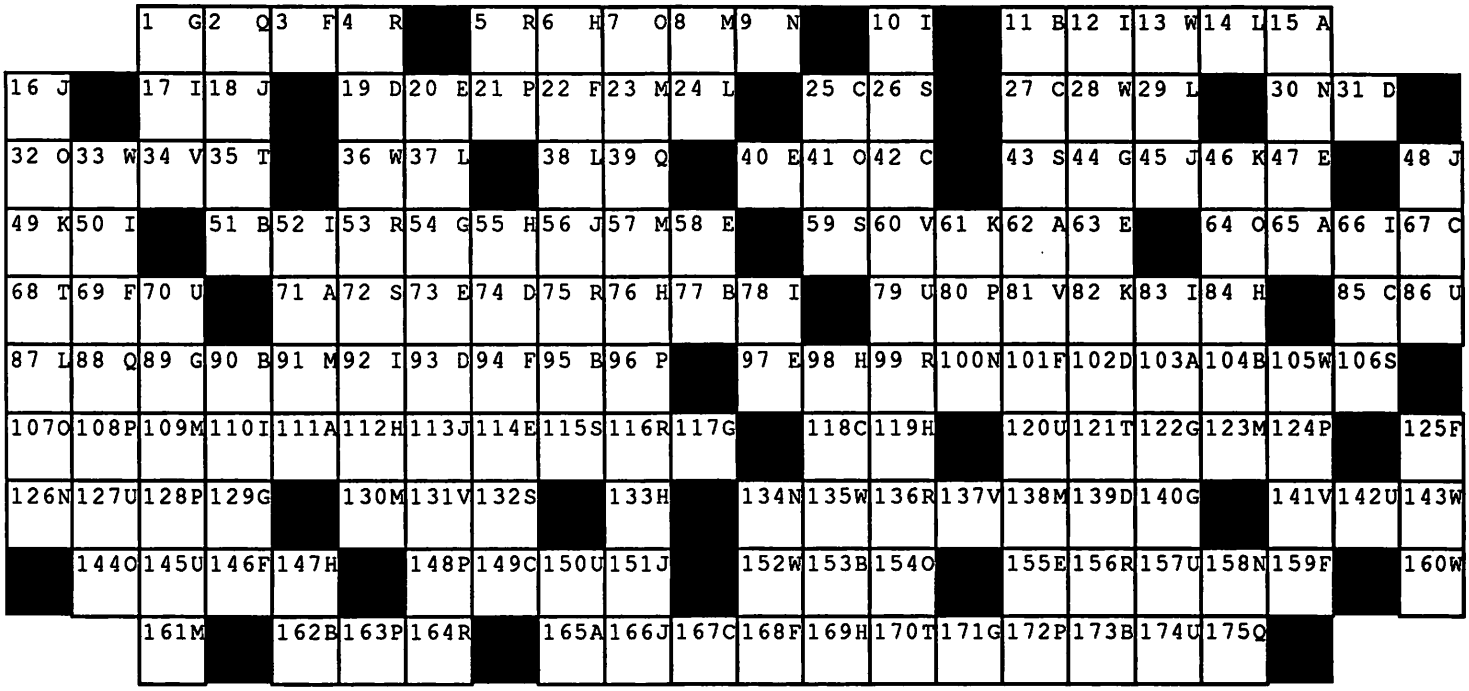
WAPACROSTIC
by Dana J. Schwartz

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



Definitions	Words
A. Most Yielding	165 15 65 62 111 71 103
B. Nautical Center	95 162 173 90 11 153 104 51 77
C. African Capital (2 wds)	167 149 85 42 118 27 67 25
D. Table Vessel	19 139 102 74 31 93
E. Dry, Rough State	20 40 73 155 114 97 47 63 58
F. Terminal Malady?	159 125 69 146 168 22 3 94 101
G. Uncommon Objects	140 89 54 171 129 44 122 1 117
H. Countrywide State	76 133 147 55 98 112 169 6 119 84
I. Entwine	17 92 66 78 52 50 12 10 110 83
J. Policeman (sl)	48 151 166 113 18 56 45 16
K. Anguilli	49 61 82 46
L. Check Again	14 29 38 87 24 37

Definitions	Words
M. Give Too Little Food	57 109 123 91 161 130 23 138 8
N. Themes	134 126 30 100 158 9
O. Hypercard Primitives	7 64 144 154 107 32 41
P. Make Up	128 21 148 108 172 163 80 96 124
Q. Bird Comic	88 2 39 175
R. Bonding	136 75 99 53 116 4 164 156 5
S. Progress Beyond	115 72 43 106 132 26 59
T. Lustful Look	35 68 170 121
U. Not Productive	127 70 79 86 142 157 120 174 145 150
V. "__" Yellow	141 60 81 34 131 137
W. Arbitrator (var)	105 33 143 160 13 36 135 28 152

ANSWERS TO LAST MONTH'S WAP ACROSTIC

I have decided to step down as president of WAP. I have been President for three years, and it has been enormous fun and quite an honor to work on your behalf. This is a wonderful organization with a great number of truly outstanding people in it.

Author: Tom Warrick
Work: On Being President
Source: President's Corner - WAP Journal - June 88 p4

Words

A. Tariff	H. Inferno	O. Inweave	U. Shires
B. Orphan	I. Chromizing	P. Nontenure	V. Inhaled
C. Misquotation	J. Kneadable	Q. Ghetto	W. Downhaul
D. Wrought	K. Outward	R. Paradise	X. Edified
E. Athens	L. Nationwide	S. Radios	Y. Nonstop
F. Refuses	M. Bobbsey	T. Eventful	Z. Taunted
G. Rotatory	N. Eyepopper		

INTERNATIONAL CODES - Their Implications for U.S. Competitiveness in Computers: A Preliminary Assessment

by Joseph A. Hasson

Technological changes in communications, based on fiber optics, can revolutionize the whole field of telecommunications. Such a technological revolution would have a drastic effect on costs of transmitting information over both short- and long-distances. It would constitute a giant step in the direction of the international integration of world societies.

In a recent article (WAP,7/88), I focused on U.S. trade in information technology services. These were subdivided into four major categories including (i) software, (ii) telecommunications, (iii) data processing and (iv) information services. In each of these categories which constitute one form or another of computer-based services, the United States has an export surplus—that is, the U.S. derives greater revenues from the sale to the rest of the world of computer-based services than it spends for such services furnished it by foreign sujppliers.

This is a highly significant finding. The billions of dollars involved contribute to our balance of payments position—specifically, our balance on current account. Also, they indicate that the United States has been able to maintain a comparative advantage and a competitive edge in the provision of such services. (The concept of "comparative advantage" is a complicated one in economic theory. There are several theoretical approaches for explaining it in international trade theory. The original and oldest one is known as the Ricardian Theory. It is good theory, in part, because it explains much with such few assumptions—a good characteristic for a theory to have. Another good quality for a theory to have is the validity of its predictions. I will not enter into an esoteric discussion of the extended meaning of Comparative Advantage here. Briefly, however, it implies that the costs of goods we produce and have a comparative advantage are relatively lower than in other competing competing countries. These lower costs may arise from a more efficient use of labor, a higher level of technology, etc.) The main point here is that such comparative advantage translates ultimately into American jobs, the maintenance of a higher standard of living, an ability to provide the American people with a wide range of services that affects its educational level, its health, a benevolent environment which can be passed on to future generations, etc. Beneficial ripple (or multiplier) effects occur and spread throughout the American economy and society.

It is because of our comparative advantage and the threat to it from foreign competition that the U.S. has become so involved in foreign trade negotiations under the Uruguay Round in Multilateral Trade Negotiations. It is making great efforts (1) to protect U.S. intellectual property rights in world markets and (2) to call special attention to the international flow of services. In both instances, the U.S. seeks to have the international community evolve and adopt Codes of Conduct that would govern Nations' behavior.

There is no divine law—to my knowledge—that insures that one civilization will maintain its world leadership position forever. In fact, the lessons history teach us run contrary to that thought. (See works of Arnold Toynbee, Spengler, Paul Kennedy.) Still, we like to think that to some degree we are the "Captains of our Fate, The Masters of our Soul." (If we are Captains of our Fate, we need to have well-thought-out goals. If we have those goals, then we must wisely use the means available for attaining them.)

Intellectual Property Rights

The fact is that among our trading partners some deny American goods access to their markets, steal our ideas and technologies, and, in that way, seek unfair competitive advantage over us. Because of those unfair conditions, the U.S. is seeking to have the international community commit itself to a Code which will deal with Intellectual Property Rights—patents, copyrights, mask works, trademarks, etc.

Negotiating such a Code involves a vast array of complications. For instance, is there a universal definition and corpus of rights associated with the word "patent" or copyright"? There may be differences among nations with different legal systems and different social and economic backgrounds. If an international agreement is reached will national legal systems have to be altered and reconciled with the new international code? If an international code is agreed to, will there be an adequate internationally based dispute and enforcement system? There is currently within the GATT (General Agreement on Trade and Tariffs) a dispute settlement procedure and mechanism. But that was devised to handle disputes from trade in goods. Within the realm of intellectual property rights, we are dealing with services that can be provided and property rights that are intangible and difficult to define. A dispute settlements system devised to deal with goods may not be workable when dealing with intangibles and legal rights. Hence, if the international enforcement and policing of intellectual property rights is to be meaningful and effective, existing institutional arrangements may have to be redefined.

The problem of altering institutions becomes still more complicated since we cannot foresee the future with accuracy. New technologies will evolve; new relationships will be defined; new rights will be created. Arrangements entered into in the present may be susceptible to change in order to continue a desired level of protection. Hence, provisions must be made for a reassessment and even amending forthcoming arrangements.

In earlier decades, national and international arrangements for protecting intellectual property rights were considered quite satisfactory. The U.S. and other countries have had their national patent, copyright and trademark laws. There has been a complex network of international argeements and conventions. These have enjoyed a fairly broad consensus. More recent agreements have benefitted from and reflect revisions of earlier ones. There have been periodic modifications as new technologies and conditions have evolved. There has been a quantum jump in the

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volume of goods with an intellectual property right content that has entered into international trade. New players have entered into the playing field of such rights. The result has been that earlier arrangements are no longer considered sufficient. Theories of international trade flows based on natural resource content may no longer be viable when the major content of goods is intellectual property. American goods protected by patents—product and process—have increased both in value and volume. Existing international conventions and agreements do not contain adequate standards or powers of enforcement. Agreements need to be revised so new conditions—i.e. technological changes, expanded use of and trade in intellectual property rights—can be better dealt with. Because of these and related deficiencies American owners of intellectual property rights have, as noted, been losing billions of dollars.

In 1986 alone, world-wide losses were an estimated $23,845 million. These losses are broken down into several categories: (i) export losses. (ii) domestic sale losses because imports violating intellectual property rights displace domestically produced goods and (iii) losses of royalties and fees not paid by pirates and counterfeiters. But these account for direct and not for the indirect losses; they do not take into consideration losses arising from diseconomies of scale as production volumes are reduced. Pirated or counterfeited goods may have shorter useful lives and be replaced more frequently. In addition, users of pirated/counterfeited goods can experience unexpected, costly and, often, dangerous consequences: helicopters can crash; pacemakers can fail to work; blue jeans don't stand up as well and may disintegrate after a limited number of washings; shoes do not stand up so well; etc. There are also costs involved in tracking down and apprehending pirates and counterfeiters. Apparent savings are converted to real losses. Hence, estimated world losses of $23.9 billion is probably an understatement of true losses.

The $23.85 billion world losses can be allotted among major losers. These include the following industries (shown both in billions of dollars and percent of total world losses).

Industry	Losses (billions of dollars)	Percent World Losses(%)
Scientific & Photographic	5.09	21.35
Computer and Software	4.13	17.32
Electronics	2.29	9.59
Motor Vehicles and Pts.	2.19	9.20
Entertainment	2.06	8.64
Pharmaceuticals	1.91	8.0

Other world industries that have sustained lesser losses include Chemicals, Petroleum Refining and Related Products. Estimated losses sustained by the United States in 1986 are broken down as follows (in millions of dollars):

in exports	$6,161
in domestic sales	1,795
in royalties and fees	3,115
Total losses	$11,071

U.S. losses, therefore, were close to one-half of the total world losses in 1986. Major U.S. industries hit by losses of exports were (1) motor vehicles and parts, (2) electronics (3) computers and software. The major industries with the heaviest losses in domestic sales were (1) industrial farm equipment, (2) motor vehicles and parts, (3) textiles and apparel and (4) chemicals. Those that lost most heavily in foregone royalties and fees include (1) entertainment, (2) computer and software and (3) pharmaceuticals.

These losses can be translated into jobs lost. The available estimate of just more than 5,000 jobs impresses one as an understatement and implies that additional research in this area is required. The biggest pirating-counterfeiting countries in computers and software were Taiwan, Mexico, Korea, Brazil, India, Singapore, Thailand, Argentina. Other countries may have been involved in computer and software pirating except that detailed breakdowns are not available.

(in thousands of dollars)

Taiwan	530,000
Mexico	15,250
Korea	20,000
Brazil	528,000
India	3,250
Singapore	26,000
Thailand	2,000
Argentina	5,150

Intellectual property rights play a role in the U.S. not only for its place in our trade balance but also because their protection is considered essential if the U.S. is to maintain its technological edge and compete in world markets. In addition, available data suggest that the problems of protecting intellectual property rights have increased over the past 15 years.

The data cited above was collected in a recent survey of the U.S. Internatiuonal Trade Commission. In that survey, 41 percent of respondents to a questionnaire circulated among American business firms with 84 percent of the losses from intellectual property rights' violations observed that their losses have increased over the past 15 years. This deterioration can be attributed to an expanded volume of international trade, to an enhanced productive capability of countries with inadequate protection and to increased activity of U.S. firms in foreign countries. In addition, American firms have become more aware that profitability possibilities exist in trade of goods embodying intellectual property rights.

American business firms feel that a greater share of their overseas business is at risk because of intellectual property rights violations. In fact, U.S. firms carrying out the greatest share of business abroad expect that their losses from this source will increase over the next five years. In general, the largest firms, already experiencing the largest losses, are the very ones that expect their losses will increase still more.

We have noted that differences exist in the intellectual property right laws of different countries We note a few. More specifically, in computers and software, varying degrees of protection exist in different countries. In Brazil, a General Law adopted in December, 1987 protects computer software. Further provisions covering computer software are found in its Copyright Law. In fact, authors of computer software have enjoyed protection under the Copyright Law for 25 years. Foreigners domiciled in Brazil enjoy the same protection as native Brazilians so long as their countries extend equal protection to Brazil-

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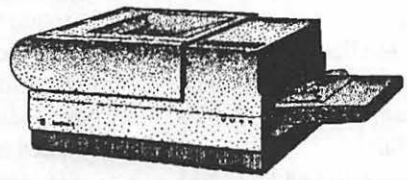

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ians. This is the Principle of National Treatment under which protection accorded foreigners in one country is of the same order as protection accorded nationals of the first in the foreign country. In addition, a computer program protected in Brazil to be commercialized—sold for profit in the open market—must, first, be registered with a Special Secretariat; it must conform to established national standards. Programs of non-nationals to be eligible for commercialization in Brazil must be "run" on hardware manufactured in that country. The copyrighting of computer programs is enforced through penalties for violations: six months to 2 years imprisonment and a fine. Importers of computer programs who commercialize them without proper authorizatin may be fined and imprisoned for one to four years. There are, also, provisions for search, seizure and the issuance of temporary restraining orders.

Korea has a computer program protection act which grants copyright protection to computer programs of foreigners only if Korea is under a treaty obligation to grant such protection. Protection is granted if the program is first published in Korea (or not more than 30 days from first publication in another country). The Act grants computer program protection for a term of 50 years from the date of creation. A computer program is defined as, "a manifestation of a series of directions and commands used either directly or indirectly in the computer in order to achieve a specific result." If there is infringement of the computer program's copyright, the owner may demand cessation of the infringement and destruction of any products resulting therefrom. The owner is entitled to damages equal to the "amount of loss suffered by the owner." Computer programs must be registered for a copyright to be enforceable.

How does one estimate losses a country sustains because of counterfeiting? One must assess the effects on sales, prices, total revenues and profits of the legitimate producers? There are methodologies for deducing such estimates A complete answer would be prolonged and complex. A model would be required, for instance, to estimate losses of unit sales by legitimate producers because of counterfeiting. The effect of counterfeiting on the prices of legitimate units would be estimated. Counterfeiting would shift demand from legitimate goods in some measure. Not only would the demand shift have to be estimated but, in addition, some quantitative measure of demand elasticity would be required. It would be necessary to estimate their losses in royalties and fees from the licensing of their products. If legitimate production were reduced—and it would be—what effect would this have on costs of producing goods with intellectual property rights. The probabilities are that such costs would increase: there would be a reversal of what are commonly known as "economies of scale." In addition, there would be a disincentive to undertake a research and development effort that could contribute to reduced cost levels. All these and more variables would have to be identified and quantitative estimates attached to them. Anyone who has developed estimates, based on market analysis, changing technologies, etc. will realize that considerable margins of error enter into arriving at such estimates.

International Code on Services

A second plank in international negotiations that has considerable U.S.support deals with the development of a Code for Services. On November 4, 1987, the U.S. tabled a "framework agreement on trade in Services in the Uruguay Round of Multilateral Agreement." When the proposals were presented, the Special Trade Representative observed that we "need a set of enforceable rules to cover services because this sector is the fastest growing in the U.S. and the world." While the increased demand for services is related to the growth of goods, there is also an independence between the two sectors. That is, with the greater integration and interdependence of the world economy, there are financial, capital and service flows that are unrelated to the flow of goods. They may be affected by anticipated changes in exchange rates, interest rate differentials among countries, by differences in the costs of the services, risk factors, etc. This condition has complicated the task and theories of economists for explaining these phenomenon. The flow of goods can be explained by alluding to natural resource differences among countries, to relative differences in wages, productivity, factor intensities of goods exported and imported, differences in levels and rates of change in income. These factors may not "play" when we attempt to develop a theoretical framework for explaining the international flow of services.

Currently, no rules within the GATT deal with services flows. Hence, the U.S. has attached a high priority to the development of a set of rules. This is understandable when we consider, even in summary fashion, the magnitudes involved and how they have changed over time. In 1960, the U.S. had a services deficit of $326 million. By 1970 the deficit had become a surplus of $291 million. In 1980 the surplus had increased to $6,800 million. In the fourth quarter, 1986, the surplus was running at a rate of $2,725 million per annum. In this context we do not undertake a detailed assessment of these services. Suffice it to say, that, between 1960 and 1986, there had been a 10-fold increase in the international flow of services. This should help underscore the importance of services for the United States.

Our taking special note of this topic here is related to the increasing importance of computer and computer-based services traded in the international economy and, especially, for the United States. These services, important and of considerable value per se, are not unrelated to the international quality and power of computers in different countries. In the computer field and the semi-conductor industry, the supply of and trade in chips, their prices and impact on the world competitive position of countries' computer industries is not unimportant. We mention the semi-conductor agreement between the United States and Japan with its economic effects. Has it had a negative effect on chip supply and computer development in the United States?

These matters all come together and affect the ability of the U.S. to provide low cost, efficient services at the international level. The U.S., as noted earlier, is very much concerned with maintaining its international surplus in services. It helps offset part of our deficit in goods' trade. The aim of the United States is to negotiate and implement "a multilateral framework agreement on international services trade" early in the Uruguay Round of Multilateral Trade Negotiations." After this broad framework is established, the U.S. would then seek a series of specific service sector agreements.

We have alluded to one such subsector—that of information technology services with its individual categories: software; telecommunications, data processing and information services. A Code on Services would seek to assure that fair competitive

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conditions were maintained in world markets. It would seek to assure that the Principle of National Treatment was in place and enforced. The Principle of National Treatment can be viewed as being at the heart of U.S.Foreign Trade Policy. It implies, in effect, that U.S. goods and services in foreign markets will be accorded treatment that is no different than goods and services which have their origin in those foreign markets. It implies that foreign markets will be open and accessible to Americans in a manner that American markets are open to foreigners.

Not only does this essential Principle underlie U.S.foreign trade policy but almost the entire corpus of international trade theory supports the concept and its practice. The Principle of National Treatment implies that countries will not subsidize domestic industry in order to give it an artificial competitive advantage in world markets. The Principle of National Treatment implies that countries with state-sanctioned monopolies will not tilt the scale in their favor. The Principle of National Treatment implies that internationally accepted rules will permit consultation among Nations and the implementation of a dispute settlements machinery. National Treatment, also, means that foreigners can employ domestic distribution networks to deliver their products and services to national customers. All too often foreigners encounter barriers which impede reaching domestic markets; these are barriers which do not obstruct domestic manufacturers and deliverers of services. National treatment, also, means that foreign suppliers can directly contact domestic customers who, in turn can get in touch with foreign service suppliers. These reciprocal contacts seem obvious for the normal conduct of business to insure that services provided and received are exactly what customers require.

However, there are barriers to this easy flow of communication in many countries. A Service Code would aim at mitigating these obstacles. Another important factor in doing business abroad is the utilization of one's own brand name. A trade mark and trade name facilitates product recognition, leads to the creation of goodwill and insures that the quality of product or service is maintained.

In some countries, there are domestic rules and regulations that limit the numbers of participants in their markets. A Code of Service would help to insure that foreign suppliers are allowed a fair share of such regulated markets. This fair share would be allowed on a reciprocal basis.

The regulation of trade in Services is generally important. It derives specific significance because of the role that services connected with computers play in the overall total. Hence, the U.S. Government maintains that the following conditions, relevant in general and for their particular impact on computer-based services should be included in a Code of Services.

(1) Government regulations in some countries are often aimed at insuring that the country will be able to provide itself with the Services. The country will not wish to be dependent excessively on external sources of supply which may be abruptly interrupted. The regulations must be clearly stated, predictable and must apply to all parties on an equal basis. On these grounds, then, regulations of services by governments often are not related to trade per se. The regulations adopted may aim at insuring supply and/or the availability of the latest technology. They may be adopted so that a domestic industry can evolve which will provide required services. They may be governed by considerations of national prestige or defense needs. They may have the effect of developing and maintaining a viable corps of technicians, engineers and scientists. By creating market imperfections, they provide impetus to a country's educational structure. It is easy to contemplate how each of these objectives may arise in the development of computer-based services.

(2) Governments which sign a Services Code will apply its provisions in a non-discriminatory way to all signatories. However, the provisions will not be applicable to non-signatories. (In the Tokyo Round of Multilateral Trade Negotiations in 1974, a series of codes regulating non-tariff barriers to trade were agreed to. For instance, a Code to govern the flight of civil aircraft was aimed at insuring that American flights abroad were not discriminated against. A Code governing agricultural product exports was entered into. Such a Code could remove impediments to the flow of U.S. agricultural products abroad; Border inspection procedures on the pretext of health and sanitation may artificially slow down the flow of U.S.agricultural exports. Similar artificial impediments are raised against industrial products. These are known as "non-tariff barriers.") Many such non-tariff barriers exist and can be devised to inhibit the provision of computer-based services from the United States.

(3) Some countries have state-supported or state-owned monopolies. These put private foreign suppliers at a serious disadvantage. While such monopolies are prominent in East European countries, they are not confined there. In this instance, conputer-based services whether data base processing, telecommunications, etc.—originating with private enterprise firms in the U.S.—could be placed at a negotiating and competitive disadvantage even though in a free market they would perform more efficiently and provide services at a lower price than the state monopoly. It can be easily demonstrated that the economic effect of a monopoly is to raise the prices of services above what it would be in a competitive market. Their production is reduced below the optimal level. The consumer is forced not only to pay a higher price for a smaller amount, but also a monopoly can lead to underemployment of resources, thereby depressing their prices. The only party that gains is the monopolist, and even if his monopoly gains are subject to government taxes, he ends up in a preferred position.

(4) Some governments may subsidize their services industries. This will distort international trade flows. The price charged for a domestically produced service will be less than the cost of producing the service by a foreign—e.g. U.S. supplier. Numerous ramifications flow from this condition for the foreign supplier. He may have to curtail production and forego economies of scale. The price he must charge to recover his costs will be higher than if the subsidy were not paid. The price will be higher in home and export markets. Earnings required for reinvestment to maintain a technological edge will be reduced. The foreign—e.g. U.S. supplier—will be forced to curtail research and development. These are some of the ramifications that flow from the of subsidization of the services industry.

(5) Finally, there must be an international consultation and dispute settlement mechanism. The rules for settling disputes must be carefully spelled out beforehand, must be predictable and not fortuituous. The basic provisions of such a mechanism already exist in the General Agreement for Tariffs and Trade. It must be reexamined and modified, if necessary, to insure that the

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services industries, including computer-based services are properly covered.

