$2.50

Washington Apple Pi

Journal of Washington Apple Pi, Ltd.

Volume 10 April 1988 Number 4

Highlights

- TimeOut SuperFonts
- Why Curse the Cursor?
- IIGS Stuff: AppleFest and RAM Disks
- GameSIG Reviews
- CongressStack
- A Macintosh and DEC Network

In This Issue

Officers & Staff, Editorial 3
President's Corner ..... Tom Warrick 4
ByLaws Change 4
Feb. 27 Meeting: Connectivity ..... Cynthia Yockey 4
Classifieds, Commercial Classifieds, Job Mart 5
WAP Hotline 6
WAP Calendar, SIG News 7
TimeOut SuperFonts ..... Paul Koskos 8 *
Event Queue, General Information 9
Why Curse the Cursor? ..... Chester H. Page 10 *
Q & A ..... Robert C. Platt & Bruce F. Field 12
IIGS Stuff: AppleFest and RAM Disks ..... Ted Meyer 14 *
Apple IIGS SIG News ..... Peg Matzen 15
FutureSound Review ..... David Wood 18
Program Interface SIG (PI-SIG News) ..... Robert Golden 20
Best of the Apple Items from the TCS ..... Euclid Coukouma 22
On the Trail of the Apple /// ..... Dave Ottalini 28
The Return of Wartow: A Review ..... Barry Bedrick 30 *
Dondra: A New Beginning—A Review ..... David Wood 30
Jewels of Darkness: A Review ..... Dave Romerstein 32
Pixel's Revenge VII: A Review ..... Charles Don Hall 32
King's Quest III—Space Quest: A Review ..... David L. Porter 33
Solitaire Royal: A Review ..... David L. & Miriam Porter 34
Spy's Adventure in South America ..... Stephen Granite 35
Frederick Apple Core 35
U.S. Adherence to Berne Cpyrt. Conv ..... Joseph A. Hasson 36
Volunteer Profiles 37
Pascal News: TML Source Code ..... Robert C. Platt 38
Software Under Review 38
Letters to the Editor 39
Annapolis Apple Slice News ..... Katherine M. Cave 39
Volunteers Needed 39
WAP Acrostic ..... Dana J. Schwartz 40
AVSIG (Arts and Video) ..... Nancy Seferian 41
dPub SIG Meeting—March 2 ..... Cynthia Yockey 41
MacNovice: Outgrowing the Finder ..... Ralph J. Begleiter 42
Developer's View: An Apple Wish List ..... Bill Hole 46
CongressStack: A Review ..... Herb Jasper 48 *
HyperCard News ..... Robert C. Platt 49
On the Road Again: Graphics Alert ..... Jay Rohr 50
Macinations 2 ..... Robb Wolov 53
Macintosh Bits and Bytes ..... Lynn R. Trusal 54
Macintosh and DEC Network ..... J. Cooper & W. Slaughter 60 *
A Long Word Wiser: MacWrite 5.0 ..... John A. Love III 63
Excelling on Your Mac: Part 18 ..... David Morganstein 64
Excel SIG/Discussion Group ..... Larry Feldman 66
Of Nash-Ramblers & Other Things ..... Bill Baldridge 68
Ramblings from South Bramble, England ..... Peter Trinder 70
Best of the Mac Items from the TCS ..... Dan Hughes 72
IIGS Disketeria News ..... David Todd 80
WAP Spring Tutorials ..... Robert C. Platt 80
Disketeria Help Wanted 80
Mac Disketeria News ..... Martin Milrod & David Weikert 81
Disketeria Order Form, Tutorial Registration Form 87, 88
Index to Advertisers 88
Index to Authors 88

THE FAST, EASY AND SMART WAY TO ORDER APPLE'S LATEST ADVANCEMENTS

Get the newest and hottest product intros . . . call Falcon Microsystems

Falcon Microsystems is an Apple® specialist. That's the reason we were selected for exclusive management of Apple's GSA Schedule C GS00K-87-AGS-6086.

Presenting Graphics And Desktop Publishing

Falcon carries all the tools you need to create and produce quality, full color or black and white presentations and documents – planning, text editing, full object-oriented drawing, graphing, image manipulation and animation.

Call or write for a synopsis of the desktop publishing and presentation graphics solutions available from Falcon. We inventory a wide variety of apple and third-party equipment and software to meet any requirement for advanced visual communications.

It's the newest, the fastest, the most powerful business computer Apple makes. And it's at Falcon Microsystems now. It's the new Macintosh II – with remarkable features inside and out. Starting with a microprocessor that runs at four times the speed of most other business computers. And six internal expansion slots that make it easier than ever before to customize solutions.

FALCON MICROSYSTEMS

1801 McCormick Drive
Landover, MD 20785-5326
(301) 341-0146

Apple Authorized Federal Government Reseller

Apple, the Apple logo and LaserWriter are registered trademarks of Apple Computer, Inc. Macintosh is a trademark of Apple Computer, Inc.

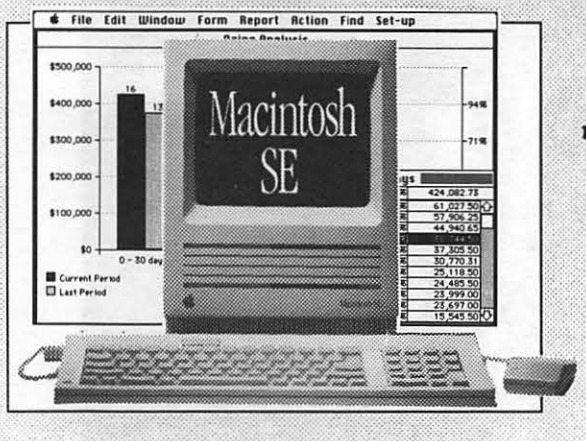
Clinton Computer

8032 Leesburg Pike, Vienna, VA (703)442-3800
277 S. Washington St, Alexandria, VA (703)838-9700
12204 Rockville Pike, Rockville, MD (301)881-2810

Authorized Dealer

6443 Old Alex. Ferry Rd, Clinton, MD (301)856-2500
9636 Ft. Meade Rd, Laurel, MD (301)953-1110 or (301)792-0600
Government and Corporate Sales (703)838-9722

If Your Business Needs Timely and Accurate Accounting Data, You Need INSIGHT!