The U.S.Government has taken firm positions both on Intellectual Property Rights and Services in the Uruguay Round of Multilateral Trade Negotiations. Both areas of negotiation could/will have considerable impact on computers, computer-based services and the development of the U.S. computer industry. Successful outcomes of those negotiations will reduce overseas market uncertainties and provide a more stable framework within which the industry and its services can develop. A more level playing field will be established and unpredictable vagaries with their costly effects on resource allocation will be reduced and even removed.

ANNAPOLIS APPLE SLICE NEWS
by Katherine M. Cave

The July 9 meeting was again held at the pleasant Herald Harbor Club and featured Bill Arndt demonstrating the intricacies and capabilities of Word Processing on the Mac II using the latest version of Microsoft Word.

Winner of the $100 prize for submitting the most articles to WAP was Ray Settle. Congratulations! Another contest begins for the rest of the year, same prize!

A family BarBQ was held on August 20 in lieu of a regular meeting. The September 10 meeting will be held at the Anne Arundel Community College in the Lecture Hall of the Careers Bldg. at 9:30 am.

The HyperCard Tutorial on July 16 in Annapolis run by Bob Platt was a huge success with over a dozen participants, each with his own Mac+ or better.

The October 8 Electronic Flea Market will be at the Magothy Middle School, Peninsula Farm Rd., Arnold MD. Time will be from 9 am to 12 noon, with the last hour devoted to an auction. Registration of sellers: if received before October 6, price will be $3 for members, $5 after October 6, for 4 feet of table space. Non-members early registration will be $5 before October 6, $8 after. Dealers will be charged $20 for 8 feet of table space. A demonstration table will be placed near outlets, and an Apple Slice table with disketeria and membership information available.

CRABBS (Chesapeake Region Apple Bulletin Board System) remains popular, especially with the new hard drive purchased in July. Barry Conner continues his dedicated service to AAS as SYSOP. Phone is 301-974-0221.

A new approach to our monthly newsletter is being taken, beginning with the September 88 issue. The editor will be Ray Settle. Deadline for the first issue is August 26. The name will be the The CRABApple.

And that's all the news from AAS, where the blue crabs are available, but oh so expensive, and the summer is the hottest in decades!

PROGRAM INTERFACE (PI-SIG) NEWS
by Robert Golden

The August 1 meeting was rather sparsely attended this time. Some of our regulars have been on vacation, working out of town, or possibly had second thoughts about travelling in the hot weather.

The first half of the evening was spent reviewing basic ideas of accessing applications from disks contributed by members of PI-SIG.

Eddie Goldstein, a math/science education specialist from the Capital Children's Museum then arrived to describe a project involving the Apple IIGS and its sound capabilities. The project, funded by the National Endowment For The Arts, is designed to generate music in an environment in which some 32 parallel infrared beams are operated. The operator will be able to "play" music by interrupting the beams by using both hands. We discussed the means by which a programmer could be located to assume full responsibiity for the main body of work to be done. The original work was started in the C language and some assembly language. Those interested may contact Mr. Goldstein at (202) 543-8600.

AVSIG (Art & Video Special Interest Group)
by Nancy Seferian

AVSIG held a potluck dinner at Nancy Seferian's house on July 23. It featured great food (by artists who can cook) and good talk about art and computers. The evening gave us a chance to get to know each other and talk about current projects. Everybody expressed a wish to continue to offer these informal get-togethers so that we can do more of this networking.

AVSIG has just published a Member Directory which includes the name and address information, and areas of interest for all the members of our group who are WAP members. The purpose of the directory is to encourage communication and make ourselves available to each other for advice and encouragement in the areas of our mutual interest.

The topic of the October meeting will be animation. Several IIgs members will share their current projects. Everyone is encouraged to bring projects, questions, and insights. Call to make arrangements for any setups needed and for any questions you have. The September meeting will be informal to give us another chance to get together, share projects, and make plans. It will be held on September 21, 6:30 PM, 1130 17th Street, NW, Washington, DC, ground floor conference room. For further information call (day) 728-5932 or (evening) 333-5817.

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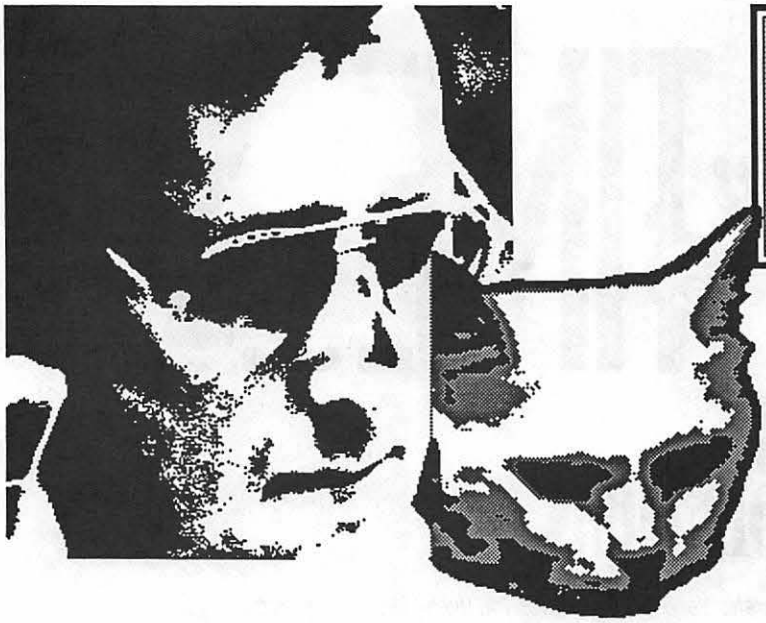


HOW-TO: Useful Down-And-Dirty Nitty-Gritty User Information

by Jay Rohr

MODEMS

Eric Rall, where's your article on surge-protecting hooked-up modems? My Practical Peripheral 2400b got zapped, but the good news is that the CA-based firm will replace it. Good company! WAP has these on special sale, and Egghead in Baltimore is selling them for $135—a real bargain. Mine was purchased from MacConnection as part of a package deal bundled with MicroPhone II.

WHOLESALE DISTRIBUTORS AND RETAIL STORES

Please deal with only those wholesale distributors you know about, or are recommended by others in the know. My best suppliers have been MacConnection and MacWarehouse. They are fast, reliable and knowledgeable. Saving Zone (they keep changing their name) and Programs Plus (who have been around a long time) are reliable, but very slow. Desktop Catalog, an upstart western supplier, has come and gone already: attractive catalog, but if you're tempted to use them, you'll find their phone is either out of order, or there is no answer, nor is there a listing for that company in that area code location.

Clinton Computer, Laurel branch, has given me excellent discounts and service on both hardware and software—a far cry from the antics of Businessland whose operations can only be described as uninformed and whose paperwork is absolute chaos. They try hard, but from my experiences, their knowledge of the Mac environment is next to nil. MacCorner is good, and Earl Douglas at MacTography is very knowledgeable.

CENTURY FONTS

These are outdated. They do not work properly on a Mac II. Try it sometime. Have fun with Trent, for example, and watch it throw characters all over the screen. Earl Douglas, distributor for these fonts, said that he was fighting to get upgrades on these fonts from CA, but was not experiencing any success so far. I have had to avoid using them in my System. Money down the tubes, since I have several of the Century font families. Casady fonts and Casady support (Robin) are excellent, and give excellent support and upgrades. Meanwhile, I bought Fontographer and Laser FX to make my own fonts.

LASER FX

The current version does not support System 4.2 and Finder 6.0's Laser Prep and LaserWriter 5.1 files. To use FX, therefore, you must load Laser Prep and LaserWriter 5.0 into your System heap, and rename it LaserPrep2 and LaserWriter2, and select these from the Chooser DA when using FX. (What a drag!) Additionally, your LaserWriter Plus or NTX must be rebooted in order to be aware that you are using 5.0, which displays in the Page Setup dialog box. If it doesn't, your FX file will not print correctly.

On top of that, if you are using Laser Fonts for your special effects, these must be downloaded into LaserFX or you may suffer a Courier version of the fonts you really wanted to print out. FX needs some work, but most of its problems stem from its memory intensive operations. Telephone support is good. Speak to Bob.

RESOLVING FONT I.D. CONFLICTS—The Definitive Solution

I have, and use, over 120 LaserWriter fonts in my System Folders—or at least 8mb of fonts. (Call them "typefaces" if you wish.) It took days to record and resolve the font I.D. conflicts, and ResEdit was used quite a bit to accomplish this. Even then, there were many of the fonts/typefaces that could not be used in the 3 Suitcase files. Additional separate font files had to be made up to house the oddballs—and there were many of them. (No two fonts with the same I.D. number can be loaded in the System Folder or Suitcases at the same time, otherwise the font you think you are calling for will go bananas and print out another font.)

After calling all over the place, including WAP Hotline, Casady Co. (Robin Casady), and receiving no answers, it was Eric Rall, WAP VP who finally came up with the suggestion to call the manufacturers of the Suitcase Software, 5th Generation, in Louisiana. James, at that company, was the only one I found to have an answer. And his solution works. He told me what to do, and not only that, since he had the solution all typed out for people like me, he FAXed a copy of that sheet to me immediately. It was entitled: Font ID Conflicts. Talk about support!

It may be rare that many of you use as many fonts as I do, and rather than take up room in the Journal for something this specialized, call or write me and I'll send you a copy of his answer. It is also obvious that anyone who uses high resolution output devices such as the Linotron, Digitek 5000 or 7000 series, or Compugraphics must include on their disks an exact copy of the System Folder that was used to create a document containing those fonts used. It is very important to do this, otherwise the high resolution device will substitute its own fonts from its own RIP device whose font I.D.s may not coincide with those you sent.

contd.

WIDGETS 3.03

Widgets 3.0.3

Clip art collection cataloging can sometimes be a nightmare. I have tried several methods using various programs and applications: these include "PictureBase", "Graphidex", "Curator", and "SmartScrap." I have sent for the latest version of "SmartScrap" because this is one of the most useful for creating various scrapbook files where art can be categorized and segmented, and it produces a miniaturized catalog on screen. "Curator" catalogs all kinds of graphics files: bit-mapped, PICT, EPSF, TIFF, TIFF Compressed, etc., but only does so for one disk or volume which can be accessed through key words the user supplies. However, there is no general overall catalog such as exists in the "Graphidex" application. In discussing this with the developers of "Curator", they took the suggestion for possible inclusion in an upgrade, but one cannot hold one's breath for too long. The work must go on with what exists.

Along came Widgets, an application that comes with "DiskTop". Between SmartScrap and Widgets, with a little Curator thrown in, therein lies the answer as of this moment. Widgets prints on the LaserWriter superb miniaturized representations of all bit-mapped art on any given disk and labels them automatically for you. Love it. With these types of printouts, it's easy to search for what you want, and is much more effective than SmartScrap's miniature on-screen versions of reduced art. Now, if Widgets would only read PICT and EPSF and TIFF files! Maybe that's the next step.

THE WIND-UP

Generating good and true artwork on the Mac starts from a Paint type bit-mapped program such as MacPaint 2, FullPaint, GraphicWorks, or SuperPaint. I use MacPaint 2, and very seldom bypass this program unless I'm scanning and saving to a compressed TIFF file format with minimal editing requirements. Some of these tools are rather limited unless you can get VersaScan to work the way it should.

Consider also that digitizers such as "Magic" and "MacVision" save work in Paint files, whether live or from VCR tape stop-frames. Then you grab a spearhead book like "Zen & The Art Of The Macintosh" by Michael Green or the "Whale Song" book by Robert B. Goodman and you have no more doubts that this is where all the best artwork on the Mac begins. With this base, only THEN can artistic expression advance into bezier curves, smoothing, auto trace functions, design, patterns, color and screening. There are always a hundred exceptions to the rule, depending on what one wishes to create: you wouldn't use a Paint program for charts and forms, for example, but to mix in a special logo, you might have to generate the idea in MacPaint. And then some artists and designers choose to stay exclusively in a Paint environment. It's simple, it's fast, and it's one-layered. MacDraw II, CricketDraw, SuperPaint, GraphicWorks, FreeHand, and Illustrator 88 are multi-layered environments. I plan a show-and-tell step-by-step procedure for converting a MacPaint bit-mapped image into a smooth, finished work of art for my next article.

Jay Rohr is Production Manager for FATA, Inc., a Baltimore publishing firm that produces directories, ads, church bulletins, handbooks, and 4-color sports magazines. All models of Macintoshes are used, as well as 2 OCR scanners, a digitizer, several modems, and a Dayna File for file conversions. (301) 433-6311.

FedSIG NEWS
by John Nelson

Are you interested in how to fit Macintoshes into a workplace where PCs or another micro is the "standard"? Mark your calendars for our next FedSIG meeting. It will be on September 21st, 7:30 PM, at Falcon Microcomputer's Crystal City training facility. We will present a functional approach to justify buying a Macintosh for your office. How do you articulate what is it about the Macintosh that will help you do your job better than another micro would? How do you connect with your coworkers still using the other micro? We will also cover sources of supply, after-purchase support, and the roles of user groups, resellers, and Apple corporate. Falcon will also host an "Everything you ever wanted to ask Falcon" session.

Directions: Falcon's Crystal City office is at 1745 Jefferson Davis Highway (Crystal Square 4), Suite 502. It is near the Crystal City Metro stop.

Many thanks to Sue Crowson of Computer Consulting and Training for sponsoring our July 20th meeting. Bob Fidrych of CLARIS gave a demonstration of MacPaint 2.0 and MacDraw II. He also discussed CLARIS's strategy for their new SmartForm products. I was impressed with MacPaint's "magic eraser" which lets you use the eraser tool to go back to a previously saved view. Some of the significant enhancements of MacDraw II over "classic MacDraw" are : support for creating, displaying, and hiding overlays; customizing rulers, arrow heads, and pen widths; more powerful zooming and reshaping; support for color separations; and greatly improved text editing. Bob also emphasized that CLARIS places a high priority on user support. Their support hotline number is 415-962-0371; it is open from 10 AM to 11 PM eastern time.

We also watched a video tape called "HyperCard 1992". It very humorously presented some of the possibilities for HyperCard to join with new storage media, such as CD-ROM, and more powerful networks to effectively replace the original Macintosh desktop. Susan Crowson also demonstrated "CongressStack" by Highlighted Data. We discussed some of the uses for HyperCard by federal agencies. Galleries and museums are putting entire collections into HyperCard using interactive video. HyperCard is also being used as a front-end to operating systems such as UNIX or VMS. Imagine your agency's personnel manual in HyperCard!

We finished the evening setting the stage for our special September 21st meeting at Falcon, Crystal City. Woody Hume also gave everyone a copy of the Peat Marwick Macintosh Benefits Study.

Letter to the Editor contd. from pg 38

switch." I pushed the power switch and the machine remained powered on and locked up! Apparently all of the Mac II reset/power keys, including the power switch, are "soft keys" and don't control the power supplies directly!

Bummer.

To reset the machine we had to yank the power cord and pray that the disk wouldn't crash. Fortunately there was no harm done.

John T. Nelson

MacNovice Column

by Ralph J. Begleiter

MacSpeak

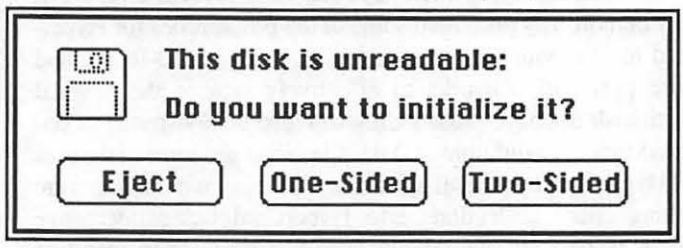
Even after four years of using a Macintosh, I still talk with MacNovices who are puzzled by the "computerese" which surrounds the Mac. Remember that many Mac users are not only novices to the Macintosh, but to computing in general. And the growing complexity of the Macintosh system has even some old hands foundering on the shoals of the "lingo."

So here's a MacNovice's guide to "MacSpeak."

• **Application** - As with almost any other job, using your Mac involves using the appropriate tools for each task. An **application** is merely a computer program containing the right collection of tools for the job you want to accomplish.

If you're writing, you'll need the "word processing" tools which are contained in a computer **application** such as MacWrite. If you're making pictures, you'll need the picture-making tools contained in **applications** like MacPaint or MacDraw.

• **Initialize** - No sooner do you insert a brand new blank disk into your Mac than you are greeted with a message asking you if you want to **initialize** the disk. How should you know?

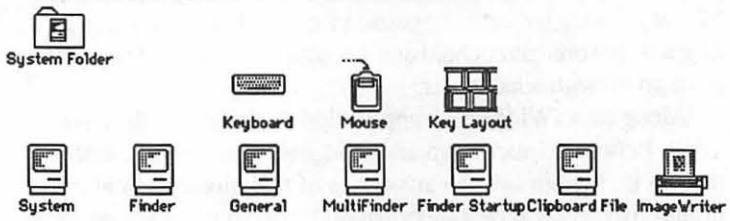


Initializing a disk is nothing more than *preparing it for use by your Macintosh.* This includes: *complete erasure* of the disk, *division into sectors* (much like painting parking stripes on new asphalt), and *giving the disk a name.* (On other computer systems, this is referred-to as "formatting" a disk.) Without **initializing**, your Mac can't recognize a disk or use its available space. If you try to start up your Mac with a blank, uninitialized disk, your Mac will reject the disk and ask for another.

Warning: Whenever you **initialize** a disk, you erase it completely, so never **initialize** a disk containing data you want to keep.

• **System File** - Every Macintosh needs a **system file** to operate. It's not really important that you know what's inside the **system file**, but it contains such computer resources as the fonts you'll use in word processing, the dialog boxes you'll see for many standard Macintosh functions, and even the "bomb" messages you get when something goes wrong.

The **system file** is usually stored inside a "system folder" on a disk. It must be present for the Macintosh to operate, so don't trash it. (You'll notice, by the way, that you cannot OPEN the **system file.** (Certain specialized "applications" such as the Font/DA Mover can make modifications to the **system file**, but it is generally best to leave this file sacrosanct.



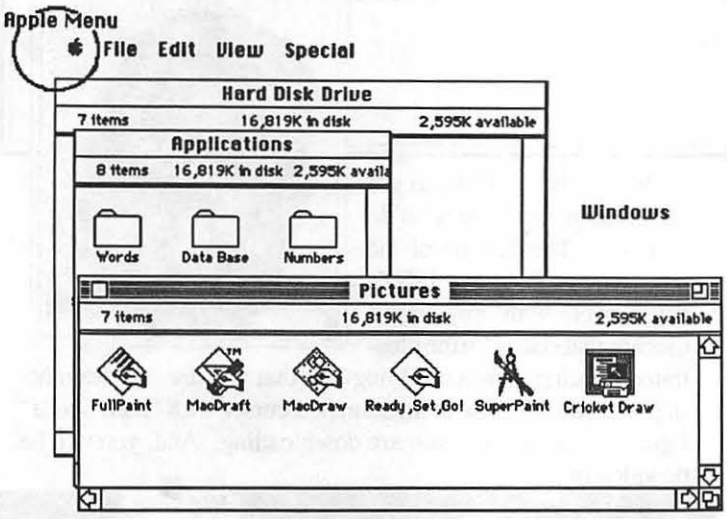
There are *other* **system files** in your system folder. Some have simple and familiar names, such as **Keyboard** and **Imagewriter.** Others have unfathomable names such as **General** and **Finder** or **MultiFinder.** All of these files are basic to the Mac's operation, providing the computer with many of the familiar features which make it a Mac. (The **Imagewriter**, for instance, gives the Mac everything it needs to know to print documents on your Imagewriter printer. The **Scrapbook** contains not only the images and text you store in your Mac's Scrapbook, but also the computer code which operates the Scrapbook itself.)

• **Finder/MultiFinder** - These are the names of the computer programs which run the Mac's familiar electronic desktop, containing the trash can, as well as icons for your disks, folders and documents. They're called **Finder** because they help you find electronic files stored on your disks, and help the Mac take care of housekeeping chores such as organizing files into folders, erasing disks, emptying the trash can, etc. (As simple as these tasks may seem, they still require a computer application (program) to accomplish.

The **MultiFinder** differs from the **Finder** in that it allows *other* computer applications to run even while the desktop is visible on your screen. The **Finder** displays the desktop only upon startup, or after you have QUIT from another application.

• **Apple Menu** - This is the menu without a name at the top left-hand corner of your Macintosh screen. It's got only the icon of an apple. Beneath it are found all of the *desk accessories* you have installed in your system file. The **apple menu** always appears in the same place on the screen of all Macintosh applications. It also usually contains one menu choice called "About (name of application)..." This choice often presents you with a brief screen message containing the name of the application you are using, its version number, and perhaps information about its creators. Sometimes, this menu choice also contains useful information about how much space remains empty on your disk, or how much of your computer's memory space is free.)

• **Window** - For all intents and purposes, the Macintosh introduced the concept of computer screen **windows** to popular usage. **Windows** are essentially *subscreens* which appear on



your Mac screen. Each one contains certain information distinct from what's inside another **window**. On the Mac, **windows** may be changed in size and shape by the user, allowing a flexible display of information according to an individual user's wishes.

The best illustration of **windows** is in the **Finder**, where disks and folders each have their own **windows** associated with them. When you OPEN a disk icon, you see a **window** displaying the contents of that disk. When you OPEN a folder, you see a **window** displaying the contents of that folder. You may change the shape and size of each **window** to suit your work habits.

Windows are now widely used on other computers as well, because they help users compartmentalize their information into useful batches.

• **RAM** - This acronym stands for **R**andom **A**ccess **M**emory. Its the memory space built into the hardware of your Mac which the computer uses to store information temporarily. (*Disks* are where most information is stored *permanently*.) You need to know very little about the **RAM** in your Mac, except how *much* of this space you have. (Some applications won't operate without adequate **RAM** space.) The computer uses **RAM** invisibly to shuttle tiny bits of information in and out of its memory whenever it needs them. This information ranges from computer program instructions to the data *you* enter.

• **ROM** - Another computerese acronym, standing for **R**ead **O**nly **M**emory. In hardware terms, **ROM** is very similar to **RAM**. It's made of the same sort of computer chip. But **ROM** doesn't allow information to be shuttled in and out. It's *permanently* endowed with certain very basic instructions your Mac needs. Every Mac's **ROM**, for instance, contains the basic information about how to operate the disk drives, how to start up, etc.

Next month, we'll explore some more MacSpeak, with the goal of helping MacNovices clear away the underbrush of lingo surrounding their Macintosh computers.

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MACINATIONS

by Robb Wolov

Mac Underground

On the heels of our discussion last time on computer information services in general and MacNet in particular, I've since had the chance to sample The Mac Underground. Not strictly an information service, "The Underground" is unique in being, to my knowledge, the first networked "electronic magazine". So, with visions of one of the great myths, "the paperless office", I set out to try the first "paperless magazine".

The Underground is a weekly, with a new edition posted usually each Saturday. To appreciate the Underground, you first have to dispel any preconceptions about it. It is not another CompuServe, GEnie or MacNet, nor is it intended to be. You do not log onto it for the latest stock reports or E-mail. There is not a multitude of information forums on esoteric topics. The system exists strictly as a medium to disseminate information to its readers.

The network per se is a unique arrangement, especially if you are used to the formal data services. It seems a bit ramshackle to describe, but it works. Each node or "safe house" of the network is franchised to a private operator. He or she in turn promotes the service through local advertising and the sales of the Underground's required, dedicated communications package, Courier, which is required to access the system.

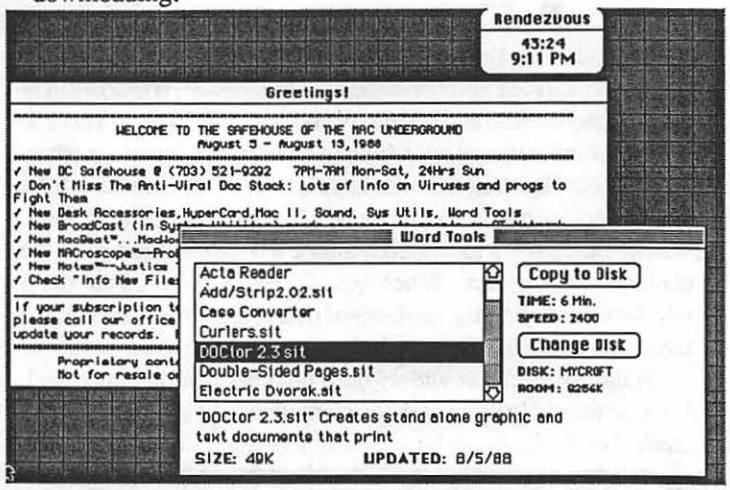
When you logon to the system, you are not talking to a large service's central mainframe network. You are talking with just your local node's computer. All local node system operators receive the latest edition from "headquarters" electronically. The information is not dynamic and ever changing like the electronic services, anymore then your latest issue of Newsweek changes, once in your hands, until the next issue. Since, like any magazine, the flow of information is only one way, this arrangement works just fine.

Since facts and files change only on a weekly, not daily basis, you will most likely find yourself logging in only once a week, probably over the week-end for the new material.

The application of free enterprise to electronic information has its short comings. Since the placement of nodes is strictly the affair of the local operator, there is no guarantee that your local node will exist next week if its operator decides to get out of the business. You may have to logon to another node outside your local dialing area. Buck, Wheat & Associates, the creators of Mac Underground are clear to spell out that point. The list of safehouses does appear to be stable and growing, and even contains nodes in Europe!

Another limitation is that the distribution of nodes may appear a bit capricious. There are parts of the country very well represented, as you would expect from areas with dense populations and heavy Macintosh usership. If you live in the heartlands, Ma Bell will love your long distance bills. The Mac Underground package is $59.95 for one year's worth of unlimited usage, another difference from the information services. There is no $$ticking clock$$.

Well, what is it like to use the Underground, and what do you get? The "theme of the interface" is that of a 1930's spy novel with spy motif touches that start with the illustrated opening screen notifying you that you are "rendezvousing" with a safehouse to an animated cursor with "Sam Spade" figure in fedora while you are downloading. And, you will be downloading!



Unlike the the mainframe based electronic services, you can not read your information online, in real time. Rather, you download the various columns and news bits first, to be read offline via a "microfilm reader" program (keeping with the spy motif supplied with the Mac Underground package). All articles are supplied in this microfilm format, which scrolls along your screen. There is an index for each feature, but these seem superfluous for what are essentially newspaper columns. There is capability for graphics in all of these columns, but to date that has not been extensively used.

I must admit though that once the novelty of using "microfilm" has worn off, I find the downloading-before-reading method a bit tedious compared to the real-time browse modes of the big services. But, this may be a realistic limitation to using personal computers as relay stations rather then networked mainframes.

The interest and quality level of the writing has generally been good, with a nice mix of editorial opinion, industry gossip, tips and how-to's. The "feel" of the magazine is much like reading an electronic version of the Pi Journal or the Boston Computer Society's Active Window.

There is selected public domain and user supported software for downloading, but nothing to compare to the huge libraries of the large networks like CompuServe, MacNet and GEnie. The producers have attempted to collect the best, though I still find the selection somewhat limited and sometimes dated. Hopefully this aspect of the Underground will improve as the service matures. With no online charges, the Underground is the perfect medium for distributing HyperCard stacks. I have been able to

contd.

download some rather large 600 and 800K stacks.

HyperCard has led to a veritable explosion of shareware stackware, some of which has been exceptional. Paradoxically, due to the large size of stacks, especially those containing graphics and sound, they are getting to be prohibitably expensive to download from the commercial services, their traditional first point of introduction.

The Underground is licensed by Apple to distribute system software. With no online fee, this becomes a very attractive proposition for those users not convenient to a dealer or user group library.

The sysop, alias "The Bishop" of my local safehouse, Keith Blair has taken great effort and personal expense working with Ma Bell to assure his users good service. I know. Since, after purchasing a Courier package at the last Pi swap meet, I found that there was too much of a signal drop from his phone trunk to get a lock with my modem. Keith, repeatedly had AT&T come by to adjust his lines, calling me each time to see if my signal improved. How's that for service!

Mac Underground is a new, unique, though somewhat mixed proposition at this point. Generally excellent, delivering what they advertise, I would like to see it assume a greater role in supplying the newer, prohibitably large public files to justify its yearly $59.95 fee for unlimited access. This seems a bit steep, especially when you compare it to such BBS services as Paul and Diane Heller's Twilight Clone (the Underground supplements and complements, but does not replace the Clone, one of the best Mac shareware library BBS's in the country).

The Underground is definitely worth a look. It has personality—though an eccentric one! But, it is fun. A demo version of Courier is available on the Twilight Clone as courier.bin. The Underground can be accessed locally at (301) 621-1726.

The Mac That Came in from the Cold

While we are speaking of fictitious spies, it seems our government is trying to keep potential real ones from getting hold of our beloved Macs. This past Spring, a three-way study on global climate changes between the American, University Corporation for Atmospheric Research, the European Space Agency and the Soviet Academy of Sciences to set up a computer based, information hot-line for climate scientists, had to be limited in its scope.

The original plans called for the exchange of charts and other visual information via the computer network, but that part of the project was dropped when the Defense Department refused to allow export of the very graphics-capable Macintosh to the Soviets.

HyperCard Script Searches

One of the best ways to pick up HyperCard programming techniques is to see how others have implemented HyperTalk scripts. Unfortunately, scripts aren't always readily accessible.

For those stacks that have their user level set too low, or in stacks without menu bars (such as the Intro stack that comes with HyperCard) here is a technique courtesy of Marc Rochkind of Compuserve:

If the menu bar isn't showing:

1. Press Command-M to bring up the message box.
2. Select any message currently showing there.
3. Type "show menubar" (without the quotes) and press return.

If short menus are showing ("Protect Stack" item missing), hold down Command while you drop the file menu.

Choose "Protect Stack" from the File menu.

If you're prompted for a password—you're out of luck, unless you have a Cray to test all the various possibilities. (You can hook the Cray up to the Mac through the ADB keyboard socket!)

If you get a Protect Stack dialog box, change the user level to Scripting.

Stack changes will be saved when you exit.

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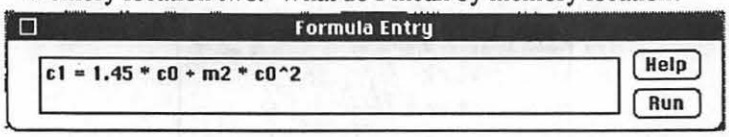
PRODUCTS BY Kodak

Softviews by David Morganstein

Funny thing about a good product. It discourages competition. Take Cricket Graph (CG) from Cricket Software. I had the pleasure of working with Jim Rafferty at Cricket during the development of CG. Jim accepted some of my suggestions, for example including control chart graphics in the program. CG was the first really good graphing program for the Mac. Yes, I know there was Microsoft Chart, but that was a fairly weak product. Even Excel's charting functions (and you know how I feel about Excel) weren't up to CG's ease of use and "bells & whistles". The result? No really good competition for quite a while, at least until recently.

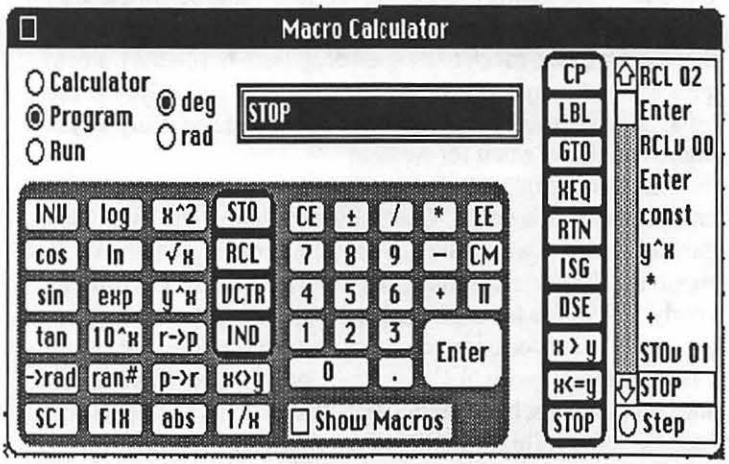
KaleidaGraph (Abelbeck) Fortunately for us, though, not every developer was scared away by the prospect of taking on Number One. Lonnie Abelbeck, the brains behind the award winning communication programs VersaTerm and VersaTerm Pro, has just released update 1.1 of KaleidaGraph (KG) and it deserves your attention. Yes, it makes graphs. But it offers many extra features that a scientist, mathematician or engineer will definitely appreciate. Take the simple need for a dynamic connection between the data sheet and the graph (as offered by Excel, but not CG). You change the data, the graph is re-drawn. Being a statistician, I like to look at histograms. Well, neither CG nor Excel offer this simple graph type. (Cricket's no longer in circulation Statworks package included a Histogram option but in an effort to make a distinction between it and CG, Cricket never incorporated Histogram's into CG. Maybe in a new version—until such time you can use KG!)

Other KG features include excellent database manipulations. You can enter a formula that uses existing columns in the data window to compute a new column. Here is the formula entry window. After typing a formula, you just click on Run. The following formula contains references to column zero and memory location two. What do I mean by memory location?



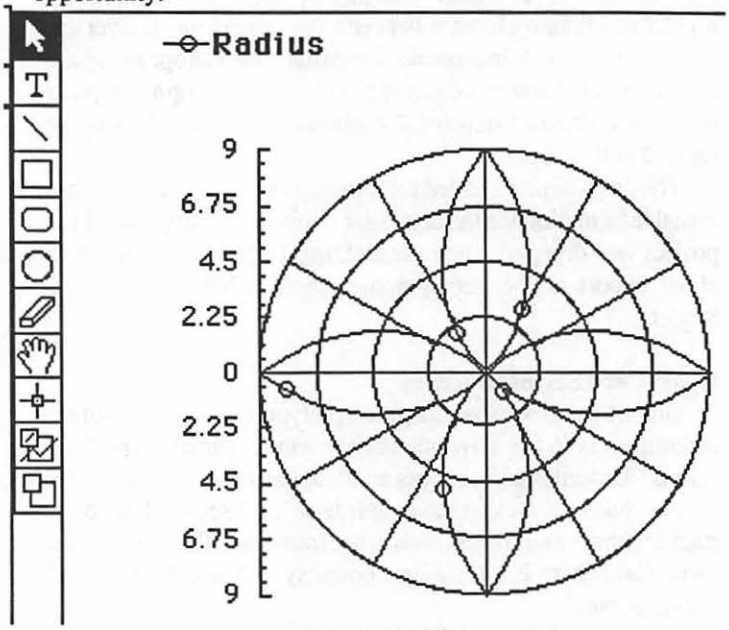
Formula Entry Window

KG includes a 1000 step programmable calculator which you can use to create Macros. The formula entry window can include references to memory locations in the calculator, greatly expanding its capabilities. The formula above says that new column one is to be calculated as 1.45 times column zero plus memory register two times column two squared. As you can see below, the calculator is very complete. The righthand functions appear only when in Program mode. If you have used a programmable HP calculator, you will feel right at home. If you have never used one, you'll have to do a little bit of learning. The accompanying manual is not quite enough to teach a novice. It tells you how to enter a program and run it but does not provide enough knowledge to a total novice to prepare other than the simplest program. More on the manual later.



KaleidaGraph 1000 Step Programmable Calculator

KG offers all of the standard graphs plus a few extras. You will find scatter plots, line, bar and pie charts, as well as the Histogram. The bar chart options include Box plots, percentile, column, and stacked column types. KG also includes probability plots to compare your data to either a normal or uniform distribution. If you have never seen a polar plot, here is your opportunity:

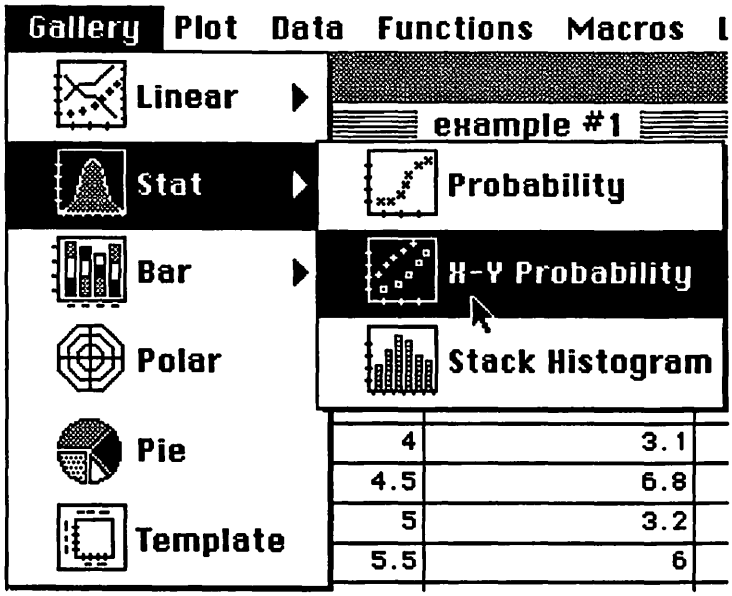


KG Polar Plot

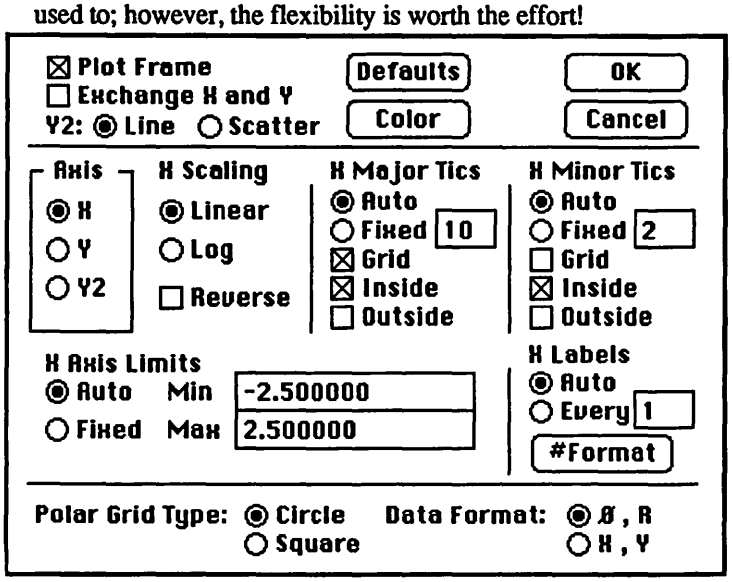
Here is the KG gallery menu which identifies the various plot types. As you can see, KG uses the Mac's new hierarchical menu

contd.

structure to simplify nesting of choices within choices.



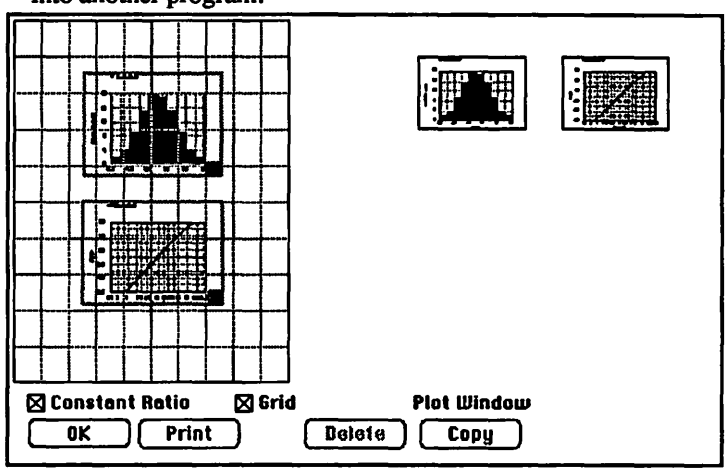
KG allow you to modify just about anything you want in the plot and accompanying text, including the border thickness! As with CG, most edits are brought up by doubling clicking on the object you want to change, be it access or legend. First, you select an axis from the Axis radio buttons. Then you can adjust the scaling, range, tic mark or labelling for that axis. Admittedly, the box for making these changes is quite full and takes a little getting used to; however, the flexibility is worth the effort!



Let's talk about the tools that appear in the plot window (shown above for the polar plot). The T, line, box, rounded box, circle and eraser are familar items and do what you expect. The arrow and the hand (or grabber) are used to move parts of the plot around in the plot window, but not quite in the way I expected. The arrow moves legends and axes or can be used to select and double click these items to get to dialog boxes for modifying their format. The grabber only selects the main part of the plot afterwhich you can move the entire display around in the window. If you want to re-size the plot, you select the lower right corner, at which time the hand turns into the arrow. I suggest doing away with the hand altogether and allowing the arrow to select the plot for re-sizing. If the grabber is kept, let it move the window contents at any time the mouse button is pressed, not just after "selecting" the plot. These are pretty minor annoyances, though. The plotting functions are a delight to use!

The tool is useful, particularly in a two-variable display such as a scatter or polar plot. When you click in the plot area with this tool, the co-ordinates are displayed. The tool is used to draw a polygon and to select all points in it for display (that is, eliminate all points outside the selected area). Lastly, we have the tool. This is used to expand a sub-area to fill the plot window. You can focus on a subset of interesting points. KG automatically rescales that sub-area up to the full window. Very handy option. The functions provided by these tools are not found in competing programs.

Other Aspects. I think we can all agree that getting the right graph on the screen is only part of the problem. Often multiple graphs are to be combined on a single page. Alternatively, the graph needs to be moved to another program, such as a word processor or page layout program. KG is strong in both areas. The page layout options are very nice, allowing you to easily combine several charts into a single page before printing (see below). All KG graphs can be copied to the clipboard and pasted into another program.



On the down side, you can only open one plot window at a time. To combine multiple plots, you must create the graph, go to the Page Preview option and Copy the Plot to the above window. Then you create a second graph (the first one closes automatically) and repeat the steps. As with CG, you can reposition and re-size the graphs before printing the page.

Documentation. The 174 page manual and 28 page version 1.1 addendum are complete. The manual is of the 5 1/2" X 7 " size and is ACCO bound, not my favorite approach. You have to turn the pages carefully to avoid tearing them out. The manual contains an index that helped me find particular topics of interest. After an intro, the manual goes into the use of KG in fair detail, using up about 75 pages. Another 15 pages describe the plot gallery and another 25 discuss the calculator. A short discussion of curve fitting is followed by a reference section describing every menu.

Missing. KG does not do quality control charts nor does it allow you to add depth to your bar charts. Also in the area of graph types, I would like to see the addition of two variable (3-dimensional) histograms. KG does not offer direct plotter support for flat bed plotters; although, Cricket may come to their rescue if it offers stand alone versions of the plotter drivers now included in CG and Cricket Presents. There is some hope that

contd. on pg 61

MACINTOSH BITS AND BYTES

by Lynn R. Trusal

We Get Mail!

I sometimes get mail with no last name, and no address or telephone number. I am asked to furnish some information or answer a question, but I can't do so without an address or full name. The best way is to pick up the telephone and give me a call.

New Microprocessors

Both Motorola and Intel are introducing new microprocessors that will eventually be included in the next generation of microcomputers and workstations. In some cases, they are only faster versions of already introduced CPU's.

The Macintosh II contains the 16 MHz 68020 and the SE has an 12.5 MHz 68000 processor but a 33 MHz edition of the 68020 and a 16 MHz version of the 68000 is now available. Another new CPU is the 16 MHz 68HC000 which is based on CMOS (complementary medal oxide semiconductor) technology and is rumored to be the CPU of choice for the new Apple laptop computer. In addition to these chips, Motorola has a 25 MHz 68020 and a 20 MHz 68030 chip. The advantage of the 68030 is the inclusion of an on-board Page Memory Management Unit (PMMU) which is necessary to support Unix. The current Mac II has an empty slot to insert a PMMU chip if Unix is to be run, but the 68030 chip does not require this extra chip. As in the past, all the Motorola chips are upward compatible, which has given them a distinct advantage over the Intel microprocessors.

Not to be outdone, Intel is also introducing new processor chips. In a WAP Journal article in May 1987, I discussed some of the differences between the Motorola and Intel microprocessors and I mentioned a new Intel CPU called the 80486. Intel has now readied engineering samples of this chip, which is 3 to 4 times faster than the current top of the line 80386 found in the IBM model 80 and some compatibles. It will still be a 32-bit chip but will use over 1 million transistors compared to the 275,000 in the 80386. Other features are improved direct-memory access functions and a virtual 80286 mode. This CPU will initially run at 20 MHz and be upward compatible in its instruction set with the 80386 but not with the 80286 found in some of IBM's other PS/2 models. (Source - PC Week 4/5/88)

Mac versus DOS Programming

Now that more and more companies are programming for the Mac, it is interesting to see some of their comments. A local Washington, D.C. company told me that they hired MS-DOS programmers but once they work with the Mac it is hard to get them to go back to MS-DOS programming. I read a similar story in "MacWeek" about Fox Software which has a fast and popular MS-DOS database (FoxBase) and recently came out with a Mac version (see story below). Now all their programmers have Mac II's and they even do their MS-DOS programming on the Mac.

FoxBASE+/Mac is Released!

Fox Software (Perrysburg, OH [419-874-0162]) is a company started by a former Bowling Green computer science professor and some of his students. FoxBASE for MS-DOS machines is often overshadowed by dBase III, but it is considered one of the best databases and also the fastest for these computers. Recently Fox Software released FoxBASE+/Mac. If you are interested in checking it out, call and ask them to send you the demonstration package. It consists of a 28-page pamphlet and an 800K disk which contains a complete FoxBASE+/Mac application except for the inability to print and a limitation of 120 records that can be entered. A guided tour is also included.

CD-ROMS - The Real Cost!

There are several CD-ROMS now available for the Macintosh from Apple, NEC and Toshiba. There are all in the $1,000 price range which is pretty expensive considering you can now buy a music CD for under $200. The real hidden cost of a CD-ROM is the same one for music CD's—the cost of the media itself. Music CD's range from $10 to $17 per album and it doesn't take a math expert to figure out the purchase of 10 to 15 music CD's equals the cost of the CD player.

In the case of CD-ROM media for the Macintosh, the cost of just one package, such as a 1,000 images of clip art (Image Club) lists for $999. CD-ROM media obviously offers great storage capacity for extensive reference material that will benefit heavy duty users, but the high cost of many programs will hinder the sales of CD-ROMs to moderate users. At the heart of the problem is the large capacity for such discs. A software house can hardly sell its entire collection of clip art for $250 on CD-ROM when it costs $1,000 to buy the entire library on floppy disks. The user may ultimately pay for an extensive collection of software that they don't really want just to get some items on CD-ROM. While the cost of CD-ROM readers will decrease, software has been increasing. The limiting factor in the sale of CD-ROMs will likely remain the cost of the media.

Guided Tours Via HyperCard

I recently received a copy of "Cricket Presents" at work and although I have not had the time to put it through its paces I did want to mention the use of HyperCard by Cricket Software. Cricket has chosen to use HyperCard as a demonstration vehicle for its new software package. I went through the entire demo and was impressed by what a good job HyperCard can do when used to demonstrate the features of a software application. I predict it won't be the last software house to do so.

Guided Tours Via VideoWorks

The new MacDraw II includes two tour disks, one of which is a basic tour and the other an advanced one. Both use the VideoWorks projector icon to run the tours but do not include VideoWorks itself. Other applications also use the VideoWorks projector to run software demos. Since VideoWorks combines sound, animation and graphics, it is an ideal vehicle for application demonstrations. Both HyperCard and VideoWorks offer exciting possibilities for software houses to put their latest creation through its paces.

contd.

AppleCare versus Insurance

If you purchased AppleCare for your computer or printer you have probably gone through sticker shock. AppleCare is basically an insurance policy. You are betting you will need service some time during the year and Apple is betting you won't. A local computer store sells AppleCare for a Mac II with 40 MB hard disk for $340 and another $365 for a LaserWriter NT. That comes to $705 to insure two hardware products against mechanical or electrical breakdown for one year. That's twice what I pay to insure my whole house and all its contents.

I have never used AppleCare and would have lost a considerable sum of money on it if I had chosen to purchase it with each piece of hardware. Most people lose money purchasing similar service contracts for televisions, washers and automobiles.

I did insure my equipment against theft, fire and acts of God but that was $150 a year and did not include any mechanical or electrical problems except for acts of God. I then checked with a local insurance underwriter who obtained an insurance policy for me that did include fire and theft along with electrical breakdown within the equipment. The fire and theft coverage has a $100 deductible and the breakdown has a $250 deductible per occurrence. Damaged equipment is replaced based on replacement cost and no depreciation is applied.

The point of this little "Bit" is to tell readers that they should check with their own insurance company or local independent insurance underwriter about insurance coverage for their computer equipment. Many people automatically assume that they are covered under their renters or home owners policy. This may be true for fire and theft up to a certain dollar amount, but if you use your computer for business you will usually need a special rider added to the policy at an additional cost. I am willing to bet that this rider will not cover mechanical or electrical failures unrelated to acts of God such as lightning storms.

Contact your local insurance agent and ask him/her to check into companies that offer such coverage. The coverage I obtained included the breakdown rider at a total cost of $10 per $1000 of coverage. Keep in mind that such policies will have deductibles and if $250 is the lowest deductible you can get and you feel is too high, you may be better off with AppleCare. Also keep in mind that even though I have to pay the first $250, I obtained $8,500 worth of coverage for $85 compared to AppleCare at $705.