"In-Store" Days

Your Chance to Talk with an Insight Expert!

•Laurel Store•
Thursday, April 7, 1-3PM

•Clinton Store•
Thursday, April 21, 1-3PM

•Rockville Store•
Thursday, May 5, 1-3PM

Free! INSIGHT Accounting Seminars

•Clinton, MD•
Thur, April 14, 10AM, 2PM
Call Sharon at 856-2500 to register

•Rockville/Bethesda, MD•
Thur, April 28, 10AM, 2PM
Call Diane at 881-2810 to register

Free Desktop Publishing Seminars

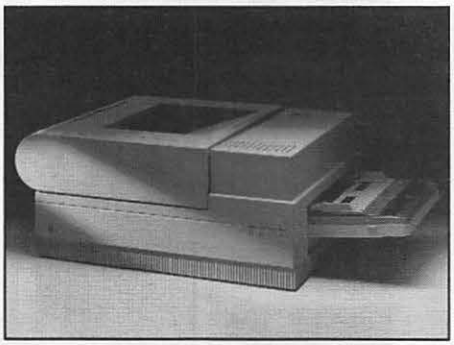
Aldus Freehand
April 7, Alexandria Store, 1:30 PM or April 14, Rockville Store, 1:30 PM
Call Alyce at 838-9700 to register

Aldus PageMaker 3.0
April 28, Laurel Store, 1:30 PM, Call Alyce at 838-9700 to register

Desktop Publishing and Presentation Graphics
April 21, Columbia Hilton, 10 AM and 2 PM, Call Pam at 953-1110 to register

DISCOUNT POLICY FOR WASHINGTON APPLE PI MEMBERS

CLINTON COMPUTER offers Washington Apple Pi members a 25% DISCOUNT OFF THE LIST PRICE on all non-allocated Apple brand peripherals (no CPU's), software and AppleCare. For upgrades, the 25% discount applies to both the parts and normal labor rate. Discount is available to persons who have been Pi members for at least 3 months. Discount cannot be applied retroactively. Pi members need to present their cards up-front. No phone or mail orders, please. Discount cannot be used in combination with other promotions. Products on allocation from Apple are excluded from this offer. Clinton Computer reserves the right to change this policy at any time.



Introducing the New LaserWriter II Printers

Apple® Computer's technology leadership has produced another important first -- the first family of fully upgradeable laser printers.

The LaserWriter® IISC offers the individual Macintosh user excellent full-page text and graphic printing capabilities at an affordable price.

The LaserWriter IINT lets individuals and workgroups produce a full range of professional quality documents.

The LaserWriter IINTX provides un-paralleled performance and flexibility for those with high-volume printing requirements and advanced document processing needs.

Training Available

Clinton Computer is dedicated to the hands-on approach to computer education. We operate three fully-equipped Learning Centers which provide Apple and MS-DOS applications and hardware training. Classrooms are located in the retail stores in Laurel, Rockville, and Alexandria.

Our classes, limited to twelve students, combine tested courseware and qualified instructors to insure effective, individualized instruction.

Customized training services at your site can also be easily arranged.

Apple, the Apple logo, and LaserWriter are registered trademarks of Apple Computer, Inc. Macintosh is a trademark of Apple Computer, Inc. Apple products are available only from authorized Apple dealers. They are not available by telephone or mail order.

*TEMPEST Macintosh™ II Personal Computer

- Full 32-Bit 68020 Microprocessor 15.7 Megahertz
- 68881 Floating Point Coprocessor
- 1MB RAM, Expandable to 8MB
- 6 NuBus Expansion Slots
- 2 RS232/RS422 Ports
- SCSI Interface
- TEMPEST Mouse
- Detachable Extended Keyboard 105 Keys, 15 Function Keys
- 800K Built-in Disk Drive (Second Drive Can Be Added)
- External Hard Disk Drive, 20MB, 40MB, 80MB (Option)
- 12″ TEMPEST Apple® High-Resolution Monochrome Monitor
- 13″ TEMPEST Color Monitor 800 × 560 (Option)
- 19″ TEMPEST High Resolution Color Monitor, 1280 × 1024 (Option)

Authorized Value Added Reseller

™ Apple, Macintosh, and the Apple Logo are registered trademarks of Apple Computer, Inc.

TEMPEST Products Incorporated

(703) 450-9090 1439 Shepard Drive Sterling, VA 22170

OFFICERS & STAFF

Board of Directors

President	- Tom Warrick	(301) 654-8060
Vice Pres-Apple	- Raymond Hobbs	(301) 725-5972
Vice Pres-Mac	- Bob Platt	(703) 486-1466
Treasurer	- Edward Myerson	(703) 759-5479
Secretary	- Peter Combes	(301) 251-6369
Directors	- Bruce Field	(301) 340-7038
	- Harvey Kaye	(301) 493-6875
	- Priscilla Myerson	(703) 759-5479
	- Leon Raesly	(301) 439-1799
	- Eric Rall	(301) 596-0004
	- Jay Thal	(202) 244-3649
	- Lynn R. Trusal	(301) 845-2651
Past President	- David Morganstein	(301) 972-4263
Editor	- Bernie Urban	(301) 229-3458
Head Software Libr.	- Jim Little	(301) 762-3215
Office Managers	- Gena & Bernie Urban	(301) 654-8060
Journal Staff:		
Associate Editor	- Gena Urban	(301) 229-3458
Store Distrbtn.	- Ray Hakim	(301) 649-1891
Columnists:		
Apple ///	- Dave Ottalini	(301) 681-5792
Apple II News	- Walt Mossberg	(202) 244-4898
Developer's View	- Jim Lanford	(301) 589-6300
EDSIG	- Peter Combes	(301) 251-6369
GameSIG	- Steven Payne	(202) 832-6622
Mac Bits & Bytes	- Lynn R. Trusal	(301) 845-2651
MacNovice	- Ralph Begleiter	(301) 340-3296
Mac Q & A	- Jonathan Hardis	(301) 330-1422
Meeting Reporter	- Cynthia Yockey	(301) 565-3951
Musical Apple	- Raymond Hobbs	(301) 490-7484
Pascal and Q & A	- Bob Platt	(703) 486-1466
Q & A	- Bruce Field	(301) 340-7038
Softviews & Excel	- David Morganstein	(301) 972-4263
StockSIG	- Andrew Thompson	(301) 270-6790
Review Coord.	- James Burger (day)	(703) 264-5112
Review Corrd.	- Raymond Hobbs	(301) 490-7484
Review Coord.	- David Morganstein	(301) 972-4263
Review Coord. IIgs	- Leon Raesly	(301) 439-1799
TCS - Apple	- Alexander Barnes	(301) 474-5310
TCS - Mac	- Dan Hughes	(202) 234-7735
Telecom SIG	- Dave Harvey	(703) 578-4621
View From Hill	- Rich Norling	(202) 547-5508
Disketeria:		
DOS 3.3 Lib.	- Jim Little	(301) 762-3215
Macintosh Lib.	- David Weikert	(301) 963-0063
	- Martin Milrod	(301) 464-5981
Pascal Lib.	- Mike Hartman	(301) 445-1583
ProDOS-CP/M Lib	- John T. Bell	(301) 441-9069
IIgs Lib.	- David Todd	(301) 228-0237
	- Sherman Lewis	(703) 437-3483
Apple II Disks	- Jim & Nancy Little	(301) 762-3215
	- John Bell, Bob Johnson, Bob Platt	