FingerPrint Computer Security

Several manufactures are marketing fingerprint scanners as security devices to control access to microcomputers. They range in price from $995 to $1,895. Identix, Inc. (Palo Alto, CA) makes a device called "TouchSafe" which is about the size of a mouse. All the units combine hardware and software that keep an audit trail of who accesses the computer and when. Similar products in the "biometric-access market" include voice recognition, retinal pattern scanning, hand geometry, signature verification and keystroke dynamics. (Source - High Technology, July 1988).

Voice Recognition Computers Advance

Carnegie-Mellon University computer researchers have developed a speech recognition system for computers that overcomes the speed of the spoken voice and the ability to respond to any voice. It is called "Sphinx" and runs on a Sun workstation. The developers claim that it can understand continuous human speech with 94% accuracy and it does not have to be taught to recognize a persons speech pattern. Its major drawback is a limited vocabulary of 1,000 words that the scientists hope to increase to 20,000 words. (Source - Business Week, July 4, 1988).

DRAM Shortage

The shortage of DRAM (dynamic random access memory) chips will get worse before it gets better. There are only three U.S. manufacturers left: Micron Technology, Texas Instruments and IBM. IBM only manufactures chips for its own machines but DEC is rumored to be making a deal with Toshiba to build a manufacturing plant to supply DEC with chips. Many U.S. manufacturers were forced out of the market by dumping of below market cost chips into the U.S. several years ago. Now the Japanese manufacturers have U.S. companies by the SIMMs and some feel that their ultimate goal is to dominate the computer industry itself and not the chip market. By using their own chips, Japanese computer manufactures (Toshiba, Hitachi and Fujitsu) can build cheap computers with high performance and large memories to undercut U.S. computer manufacturers. Time will tell, but the computer industry is about the only electronic industry that the Japanese have not dominated over U.S. competition. (Source - Business Week, July 4, 1988).

Software Warranties

Developers have taken a harder line approach to software warranties in the last few years. Many companies have discontinued their 800 telephone numbers and have started charging for support beyond a certain minimum number of months. Since such support is expensive to provide, I can't fault companies producing software costing less than $100 for eventually charging for some support but I disagree with the policies of some of the larger companies. Ashton-Tate provides 90 free days of support upon registering software such as FullWrite. After that, Ashton-Tate has various support plans from $50 a year for 15 calls to $925 per year for Technical Support, Level II. Other companies such as Aldus (PageMaker) provide a certain number of days of free support after the first telephone call, whenever that occurs. That approach is more reasonable but I still don't like it.

If they want to provide limited support, base it on a certain number of telephone calls over one year. Not everyone can begin to learn a software package immediately after registering it and 90 days can go by fast. Likewise, anyone who waits for 1 year to make their first support call, due to lack of need, will not likely need to make another call within the next 90 days. Since most Macintosh packages are easier to learn than MS-DOS ones, many users will only need to call a limited number of times over a longer time period. It is for that reason I prefer "x" number of calls over a one year period.

If you agree with me, voice your dissatisfaction to support personnel when you call to ask a question and lobby for whatever plan you feel is better.

Claris Acquisitions

Claris Corp. has made it's acquisitions. They recently bought from Quark SoftWare (Quark Express) word processing code

contd. on pg 62

POWERPOINT: HAS MS MADE A COUP?

Adrien Youell Learns How to Present Himself!

at 19 Barnsley Close, Ashvale, Aldershot, Hampshire GU12 5RH, United Kingdom.

I was respectfully impressed when Tom Warrick raved about Forethought's *PowerPoint* presentation program last August, when we met this side of the 'pond' in Hampton Court. (*PowerPoint* is now in the Microsoft stable). Tom is a busy lawyer and spends a good deal of his time persuading international governments what to do, so he has many opportunities to use a presentation program—and he buys most programs so he can talk about them at Washington Apple Pi. I thought it might be expensive, and his partnership probably paid for it anyway! With some ingenuity, can't I do it all in *MacWrite?*

The catalogue of features seemed impressive, and I was genuinely interested—overhead projector film preparation, Slide Master consistent formats, as many slides as you like, Slide Sorter to rearrage order, import graphics, in–built graphic lines, boxes, circles, ovals, shaded or plain, wraparound text–boxes, handout page of miniature slides, notes page for the lecturer etc. Ideal for teachers. I do teaching. At $295 I lost interest. Corporate price. This *PowerPoint* thing entered my brain for storage. I was expecting to give a prestigious presentation in March, which needed an up–beat preparation for the right effect. I was in the States in February, saved on the hotel and paid up!

I have made overhead projector slides in *MacWrite* as 'talking pictures' for audiences to follow whilst someone reads a case history. This keeps people amused while something else is happening, such as showing specimens to smaller groups. A stand–up talk without 'props' can be a daunting experience. A presentation at a screen with a definite number of slides to aid time management is an ergonomic exercise that encourages memory retention. To that, add well laid–out (legible) slides with imported charts, pictures and schematic graphics that are remembered, and you have perfection. That is *PowerPoint*. The result impressed my audience and was worth the dollars.

The Facts. My purchase of *PowerPoint* (*PP*) in February was the one by Forethought™ (version 1.0) and was not copy protected. Some of the MS marketed products may be different now. The (very bare) minimum system requirements are 512K and a 400K drive. Two 800K disks are supplied (and 400K disks are available by sending for them or asking your dealer to copy the originals. As the disks are NCP this seems not an insurmountable problem!). I find it works really well on a Plus with miniQisk 20M hard disk.

The Forethought documentation is certainly excellent, and itself very presentable. I got a professional, good–looking hardback of 213 pages in four chapters—Introduction to set–up and fonts, Quick Tour of PowerPoint using the 'Columbus' tutorial, Using PowerPoint to review the more in–depth tips and information (such as reminding one how to use the Window menu for the multiple presentation windows) and a Reference section for double checking your memory. Screen shots are liberally utilised and the attitude is friendly.

An almost infinite amount of thought has gone into compiling the manuals. No less concerned is the Guide to Powerful Presentations which is a how–to present yourself well, and a copy of SmartScrap™ is included with a Solutions, Inc 12–page manual. This is one well and beautifully documented program.

One 800K disk has the System loaded with standard fonts and ITC Zapf Dingbats (used in the tutorial), the Program, a Help file and a rather coy but useful Tutorial called 'Columbus', in which that navigator, using sound management principles, persuades Queen Isabella to part with a hefty sponsorship to support his proposed trip to the Carribean to exploit the occasional nugget for the Spanish treasury! (See Figure 1.)

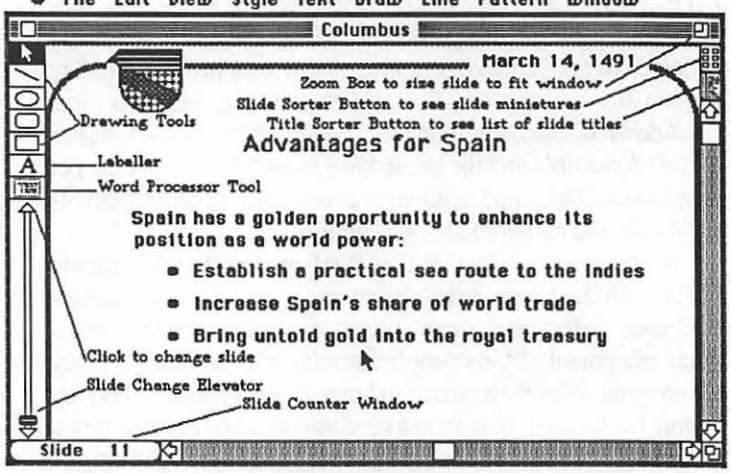


Figure 1

The other disk has a Presentation Library of four folders; Templates, Slide Layouts, Sample Presentations and Storyboard Forms.

In Operation. Open an Untitled Copy is the option when you start the tutorial or a previously used presentation, and we are advised to rename and save a new copy to obviate over–writing the originals. Obvious stuff really, but it is this level of thoughtfulness that sums up admirable features of the background to this program. The only incomprehensible message (bug) I found is when calling for Help under the Apple menu: "Sorry, memory is too full to perform the operation. Try again after closing a window." With a Mac Plus, 7 megs on the drive and only one *PP* window open I thought that was incomprehensible. I have not played with my configuration to exclude System contentions, and am using 'System 5'. ? RAM cache?

The menu bar (Figure 1) details File, Edit, View, Style, Text, Draw, Line, Pattern and Window. Text fonts are added like a font mover function from your system fonts. View is interesting (Figure 2) showing degrees of magnification for viewing the slide in the Mac screen, but you choose Full Size for the final print–out. From View you also choose other slide functions. From Draw you choose frames and grid functions. The invisible grid is

Figure 2

View
FullSize
66% Size
50% Size
33% Size
Slides (⌘6) ⌘D
Notes (⌘6) ⌘F
Slide Master
Notes Master
HandoutPage
Title Sorter
Slide Sorter

contd.

handy for horizontal aligning of text boxes. Text boxes are a joy to use because they are truly editable, expansible, relocatable text areas.

Figure 3 is a schematic diagram of part of my lab and the computer network, as a screen shot, and does not even include the miracles of ovals and shading available.

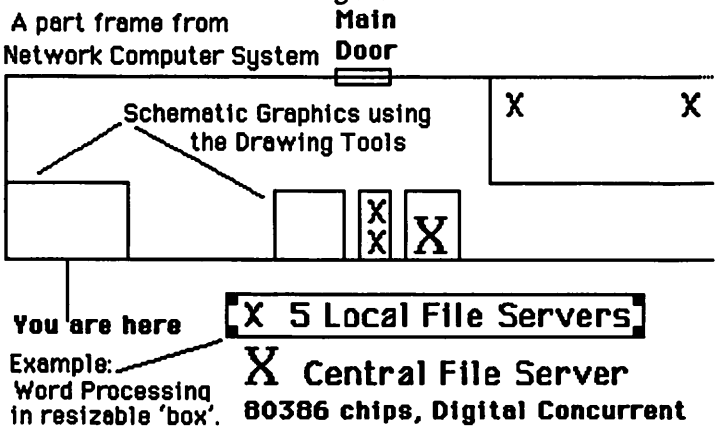


Figure 3

In Use. I sat and composed my slides on a single sheet of paper, and rapidly put them into *PP*. I put the pound ## signs on the Slide Master to number the slides for me, or another twerp to show them in order, and confirmed the slide order. Six or nine slides seemed a maximum necessary to talk about the subject, sux in the case of March. We played with the Imagewriter printouts to get magnification right. Xerox copying is essential to get the 3M Thermal Imager to accept the blackness to reproduce acetate films for OHP. You can view the slides at 33%, 50%, 66% and Full Size on the screen, obviously only at the reduced sizes seeing all on the Mac screen, but setting Full Size when satisfied is essential for printing—unless you want to 'play' with print resolution on Imagewriter printouts if you have enlargement facilities on your copier. I did not have success with a hand–out page through failure to reset the enlargement factor, but with judicious alteration of the Master as a one–off I gave all visitors an agreeable and informative momento of their March visit.

In Conclusion. I'm writing a laudatory review to persuade readers to get up to date on recent developments, and to justify my expenditure. I actually think *PowerPoint* is a good thing. I have only used Imagewriter produced OHP slides. A friend has used *PowerPoint*"s line and box–text features for a 'wire diagram' hand–out that would have been more difficult to prepare in *MacDraw*. He received his program in the morning and had his presentation ready by teatime. MacViewFrame on an OHP should be an ideal medium for small group presentations. *Cricket Presents* is more expensive at $495 and sounds good. As I say, I like *PowerPoint*. A comparative review, including *Ready Set Show* , excellently reviewed by Martin Milrod in the August issue, would be in order.

I am a bit surprised that reviews of *PowerPoint* have not proliferated in Mac magazines, although I have not seen all the US press. To my knowledge Mick O'Neil in Personal Computer World (UK) was the first to extol its virtues—October 1987 pp 156–8. I have definitely not heard of any unextolling reviews. Nick Rubery in Apple Business (UK), March 1988 pp 79–80, gave me a misleading impression that, "the slides have to be printed out on the LaserWriter.".Though he may have been referring to 2X2 slides by LaserWriter, or Matrix SlideWriter, the reader might be misled. Excellent and rapidly produced pages may be printed on the Imagewriter for thermofaxing onto overhead projector viewfoil film.

MS had a market gap and saw a good program, so they bought it from Forethought. I can recommend *PowerPoint*. It is for "planning, composing and creating complete presentations," very powerful for lecturers and business presentations. And, it works! Version 2.0 from Microsoft will support Mac II colour, multiple screens in on–screen slide shows, extra fonts and a spelling checker.

Adrien is a pathologist in Hampshire who loves his Macs and his wife, and his children, and is often confused about priorities, and does not consult or program for anyone. About which he is also ambivalent.

Softviews contd. from pg 57

Apple will recognize this shortcoming in their current system software and add plotter drivers such as those accompanying MacDraw][for use with any package.

Summary. KG is less of a presentation graphics package and more of a scientific plotting package. It gives CG some real competition. I found KG to be significantly faster than Cricket in just about every function, drawing, re-drawing, copying and pasting. You can use it to generate simulations, collect the results and plot the output. Peripherals Computers and Supplies, Inc., 2457 Perkiomen Ave., Reading, PA. 19606. Phone (215) 779-0522. Price: $179.00.

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CELEBRATING THE FREEDOM TO ASSOCIATE

by Bob Shaffer

MacWorld Boston '88 was held at three different locations, the first time that a MacWorld show was held at more than one location. The exhibition and conferences were held at the BaySide exhibition center and World Trade Center. Attendees who paid a $25 premium on the Expo Conference tickets and were motivated enough to make their reservations early were guaranteed a seat for the Wang Center Conferences where such notables as John Sculley, Bill Atkinson, Bill Gates and Jean-Louis Gassée spoke.

Two firms conspicuously absent from the show were Hayes Microcomputing and Lotus Development Corp. The absence of Lotus is not a total surprise given their recent cancellation of their Modern Jazz 1A, although they have been stating a continued committment to Jazz and the development of 1-2-3 for the Macintosh.

The feeling of most show attendees was that there was no single earth-shattering product being introduced as in past shows, but there were many notable products present.

Apple announced their new scanner, a flatbed scanner capable of producing an image with a resolution of up to 300 dots per inch. The scanner allows the user to adjust by software the scaling factor and to select whether the scanner should produce a line art, gray scale, or halftone image. The scanner comes with an application 'AppleScan'and a HyperCard stack 'HyperScan' written by Bill Atkinson. The stack was the most impressive feature of the scanner, because of its ease of use and its ability to control some very powerful features (such as some fast Halftoning options) as well as built-in help features and its ability to bring images directly into HyperCard cards.

One of my favorite finds was a stack of add-on HyperCard buttons, scripts and external commands, "101 Buttons and Scripts for HyperCard," by Individual Software Inc. The title is deceptive because there are actually over a 1000 items in the stack.

Another great bargain is the desk accessory "GOfer" by Microlytics. GOfer searchs for a string or logical expression of strings in a user-specified range of user-document types and then displays the text on a case by case and document by document basis.

Another intriguing product is 'Timbuktu' by Farallon. This product, when present on two machines on a network, permits the user of one machine to control and use the other machine. This might sound like Big Brother is taking over your Mac, but this feature will allow a power user to assist others with their problems more effectively, even if the connection must be made via modem or ISDN.

A product that I feel would have been a major hit of the show if it had a booth is 'Mathematica' by Wolfram Research Inc. Mathematica performs symbolic and numerical mathematical computation and has been receiving very positive press coverage for the past couple of months. After much searching I located it in Apple's Educational Projects Booth, being shown as part of the University of Illinois Calculus project for the Mac. A Wolfram employee in the booth explained that they were unable to get a booth on late notice since the product was just introduced in June. This could be a product that takes the San Francisco MacWorld in January by storm. A short story on this product appears in the September 1988 issue of MacWorld on page 127. (Ed note: Also see "Mathematica Report" by Wolfarth on page 76 of this Journal.)

Games of notable interest included 'The Colony' by Mindscape, an inovative 3D graphical adventure game; Falcon 2.0 by Spectrum Holobyte (the new version provides Mac II support as well as a two-person interactive mode); and Ancient Art of War at Sea by Broderbund, (its features should be obvious from its title).

The theme of the show was 'Celebrate the Freedom to Associate', honoring the first birthday of HyperCard. The event of the show was Apple's HyperCard first birthday party held Friday night in the Copley Westin Hotel. It was a tightly controlled invitation-only party with 1300 attendees. There were acrobats, magicians, a unicyclist, a stiltwalker, a dance band and a New Orleans style 2-man jazz band. There were numerous carts of food, and sweets and liquid refreshment. An oversize birthday card and a time capsule to be opened in five years recorded the attendees thoughts on Apple's megahit product of a year ago. A giant birthday cake followed by the jazz band was marched in, as Bill Atkinson and the HyperCard team led the mass of 1300 in a rousing version of Happy Birthday followed by a balloon drop.

Also held on Friday night aboard the Boston Teaparty ship, the Beaver, was an ice cream party for all Apple User Group members.

There were many complaints by attendees about traffic jams and the great distance between exhibition halls, only four miles or so, but it took up to 45 minutes in traffic, even during non-rush hour traffic. The organizers get my compliments however for eliminating the long lines of a year ago when people were waiting to buy tickets every morning at the start of the show.

Macintosh Bits and Bytes contd. from pg 59

and more recently, purchased StyleWare, which is a leading developer for Apple IIGS software. StyleWare is the author of MultiScribe and still under development a IIGS version of AppleWorks.

Apple still owns 82% of Claris but it is making no more investments in the company and its ownership will shrink to about 20% over the next two years. Most analysts anticipate a public stock offering in the next three years. Already, Claris is the second biggest Macintosh developer behind MicroSoft with $40 million in sales. Claris is expected to release its first inhouse developed products in 1989 or 1990. (Source - Investors Daily, June 29, 1988). Claris has also been reported to have purchased Nashoba Systems, Inc. database program FileMaker Plus which is the best selling non-relational database for the Macintosh.

Lynn R. Trusal, Ph.D. may be reached at 301-845-2651 to answer questions about material that appears in the Bits and Byte Column. The opinions expressed in this column are solely his.

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FINDINGS
by Larry Feldman

If you came in recently, you may have missed the uproar about outliners. A couple of years ago they were a major hot topic. A bunch of them came on the market more or less simultaneously, each solemnly promising to out-outline the others. The Macintosh magazines did what the trade press does—covered the excitement. So, for a period of time there were articles about outliners all over the place.

Now the wave has moved on and other areas of 'productivity' are hot. Consequently, you don't see as much about outliners anymore. Nonetheless, both the programs and the needs to which they were a response remain with us. Herewith, then, for any of you who have not yet tried a software outliner, a few paragraphs of musings on same.

The first thing to know about outliners is that there are a bunch of them and they come in 28 different flavors. Some of them do it this way and some of them do it that. Which is to say that they all have features, just not always exactly the same ones.

Try as I might, I have found it impossible to work up a head of steam one way or another about any of these programs based on their 'features.' The differences among the various outliners strike me as almost purely cosmetic. Anyway, I'm not doing a features comparison of the various outliner programs here. If you want all the details as to which ones turn purple when you shout manure, you are going to have to slog through a bunch of old magazine articles on your own. (In case it has slipped to some corner of your consciousness, remember that the Pi library has a first rate collection of back issues of the various Mac publications.)

In looking at outliners, you will note that they come both as stand alone programs and as desk accessories. A stand alone outliner is something like a fishing rod that has been left at home—an interesting piece of equipment conceivably but not much of a threat to fish. Where is it when you are most likely to want it? On the other side of a trip to the Finder is where. So much for stand alone outliners.

What originally drew me to trying outlining software was the allure of automating my lists. The truth be told, I am something of an inveterate list maker. I often cannot really think about a topic until I have listed its component parts, and then made secondary lists of the attributes of the parts and the elements of some the attributes. If it has any.

Not infrequently, by the time I come up for air, my list has evolved into a draft outline extending over several pages. All of which would still be a straightforward enough enterprise if I did not habitually then recall components or attributes or elements that had been overlooked. Stuffing the newcomers into a pen and paper outline eventually lends it a raggedy appearance. But not anything next to what the circles and arrows do to it when I figure out a more logical order for things. On their fourth or fifth iteration, my lists are not much to look at. Or easy to follow either.

Enter electronics. If I came to make lists, I stayed to process ideas. Actual use brought me to an unexpected appreciation of the outliner's utility for the brainstorming and organizing that necessarily precede drafting. What's more, these programs turn out to be an astonishingly powerful tool, not only of organizing the structure but also of thinking through the contents of a piece of written work.

What I had discovered for myself here is the connection between display and conceptualization. By providing a clear graphical display of the ideas embodied in the headlines, the outliner highlights the relationships among them in ways that support abstract thought. Seeing 'it' helps you think about 'it' more clearly—whatever it is.

In one sense, of course, this is simply a variation on a theme already familiar to Mac users from other contexts. The value of graphical representation in intellectual labor is a commonplace among people whose work involves manipulating numbers. Charts and graphs are an accepted ancillary form for representing numerical reality. 'Pictures' they may be, but they are most definitely not either inherently frivolous or minor.

Similarly, outlines can be thought of as a form of graphics or pictorial representation for concepts. They generate, a 'picture' of the often complex web of relationships among the abstractions that comprise the skeletal structure of a piece of written work.

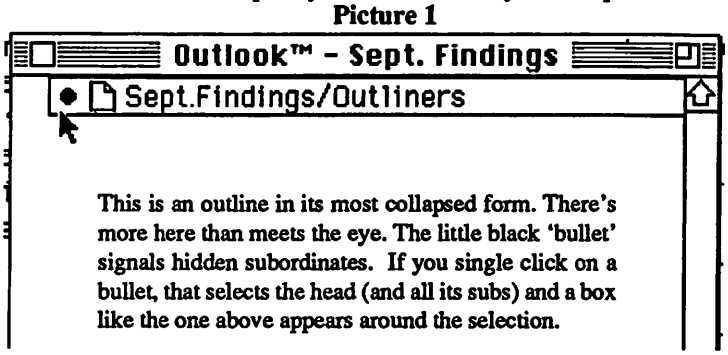
On one level, of course, any of this might be accomplished with pad and pen or in any word processor. What special purpose outlining software brings to the party is the capacity to effect novel manipulations of outline components effortlessly and swiftly. In so doing they open up a range of creative possibilities which it is unlikely would even occur to you to miss if you had not glimpsed them in action in one of these programs.

It's accomplished with three main technique:

Expanding and Collapsing - The whole outline or selected portions of it can be 'expanded' to display all of the headings subordinate to a topic or 'collapsed' to display just the main ideas. (See the 1st Picture) It works very much like the windows zoom feature. Call it an idea zoom. You can arrange it so that different levels of detail are on view in different parts of the outline. You can switch at will from an expanded (i.e. detailed) to a condensed (i.e. generalized) view of your ideas or some chosen portion thereof. You can play with other permutations.

It is this one feature, as much as any other, that allows you to *see* the relationships between ideas and to choose which relationships to see. The Macintosh implicitly holds out a generalized promise that graphical display can promote the unity of apprehension and comprehension. Expandable/collapsible outline sections are a superbly effective delivery on that promise.

Picture 1



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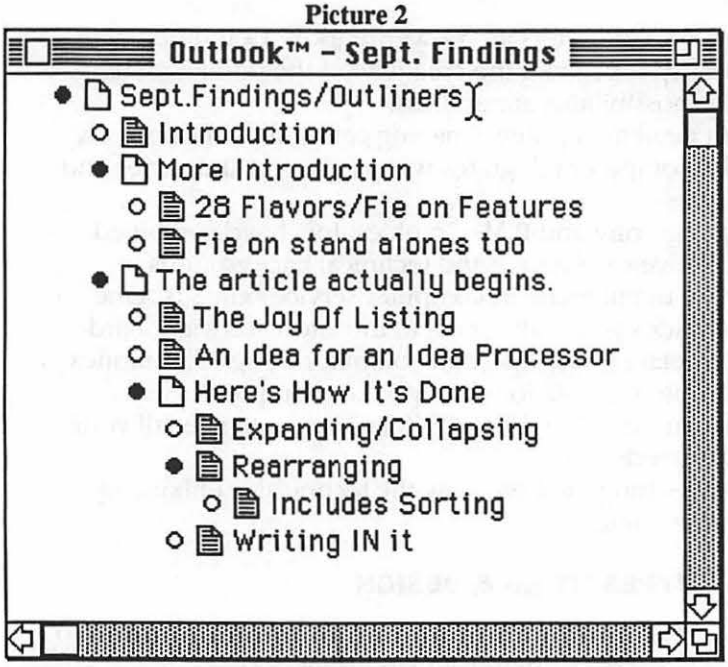
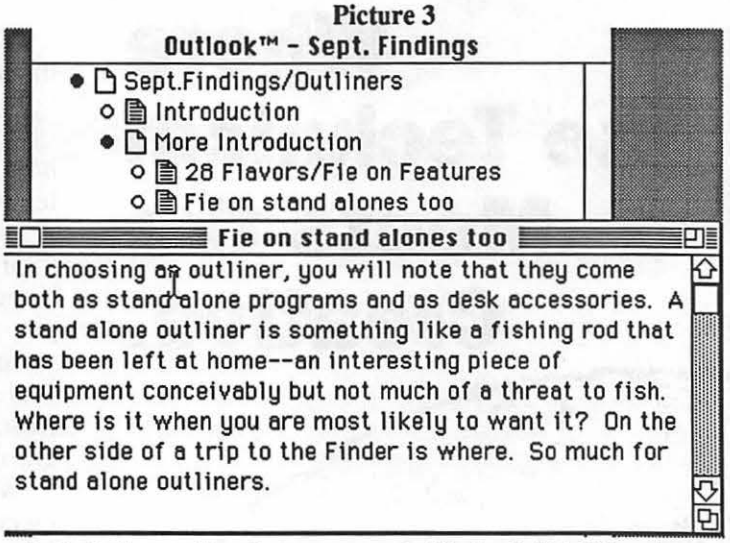
Picture 2



Choose Completely Expand (or type Com-E) and you get this. The 'empty' bullets signify no subordinates. You achieve intermediate forms of expansion by double clicking on the bullets.