Telecommunications System (301) 986-8085

☛ Use the Hotline for Technical Questions

Mac Lib. Staff	- Dave Benbennick, Rick Chapman,	
	- Hampton DeJarnette,John DeMarco,	
	- Garry Elliott, Ben Frank, Andy Gallant, ,	
	- John Gertsch, Gary Grey,	
	- Mary Hockmeyer, William Jones,	
	- Al Maloney, Ralph Mullendore,	
	- Mike Robinett, FredRodgers,	
	- Charles Sicard, Bob Soule, Joe Swick,	
	- Bob Vandegrift, Jessica Weissman	
Group Purchases	- Rich Wasserstrom *	(202) 544-8327
* (Evenings 7:00-9:30, M-F)		
Head Reading Lib.	- Walt Francis	(202) 966-5742
Apple Tea Coord.	- Amy Billingsley	(301) 622-2203
Arrangements	- Leon Moore	(301) 946-2642
Dealer Rel. Comm.	- John Alden	(202) 686-1656
	- Harvey Kaye	(301) 493-6875
	- Bob Platt	(703) 486-1466
	- Bernie Urban	(301) 229-3458
	- Rich Wasserstrom	
Legal Counsel	- Charles Calkins	
	- Dan Dwyer	(301) 445-2895
Membership	- Dana Schwartz	(301) 654-8060
Program	- John Alden	(202) 686-1656
Public Relations	- Charles Redmond	(202) 363-3184
SIGs&Slices Coord.	- Jay Thal	(202) 244-3649
Telecom Sys. Opr.	- Leon Raesly	(301) 439-1799
Tutorials	- Bob Platt	(703) 486-1466
Volunteer Coord.	- David Morganstein	(301) 972-4263
SIG Chairmen:		
Annapolis Slice	- Craig Contardi	
AppleWorks	- Ken DeVito	(703) 960-0787
Apple IIgs	- Ted Meyer	(703) 893-6845
Apple ///	- David Ottalini	(301) 681-5792
	- Tom Bartkiewicz	(703) 435-3295
AV-SIG	- Jay Williams	(202) 728-1009
CP/M	- Charles Franklin	(301) 997-9138
DisabledSIG	- Jay Thal	(202) 244-3649
dPub SIG	- Tom Piwowar	(202) 223-6813
EDSIG	- Peter Combes	(301) 251-6369
Federal SIG	- Gordon Stubbs	(703) 750-0224
	- Daniel Adkins	(202) 822-8052
Frederick Slice	- Oscar Fisher Jr.	(301) 694-9237
GameSIG	- Charles Don Hall	(301) 864-2715
Chrmn. Emeritus	- Ron Wartow	(607) 257-4873
LawSIG	- John Weld (day)	(202) 463-0662
Mac Prog. Grp.	- Bob Shaffer	(703) 671-1194
	- Bruce Jacobs	(301) 439-7812
Music SIG	- Bill Bittle	(301) 236-9898
Pascal (PIG)	- Mike Hartman	(301) 445-1583
PI-SIG	- Bob Golden	(301) 593-6165
StockSIG	- Peter Kasper	(703) 620-4071
Telecomm. SIG	- Allan Levy	(301) 340-7839

Washington Apple Pi, Ltd.
8227 Woodmont Avenue, Suite 201
Bethesda, MD 20814
Business Office (301) 654-8060
© 1988, Washington Apple Pi, Ltd.

EDITORIAL

Another issue put to bed. We can't help but notice that the IIGS and the Mac continue their cross migration. The Mac fonts are converted to operate with the GS, the finder of the GS begins to act more and more like its Mac counterpart, and so on. Surely both machines will soon be able to play beautfiul music together.

This issue may begin a trend. We have two articles on activities related to government—the CongressStack, and the Macintosh and DEC Network. With Apple's greater emphasis by Apple Federal Government Operations and Falcon Microsystems on the Federal, State and Local government use of microcomputers, we think that these are the "first" of many that shall appear within these pages. We welcome articles from all our government readership.

We're trying something new this month within our table of contents. You will see asterisks placed at the end of a few articles. These equate to the highlighted titles in the window above. This was done at the request of a few of our readers who have had difficulties from time to time locating the highlighted articles within the publication. We'll try the asterisk technique for a bit, but would like to hear from you on other ways to do this and/or any other suggestions for improving the Journal. Let us hear from you.

PRESIDENT'S CORNER
by Tom Warrick

If the South had its ***"Super Tuesday,"*** then why shouldn't Washington Apple Pi have a ***"Monumental May"***? Well, perhaps something like that—***elections*** for Washington Apple Pi officers and directors will be held beginning at the May general meeting. ***Nominations*** will be taken at the April meeting. WAP's elected officers are President, Vice President for Apple II programs, Vice President for Macintosh programs, Secretary and Treasurer. There are seven Directors-at-Large. It is not a cliché when I say that the great strength of Washington Apple Pi lies in the many people who have run for the Board of Directors over the years. (In addition, the Past President, the Journal Editor and the Head Public-Domain Software Librarian are *ex officio* members of the Board of Directors.) Those of you who have come to Board meetings know that every Pi member, especially those who run for office but are not formally elected, is encouraged to come to Board meetings and to participate fully. It has been a long-standing tradition in the Pi that everyone who comes to a Board meeting participates equally, except only in those rare instances when certain votes are restricted to formally elected Board members only. (Such instances are few, however.) If you have an interest in helping run the Pi, please contact a current officer or Board member (their names and telephone numbers are shown on the Journal's masthead) for more information.

As you will see elsewhere in this Journal, the ***May meeting***, at which balloting will begin, will be held on the third Saturday in May, the 21st, not the fourth Saturday. In the past when we met at USUHS we often had to change the date of the May meeting, which coincided with graduation exercises (and also Memorial Day weekend). Even though we have moved to the Georgetown University Medical School, the same consideration applies: the fourth Saturday is graduation, so we will have our meeting on the ***third Saturday***. The June meeting, which is our regular, semi-annual garage sale, will probably be held at the Annandale campus of the Northern Va. Community College, just off I–395.

I want to give some special credit this month to ***Dan Adkins***, co-chairman of the ***Federal Special Interest Group***. FedSIG's high visibility with Apple Computer and other vendors is due in no small part to Dan's hard work on projects such as the Microcomputer Users Forum (to be held here in Washington in September) and Apple's federal user group breakfast with CEO and Board Chairman ***John Sculley*** on March 8 in conjuction with Sculley's keynote address at FOSE. Thanks, Dan!

BYLAWS CHANGE

Pursuant to Article XV of the bylaws of Washington Apple Pi, Ltd., notice is given of the following bylaws change, which was approved unanimously at the March 9, 1988 meeting of the Board of Directors. ***New material is shown in bold italics;*** material deleted is underscored. The purpose of the change was to simplify the administration of elections so that labels for ballots are printed at the same time as labels for the June issue of the WAP Journal, which is distributed at the May meeting. It should be noted that pursuant to Article VI, section 1, the Board voted 11-1 at the March 9, 1988 meeting to schedule the May Regular Membership Meeting for the third Saturday, May 21, 1988.

AMENDMENT TO ARTICLE IX, ELECTIONS

SECTION 3. BALLOTING. An election shall be completed during the month of June. Only members in good standing as of May 2 ***on the last business day before the Regular Membership Meeting in May*** may vote in the election. A ballot shall be mailed or hand-delivered to each member in good standing. Each ballot may cast one vote for each office, except that up to seven votes (noncumulative) may be cast for Director-at-Large. Prior to each annual election, the Board of Directors shall establish a deadline for the receipt of ballots. [Previously amended June 1984.]

FEB. 27 APPLE & MAC MEETING: Connectivity
by Cynthia Yockey

The subject of the February 27 general meeting was connectivity—and if I had gotten jumper cables connected to my battery sooner than I did that day, this report would be longer.

Both the Apple and Mac groups met together to hear Ray Hobbs, Jim Lanford and Doug Rieder speak on how to get computers to talk to each other. Ray used an Apple IIGS with a PC Transporter card by Applied Engineering (retails for around $1,000) that turned the GS into an IBM clone. He ran some IBM software on the Apple, then made a file in the IBM mode and passed it to ProDOS, which then passed it back to the IBM mode. It works on files, not on applications: that is, it won't make Lotus 1-2-3 an Apple program. But you can make a spreadsheet in 1-2-3, then convert it to AppleWorks format to work with it, then convert it back to 1-2-3.

Doug Rieder, of Clinton Computer, demonstrated a TOPS network including IBM to Mac communication. With TOPS you can make a PC look just like a Mac; the PC user doesn't see the Mac interface and is only aware of the Mac as another drive (D

contd. on pg 9

CLASSIFIEDS

PIANO LESSONS: WAP member with Apple IIgs seeks piano students in their 3rd, 4th, 5th, 6th or 7th grade of school. Will teach a broad base of keyboard skills in a stimulating, patient and FUN atmosphere. Utilize my IIgs and interactive music software for ear training, note recognition, melody and rhythm skills. Children can then practice on their home computers as well as the piano in prep for future lessons. Fee is $30 for 1 hour and 15 minutes (25 minutes at computer and 50 minutes at piano. One-half hour demonstration lesson is $15, which can be applied to cost of first full lesson. Phone Dan McCombs at (703) 680-5848 for further info and appointment. Give your child the Apple advantage in his music studies, too.

FOR SALE: CMS 60 meg hard disk. In excellent shape and under warranty through 1988. It's too small for my use and I want to get a larger hard disk. Call Marty at 464-2154.

FOR SALE: Macintosh Software. ZBasic V4.01, MacSS statistical system, LaserServe (LaserWriter spooler). Call David at (301) 972-4263.

FOR SALE: Macintosh 60 megabyte hard disk. Call David at (301) 972-4263.

FOR SALE: LaserWriter+, under Apple Care warranty through May. $2750. Call Kevin at (703) 280-1136.

FOR SALE: Radius Full Page Display wiht or without a Mac SE with Apple 20 meg hard disk, HyperCard, LaserPaint and Easy 3D; also TOPS and EasyNet for both a Mac and a PC with or without an original IBM PC/XT with 640K, 10 meg hard disk, optical mouse, EGA, monochrome monitor, SAM digital voice-mail card. Best offers. Call Laszlo at (703) 827-5967.

FOR SALE: Radio Shack Model 4 Computer and DMP-Dot Matrix Printer. Computer comes with two disk drives and 12" monochrome monitor. Price includes all cables, VisiCalc, Profile III Plus, Super Scripsit, Mailing List, two games, 50 floppy disks and two storage boxes. Original cost $2,800. Asking price $600. Microsoft Chart, $35 with original documentation. Call Lynn Trusal in Frederick at (301) 845-2651 evenings.

FOR SALE: Star Micronics Gemini 10X Printer - 9x9 dot matrix, parallel interface, bi-directional printing, 120 CPS, sprocket or friction feed, users manual, orginal box, $175. Call Alan Ray, (703) 7587 eve. or (202) 695-7311 days.

FOR SALE: ReadySetGo 4.0 desktop publishing software for the Mac. New condition: original registration card, manuals and disks. Lists for $400. $200 or best reasonable offer. Call Tony at (301) 322-0637 weekdays. Must sell ASAP.