Picture 3



In Outlook, an outliner that comes as part of Borland's Sidekick package and the one I use, you append expanded text to a headline in a window which is "associated" to a particular line by the dog eared page icon. To work in the window, do the handiest Mac like thing, double click on its icon. Lined page icons denote the presence of text (or pictures for that matter); blank icons are for empty windows.

Rearranging—Altering the order or level of any component piece of an outline is a matter of just a few mouse movements or key strokes. By empowering the user to directly select and manipulate the headline or topic as a unit an outliner gives you a kind of editing power lacking in word processors. Word processors, after all, are limited in this regard by the necessity to work through characters, words or paragraphs as the recognized organizational units. In making the headline its fundamental building block, the outliner allows you to act on, select and manipulate your ideas more directly.

Select a head or family of heads (master topic and subordinates) with a single mouse click. Grab a headline with the mouse and move it as a unit, with or without its subordinates, to any place you please. Alter the level of what was a subordinate thought with a simple Command key combination. Or use the Sort function that most of these programs have to arrange a subset of heads in numerical or alphabetical order. These are prosaic standard editing activities from one perspective, but in use a significant extension of capacity.

Writing *in* the outline- Although the mechanics are handled somewhat differently from program to program, they all allow you to append expanded text (graphics also) to heads and to toggle your view between the skeletal and fleshed-out version of the material. This is accomplished without marring the visual integrity of the outline which is, after all, the main point of being in the outline form in the first place.

This power to actually add to your thoughts or annotate an item or topic at whatever length you choose without visually interfering with the outline—to write *in the outline* without marring it—is an unparalleled aid to composition. Not to mention that it comes as close as you are liable to anytime soon of actually realizing your most ancient cake having/cake eating fantasies.

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HYPEREXTERNALS I: A Review

by Robert C. Platt

Boojum Computer Systems, Inc., offers an impressive collection of HyperCard XCMDs and XFCNs for $25. They are available direct from the authors or through APDA and Heiser.

The resources are packaged attractively, in the same professional manner as the Developer Stack. The final card in the stack features a menu whose script will call ResCopy to automatically transfer the selected resources into your own file. Other cards document the individual XCMDs and provide demonstration buttons for illustrating their operations.

HyperExternals I features the following resources:

• **sort** - sorts a container (i.e. a field or variable) by individual lines

• **find** - finds a string in a containter and returns its position

• **getNum** - converts a container into a number, ignoring non-numeric characters

• **getDate** - converts a container into a valid date, making certain assumptions if info is missing. It is very good at guessing what the user meant.

• **shutDown** - has the same effect as selecting Shut Down from the Special menu in the Finder.

• **restart** - has the same effect as selecting Restart from the Finder.

contd. on pg 69

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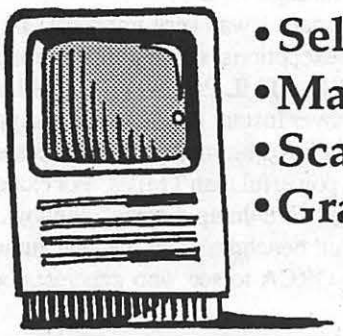

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HYPERCARD SIG NEWS
by Robert C. Platt

July Meeting. The July meeting was held after the WAP main meeting. Jessica Weissman demonstrated two educational stacks which will be distributed by Heizer Software. The first was an arithmetic drill which featured the numbers between 1 and 50. Two players compete to contrive arithmetic expressions from three digits selected at random. The second was a more elementary exercise where the student could fill and pour a liquid from two differently sized containers, with the goal of having a fixed number of units left. This creates an addition and subtraction problem solving drill. Jessica presented various techniques which she used to speed up her stacks.

David Kreisberg presented a stack for elementary school use which featured animated drawings of animals "At The Zoo." One difficulty which David encountered was the amount of disk space required for digitized speech. However, with careful planning, he was able to keep his stack size below 800K.

Rick Chapman demonstrated his HyperExternals Disk I, which will be published by APDA and Heizer Software. See my review elsewhere in this issue.

HyperTalk SubSig. Remember that HyperTalk scripters gather at the Fairlington Community Center, 3300 S. Stafford St. Arlington, VA at 7:30 p.m. on the third Wednesday of each month.

Stackware Library. David Condit has agreed to serve as our new stackware librarian. He has over 80 Megabytes of stacks to sort and document for inclusion on future library disks. If you have a few hours to process a disk, please call him at 703-349-8752.

HyperDA. In an earlier column, I reviewed HyperDA, a desk accessory that permits the user to access HyperCard stacks and transfer data from stacks to other applications through the clipboard.

HyperDA has several drawbacks which are attributable to the fact that it implements only a subset of HyperCard's features. However, a new version 1.1 has been announced which will expand HyperDA's features to include:

- cutting and pasting to the message box,
- the dial command, and
- access to fonts and icons stored in the resource fork of stack files.

Faster Searching. Some users find HyperCard's find function to be too slow. In response, KnowledgeSet Corp., 415-968-9888, has announced HyperKRS, a $3,000 package. Although the price is beyond most WAP members, the technique used should prove interesting. The program searches the stack and compares each word against a "stop list" of useless words. (such as "the", "and" etc.) The program then builds and stores an index file of the location of each key word. Retrievals are performed by accessing the index, instead of comparing each card field.

Xiphias, 213-821-0074, also offers a quick search engine called "Xearch." Xearch costs $5,000.

Insertion Point Preservation. One annoying feature of HyperCard is that clicking on a button with an Autohighlight property or using a script to modify another field will cause the insertion point to disappear from the current field. For example, click on the "Home Card" field on your home card. After a minute, the time in the lower right corner will be updated, and your insertion cursor will disappear. One advantage of HyperCard 1.2.1 is that it features the *selected Chunk* function. Using this function, you can add the following two scripts to solve this problem:

Script for on idle handler:

```
on idle
   put the selectedChunk into myChunk
   put the time into card field "Time"
   select myChunk
   pass idle
end idle
```

Script for button (turn autohighlight off)

```
on mouseUp
   put the selectedChunk into myChunk
   set the hilite of me to true
   wait 3 ticks
   set the hilite of me to false
   -- the rest of the script for button
   select myChunk
end mouseUp
```

HyperCard on the Apple IIgs? Rumors abound that Apple is working on a gs version of HyperCard. Of course, XCMDs would be difficult to accomodate, although the similarities between the Mac and gs Toolboxes make the project otherwise feasible. If you can't wait for Apple, Roger Wagner Publishing has announced that it will ship a IIgs HyperCard clone in October.

PASCAL NEWS
by Robert C. Platt

PIG. The Pascal Interest Group meets on the third Thursday of each month at 8 p.m. at the WAP Office. New members and people with insolvable bugs are always welcome.

Cross-compilers. A cross-compiler is a program which runs on one machine to produce machine language "object code" to be executed on a different machine. The UCSD p-System was famous for this. For example, Pascal programs compiled on an Apple III could run on the Apple II. Similarly, programs compiled on an Apple II could run on an IBM PC.

TML has led the way for Macintosh compilers which will produce IIgs object code. However, now there are alternatives, including MPW Pascal and C compilers which will generate IIgs code. These are available through APDA.

ByteWorks ORCA/Pascal. I was very impressed by this package. ORCA offers an exceptional debugging environment which is just as user friendly as TML Pascal or Think's Instant Pascal. The big advantage over Instant Pascal is that it supports the Apple Toolkits and runs in 16 bit mode. In some respects, ORCA's debugger is more powerful than TML's. For example, you can edit RAM from the "core dump display" window.

Ted Meyer and I will run benchmarks in the near future to compare results TML and ORCA to see who generates better code.

ON HYPERCARD: Part 2 - Improving Performance

by Kenneth Knight

Last month we examined some of the new features that HyperCard 1.2 offers us as both stackware developers and users. This time we will take a look at how to improve the performance of HyperCard in various areas. HyperCard is a very flexible package capable of doing many things. However, it is not always very fast. There are times when HC will seem to be moving through molasses as it attempts to get the job done.

The stack presented here will help explain how to speed up HC in certain cases. One thing that should be mentioned at the outset is that the tasks performed by this are far from the only things that HC might be called upon to do. For example, I did nothing with sorting data within fields or containers. Nor did I do any type of searching tests. There are several reasons for this. One is time. Another is the external command facility that is provided, which I will look at closer in the future. The reason for mentioning XCMDs is that for some specific tasks they are far faster than HyperCard. One such area is sorting individual fields of data. It would not be too hard to code an efficient and powerful sort function in Hypertalk, like a QuickSort or HeapSort, but HyperTalk is an interpreted language and for such an intensive operation as sorting speed is of the upmost importance. However, the principles that this stack demonstrates permeate all HyperCard programming. One final point: some of the comments which follow are suppositions about how HyperCard handles various programming and user events. While I may be wrong in some cases (and am not even on target at the low technical level!) the general points still carry through. Any errors made are exclusively my own.

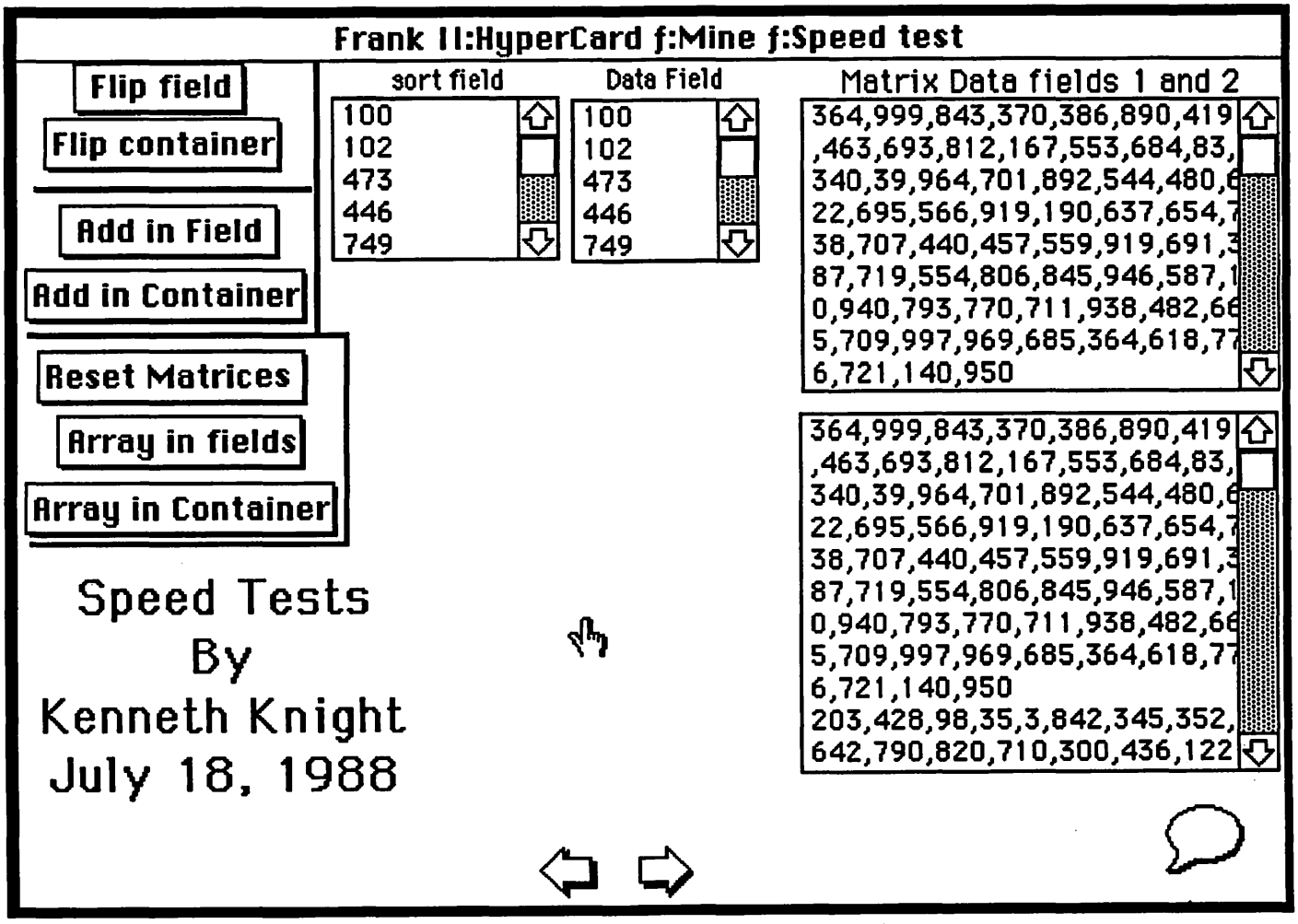

Figure 1: First card of speed test stack

contd.

HyperExternals I contd. from pg 67

In addition, HyperExternals also includes several resources which are valuable for automating backups from within your stacks:

- **fileDelete** - deletes a disk file.
- **fileRename** - renames a disk file.
- **fileCopy** - copies a disk file.
- **volEject** - ejects a floppy disk.
- **volName** - returns the name of a disk.

The collection is very usable. The authors also impose only a modest $25 licensing fee for use in commercial and shareware stacks. I hope that this is the first in a long series.

Boojum Computer Systems, Inc., 15004 Donna Dr., Silver Spring, MD 20904.

Frank II:HyperCard f:Mine f:Speed test

The "Flip..." buttons flip the number of specified lines of data.

The "Add in..." buttons perform some simple partial summations. Just Total will simply sum the data and report the final answer. Partial Sum will keep a record of each sum performed.

The "Array..." buttons take two matrices and multiply them together. All the tests are done with the matricies that the stack started with. That is after each test the matrices are reset to there original values. As the values increase the time required will increase as well, if for no other reason than because the values are greater. Also the speed difference does decrease as the test sample increases.

The chart below shows the results for the various tests run. The results are the averages of 3 test runs.

	Locked Screen			Unlocked Screen		
Test run	"field..."	"container..."	Times faster	"Field..."	"Container..."	Times faster
Flip 10	84	35	2.40	140	64	2.18
Flip 100	870	266	3.27	1376	290	4.74
Flip 1000	9811	3685	2.67	15317	3718	4.11
Add 10 - total	30	13	2.31	32	12	2.67
Add 100	311	119	2.61	312	117	2.67
Add 1000	3798	1843	2.06	3814	1862	2.05
Add 10 - full	100	21	4.76	363	48	7.56
Add 100	1002	194	5.16	3691	219	16.38
Add 1000	12634	3677	3.43	39749	3729	10.66
Array 5x5	591	257	2.29	1297	282	4.60
Array 10x10	2599	1004	2.59	5435	1031	4.20
Array 20x20	9669	4131	2.34	21104	4159	5.07
Array 50x50	72290	29775	2.42	142932 (1)	29808	4.80
Array 100x100	293497	120291	2.44 (guess)	578875	120722	4.80 (guess)

Close

Times are represented in ticks (60 ticks = 1 second). The guess for the 100x100 matrix is based on data obtained from the 5x5, 10x10, 20x20, and 50x50 tests.

Figure 2: Info on the tests done on the first card

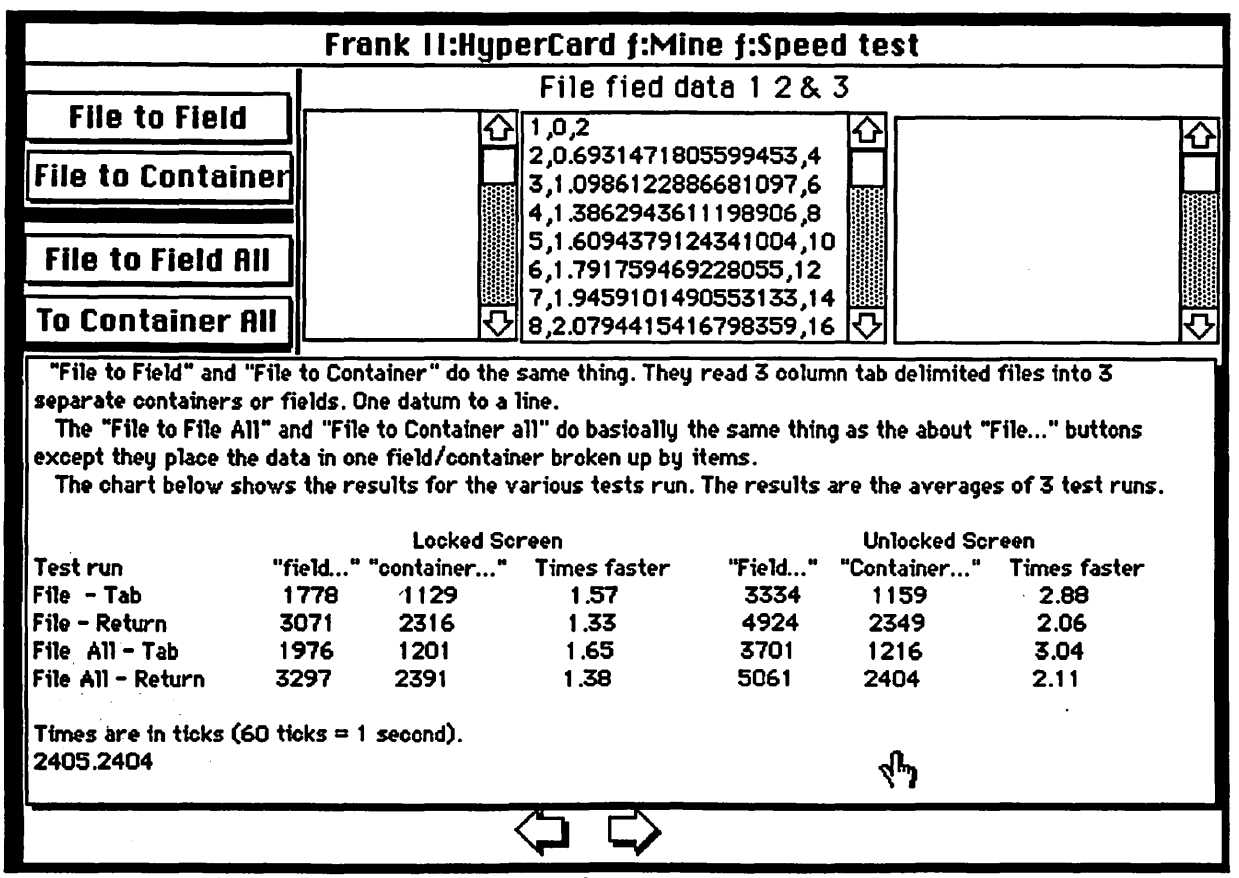

Figure 3: Second card of speed test stack and its results

contd.

Figures 1 and 2 are the two main test cards of the stack. Figure 3 contains information on the various tests performed on the first card (Figure 1). Take a moment to read the information in Figures 2 and 3. We can draw many conclusions from the above tables.

Among the most obvious is how badly performance suffers when the screen is unlocked. On average you can expect a degradation of performance of about 2 times, sometimes higher. This is not the case when storing data in containers or, as in the "Add total" test, when not placing results in a field. The reason the performance slides so much is fairly straightforward. HC is spending time drawing into the field the data that it is manipulating. If it did this only to the visible data, there probably would not be such a bad slide in speed. But it appears to be doing it to all the data, whether we can see it on the screen at the time or not. We see a very slight performance slide in the "container" tests as well. This is a bit puzzling since the data that is being processed in a HyperCard container is not displayed to the screen. After all, a container is merely a very flexible storage area that is hidden from view, whereas fields are viewable by the user. The 30 or tick performance slide for container work is caused by the copying of the container to a card field. HyperCard has to spend some time updating the screen as it copies the container to the field.

Another very clear observation that can be made is that the tests that involved containers were for the most part quite a bit faster than their field counterparts. While I am not sure why this is the case I can make several guesses. Containers are, as I said above, just storage areas or variables. Fields are HyperCard objects with many properties and characteristics. They are much more complex than containers. Accessing a field therefore could easily take more time than simply pulling out the nth item in a container. While the mechanics of this elude me, not having written HyperCard, the results above do lead us to a very obvious fact: doing work in containers is preferable to doing comparable work within fields.

Containers have other advantages over fields that are not immediately obvious from the table. The most important of these is size. Fields are restricted to about 30,000 characters of data. While that sounds impressive at first, it really is fairly small if you have large data sets. For example, the numbers that were being summed, flipped, and multiplied, ranged from 1 to 1,000. For the most part, they were three digits long. A field could hold about 10,000 lines of such numbers. However, if you are storing data in columns and rows (i.e. many items to a line) the amount of data you can store will drop considerably. As you know, items are separated by commas, words by spaces. The commas and spaces count as part of the 30,000 allowed characters. So if you have 10,000 items of data you automatically loose 10,000 spaces in the field to the commas that separate the data out, thus leaving only 20,000 spaces for the data. Not very good. For many applications this will not be a problem. But if you were playing games with large arrays of data or keeping large lists within single fields it could quickly become an issue of prime concern. Containers do not have this size limit placed on them. However, if they do exceed the 30,000 character size you will have to be careful how you copy them into fields. A straight *put container into field* will generate an error.

Up until now we have been focusing on the speed differences that can be observed by using one type of method of coding over another but, we have not been comparing the types of tests themselves, that is, comparing the performance of the "flip..." tests to that of the "Add..." tests. For the most part, such comparisons are very hard to make. However, there is one place where they are very clear and important: the file read tests show on Figure 2.

As you can see these tests read data from a multi-column file into both containers and fields. What makes these tests important is that, while one required more complicated coding it turned out to be a far faster in the long run. The buttons provide the ability to "read until tab" or "read until return". That is, read the data one item at a time and process it, or take an entire line and then rip it apart. The code for the second method is, I feel, clearer and more intuitive than that required for the "read until tab." However, clear code does not mean faster code. In this case the more complex seeming code did yield faster results. If we take a close look at the HyperTalk scripts involved for both types of reads we can begin to see why this might be the case. The script that handles the "read until return" must take the line read and then parse it. This means finding the tabs that separate the data items from each other. To accomplish this we use two repeat...until loops, one to get the data for the first item, the second for the item after that. The "read until tab" script only contains one such loop in it—the loop that breaks the data read from column 3 and column 1 apart. The amounts of code within these loops is comparable, so the time spent in any given cycle of a loop is about the same. Except that for each line of data handled, the "read until return" test must work its way through two loops versus just one for the other test. The point that I am trying to bring out is that code intuitiveness does not always mean faster code. There are times where code that is initially harder to create can be faster. In this case the code was tricky since I had to finesse the data read from the third column of the file. Perhaps the reason is not clear from the script, though, so I shall explain.

The file being read from looks something like this:

column 1 <tab> column 2 <tab> column 3 <return – end of line>

.....

column 1 <tab> column 2 <tab> column 3 <return – end of line>

Read Until Tab (RUT) does just that—read data until a tab character is encountered. This is useful since it makes gathering data from external files very simple (note that while I have been using *read until tab*, this applies to any data delimited reading). However, the third column of data does not end with a tab character. It is the last column in the line and therefore ends with a return. Our RUT does not stop until it hits a tab character and so keeps reading past the return and through the first column. If we were to store the read data as it stands we would get a very confused result. So we must break up the data just recorded. This is accomplished by finding the return that was read and then breaking the data up at that point. Straightforward enough once you get the idea, but recognizing that column 3 does not end with a tab and that RUT is getting the next item from column 1 is not as simple. One additional point—if the third column did end with a tab and then return our code would still work since the loop that separates the data for RUT is only called if the read data contains a return.