FOR SALE: Apple //e system: Monitor, 2DD, 80CC, serial cd, parallet cd, SW, Other items. $1200. Also Comrex CR-1 LQP, $300. Call Dave at (703) 670-4713, 7-10pm weekdays or 9am-5pm weekends.

FOR SALE: SM Smart 85 modem and cable; Smartcom 2 modem, cable and software; Macintosh disk drive. Price negotiable. Call David Mark Greenbaum at (301) 585-0484, leave message.

FOR SALE: Microsoft Word 3.01, new in box, never used. Asking $175. Call Joe Bohr (703) 979-9200 work or (301) 977-2320 home.

FOR SALE: Macintosh Aztec C, commercial system (top of the line), complete documentation, UNIX-like development environment, v1-like editor, make, grep, diff, complete toolbox access—cost $500, $200 or best offer. Can be talked into parting with Inside Macintosh Revealed, Vols 1 & 2. Also Helix 2.0 relational database, best offer. Call Larry, 633-6412 days, 425-7058 evenings and weekends.

FOR SALE: Enhanced Apple //e with RamWorks III 1 meg, Apple DuoDisk w/DuoDisk controller, AppleColor Composite Monitor, AppleMouse //e with interface card, System Saver by Kensington, Mousepad, Serial Grappler Plus, Super Serial Card, 64K/80-column card, and RS-232C cable. All with manuals. Software, original and manuals: Ultima IV, Bard's Tale 1 and 2, Chessmaster 2000, Black Magic, Silent Service and Jet. $2000. Call John Wiegley at (703) 435-3297.

COMMERCIAL CLASSIFIEDS

FOR SALE: Quality SF-171 PageMaker templates (8 pages) for $55. All PageMaker versions available. Call Dan Adkins for information (msg) 822-8052.

FOR SALE: Restaurants database for AppleWorks. Over 300 Washington area restaurants, including prices, quality, location, telephone numbers, awards if any. $15. Call (703) 830-3720.

FOR SALE: Apple II with a drive controller, one floppy drive, serial card, Microsoft card, Sanyo black and white monitor. $225 or best offer. Call Mark W. Jennys at 621-7765 and leave message.

JOB MART

Help Wanted

Washington Apple Pi has a part-time position open (11-12 hours per week). Some Apple computer knowledge necessary. Position requires working on Tuesday and Thursday evenings from 7-9 PM and Saturday afternoons from 12-3 PM (except meeting Saturday). On meeting Saturday the requirement will be to carry equipment and Journal supplies to the meeting site by 8:30 AM, to assist at the meeting and return equipment and supplies to the office. **Applicant must be able to lift and carry boxes weighing around 60 pounds.** In addition, requires working approximately one day (4 hours) per week during regular daytime office hours M-F, day of the week flexible. Salary $6.50/hour. Please call Gena Urban, M-F, 10-2:30.

Analyst/Programmer wanted. If you can interface IBM PCs and Apples to a mainframe in LAN and work effectively with customers, Vanguard Technologies wants you on-site with our client in Washington, DC. This role also requires diverse, hands-on experience with communication, network, and database applications; WordPerfect, Lotus 1-2-3, dBase; 4GLS, 4th Dimension, HyperCard; LAN and mainframes using protocol conversions. For all the facts on this fast-track career challenge, send your resume to Vanguard Technologies Corporation, Dept. A-111, 10530 Rosehaven Street, Fairfax, VA 22030. Or call Bill Kay at (703) 359-0446. Vanguard is an equal opportunity employer.

Computer Graphics — Consulting firm requires experienced Macintosh SE candidate to design complex forms, charts and graphs with minimal turnaround time. Excellent benefits and salary commensurate with experience. Send resume to J.

contd. on pg 9

WAP HOTLINE For Use by WAP Members Only

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

Apple II

General	Dave Harvey	(703) 578-4621
Accounting Packages		
Accountant(Dec.Sup.)	Mark Pankin	(703) 524-0937
BPI Programs	Jaxon Brown	(301) 350-3283
BPI & Howardsoft (Tax)	Otis Greever	(615) 638-1525
Dollars & $ense	Barry Fox	(717) 652-4328
Home Accountant	Leon Raesly	(301) 439-1799
APPLE SSC	Bernie Benson	(301) 951-5294
AppleWorks	Ken DeVito	(703) 960-0787
	Bob Martz	(301) 795-5689
	Ray Settle	(301) 647-9192
	Charles Baumgardner	(703) 538-2316
	Ken Black	(703) 369-3366
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) 652-4328
XTALK CP/M Comm.	Bernie Benson	(301) 951-5294
Data Bases		
dBase II	Paul Bublitz	(301) 261-4124
	John Staples	(703) 255-6955
dBase II & III	Ray Hobbs (BBS)	(301) 490-7484
	Jim Kellock (day)	(301) 986-9522
dBase II&III,Data Perfect	Leon Raesly	(301) 439-1799
PFS	Bill Etue	(703) 620-2103
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) 439-1799
Sider	Jaxon Brown	(301) 350-3283
	Otis Greever	(615) 638-1525
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) 439-1799
A,I,M	John Love	(703) 569-2294
M	Ray Hobbs (BBS)	(301) 490-7484
P	Michael Hartman	(301) 445-1583
Forth	Bruce Field	(301) 340-7038
Operating Systems		
Apple DOS	Adam Robie	(301) 460-6537
CP/M	Art Wilson	(301) 774-8043
ProDOS	Leon Raesly	(301) 439-1799
	John Love	(703) 569-2294
	Eric Rall	(301) 596-0004
ProDOS 8 and 16	Barry Fox	(717) 652-4328
Print Shop	Thomas O'Hagan	(301) 593-9683
Newsroom	Carol Thomas	(301) 424-1266
Spreadsheets	Walt Francis	(202) 966-5742
MagicCalc&SuperCalc2.0	Leon Raesly	(301) 439-1799
	Terry Prudden	(301) 933-3065
Telecommunications	Allan Levy	(301) 340-7839
Utilities: ProSel	Barry Fox	(717) 652-4328
Word Processors	Walt Francis	(202) 966-5742
Apple Writer II	Dianne Lorenz	(301) 530-7881
	Leon Raesly	(301) 439-1799
Gutenberg	Harris Silverstone	(301) 435-3582
Letter & Simply Perfect	Leon Raesly	(301) 439-1799
Magic Window and II	Joyce C. Little	(301) 321-2989
Mouse Write	Barry Fox	(717) 652-4328
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
	Dana Riel	(301) 350-3283

Apple IIgs

General	Barry Fox	(717) 652-4328
General/Finder	David Todd *	(301) 228-0237
General/Monitor	Neil Walter	(301) 946-4526
General/Paintworks Plus	Paul Tarantino	(703) 455-7670
//e Upgrade	Morgan Jopling	(301) 261-3886
APW	Andy Gavin	(703) 734-3049
	Jim Frison	(703) 525-9395
Deluxe Paint II	Rich Sanders	(703) 450-4371
GS-BASIC	Barry Fox	(717) 652-4328
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
& Utilities: ProSel	Barry Fox	(717) 652-4328
VIP-Pro/Multiscribe	Jim Frison	(703) 525-9395
816 Paint/Writr's Ch. El.	Andy Gavin	(703) 734-3049

Macintosh

General	Donald Schmitt	(717) 334-3265
Art and Video	Jay Williams	(301) 9398910
Data Bases		
Helix	Jim Berry *	(703) 662-0640
	Harvey Levine	(301) 299-9380
MacLion	Mark Miani	(202) 333-0098
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		
& Graphics	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	Bill Baldridge	(301) 779-8271
Adobe Illustrator	Ling Wong	(703) 378-5102
Full Paint & SuperPaint	Bill Baldridge	(301) 779-8271
HyperCard	John Love	(703) 569-2294
	Holger Sommer	(301) 474-3467
	Rick Chapman	(301) 989-9708
Inside Mac	Jon Hardis	(301) 330-1422
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
MacTerminal	Jon Hardis	(301) 330-1422
Magic	Joyce C. Little	(301) 321-2989
Power Point	Herb Schwartz	(301) 983-0534
Programming, MS-BASIC	John Love	(703) 569-2294
Spreadsheets	David Morganstein	(301) 972-4263
& Graphics	Bob Pulgino	(202) 797-0879
Excel	David Morganstein	(301) 972-4263
	Mark Pankin	(703) 524-0937
	Jim Graham	(703) 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	Eric Rall	(301) 596-0004
	Allan Levy	(301) 340-7839
ThinkTank/More	Jim Graham	(703) 370-5737
	Tom Parrish	(301) 654-8784
Word	Marty Milrod	(301) 464-5981
WriteNow	Bill Baldridge	(301) 779-8271

General

Franklin & Laser 128	Bob Martz	(301) 795-5689
Games - Apple II	Charles Don Hall	(301) 864-2715
Games - Mac	Perri Mongan	(301) 572-5459
IBM	Ray Hobbs (BBS)	(301) 490-7484
	Leon Raesly	(301) 439-1799
Math/OR Applns.	Mark Pankin	(703) 524-0937
Modems - General	Allan Levy	(301) 340-7839
Anchr Mrk 12&BIZ Comp	Jeremy Parker	(301) 229-2578
Hayes Smartmodem	Bernie Benson	(301) 951-5294
Practical Peripherals	Allan Levy	(301) 340-7839
Smartcom I	Harmon Pritchard	(301) 972-4667
Music Systems	Ray Hobbs (BBS)	(301) 490-7484
Printers - General	Walt Francis	(202) 966-5742
	Leon Raesly	(301) 439-1799
MX-80	Jeff Dillon	(301) 662-2070
Okidata	Michael Proffitt	(301) 874-2270
Stat. Packages	David Morganstein	(301) 972-4263
Stock Market	Robert Wood	(703) 893-9591
TCS	Eric Rall	(301) 596-0004
Time-Sharing	Dave Harvey	(703) 578-5621

* Calls until midnight are ok.

* April 1988 *

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3 Deadline for Journal articles is Wednesday April 6 --->	4 PI-SIG 7:30 PM Office	5 Apple IIgs Beginning Tutorial #1 7:30-9PM Office	6 Mac Progmrs. 7:30 PM Office; dPub SIG 7:30 PM PEPCO	7 GameSIG 7:30 PM Office	8	9 Introduction to ReadySetGo 4.0 9-12 AM Office
10	11 Introduction to Macintosh Tutorial - Office 7:15 - 10 PM	12 Apple IIgs Beginning Tutorial #2 7:30-9PM Office	13 Executive Board 7:30 PM Office	14 Stock SIG 8:00 PM Office	15	16
17	18 Intermediate Mac Skills Tutorial - Office 7:15 - 10 PM	19 Apple IIgs Beginning Tutorial #3 7:30-9PM Office	20 Excel SIG Meeting 7:15 PM Office	21 Pascal SIG 8:00 PM Office	22	23 WAP Meeting 9:00 AM Georgetown U. Pre-Clinical Sci.
IIgs SIG-Mon. the 25th, 7 PM Pyle Inter. Sch. Bethesda --->	25 Productivity on Your Mac Tutorial - Office 7:15 - 10 PM	26 Mutual Fund Sub Group (Stock SIG) 8 PM Office	27 Apple /// SIG 7:30 PM Office	28 FedSIG 7:30 PM Office	29	30 Introduction to Applesoft Tutorial 9-12 AM Office

* May 1988 *

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Deadline for Journal articles is Wednesday May 4 (early)	2 PI-SIG 7:30 PM Office	3 Apple II,+,e,c Beginning Tutorial #1 7:30-9PM Office	4 Mac Progmrs. 7:30 PM Office; dPub SIG 7:30 PM PEPCO	5 GameSIG 7:30 PM Office	6	7 Intermediate Applesoft Tutorial 9-12 AM Office
8	9 Introduction to Macintosh Tutorial - Office 7:15 - 10 PM	10 Apple II,+,e,c Beginning Tutorial #2 7:30-9PM Office	11 Executive Board 7:30 PM Office	12 Stock SIG 8:00 PM Office	13	14 Introduction to HyperCard Tutorial 9-12 AM Office
15	16 Intermediate Mac Skills Tutorial - Office 7:15 - 10 PM	17 Apple II,+,e,c Beginning Tutorial #3 (AW) 7:30-9PM Office	18	19 Pascal SIG 8:00 PM Office	20 3rd Saturday --->	21 WAP Meeting 9:00 AM Georgetown U. Pre-Clinical Sci.
22	23 Productivity on Your Mac Tutorial - Office 7:15 - 10 PM	24 Mutual Fund Sub Group (Stock SIG) 8 PM Office	25 Apple /// SIG 7:30 PM Office	26	27	28
29	30 Memorial Day Holiday Office Closed	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 is April 27.