The above examples of how to get improved HC performance apply to any data manipulation within HyperCard. Field work is

contd.

slower. An unlocked screen can slow things down even more. (The state of the screen is not always such a key issue. If you are painting to the screen locking the screen will not speed things up. However, locking the screen might well look nicer since the user will not see a jittery effect. This also applies to hiding and showing many objects at one time as I do with the "About" and "Close" buttons.) And the type of code that you are using is also critical. A good rule of thumb is to keep the number of loops that must execute per line of data or whatever down to a minimum. Keep the number of operations as low as possible.

What follows are some of the scripts used in the stack. I have reproduced only the field tests run scripts. To modify these scripts for use with containers is merely a matter of declaring some global containers and changing the various put statements within the scripts themselves. The "file to all..." has also been left out. This test is the same as the one shown, except that it stores each line of data as three items of data in a single field, instead of using three distinct fields.

```
on openStack
 push recent card
 hide card button "Close"
  global sorter, matrix, oldMatrix
 show message box
 if field "done" = true then
  put card field "sort field" into sorter
  put card field "matrix data" into matrix
  put matrix into oldMatrix
  put matrix into card field "matrix data 1"
 exit openStack
 end if
 put "Creating test data for flip and add speed tests..."
 if checkVersion() then set cursor to busy
 else set cursor to watch
 -- create the test data for flip and add tests.
 put empty into card field "sort field"
 put empty into card field "Data Field"
 put empty into sorter
 put the ticks into time1
 repeat with i = 1 to 1000
  put random (1000) into line i of sorter
  if checkVersion() then set cursor to busy
  else set cursor to watch
 end repeat
 get the ticks
 put (it - time1) into timeSorter
 put sorter into card field "sort field"
 put sorter into card field "Data Field"
 -- create the matricies for the multiply speed test
 put "Creating 60 x 100 matricies for multiply speed test..."
 wait 2 seconds
 put empty into card field "Matrix data"
 put empty into matrix
 put the ticks into time1
 repeat with i = 1 to 100
  repeat with j = 1 to 60
   put random (1000) into item j of line i of matrix
   if checkVersion() then set cursor to busy
   else set cursor to watch
  end repeat
 end repeat
 get the ticks
 put (it - time1) into timeMatrix
 put matrix into card field "Matrix data"
 put matrix into card field "Matrix data 1"
 put matrix into oldMatrix
 put true into field "done"
 put "Sort creation " & timeSorter && "matrix creation " &
      timeMatrix
end openStack

on closeStack
 global sorter, matrix, oldMatrix
 go first card
 send mouseUp to card button "close"
 put empty into sorter
 put empty into matrix
 put oldMatrix into card field "Matrix data"
 hide message box
 if freesize of this stack > (10*1024) then domenu compact stack
 visual iris close to gray
 visual iris open
end closeStack

function checkVersion
 if the version >= 1.2 then
  return True
 else
  return fase
 end if
end checkVersion

-- Lock or unlock the screen depending on the user's choice.
on setScreen
 answer "Lock or Unlock screen?" with "Unlock" or "Lock"
 if it = "Lock" then
  if checkVersion() then lock screen
  else set lockScreen to true
 else
  if checkVersion() then unlock screen
  else set lockScreen to false
 end if
end setScreen

--Flip field/container tests
on mouseUp
 ask "How many line (up to 1000) should I flip?"
 if it is empty then exit mouseUp
 put it into numLines
 put (numLines + 1) into top
 put (numLines div 2) into numLines
 setScreen
 put the ticks into time1
 -- Actually this flips the field
 repeat with i = 1 to numLines
  put line i of card field "sort field" into temp
  put line (top - i) of card field "sort field" into ¬
  line i of card field "sort field"
  put temp into line (top - i) of card field "sort field"
 end repeat
 get the ticks
 put (it - time1) && "ticks"
 play boing
 if checkVersion() then unlock screen
 else set lockScreen to false
end mouseUp
--Partial sums test...
on mouseUp
 ask "Sum how many lines (up to 1000)?"
 if it is empty then exit mouseUp
 put empty into total
 put empty into card field "data field"
 put it into numLines
 answer "Just display total or complete partial sum" ¬
```

contd.

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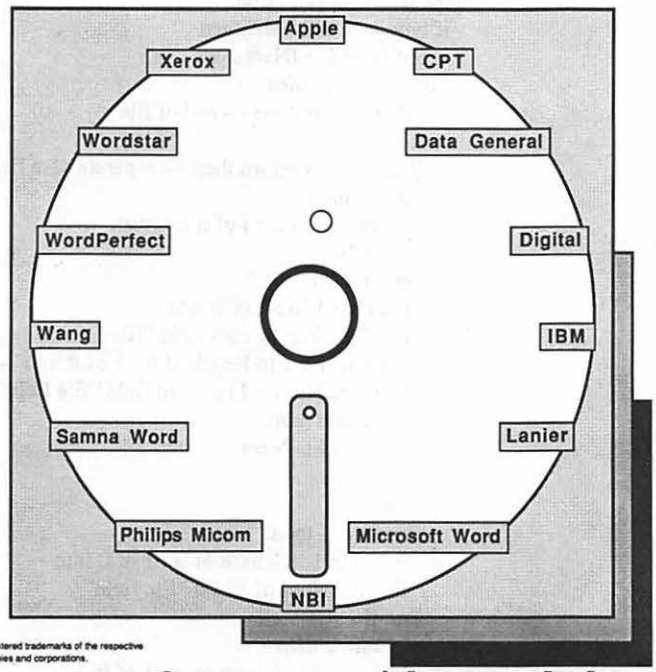

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```
    with "Just total" or "Partial sum"
  put it into temp
  setScreen
  if temp is "Just total" then
    put the ticks into time1
    -- Add the first numLines and report total
    repeat with i = 1 to numLines
      put (line i of card field "sort field") + (total) into total
    end repeat
    get the ticks
    put (it - time1) && "ticks" && total
    if checkVersion() then unlock screen
    else set lockScreen to false
    play boing
  else
    put the ticks into time1
    -- Add the first numLines and keep track of progress
    repeat with i = 1 to numLines
      put (line i of card field "sort field") + (total) into total
      put total into line i of card field "Data field"
    end repeat
    get the ticks
    put (it - time1) && "ticks" && total
    if checkVersion() then unlock screen
    else set lockScreen to false
    play boing
  end if
end mouseUp

--Arrya multiplication test...
on mouseUp
  ask "what size arrays should I use (up to 60,100)?"
  if it is empty then exit mouseUp
  if (number of words of it) > 1 then
    put word 1 of it into x
    put word 2 of it into y
  else
    put item 1 of it into x
    put item 2 of it into y
  end if
  setScreen
  put the ticks into time1
  -- Multiply the matricies together.
  repeat with j = 1 to y
    repeat with i = 1 to x
      put (item i of line j of card field "Matrix Data") * ¬
      (item i of line j of card field "Matrix Data 1") ¬
      into item i of line j of card field "Matrix Data"
    end repeat
  end repeat
  get the ticks
  put (it - time1) && "ticks"
  if checkVersion() then unlock screen
  else set lockScreen to false
  play boing
end mouseUp

--File read test into sepate fields...
on mouseUp
  put filename() into fName
  if fName is empty then exit mouseUp
  answer "Use Read Until Tab or Read until Return?" with ¬
  "Until Tab" or "Until Return"
  put it into type
  setScreen
  put the ticks into time1
  put empty into card field "file field"
  put empty into card field "file field 1"
  put empty into card field "file field 2"
  -- read data from tab delimited file.
  open file fName
  put false into done
  put 1 into num
  put 1 into lineNum
  put false into noGo
  repeat until done = true
    if type = "Until Tab" then
      read from file fName until Tab
      if it is empty then
        put true into done -- end of file
      else
        if it contains return then -- separate data field
          put 1 into i
          repeat until char i of it is return
            add 1 to i
          end repeat
          put char 1 to i-1 of it into ¬
          line lineNum of card field "file field 2"
          put char i + 1 to length of it - 1 of it into ¬
          line (lineNum + 1) of card field "file field"
          put 2 into num
          add 1 to lineNum
          next repeat
        end if
        if num = 1 then
          put char 1 to length of it - 1 of it into ¬
          line lineNum of cd fld "file field"
        end if
        if num= 2 then
          put char 1 to length of it - 1 of it ¬
          into line lineNum of cd fld "file field 1"
        end if
        if num= 3 then
          put char 1 to length of it of it into ¬
          line lineNum of cd fld "file field 2"
        end if
      end if
      add 1 to num
      if num > 3 then
        put 1 into num
        add 1 to lineNum
      end if
    else
      read from file fName until return
      if it is empty then
        put true into done -- end of file
      else
        put 1 into i
        repeat until char i of it is tab
          add 1 to i
        end repeat
        put char 1 to i - 1 of it into ¬
        line lineNum of card field "file field"
        put i + 1 into temp
        add 1 to i -- get 2nd field
        repeat until char i of it is tab
          add 1 to i
        end repeat
        put char temp to i - 1 of it into ¬
        line lineNum of card field "file field 1"
        put char i + 1 to length of it of it into ¬
        line lineNum of card field "file field 2"
        add 1 to lineNum
      end if
    end if
  end repeat
```

```
  close file fName
  get the ticks
  put (it - time1) && "ticks. I read " & (lineNum - 1)*3 & "datum."
  if checkVersion() then unlock screen
  else set lockScreen to false
  play boing
end mouseUp

—The "Reset" button
on mouseUp
  global matrix, oldmatrix
  answer "Reset matricies to 61,62,63,... or revert?" ¬
  with "Reset,.." or "Original" or "Cancel"
  if it is "cancel" then
    exit mouseUp
  else
    if it is "Original" then
      put oldMatrix into matrix
      put matrix into card field "matrix data"
      put matrix into card field "matrix data 1"
    else
      put the ticks into time1
      repeat with i = 1 to 100
        repeat with j = 1 to 60
          put i*60+j into item j of line i of matrix
          if checkVersion() then set cursor to busy
          else set cursor to watch
        end repeat
      end repeat
      get the ticks
      put "it took " & (it - time1) && "ticks to create the matrices."
      put matrix into card field "matrix data"
      put matrix into card field "matrix data 1"
    end if
  end if
end mouseUp

— The "About" button...
on mouseUp
  if checkVersion() then lock screen
  else set lockScreen to true
  repeat with i = 1 to number of card fields
    hide card field i
  end repeat
  repeat with i = 1 to number of card buttons
    hide card button i
  end repeat
  show card field "Info"
  if checkVersion() then unlock screen
  else set lockScreen to false
  show card button "close"
end mouseUp