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

AV-SIG is the new SIG for arts and video. For information call Jay Williams at 728-1009.

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 April 6.

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

Fed(eral) SIG will meet on Thursday, April 28, 7:30 PM, office. This will be an organizational and election meeting.

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

HyperCard SIG meets after the WAP monthly meeting.

Mac Programmers meet on the 1st Wednesday of the month at the office, 7:30 PM. Next meeting is April 6.

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 April 21.

PI-SIG (Program Interface) meets on the 1st Monday of the month, 7:30 PM at the office. Next meeting is April 4.

Stock SIG meetings are on the second Thursday of each month at the office, 8 PM. The next meeting is April 14.

Telecom SIG - Call the Chairman for details.

TIMEOUT SUPER FONTS

by Paul Koskos

INTRODUCTION

As an avid user of AppleWorks 2.0, and of Beagle Brothers' Super MacroWorks for AppleWorks, I was a natural sucker for the Beagle Brothers TimeOut/UltraMacroWorks ads. They promised more macros, and bigger macros, and you can't live without that, right? Parting with some of my precious ducats, I was soon the proud possessor of UltraMacroWorks. That is, at the time, I thought I was the proud possessor. As it turned out, it would be more accurate to say I was the possessee.

Some hours of struggle with the murky manual finally produced a successful installation, and I am quite happy with a wide range of macros, many of which came with the program, and some of which I added.

I next turned my attention to the TimeOut companion program to UltraMacroWorks (one of many—hide wallet, hide). The installation was easier, this time, and the results were mind boggling. A sample of some of the 47 type fonts available with the program is shown in Fig. 1. An additional sampling of fonts from WAP2009: GS Fonts I is presented in Fig. 2. (WAP Disks 2009, 2010, and 2011 are MAC Font discs converted to ProDOS format for the IIGS, and, not incidentally, for the TimeOut SuperFont program.)

WHAT SUPERFONTS DOES

TimeOut SuperFonts allows one to prepare a document in the AppleWorks word processor, using most of the AppleWorks style commands, plus several additional style commands provided by SuperFonts (see below). You can specify font changes as often as you like, even letter by letter, but you are limited to 64 for the number of fonts usable in one document. You can then print the document in one of three modes: Draft, Standard, or High quality. This is slower than normal printing, since it seems to be printing from the high-res screen.

Now for the frosting on the cake. As stated above, SuperFonts can use IIGS Font sets (WAP has issued three 3.5" font disks). These add up to almost 400 fonts, although there is some duplication. If WAP continues the conversion process, and I have every expectation that they will, there will be hundreds more fonts available for the IIGS (and for SuperFonts) in time.

WHAT SUPERFONTS DOESN'T DO

Although each font on the SuperFonts disk (and on the GS disks, too) has a point size number in its title, these numbers don't correlate too well with Characters per Inch nor with Lines per Inch in the printouts. And, because AppleWorks is restricted to an 80-column screen without horizontal scrolling, there is no what-you-see is what-you-get capability for the odd sized fonts. Even though there is a print-to-screen command which faithfully shows you the size and shape of the font characters, it is usually necessary to print several drafts before the printed output looks like your plan.

Nevertheless, some excellent printed output is achievable with this program, and I suggest you take a look at it.

CHOOSING FONTS

This is a formidable task. As mentioned earlier, there are close to 400 fonts available from the SuperFonts disk and the three IIGS font disks available at the time of writing. First, some kind of cataloging is necessary to indicate the various font styles and sizes, so that you can choose among them. Sample file #8, on the SuperFonts disk (v1.6), prints out a good display of the original SuperFonts fonts on one page. With modifications, something similar could be done for the IIGS font disks.

Second, the handling of all these fonts poses a problem for the SuperFonts program and the ProDOS DIRECTORY function. SuperFonts must be told, via a configuration routine, a single path to locate fonts. ProDOS has some limit on the number of files in a root directory and in a sub-directory. So you can't put all your fonts in one sub-directory and access them freely. At the same time, SuperFonts will not search more than one directory for the fonts you instruct it to load in your document. (Well, it will give you an error message and ask for another path name if it doesn't find a font in the originally configured path, but this can get to be a nuisance.)

Some creative font file grouping, and, hopefully, a future update of SuperFonts to search multiple paths would be useful.

SUMMARY

While I could go on to discuss various approaches to font directories, margin control, page layout, style controls, and picture inclusion in word processing documents, to do so would preempt an entire issue of the Journal, and that is not the purpose of an introductory review such as this one. Here is a powerful text editing program, with the capability of using hundreds, or even thousands of fonts, as indicated by the samples in Figs. 1 and 2. At the same time it uses all the word processing features of AppleWorks. It also uses, without leaving AppleWorks, other parts of the TimeOut package such as QuickSpell (a good spell checker), Ultra Macros for reducing keystrokes for common repetitive operations, and several other handy tools.

Figure 1 contd.

Figure 2

Job Mart contd. from pg 5

Frank, tg Bauer Associates, Inc., 5827 Columbia Pike, Suite 600, Falls Church, VA 22041.

Part-time position immediately available for graduate/undergraduate student skilled with **Macintosh graphics applications** such as SuperPaint, PageMaker, Adobe Illustrator and MacDraw. Please call Charles Alexander, U.S. Department of Commerce (NOAA), Rockville, MD at (301) 443-8843 for more information.

Freelance Mac Experts needed for occasional projects for human resource consultant/management trainer. Preferably located close to Bethesda/Montgomer Mall. Send resume and samples to Martha Spice, 7505 Democracy Blvd., Bethesda, MD 20817.

Part-time Mac Literate, administrative assistant for one consultant office. 16 hours per week. Bethesda/Rockville area. Hours and salary negotiable. Call Ms. Luther (703) 451-8882.