—The "close" button
on mouseUp
  if checkVersion() then lock screen
  else set lockScreen to true
  repeat with i = 1 to number of card fields
    show card field i
  end repeat
  hide card field "Info"
  repeat with i = 1 to number of card buttons
    show card button i
  end repeat
  hide card button "close"
  if checkVersion() then unlock screen
  else set lockScreen to false
end mouseUp
```


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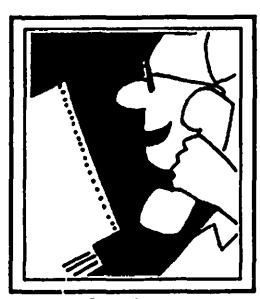

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MATHEMATICA REPORT

by Lawrence Wolfarth (extracted by W. Baldridge from WAP Telecom System)

Some news on the Mathematica front: Steve Wolfram's book is finally shipping from Addison-Wesley. The cost of the paperback version is $29.95 +S/H. It's a 650+ page book covering just about everything you might want to ask about the language in general. (It does not disuss specific implementations of Mathematica, however—that's left to the documentation supplied with the software.)

I spent yesterday on the sofa reading the book. I must confess to being VERY impressed! Mathematica is an interpretive language for symbolic and numeric manipulations with a good 3-D plotting capability. It is a bit like LISP (its pure functions are analogous to the lambda function; it "evaluates" inputs according to transformation rules; it "views" the world in terms of lists) and a bit like APL but its symbols are "C"-like. (The one thing that the book doesn't reveal is the performance of Mathematica. Wolfram gives a song-and-dance early on in the book about how the analyst spends most of his time planning his analysis and not waiting on a computer. I guess that we'll have to wait and see.)

I was impressed enough to call Wolfram Research (1-800-441-MATH) to order the package. The folks with the company were very helpful: They even told me that ComputerWare in Palo Alto, CA was selling the package at a discount. (There are 2 versions: a basic version for a Plus or SE with 2+ Megabytes of memory for $495 list and an enhanced version for the Mac II's 68881 for $795. CoputerWare is selling the enhanced version for $690; they promise to ship as soon as their supply is replenished (which according to Wolfram Research will be the end of next week). When I get the package next week, I'll continue the story.

I've been playing with Mathematica for 5 days now (in between entertaining the in-laws who are in town and actually working for $$$). I bought the enhanced version for the Mac II (List $795, or $690 from ComputerWare). LOTS of comments—if anyone is interested in hearing more.

General observations: Mathematica is memory-intensive! Apparently the authors planned on everybody running it on a 4-5 Meg system until the memory crunch hit. The product has been retooled to run on a 2 Meg system, but on such a "small machine," there are limits on what you can do. (I've spent an evening determining how many INITs, Debuggers, etc. can reside in my system folder if I want to run Mathematica: The answer is "not many".) Fortunately you can save outputs in text files with very little trouble, so with some careful planning, you could probably get some real results out of the package even with only 2 Megs.

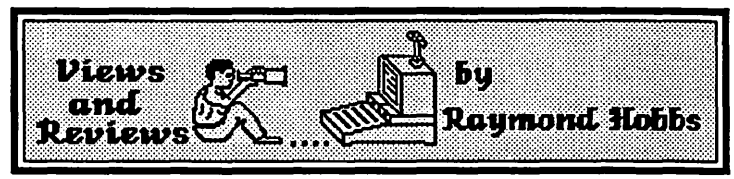
The graphics are GREAT! I've thought for some time about creating an advanced graphics module but never found the time to program it. With Math. the problem becomes trivial! Most importantly to me, the graphics that Math. creates can be pasted directly into anything that can read a PICT file, a bitmap PICT, or EPSF. (I've had great fun pasting icosahedrons into MacDraw and then moving one of the faces: You can actually see inside of the solids!) *** Mathematica comes with a sharp learning curve.

Analysts comfortable with LISP, APL, object-oriented languages, or symbolic math packages will start to feel familiar with various aspects of the Mathematica language fairly quickly. Becoming facile with the language is going to take some time and effort. Fortunately—in part because Math. is interactive—the learning is fun.

The package comes with a couple of dozen "notebooks" with examples. More examples can be found in the Mathematica manual by Stephen Wolfram, by Addison Wesley. THAT MANUAL DOES NOT COME WITH THE SOFTWARE: YOU NEED THE MANUAL TO LEARN THE LANGUAGE. On the other hand, selling the manual separately gives you the opportunity (@ $27 per copy) to decide if the package is for you. (The Mac interface is MUCH better than the generic one displayed in the manual.)

Performance? I've just started to benchmark it against Eureka and TK!Solver. I was disappointed that a 3-D plot of a complex mathematical function took 30 seconds until I reminded myself that NOTHING ELSE out there in the software world for under $1000 could do what I was trying to do in so straightforward a manner. (Hey, we're talking of working with complex numbers, taking the factorials of any positive rational number, and using Pi accurate to 400 digits.)

The bottom line: To paraphrase the line of the late 60's: "I have seen the future of computerized mathematics!" Now where do I get those 1 Meg SIMMs?



Last month, Bob Platt, our new president, assigned me the responsibility of coordinating all reviews of software for Washington Apple Pi. This was done in order to facilitate keeping track of the rather large quantity of software received for review, as well as to ensure the editorial integrity of the reviews which appear in print in the Journal.

In undertaking this responsibility, I am aware that the task is large—in fact, I consider it too large for a single individual to handle. For that reason, I have enlisted the aid of several volunteers to handle reviews in specific areas or for specific hardware. However, we will still need a squadron or two of more volunteers to do the nuts and bolts testing of programs and writing the reviews.

If you are interested in helping out, please leave or send a note to the Washington Apple Pi office, indicating your name, address and telephone number, as well as the type of software you would like to review, your hardware and level of expertise (or lack thereof! We need novices as well as experts!). The note should be addressed to:

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8227 Woodmont Avenue, Suite 201
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For my part, I will try to provide quick turnaround and fair, well-written reviews. I would like to thank up front the people

contd. on pg 86

EXCEL SIG REPORT

by Larry Feldman

The **July meeting** of the Excel SIG was given over in its entirety to a macro basics tutorial by Dick Byrd. Dick is an attorney who along with his wife, Nancy, have just developed a commercial real estate settlement application in Excel.

The tutorial consisted of Dick walking us, line by line, through a small integrated application he had written for this purpose. The point of the application is to provide a model automated billing system. There are two worksheets and a macro sheet. The worksheets together contain a portion of the financial records and billing system for a mythical business that sells three products in quantity lots ranging from just under 50 to around 3000 to a limited customer list.

The first worksheet, Sales, is a data base of sale transactions (date, customer, item, quantity, price, and amount fields), defined criteria and extract ranges, a customer list and customer address list, and finally two price-quantity discount schedules. The second worksheet is simply an invoice template.

The macro sheet contains the annotated code for one function macro and a command macro that, while technically a single macro, does three separate tasks which could if the user wished be broken out and run separately. The function macro is designed, given an item name and quantity, to look up and return the appropriate discounted unit price for each transaction to the designated field.

From there the user (who given the way this system is designed could be just about anyone in any office) opens the invoice form and types Option-Command-m to run the application. The user will be presented with a dialogue box asking for the customer name to be billed. Other than that the macro application does it all: searches the data base in the Sales worksheet, compiles all outstanding transactions, looks up the full customer name and address, transfers them to the designated lines on the invoice form, transfers the data that needs to be shown on the invoice from the extract range of the Sales worksheet to the cells provided on the Invoice worksheet, and computes and displays the total invoice amount.

The time required is about what it would ordinarily take me to scratch the side of my nose and wonder out loud how much money Atlas or Reams or whoever owes us this month. It's the sort of computer feat that you have to watch an awful lot of times before it stops seeming like a magic trick.

More Macro Basics at the September Meeting We were able to get through all of the code and run the whole application but we ran out of time before dealing with all of the questions. So we will spend the September meeting to complete our exploration of how it's done. Dick distributed both hard copy printouts of the work and macro sheets and on disk copies of the whole thing; and these will also be available at the meeting.

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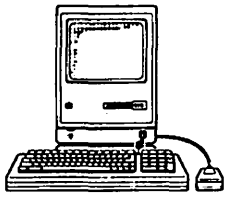

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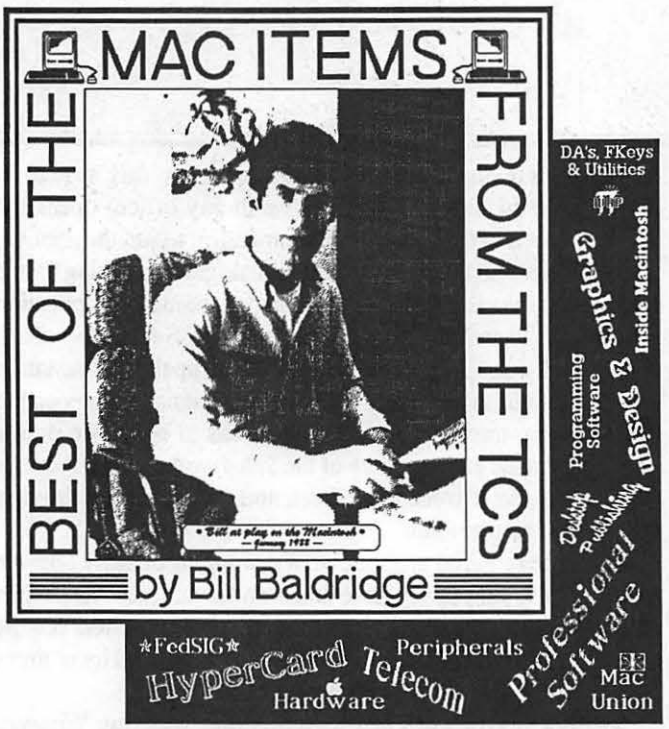

HyperCard

RICHARD OGATA ON 07/14
Is there any way to create a scrolling graphic in HyperCard?

BILL BALDRIDGE ON 07/16
Not without an XCMD or a lot of work/bytes. I made a "scrolling" stack from a large graphic (about 7x20), which was composed of around 40 cards done in frames. It works. Needless to say, it eats up a lot of disk space—the original graphic was about 40K, and the stack around 240K. But it is rather unique. There IS a stack which is called "ScrollPict" which contains an XCMD to scroll through a painting or pict, but it puts up an ugly window with scroll bars, so I don't consider it to be too HyperCard-ish.

BAILEY WALKER ON 07/16
Is there a way to invoke a grid to assist in placing buttons on a card? I know that the paint function has a grid for creating graphics but I want to line up a row of buttons and a grid would certainly help. Is this something so simple that I'm overlooking it?

JODY BOLT ON 07/16
You don't need a grid. Just option-shift and move the button you put down first and it stays in line, change icon, script or whatever.

DAVID HARRIS ON 07/19
Danny Goodman on CompuServe: a card button will handle a double-click as though it were only a single click, so a mistake there will make no problems. Not true of a background button, and it can cause problems, e..g, if you double-click by mistake on a background button which directs you to another card that has a button in the same location, it will click the second button too—Or, the background button may perform its action twice...

Telecommunications

CHARLES BUELL ON 07/05
I am considering buying a new communications program. What should I get? I have a Migent PocketModem. I occasionally use scripts, but just for logging on (Have the program type in name and password.) Now I am using Microphone 1.0.

HOLGER SOMMER ON 07/06
A recent survey on the Twilight clone suggested Versaterm to be the best telecomm program, followed by Microphone II. PS: Versaterm comes in two versions the standard costs $79 or so and the Versaterm Pro is around $240.

JAMES EVANS ON 07/14
Finally finished with the IBM to Mac Xfer. Sure enough, I got the data across, but now find that it is in an unuseable format for my purposes. My IBM guru tells me that the problem is probably in the initial download format from the System 36 onto the PC. Arrgh do the files look ugly! Oh well, back to the drawing board.

BILL BALDRIDGE ON 07/16
There is a utility called INFOmaker (WAP disk library), which allows one to set up a template whereby you set the parameters of a text file (how many fields per line, how many lines per record, convert space runs, add/strip commas/controls, etc.), and it converts from one to another format. It's probably the most flexible conversion utility I've seen—if a bit cumbersome.

GREG CAMPBELL ON 07/26
I'd like to know some numbers of other Mac BBSs in the area.

BILL BALDRIDGE ON 07/27
Check the Conf 1 Main Library, file #5.

Programming Languages

TOM BUSEY ON 07/11
I have spent several years mugging my way through LSP, but due to a severe case of poverty brought on by the onset of college, I have been unable to afford many reference manuals, with the exception of the Think LSP Manual, which might have aided my travels. I am wondering if anyone in WAP-Land has had a positive experience with a book on LSP, either a reference or hints and techniques type, and would be willing to voice their opinion. I am specifically looking for information on bmap resources, good high-speed animation algorithms, and digitized sounds in LSP programs.

CHARLES VASS ON 07/09
A good basic Pascal book which is written in LSP is ***"Pascal on the Macintosh, a Graphical Approach"***, by Niguidula and van Dam (Addison Wesley press). They are teachers at Brown University and do a lot of examples in the book. The ISBN is 0-201-16588-0. A second excellent book is actually written for Turbo but the author sticks so close to the ANSI standard that I've had to do little or no modification to his examples to get them to run on the Mac. That book is "Programming with Macintosh Turbo Pascal" by Tom Swan (Wiley Press). Where the first book leaves off this one picks up. Also be advised that LSP 2.0 is now in beta test and scheduled for release later this year.

BRAD FLIPPIN ON 07/12
After using LSP for a while, I got tired of moving the windows

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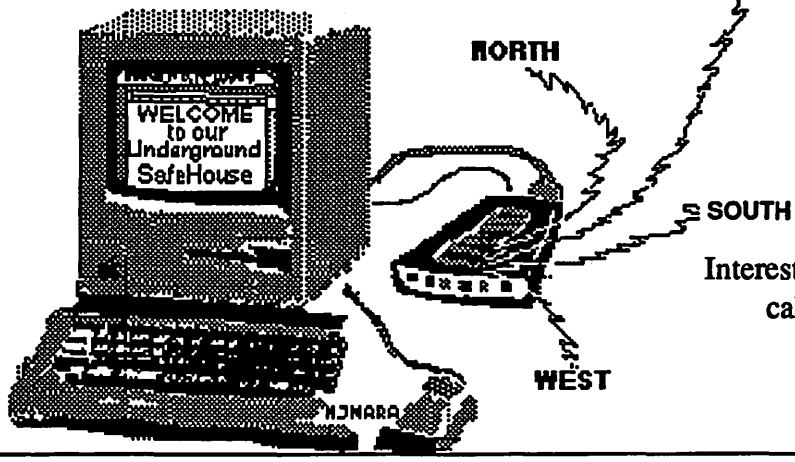

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around, particularly the first source window (Cmd-1), Observe, and to some extent, Instant. I decided to relocate the windows with ResEdit and the result is really worth it. Now I don't have to shuffle windows around as much. I have listed the window changes here for those interested. Remember, use ResEdit on a COPY of LSP until it has been checked out. Use ResEdit to open LSP. Open the WIND resource. Select: Window #1 (Window #1): Old=40-3-311-424, New=40-3-243-508; Window #9 (Instant): Old=170-36-270-289, New=263-256-338-508; Window #10 (Observe): Old=51-256-113-503, New=263-3-338-384. Close the ResEdit window and save the result.

Professional Software

BRAD FLIPPIN ON 07/17

For all dBase Mac users, there are two new books out. I got them at B.Dalton's. They are at both their bookstores and software stores... — 1) USING dBASE Mac, by Que Publication (ISBN 0-88022-337). This is a very good book. It is the best of the three I know of (Jim Heid's first book published by A/T being the third). This one is clear, and complete. I like the Appendix F which is a listing of all the statements and commands for procedures. They are not divided into four groups as with other books, and the headings are in large bold type, easy to find. Errors: There is no Chapter 14, although they refer you to it. the ENDOF() syntax on P467 is wrong. It requires a path name and not a quoted string (ie: ({filename}) and not ("filename"). Other than that, it is the best of the three...

—2) dBASE Mac: Advanced Techniques and Applications from Bantam (ISBN 0-553-34392-0). This is a good book on the surface, but once you get into it you find it is full of errors and bum information. In just one week I found 17 problems with it. One of the big ones is Chapters 10/11 where they list the commands. They are broken down into two groups per chapter and the type is all the same size. It is difficult, first of all to remember which group you should be looking in, and second to even find it once you know that. Very hard to use. Outright errors: Page 191 says the ELSE clause of the IF-THEN-ELSE statement is required. This is not true. Both the manual and the first book above indicate it is optional (which it is). There is much information left out. For example, it tells how to use the READ statement to read a record, but it fails to say you have to set the key field to the desired record number before you execute the READ. The DO part of the WHILE DO statement is missing in the command descriptions. Does not mention that the INTERNAL command can be used with choices in addition to dates. page 3 of a view definition is missing on page 345. There are no appendices which you are referred to on Page 100. It is interesting to note that in the introduction he calls the book "dBASE Mac:Power Performance made Easy". Evidently that was the original name of the book. In summary, I recommend the QUE book over the Bantam book.

DAs/FKeys/Utilities

DAVID HARRIS ON 07/12

Is there a DA with which you can see all the letters of a font before you install it in your System file? If so, where can I find it?

BILL BALDRIDGE ON 07/16

There are two utilities (or three, if you count Fontastic) for viewing an entire font (or typeface) at once. One is Font Display, the demo version of which is in the d/l area (I think). The second is Font Librarian, which is there also (I think). Both allow the display of an entire font set. Font Librarian is the more utilitarian of the two, but rather old. I once had 50 windows open at one time, each displaying a different font. Font Display only displays one at a time. I'm not sure if Font Librarian will work on an SE, but it works OK with release 6.0 of system software—just DON'T close the system file's window (which it opens automatically upon launch). Oh...looking for a DA? Sorry... You could always make paint documents with one of the above utilities and then view them with Atisto or some other paint grabber DA.

DAVID GURSKY ON 07/31

Has anyone here had problems running System 6.0 and Vaccine together? I had some work to do today at Kinko's and their Mac with the hard disk wasn't working, nor were several System Disks they had in-house. A couple of their 6.0 disks did work, and comparing the contents of the working disks with the non-working disks showed that Vaccine was on the bad disks. I took Vaccine off, and voila, the "bad" disk booted fine. [Note: JClock was also installed on all the disks...]

BILL BALDRIDGE, ON 08/01

I don't know whose bright idea it was to install JClock but you should have removed IT instead of Vaccine. I've been running Vaccine with 6.0 for several weeks with no problems.

Word Processors/DPub

BRAD FLIPPIN ON 07/01

Here is a quote out of my FONTastic Plus manual: A "point" is simply the printer's term for 1/72 of an inch (approximately). If you are looking at Geneva 12, for example, the font's point size is 12 points or 12/72 of an inch. Normally, that size is the distance between the ascent line and the descent line. Apple, however, often defines point size as the distance from one ascent line to the next ascent line (in single-spaced text). Thus the point size includes leading. Remember, "Leading" is the amount of space between lines. If the descender of one line touches the ascenders of the line below, there is no leading.

BRAD FLIPPIN ON 07/01

Pro-Tech has a full line of LW papers, including LaserBond, Laser Specialty (colors), and others. It is made by James River Corporation (800) 258-0372. It might be available at business stationary stores. Also, if you call them, they will send you a full sample kit with samples of each of their LW papers.

BRAD FLIPPIN ON 07/19

Page 80 of the current (July 88) issue of the Journal says that WAP now has permission to distribute a nine disk set of screen fonts to match the LW fonts. Question: How do these screen fonts relate to the fonts that were on the diskette that came with the LW\LW+? Are they the same? Are they the same but just more sizes? I would appreciate any info as I can't see spending $31.50 for something I may already have. On the other hand....

FERNANDO SALAZAR ON 07/20

These screen fonts match the font metrics of the fonts in the LaserWriter. For example, if you are using Times-Roman and ☛

bold a section of text, what you see on screen is the Times font in QuickDraw bold, but what prints on the printer is the font Times-Bold (as opposed to Times-Roman). The different bold and italic LaserWriter fonts each have slightly different font metrics. But without the screen font for each of those, they get printed using the metrics of the base screen font. Ever print something in Times-Italic and the letters looked far apart? The LaserWriter was printing its Times-Italic font using the character spacing that goes with Times-Roman.

BILL BALDRIDGE ON 07/21
Nicely put. The question is...will most readers understand? Know of any concise books on typography? Have you seen Adobe's tabloid "Font & Function?" It displays 210 typefaces available from Adobe, and can be ordered (apparently) by calling their toll-free number, (800) 83-FONTS. $6

Entertainment & Education

RICK ROBINSON ON 07/14
Is the Falcon "Telecommunications Module" for the Mac out yet? Has anyone received their copy yet? What's the latest word from Spectrum Holobyte? [...guess zero replies says it all. -ed.]

JENNY HOERST ON 07/20
Can someone recommend a good adventure game? Not arcade style. Also a good strategy game—I want to buy one for my husband.

BILL BALDRIDGE ON 07/21
Commercially, Shadowgate is one of the best from Mindscape and either Dungeon of Doom or Scarab of Ra, in shareware (both in WAP disk library) are both worth the small fees asked.

CHARLES BUELL ON 07/25
What is Through the Looking Glass. I read about it somewhere but I'm not sure what it is. A game?

BILL BALDRIDGE ON 07/26
Through the Looking Glass is a game written by Steve Capps back in '84, which was/is a chess knockoff, where Alice (guided by the user) plays against a full chess set. The user initially selects the piece they will play (from Pawn to Queen), and the game then starts. TTLG had several hidden "gimmicks" which changed the parameters of the game, like an upside-down board (or playing while standing on your head), reversed mouse, permanent holes (a hole randomly opens on the board during normal play, through which Alice would fall). I imagine a lot of copies were sold back in the desert days of Mac games, but don't think too many copies would sell nowadays. Steve Capps, BTW, was one of the original programmers on the Mac team.

Macintosh Union

BILL BALDRIDGE ON 07/21
Just read in the July 18th issue of Computer Reseller News that Icon Review has filed for protection under Chapter 11 of bankruptcy laws. They have apparently run up several million in debt over and above their ability to repay creditors. They have supposedly found a buyer willing to bail them out, but until things get sorted out...

Graphics & Design Software

BRAD FLIPPIN ON 07/08
Where is the format of PICT2 files documented?

FERNANDO SALAZAR ON 07/09
Try Inside Macintosh vol. 5, page 85 for PICT2 format. Also, the June 88 MacTutor.

JENNY HOERST ON 07/17
What are the differences between MacDraw, Canvas, Superpaint or other graphic applications? I want something that will save a drawing as a PICT resource, but if I am going to buy an application for that I would like to know which to get; i.e., which would have the best other uses too.

DAVID GURSKY ON 07/17
They are all drawing packages. They create documents that consist of objects (lines and curves) rather then a bit-mapped image. There are other "drawing" packages on the market, the most popular are: MacDraw II, Canvas, SuperPaint, Illustrator 88, and Freehand. In addition, Canvas and SuperPaint are both due for major revisions and both do bit-mapped graphics as well. Digital Darkroom is somewhere between the two. It is used to create and edit gray-scale black-and white images. Something akin to the way Pixel Paint works for color docs. My preference is for Canvas. The authors (Deneba Software) have several EXCELLENT packages for the Mac market and have shown themselves to be very committed to it. Canvas does an excellent job of following the Mac interface. It costs a bit over $100 mail-order for version 1.02m. Version 2.0 is a free upgrade from Deneba, even though it will retail for $100 more.

PAUL CHERNOFF ON 07/21
Which program you want will depend upon what output device you use. I have found Canvas to be a bit wanting in LaserWriter output, in particular some LaserWriter fonts and arrowheads, but I have high hopes for Canvas 2.0. I use both Canvas and MacDraw II. Canvas took over most of my graphics work until MacDraw II came out. MacDraw II is much quicker and handles text better, but lacks bitmaps. The problem with Cricket Draw is that it is slow and limited to one-page drawings—much of my stuff is multipage, and I am now depending upon MacDraw II's special features, such as layering, to allow me to reuse work again and again. So, I can recommend MacDraw II if you need a drawing program, and I hope to be able to say the same about Canvas 2.0 as soon as I receive my copy.

Peripherals

SAM SHIRLEY ON 07/05
Does anyone know how I can determine what the interleave is on my hard drive? I'm using a Warp9 50 meg internal on my MacII. I had assumed it was 1:1, but then it occurred to me that they had never actually said so. The drive didn't come with any real documentation, so I can't look there. Is there a utility available that will determine interleave? I formatted it with W9's utility.

BILL BALDRIDGE ON 07/06
I'd contact Warp9. The drive does not remember/store the interleave internally, so the info is not available once formatted. ☛

If the formatting software that comes with the drive doesn't tell you, or the manual (if any) doesn't, you'll have to go to the manufacturer. BTW, the CMS SD-60, which uses a Seagate ST-277N mechanism, has an interleave of 5! I tried reformatting with an interleave of 3, but found little chunks of the drive (probably single blocks) left empty when restoring the drive data from back-up. I'm running on a Plus. It's possible a 1:1 interleave on the Warp drive may do the same. It's best to check with them for the proper interleave—or you CAN experiment, if you have the time. I think SCSI Evaluator is available in the download area. With it you can test different interleaves (assuming you have software that will allow you to select an interleave factor) and then evaluate the results to find the optimum interleave.

JAMES J. DERHAUG ON 07/16
Where in No. Va. can one get the best prices on PLP cartridges?

BRAD FLIPPIN ON 07/16
I would check the new discount stationary store there in Tyson Corners—Staples. They have a complete line of laser toner cartridges. I was really impressed. the LW ones go for about $66 which is cheap. And, they are Canon cartridges, not some off-brand. They are located on the left out Hwy 7 after you have gone under the 123 underpass.

BRAD FLIPPIN ON 07/16
Are you aware that Rodime has extended their warranty to one year on all their drives? They have mailed order blanks to all registered owners who purchased under the old warranty and giving them a chance to buy one additional year for $99.

The Rumor Manager

JOE CHELENA ON 07/06
Saw in PC Week that Apple has released version 6.0.1. It fixes 19 bugs of '6.0' and adds a driver for the IMW LQ.

MATTHEW RUSSOTTO ON 07/07
They haven't RELEASED 6.0.1...they have announced it.

BILL BALDRIDGE ON 07/09
I've noticed a significant speed-up with the new software on my Mac Plus. But that may be because I cleaned out my hard disk during the installation. I imagine it'd still be slower than dirt from a diskette. Anyone still running from diskette should stick to Finder 5.3/System 3.2 (for a Plus or less). Even 5.5/4.1 takes forever to boot by comparison. Having had my HD now for a month, I'll never go back. It's the best money I've spent in ages...

SAM SHIRLEY ON 07/11
Ditto on the no bugs to report. I don't know who's having all the problems with system version 6.0, but it isn't me.

PAUL CHERNOFF ON 07/12
I have been using 6.0 since Apple released it since and except for a disk eject problem I have been very happy with it, even happier than with System 4 2.

BILL BALDRIDGE ON 07/13
I'm pretty happy with 6.0, and have had no problems—so far. No bugs to report. The only thing I don't like is not being able to play Dark Castle, but I was pretty burned out on it anyway. I'm really impressed with certain games and DA's, which were written back in '84—Through The Looking Glass, Orion, Black Box, and more still work fine; Calendar (old!), DA Mover, Memory Monitor (written in ZBASIC!) DA, all still work! Why can't others write such stuff that seems ageless and transparent to whatever version one is running? One of my old favorites, however, finally bit the bullet (or bomb)—Vanlandingham, the ol' bouncing ball, fell to the alternate screen memory fix by Apple (as did Dark Castle et al).

SHERMAN LEWIS ON 07/26
Does anyone know when the 3-slot Mac II will be out? Mac week said about a month ago that it would be out sometime after 1st quarter and before January. Is that still up to date? Any further info would be helpful.

DON ESSICK ON 07/27
Just a guess but Apple traditionally makes product announcements/rollouts at either major shows like MacWorld and at their annual stockholders meeting which is held in late January. Want to start a rumor?

SAM SHIRLEY ON 07/27
Do you know if the 3 slot MacII is supposed to have a 68030? If so is there any talk about CPU upgrades for us MacII pioneers? (I expect at least one quip about the MacII pioneer bit.)

PAUL CHERNOFF ON 07/27
I heard something about a 68030 card for the Mac II.

Inside Macintosh

JENNY HOERST ON 07/16
When I use ResEdit to create a new font to edit it assigns an ID number itself. I can figure out the font number from that. I am writing a program that will be sold commercially for which I want to use a new font. Do I have to get a font assigned for that? If so, how do I become a registered Apple developer?

BRAD FLIPPIN ON 07/17
To become a registered developer you have to send for Apple's registered developer package. The questionnaire in there has some business questions: How are you going to market it, how are you going to support it, what other programs have your written and marketed? We tried to apply for it at work so we could get AppleLine assistance on some in-house work, but were turned down because we were not going to market the product through an established marketing program. Then, if you become a registered developer, which does not cost you anything, you can become a Certified developer. This is where you get telephone support at a cost of (I think) about $300/year. As for your question on fonts and ID's, you need to get Steve Herold's article "MacType Handling" in the June 1988 issue of Personal Publishing", Page 50. It is a good discussion of the Font ID problem in the Mac. It also, on page 58, lists all the current PostScript Font ID numbers. IE: 0-12 are original Apple System IW fonts, 13 Zapf Dingbats... There are some holes at 35-74, 76-79, 104-109, 111-127, 248, and 256 (not many). If you can't find a copy, call ☛

me at work and I'll send you a xerox.

MATTHEW RUSSOTTO ON 07/17
Two mistakes in your message: 1) It was Certified Developers who didn't have to pay, and Registered that did (for which they got phone support and Applelink. Now Certified developers can get AppleLink also); 2) Apple is no longer making individuals Registered Developers.

Macintosh System

PAUL CHERNOFF ON 07/15
Discovered something new about 6.0 (this might have been true for 4.2). In the OPEN dialogue box, if I have 2 files starting with the same letter (such as "D"), if I press that letter twice it will jump to the second file. This is better than having to try to spell out the name of the file you want highlighted.

PAUL CHERNOFF ON 07/20
Just a bit more information on the installer and System 6.0. When upgrading to 6.0 your disk needs new "boot blocks" in order to be a bootable disk. The installer updates your boot blocks. If you just drag the new stuff to the target disk the boot blocks are not written and the disk will not boot up (though the disk is accessible if you boot up with a different disk).

TOM VAN LENTEN ON 07/24
This fall I go to college, and take a Mac with me. I am going with an internal hard disk. The problem is that I would like to be able to boot myself from the hard disk and keep my programs on the internal, and still allow other people to use the computer, but not let them get any access to the disk. What programs are there that will allow me to password protect my HD to only give me access?

BILL BALDRIDGE ON 07/26
Check out NightWatch or Sentinel, both $150—too much! Just take your SCSI cable & lock it in your desk...or the same for the power cord, if it's removable.

TOM VAN LENTEN ON 07/29
I am interested in a printer, and was wondering what my non-Apple printer options were. Does anyone know of a company that puts out drivers for dot matrix and ink jet printers? And while I'm at it, any recs. for non–Apple printers under $1K.

BILL BALDRIDGE ON 07/29
You might check out Printworks, "a collection of dot matrix printer drivers for the Macintosh" from Softstyle—$75. Softstyle also does several other printer drivers, including one for the HP family of jet printers. From what I've heard, Cricket is coming out with a series of printer drivers for the Mac. You can contact them at 215/251-9890, or leave a message for Rich Norling here on the TCS—I think he's involved in the project.

BAILEY WALKER ON 07/30
I installed System 6.0 on my SE and have had none of the problems others seem to be having. I have avoided MacroMaker though. I use QuicKeys and saw no reason to even try it out. MAP is junk—just more stuff to clutter up my already too full System Folder!

Federal Gov't SIG

DAN YURMAN ON 07/03
The situation with 2 Mb memory upgrades for MAC SE and MAC II has reached the point of being somewhat pointless. Delivery times are being quoted from "early" in October to "late" as in January 1989! The situation does not appear to be much better for some models of Apple Laser printers. However, I guess Apple isn't interested in their customers anymore. Business Week reports that the firm has the largest cash balance and lowest debt of any manufacturer of personal computers in the U.S. Business Week also reports in their issue for 6/20/88, pg.154, that Apple had sales of $2.66 billion, up 32% from 1986. The firm enjoyed profits of $217 million, up 27% from 1986. Interestingly, R & D expenditures were $192 million, up 50% from 1986 equalling 7% of sales. Employment was up 13% for the year. By comparison, Digital Equipment Corp. had sales of 9.39 billion and profits of $1.14 billion up 20% from 1986. DEC had R & D expenditures of $1.01 billion or 10.8% of sales.

DAVID GURSKY ON 07/03
It's not so much that "Apple isn't interested in their customers anymore," but rather which customers Apple IS interested in. Given the scarcity of SIMMs, Apple has a real dilemma as to whether to allocate incoming shipments to new computers, laser printers, upgrades, etc.

DAN YURMAN ON 07/05
I'd like to add a comment to my previous note about delivery times for Apple hardware and especially memory chips. For the past five years I have also had responsibilities for managing our installed base of IBM compatible personal computers. We have nearly 700 on site and many more in field offices. One of the things which has made my life easier is that when one supplier can't meet our requirements, I can always find the same functions in another supplier's product. So, I am used to dealing with multiple vendors and benefitting from competition. What I find frustrating about the Apple environment is that there is only one play, and he has taken his bat and ball and gone home. Maybe Apple doesn't understand that the key to repeat sales is based on building an installed base with your customers. I can tell you this, based on our experience this summer, it will be another couple of years before we allow an installed base of Apple products in our operation. I won't put my job on the line for a manufacturer who can't or won't deliver within 30 days. — Not to mention their prices either, but that is another story for a future message.

BILL BALDRIDGE ON 07/07
That ought to rattle some cages at Apple Corporate. Give 'em hell...

DAVE GIBSON ON 07/19
I remember seeing an article in PC Week (gotta keep up with what the other side is doing) on a study that showed that Macs were significantly cheaper than PCs due to reduced training costs and improved productivity relative to Macs. Unfortunately, I forgot to xerox it. Does anyone out there have the reference or perhaps a xerox? Thanks.
PAUL CHERNOFF ON 07/19
The article refers to the "Macintosh Benefits Study" conducted

by Peat Marwick for Apple Computer. For a free copy of the summary (24 pages in a slick cover) contact Apple. I don't know the exact issue but I do have a copy of the PC Week in which the article appeared. Another free report (but not on Macs) is "Managing Personal Computers in the Large Organization" prepared for Lotus by Nolan, Norton & Co. a firm of Peat Marwick. I don't have Nolan, Norton & Co's phone number, but I believe that they have a 800 number—here is their regular number (617) 862-8820. The report is not about Lotus products, but about managing personal computers in general.

JERRY WALZ ON 07/30
Received 2 copies (enough for 20 Macs) of CE Software's released version of its new E-mail software, QuickMail, today. We got these as a result of our beta testing and have 3 more copies on order commercially. Package is quite good with a lot of custom form features and the ability to use software bridges to access external mail services; i.e., CIS, Genie, MCI etc.

Mac Hardware

CHARLES BUELL ON 07/02
Is it bad for the computer to run on a bad power supply? I have a Mac + with a power supply on it's way out. The screen flickers and jumps and occasionally gets strange flashes on the right side. The screen makes waves over the screen. Should I get it replaced? How much will it cost?

BILL BALDRIDGE ON 07/04
Mine was doing the same thing a couple of weeks back, so I pulled the case and resoldered the four pins hiding under the top right pad which holds the cardboard to the analog/power supply board. This fixed the screen jitters, but now I have this ear-splitting whine coming from the flyback. Seems I've traded one problem for another. Maybe I should just wear ear-plugs. Bottom line is this: the single-sided analog board is prone to thermal stress problems. A cooling fan can reduce the stress on the board, but the basic design of the board was flawed from the start. Your best bet is to find a shop that does component-level repair and ask them to resolder any bad joints on the analog board. I think MacCorner, MacClinic, or Mid-Atlantic Telesis can do this.

ERIC RALL ON 07/09
Use a cyanoacrylate glue (e.g. super glue or crazy glue) to glue the screeching transformer to the board. That will eliminate the noise. It will also void any warranties, but in your case, Bill, I suspect they were all voided years ago.

BILL BALDRIDGE ON 07/13
MY warranty was voided back in the 50's sometime, but my Mac's warranty is only a few years expired. I still haven't tracked down the source of the high frequency noise—I'm starting to suspect the cat.

DANIEL C. ADKINS ON 07/26
A month ago my Mac +'s screen had waves. Just before I was to take it in I relocated the Mac so that the air flow was increased. That ended the CRT waves. Evidently, heat [and blocked cooling slots - ed.] impacts on the Mac greatly.

SATURDAY WAP TUTORIALS
by Lynn R. Trusal

HyperCard for Beginners - Bob Platt - Saturday September 17, 9 - 12 AM.

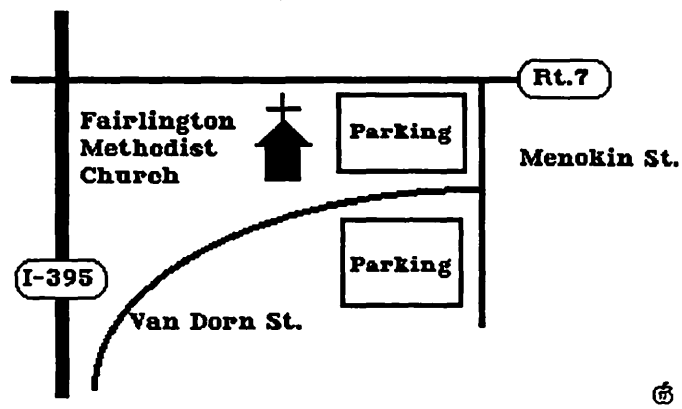
Bob will teach the introduction to HyperCard for those Macintosh users who want to finally begin using the program that came free with their computers.

HyperTalk for Beginners - Jay Heller - Saturday, October 1, 9 - 12 Am.
HyperTalk for Intermediate Users - Jay Heller - Saturday, October 8, 9 - 12 AM.

Jay will teach both an introduction and an intermediate session on HyperTalk, which is the programming language that makes HyperCard tick. If you want to learn the basics of this new language and find ways to customize HyperCard stacks, don't miss out on these two tutorials. Attendance at the HyperCard tutorials implies a basic understanding of HyperCard and a desire to do scripting.

VIRGINIA MACINTOSH TUTORIALS
by Russ Bradley

Beginning Macintosh tutorials for Northern Va. residents will be given on the 2nd, 3rd and 4th Thursday of each month-starting at 7:15 PM in Alexandria in Room 110 of Fairlington United Methodist Church, located at I-395 and King St. (Rt. 7). From 395 take the King St. East exit. Fairlington United Methodist Church is immediately on your right. Turn right on Menokin and right again to enter the parking lot. Enter the door from the parking lot and go downstairs to Room 110.



MAC DISKETERIA NEWS

by David Weikert and Martin Milrod

New Disk Catalog Available

A Mac Disk Catalog containing comprehensive information about the entire WAP Disk collection (including the disks released this month) is now available. The catalog is available for $4.00 at the office and at general meetings, or you may order it by mail for $5.50 to cover postage and handling. The catalog is organized into four sections as follows: (1) list of disks by disk number and name, (2) descriptive listing of files on each disk by disk number and name for the functional series of disks, (3) descriptive listing of files on each disk by disk number and name for the serially numbered disks and (4) alphabetic listing of files across all disks.

Revised Desk Accessory Series

We just revised the Desk Accessory Series 2.01 through 2.12, converting the series from 400K to 800K disks. The series is now available in a six disk set labeled 2.01A through 2.06A (the letter "A" indicating the first revision). Program content is identical to the disks previously issued except for elimination of redundant files so don't buy these disks if you previously purchased the series. The six disk set is available for $21.00 and comes with a mini-catalog. File descriptions are not listed due to space limitations; descriptions are provided in the new catalog.

Revised System Utilities Series

We also revised the System Utilities series 16.01 through 16.12 by converting the series to 800K disks. The series is now available in a seven disk set labeled from 16.01A through 16.07A. Except for disk 16.07A, Anti-Virus Utilities which includes updated material, program content is identical to the disks already issued so don't buy these disks if you have previously purchased the series. The seven disk set is available for $24.50 and comes with a mini-catalog. File descriptions are not listed due to space limitations; descriptions are provided in the new catalog.

New Sounds Series

We have converted the sequentially numbered sounds disk into functional series 12.01 through 12.09; a nine disk 800K disk series. Except for the utilities located on disks 12.01 and 12.02, the program content is identical to the disks already issued so don't buy these disks if you have previously purchased disks 99, 102, 109, 111, 125, 131, 144, 148, 152, 154, 155 and 156. The nine disk set is available for $31.50 and comes with a mini-catalog. File descriptions are not listed due to space limitations; descriptions are provided in the new catalog.

Version 6.0, Apple System Software On Hold

We issued Version 6.0 System Software two months ago; **however, Apple subsequently announced a update to this release which we have not yet received.** We have not filled any orders for this release pending receipt of the update. We will release these disks as soon as we receive the changes from Apple. System 6 software is available on four disks for $5 per disk. (You can combine this order to take advantage of the $4 price per disk for five or more disks.) One disk includes an updated System, Finder, MultiFinder and associated System folder files. The next disk is dedicated to printer drivers. The remaining two disks contain the Apple utilities including two new ones, a macro recording and playback capability and an expanded screen image for the visually impaired. Please note that the System Software package that we distribute does not include any documentation. If you need documentation, the System Software upgrade package will also be available from your local Apple dealer at a list price of $49; ask about a discount for WAP members. Make sure that the package you receive contains the update.

New StackWare Librarian

Bill LaPlante had to resign as librarian due to job commitments. Dave Condit, who annotated the Miscellaneous Utilities series and was ready to start the INITS and cdev series, has agreed to be the HyperCard StackWare librarian in Bill's place. Dave will be assisted in these efforts by a few members who previously volunteered to review, test, assemble and annotate the StackWare. Dave is soliciting additional volunteers—call him at home at (703) 349-8752. Look for new StackWare releases next month along with the introduction of a new disk series of XCMDs and XFCNs for HyperCard HyperTalk programmers thanks to Rick Chapman and Dave Condit.

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 is now accounting 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.

The New Disks

We have one new 800K disk this month, a Mac II offering. We also have 22 revised 800K disks in three functional series; 2.01A through 2.06A – Desk Accessories, 12.01 through 12.09 – Sounds, and 16.01A through 16.07A – System Utilities. This month's submissions are brought to you by Rick Chapman, Marty Milrod 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 underlined, programs and files are printed in bold with shareware information printed in bold italic print.

Mac II Disk #20.13 — Miscellaneous III

This disk contains the latest versions of Image, GrayView and SSSwitcher. We've also included a solitaire game, a couple

contd.

of utilities, a program to make the life of Word and SuperPaint owner's easier and a few other tidbits.

Klondike 3.6.c: A nice solitaire game with colored cards on the Mac II. ***Shareware—$10.***

Color Cursor: An INIT file that will change the color of the standard arrow cursor. Just place this file in your System folder and restart.

Color SnapShot™: A demo of an FKey which allows you to dump the Mac II screen to a file or the clipboard. This can replace the CommandShift-3 FKey that comes with the Mac II. It supports multiple file types, large screens and color. This version is crippled and will only work 20 times. The fully functional version is available from the author for $16.

GrayView 1.9.8a4 f: **GrayView 1.9.8a4:** The latest version of GrayView, a program especially designed to convert ThunderScan™ SCAN documents to gray scale images on a Mac II. This version allows the user to manipulate the picture in several fundamental ways, sort of like a MacPaint for gray scales. Also, GrayView can be used to view and manipulate any PICT image, color or B/W. It even works with TIFF files. Documentation is included in the file **About GrayView.**

USC girl, Help, Pet Scan: Three sample images.

Image 0.75 f: **Image 0.75:** The latest version of Image. This one fixes a few minor problems with System 6.0. Documentation is included in the file **About Image(Text).**

32 greys, 8 greys, 4 grays, 20 colors: Image palettes.

JuliaSet 5.1b0 f: **JuliaSet:** Another fractal geometry program which draws Julia sets and pools of attraction. This program only runs on a Mac II, directly addresses the MC68881 FPU and draws in 16 colors (greys). The source code in MPW assembler (**JuliaSet.a, JuliaSet.r** and **JuliaSet.make**) and documentation (**JuliaSet.doc**) are included.

MacinTalk v1.32 f: **MacinTalk:** The latest version MacinTalk for the Mac II.

PictPAL: A small utility for converting PICT files into Pixel Paint files.

SCREENER: A utility that will reduce the size of the standard Mac II screen to the size of a Mac Plus screen. This may be of use when running some programs that were designed for the old screen size and whose author's did not follow the Apple guidelines.

SubLaunch f: For historical reasons, MacWrite and MacPaint files are standard ways of transferring text and picture data on the Macintosh. Many Mac II users no longer use these programs but have instead switched to Microsoft Word and SuperPaint. One thing that has always bothered me about using Word is that I can no longer open a MacWrite file by double clicking on it. The 3 files contained in this folder will automatically open either Word or SuperPaint when a MacWrite, MacPaint or FullPaint file is double clicked.

MacWrite (?), MacPaint (?), and FullPaint (?): By Randy Ubillos. These three programs look like the real things to the operating system but will actually open Microsoft Word or SuperPaint with the appropriate file. Be sure to read the documentation included in the file **SubLaunch.mwrt.** These programs require you to enter the location of Word and SuperPaint on your disk using ResEdit. ***Shareware—$10.***

SSSwitcher© v2.2 f: **SSSwitcher©:** The latest version of SSSwitcher, a "Startup" application that will randomly switch StartUpScreens, BackDropScreens, StartupSounds, BeepSounds, DiskInsertSounds, DiskEjectSounds, BadDiskSounds, DiskRequestSounds, RestartSounds, ShutDownSounds, KeyClickSounds, ReturnKeySounds and SpaceKeySounds in any combination you desire. Documentation is included in the file **SSSwitcher©.docs.**

Tears f: **Tears (Mac II):** A simple little program that runs in the background under MultiFinder. My only complaint is that the program should have an option to also play that old George Harrison favorite, "While my Mac Gently Weeps" in the background.

Views and Reviews contd. from pg 76

who will be helping me coordinate reviews: Marty Milrod, Dave Morganstein, Lee Raesly, Charles Don Hall and Ted Meyer. For those of you who wish to volunteer to help, and already have a working relationship with the above individuals, you may feel free to contact them direct—talking to any one of them is the same as talking to me.

INDEX TO ADVERTISERS

AppleFest San Francisco 9
Audiovisual Washington Inc 55
Clinton Computer 1
Computer Age 42, 43
Computer Desktop Publishing Center 79
Computer Ware Unlimited 19
Desktop Perfect 27
FC Business Systems ..... Inside Front
Highlighted Data, Inc 66
Insight Plus Mac 11
Justin Associates 49
Landmark Computer Laboratories 33
Language Systems Corporation 63
Laser Graphic Services 67
MacCorner ..... Inside Back, Back Cover
MacInOffice 47
MacSource 61
MacTemps 77
MacTography 65
Mac Underground 79
Multisoft Resources 4
Nexo Distribution 5
Nicklas Associates Inc 73
Operant Systems 17
PC Resources 75
PLS Inc 23
Practice Management Systems Inc 75
Printing Team, The 67
Publishers Service Bureau 53
Satellite Scientific 31
Software Ventures 45
Summit Research Corp 73
Tempest Products Inc 2
VF Associates 15

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( ) 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
( ) 505 Reading Fun
( ) 506 Astronomy Programs
( ) 507 Griffith Observatory
( ) 508 Educational Games G
( ) 509 Educational Games H
( ) 510 Education - Math
( ) 511 DOS 3.3 System Master
( ) 512 DOS 3.3 Tutorial

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

Note: Eamon disks 195-229 are also available. See description in Member Reference Book.

ProDOS Volumes

( ) 802 Utilities (A)
( ) 803 Filecabinet
( ) 804 Shareware
( ) 806 ZAP
( ) 807 Imageworks
( ) 808 Comm-Term
( ) 810 Haunted House
( ) 811 Adventures Disk
( ) 812 Toddlers and Kids
( ) 813 TAWUG-1
( ) 814 TAWUG-2
( ) 815 TAWUG-3
( ) 816 TAWUG-4
( ) 817 Telecom
( ) 818 1987 AW Tax Template, (Shareware)

Pascal Volumes (See also 133)

( ) 300 :ATTCH 1.1/BIOS
( ) 301 ( ) 302 ( ) 303
( ) 304 ( ) 305 ( ) 306
( ) 307 ( ) 308 ( ) 309
( ) 310 ( ) 311 ( ) 312
( ) 313 ( ) 314

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

( ) 1000 /// SIG PD Catalog
( ) 1001 Games Volumes 1 & 2
( ) 1002 Basic Utility Vol.1&2
( ) 1003 Footnote ///
( ) 1004 Sys. Utils & Data
( ) 1005 New Member Disk
( ) 1006 Word Proc. & WPL
( ) 1007 Games for Kids
( ) 1008 The Best of MAUG
( ) 1009 The Best of the Source
( ) 1010 The Best of TAU
( ) 1011 D3. Backup
( ) 1012 Sketchpad&Slideshow
( ) 1013 A3 Diagnostics
( ) 1014 Basic Boot Disk
( ) 1015 Best of ///s Company
( ) 1016 AppleCon
( ) 1017 Pohlman Disk 1
( ) 1018 Pohlman Disk 2
( ) 1022 Basic XT and Utilities
( ) 1023 The Retriever
( ) 1024 Power Print ///
( ) 1025 Disk Window
( ) 1026 Data Window/Source
( ) 1027 Power Cat/Basic XRF
( ) 1028 ASCIDIF(Bloom)
( ) 1029 Ink Well Manual
( ) 1030 Ink Well

Apple IIGS Volumes @ $5

( ) 2001 Utilities & Pictures A
( ) 2002 Demo Disk A
( ) 2004 Slide Show I
( ) 2005 Demo Source Code 1
( ) 2006 Demo Source Code 2
( ) 2007 M18 Courses
( ) 2008 Odd Bits I
( ) 2009 GS Fonts I
( ) 2010 GS Fonts II
( ) 2011 GS Fonts III
( ) 2012 AW Tax Template
( ) 2013 Odd Bits II
( ) 2014 Sounds I
( ) 2015 Sounds II Nostalgia
( ) 2016 Slide Show II

Apple IIGS contd.

( ) 2017 Slide Show III
( ) IIGS Systems Disk

Macintosh @$5

( ) 17.3a Red Ryder 9.2
( ) 17.2b Red Ryder Doc.
( ) 31.1 Dun.Doom/Eliza Talks
( ) 32 Fun & Games II
( ) 35 Fun & Games III
( ) 40 Mac Videos
( ) 41 Cap'n Magneto
( ) 42 Studio Session (512K)
( ) 44 Boston II Fonts
( ) 45 Games IV
( ) 46 Games V
( ) 47 Fonts IV
( ) 48.3 Fonts V
( ) 50 Paintings III
( ) 51.2 Telecom II (no sys)
( ) 54 Games VI
( ) 55 Games VII
( ) 56 Games VIII
( ) 57.1 New Memb. Disk 86
( ) 59.1 CE Sampler II
( ) 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
( ) 83 Telecom III
( ) 84 Fun & Games XVI
( ) 85 Fun & Games XVII
( ) 89 Fun & Games XVIII
( ) 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
( ) 99 Inits I
( ) 100 Fonts VIII
( ) 101 Fonts IX
( ) 104 Fun & Games XXII
( ) 105 Fun & Games XXIII
( ) 106 Fun & Games XXIV
( ) 108 Fun & Games XXV
( ) 110 Fonts XI
( ) 113 Fonts XII
( ) 115 Telecom IV
( ) 116 DAs XII
( ) 118 Paintings V
( ) 120 Inits II
( ) 123 Graphics II
( ) 124 Paintings VI
( ) 127 Paintings VII
( ) 128 Fun & Games XXVI
( ) 129 Telecom V
( ) 134 Fun & Games XXV
( ) 135 Paintings VII
( ) 143 Games XXVI
( ) 145 Paintings IX Clip Art
( ) 146 Fonts XIII
( ) 147 New Member's Sampler
( ) 149 Painting X
( ) 150 Games XXVII-Arcade
( ) 151 Games XXVIII-Strategy
( ) 153 Games XXIX

*Vol. 181 required with these disks.

Date: _____

Note: Allow 2-3 weeks for mailing. Total Order = ____ Disks; Postage $_____; Total Amount Enclosed $_____.

Note: Mac Disks are contd. on next page.

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Macintosh Disks contd.

DAs Series: (6-disk set $21) *
( ) 2.01A ( ) 2.02A ( ) 2.03A
( ) 2.04A ( ) 2.05 A ( ) 2.06A

FKeys Series:
( ) 4.1 ( ) 4.2

Sounds Series:(9-disk set $31.50) *
( ) 12.01 ( ) 12.02 ( ) 12.03
( ) 12.04 ( ) 12.05 ( ) 12.06
( ) 12.07 ( ) 12.08 ( ) 12.09

* Series disks are regular Mac price when purchased individually.

Misc. Util. Series(7-disk set $24.50)*
( ) 15.01 ( ) 15.02 ( ) 15.03
( ) 15.04 ( ) 15.05 ( ) 15.06
( ) 15.07

Util. Series (7-disk set $24.50) *
( ) 16.01A ( ) 16.02A ( ) 16.03A
( ) 16.04A ( ) 16.05A ( ) 16.06A
( ) 16.07A

Word Proc. Series (3-disk set $10.50)*
( ) 17.01 ( ) 17.02 ( ) 17.03

Adobe Fonts Series (9-disk set $31.50) *
( ) 18.01 ( ) 18.02 ( ) 18.03
( ) 18.04 ( ) 18.05 ( ) 18.06
( ) 18.07 ( ) 18.08 ( ) 18.09

HyperCard StackWare:
( ) 19.01 (aka 136) Utilities
( ) 19.02 (aka 137) Clip Art
( ) 19.03 Applications
( ) 19.04 Monster Hunt
( ) 19.05 Stackware for Children
( ) 19.06 Monty Python
( ) 19.07 Tutorials for Applns.
( ) 19.08 The AIDS Stack

New System 6.0 Software
( ) Set of 4 disks

HyperCard Upgrade 1.2 **
( ) ** Requires proof of purchase

Mac II (800K):
( ) 20.01 Graphics I
( ) 20.02 GrayView & DAs
( ) 20.03 Miscellaneous
( ) 20.04 Graphics II
( ) 20.05A Ray Trace Programs
( ) 20.05B Ray Trace Source
( ) 20.06 Color
( ) 20.07 Graphics 3
( ) 20.08 Utilities I
( ) 20.09 Miscellaneous II
( ) 20.10 Image .61
( ) 20.11 Pixel Paint Picture
( ) 20.12 Vision Lab
( ) 20.13 Miscellaneous III

See page 87 for disk ordering information.

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 currently alternating months between the IIgs and other Apple IIs. (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. 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.

( ) September 6 (][+, //e, //c) - **WELCOME TO THE WORLD OF APPLE** ( ) October 4 (IIgs specific)
( ) September 13 (][+, //e, //c) - **HOW TO USE YOUR APPLE SOFTWARE** ( ) October 11 (IIgs specific)
( ) September 20 (][+, //e, //c) - **POPULAR APPLICATIONS** ( ) October 18 (IIgs specific)

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. They are also given in Northern Virginia on the 2nd, 3rd and 4th Thursdays of the month in Room 110 of Fairlington United Methodist Church, Alexandria. (See map on page 84 of this Journal.) 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. (Note to Mac II owners: You are not expected to bring your computer, but we do not have a Mac II at WAP.) These tutorials fill up quickly—call the office to verify space before mailing your registration.

( ) Monday, Sept. 12 or ( ) October 10 (Office) - Introduction to Macintosh. Prerequisite: Guided Tour to Macintosh.
( ) Monday, Sept. 19 or ( ) October 17 (Office) - Intermediate Mac Skills. Prerequisite: Familiarity with Desktop, disk copying, etc.
( ) Monday, Sept. 26 or ( ) October 24 (Office) - Personalizing Your Mac for Productivity. Prerequisite: 1st two sessions or equiv.
( ) Thurs., Sept. 8 or ( ) October 13 (No.Va) - Introduction to Macintosh. Prerequisite: Guided Tour to Macintosh.
( ) Thurs., Sept. 15 or ( ) October 20 (No.Va) - Intermediate Mac Skills. Prerequisite: Familiarity with Desktop, disk copying, etc.
( ) Thurs., Sept. 22 or ( ) October 27 (No.Va) - Personalizing Your Mac for Productivity. Prerequisite: 1st two sessions or equiv.

Non-Regular Tutorials: The following tutorials are being offered in the next few months. The fee for these tutorials is $15 ($20 for non-members). A more detailed description is given elsewhere in this publication or was given in a previous month.

( ) **HyperCard for Beginners - Bob Platt, Saturday, September 17, 9-12 Noon, Office.** Fee $15 ($20). For those who want to begin using HyperCard. Bring your Mac, hard disk and HyperCard program along with some blank disks.

( ) **HyperTalk for Beginners - Jay Heller, Saturday, October 1, 9-12 Noon, Office.** Fee $15 ($20). Beginning HyperTalk, the programming language that makes HyperCard tick. Assumes a basic understanding of HyperCard and a desire to do scripting.

( ) **HyperTalk for Intermediate Users - Jay Heller, Saturday, October 8, 9-12 Noon, Office.** Fee $15 ($20).

Please check the desired tutorials and return this form with fee(s) made payable to Washington Apple Pi, Ltd. to:

Washington Apple Pi, Ltd.
Attn. Tutorials
8227 Woodmont Avenue, Suite 201
Bethesda, MD 20814

Name _____ Membership No. _____

Day phone _____ Eve. phone _____ Total Enclosed $ _____

INDEX TO AUTHORS

Baldridge, Bill 78
Begleiter, Ralph J 52
Bradley, Russ 84
Cave, Katherine M 48
Feldman, Larry 64, 77
Fitzhugh, Richard 24
Golden, Robert 48
Hakim, Ray 5
Hall, Charles Don 34
Hasson, Joseph A 40
Hobbs, Raymond 76
Hoffman, Al 38
Knight, Kenneth 69
Mason, Brian 16
Meyer, Ted 12
Milrod, Martin 85
Morganstein, David 56
Nelson, John 51
Ottalini, David 32
Payne, Steven 34, 36
Platt, Robert C 4, 11, 67, 68
Rohr, Jay 50
Schlosser, Paul 28
Schwartz, Dana J 39
Seferian, Nancy 48
Settle, Ray 19, 20, 27
Shaffer, Bob 62
Solovij, Jurij 21
Swift, Dunham 37
Tarantino, Paul 10, 38
Trusal, Lynn R 58, 84
Wagovich, Joe 14
Weikert, David 85
Wolfarth, Lawrence 76
Wolov, Robb 54
Wood, David 35, 36
Youell, Adrien 60

Index to Advertisers Appears on Page 86

Mac Corner
The Macintosh Only Store

MacWorld News!

Come To MacCorner and try out the latest & greatest Software and Hardware for the Macintosh!

Returning from MacWorld Expo in Boston, the MacCorner team brings the news of products soon to arrive at our shelves

Dozens Of New Products!

MacWorld-Expo is over, but the product introductions are just starting to arrive at MacCorner. From Joysticks to Big Screens,from DA's to CAD programs, this Boston show was rich in innovative and evolutionary products.

DTP, Graphics, and CAD

Quark intoduced **Xpress 2.0** with new support for color layout and graphics, making it the program to beat in this category. With **RSG 4.5**,and **StandOut!** Letraset enhanced its position in the DTP and presentations race. Silicon Beach's showed **Digital Darkroom** and **Superpaint 2.0.** Enabling Technologies's **Clip3D** libraries broke new ground for high quality clip art. Deneba's **Canvas 2.0** will promptly hit our shelves and challenge MacDraw II. Also on their way are **Modern Artist, Studio8** (from Electronic Arts) **Photon Paint**, And **Cricket Paint**. There were many introductions and new releases in the CAD arena. Paracomp showed **Swivel 3-d**, a superb 3-d drawing/ modeling program,and Generic software showed its **Generic CAD** line of products, both soon to arrive at our store. **Versacad V2** added 3-d imaging and speed to V1. Also at the show were new versions of **Minicad, Pegasys,Architrion**, & **MGM Station**, all arriving soon at MacCorner.

Productivity News

Boston was rich in new productivity tools. **Mindwrite Express** from Access Tech. broke new ground in ease of use and connectivity for an outliner. TMaker introduced **WriteNow 2.0** a new and powerfull version of this classic.WSI showed **QuickLetter**, an outstanding word proccessing DA. **MS File 2.0** was a nice revision, but the truly outstanding flat database application was from OverVue. **FoxBase** outpaced all the other relationals while **Oracle** came to the Mac. **WINGZ** from Informix will also be here soon. This fully programable mac spreadsheet aslo sports some of the niftiest 3d business graphics we have seen. **More II** and **Persuasion** -by Aldus- were also at hand and are awaited additions to the presentations pallette of products now available. **Acknowledge** by Supermac totally redefined what a communications program can -and should- do. **The Nightwatch** by KML at last made securing access to a Mac hard disk easy. There were too many other introductions and rereleases to list here, but come to MacCorner during september and get a chance to try them as they arrive!

HardWare News

MacWorld Boston was often evolutionary and sometimes revolutionary in this department. A lot of product lines matured -for instance **E- Machines**, **MegaGraphics**, and **Radius** all have now a complete line of offerings for video-, some broke new ground -Dayna's **DaynaTalk** , Abaton's **FaxModem**- and some, like Cornerstone's $999 **SinglePage** display, broke the Price Barrier. GCC Technologies introduced their **WriteMove** 192 DPI Quickdraw printer, compatible with the **PLP**'s Bitstream outline fonts. Also from GCC was the new **FXi 150**, a superfast CDC internal hard disk for the MacII. On the Hard disk side **PLI**-Peripheraland- introduced a complete new line of superfast external hard disks which can mount vertically or under the mac according to your needs. Their **Infinity 40** broke new ground in terms of removable storage speed and convenience. **Jasmine** also introduced thir new look. We liked their **Megadrive 20**. The E-Machines **C-20** color display for the MacII was superb and ofered the same quality of picture as Radius's **CDS** but at a significant price advantage. Supermac's new **Spectrum** video cards amazed all of our MacCornerites with their unvelievable 4092 by 1024 res. and hardware scrolling! And the **MegaShot** by Megagraphics allowed real time 256 shades of gray image capture from their own mini camera! Color scanners by **Sharp** and digitizers by **PixelLogic** allowed the logical next step in Macintosh presentations and DTP. And to store it all, **Corel**'s new Worms were second to none (and available now at MacCorner).

Music News

MacCorner is now the Area's authorized **FINALE** dealer. Call us for information about the product debut and seminars to follow soon after. AAnd arriving immediaetly, **MacDrums**, the percussion orchestrator for the Mac! Keep in touch for other MIDI related announcements coming next month.

Come By!

Over the next few weeks we will be recieving these new products and evaluating others at MacCorner. Let us know if there is a line of products not mentioned here, that you would like us to look into. Until then, drop by our store and try for yourself the News from MacWorld Boston.

Many discoveries await you at MacCorner.

For GSA Schedule see Back Cover

Hours: Mon-Sat 10am-6pm
Thur. 10am-8pm

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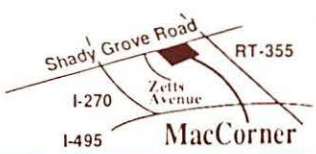
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