EVENT QUEUE

Washington Apple Pi meets on the 4th Saturday of each month (except December and sometimes May). Currently we are in the process of establishing a new "permanent" meeting site, and locations for the time being will be listed on a month-to-month basis. The April 23 meeting will be at Georgetown University, 3900 Reservoir Rd. DC, Pre-Clinical Science Bldg. Rooms GA24 and LA2. The May 21 (3rd Saturday) meeting will be at GU Pre-Clinical, but in rooms LA2 and LA6. Disketeria transactions, Journal pickup, memberships, etc. are from 8:45-10:00 AM. The business meeting is from 9:00-9:30.

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

Following are dates and topics for upcoming months:

April 23 - Music (Apple and Mac)
May 21 (3rd Sat.) - New Software Products

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

GENERAL INFORMATION

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

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

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

Current office hours are:

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

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

Feb. 27 Meeting contd. from pg 4

or F or whatever). According to Jim Lanford, TOPS is slow because AppleTalk is doing something a local disk—which can go faster—should do. He adds that TOPS is nice for its flexibility and convenience in filesharing.

Jim Lanford, a local developer, then demonstrated an Ethernet network with an electronic mail feature.

WHY CURSE THE CURSOR?

by Chester H. Page

Not knowing the tricks of comercial programs, I have always made simple menus in my BASIC programs. By simple, I mean labelling the choices A., B., etc. or 1), 2), ... and requiring inputting a letter or a digit. In many commercial menus the choice is made by highlighting the desired line and entering [RETURN]; the highlight selection is advanced or retreated by using the down- or up-arrow keys.

I decided to dress up my menus the same way. This turned out to be easy except for one annoying problem; there was always a leftover cursor waiting for the next key entry. The screen should be blank except for the menu lines. This problem made me curious about the following questions:

Where is the cursor symbol stored?

How it is displayed?

How can it be changed?

How can it be hidden (or blanked out) in menus?

It turns out that there is no cursor symbol! This is really true only for the 40-column screen display mode, so I shall discuss the 40-column mode first. The cursor on the screen is produced by saving the last character printed, generating a flashing version of it, and replacing it on the screen by this flashing alias. When the cursor position is changed, the saved character is restored to the screen and the aliasing done at the new position. The reason for the blinking square is that at the end of a line, a blank is displayed and that blank is aliased. We get in the habit of thinking that that flashing square is a cursor symbol!

Did you ever get annoyed by a program that left your screen blank for what seemed like a long time, while the program was off doing something, and you weren't sure whether it was working or hanging? This offers the way to make the cursor disappear from the menu; don't let the computer relax and ask for more input. It turns out that when your Apple is ready for more keyboard input, it goes to the RDKEY routine in the monitor. RDKEY flashes the character that is in the cursor position, then requests the keyboard for input. To get around this, let's divert the program into a simple infinite loop which says "look for a keypress until it happens, then continue with the program". This is done by entering a 6-byte routine at $300, and inserting a CALL 768 at a strategic point in the Applesoft program.

In the MENU DEMO below, line 240 has the CALL 768 inserted ahead of the original GET X$. Line 270 provides for choice by number. Line 300 gives vertical wrap-around.

In the 80-column mode, entering ESC changes the cursor from an alias of the character on the screen to an inverse plus sign which can be moved around with the cursor keys, but on any other input reverts to the normal 80-col cursor. We can do the same trick if we want a special cursor. Both DOS 3.3 and ProDOS use the KSW "hook" at $38/39 to jump to the input routine; we can enter a detour at this hook that essentially says the following:

Save the character that is in the accumulator

Load the desired cursor character into the accumulator

Send it to the screen

Wait for a keypress

Restore the original character

Continue with the original program

This technique works with the 40-column display; it would require a more elaborate trick for use with the 80-column display. The annotated machine code to be entered at $300 is:

```
48          PHA Save the current character
A9 66       LDA new cursor - here an &
91 28       Send new cursor to screen
68          PLA  Recover saved character
2C 00 C0    Check for keypress
10 FB       If not pressed, keep looking
91 28       When key pressed, restore saved
              character to screen, and
AD 00 C0    load new character in accumulator
2C 10 C0    Clear keyboard strobe
60          Return to Applesoft program
```

Enter by typing CALL -151 (to get into Monitor) then

300:48 A9 66 91 28 68 2C 00 C0 10 FB 91 28 AD 00 C0 2C 10 C0 60

The KSW hook is set by entering

(for DOS 3.3) AA55: 00 03

(PeoDOS) BE32: 00 03

then 3D0G to get back to Applesoft. (With ProDOS, you can get back with CTRL-Y.)

You will now have a blinking ampersand for the cursor, no matter what character it is sitting on. Note this disadvantage of a custom cursor: you don't know what is under it.

```
100 REM ******************
110 REM *                  *
120 REM * MENU DEMO        *
130 REM *                  *
140 REM *  FEB 1988        *
150 REM *                  *
160 REM ******************
170 HOME
180 FOR I = 0 TO 5: READ X: POKE 768 + I,X:
    NEXT
190 DATA  44,0,192,16,251,96
200 N = 5
210 FOR I = 1 TO N: READ L$(I): NEXT
220 VTAB 24: PRINT "USE UP AND DOWN
    ARROWS OR ENTER NUMBER"
230 X = 1: GOTO 310
240 CALL 768: GET X$
250 IF X$ =  CHR$ (10) THEN X = X + 1: GOTO 300
260 IF X$ =  CHR$ (11) THEN X = X - 1: GOTO 300
270 IF  VAL (X$) > 0 AND  VAL (X$) < 6 THEN X =
    VAL (X$): GOTO 370
280 IF X$ =  CHR$ (13) THEN 370
290 GOTO 240
300 X = X - N *  INT ((X - 1) / N)
310 FOR I = 1 TO N
320 IF X = I THEN  INVERSE
330 IF X < > I THEN  NORMAL
340 VTAB 2 * I: HTAB 10: PRINT I" ";: PRINT L$(I):
    NEXT
350 NORMAL
```

contd. on pg 13

—— Operant Systems ——

—— HARDWARE ——

DOT-MATRIX PRINTERS—
- Panasonic 1091i (160 cps, Epson-compatible "best buy"). 219
- 1080i (120 cps, as above)..... 189
- 1092i (240 cps, Epson-compatible)..... 349
- Toshiba 3215L (216 cps draft, slickest 24-pin avail)... 519
- 3415L (wide carriage version of above)..... 725
- NEC P6 / P7 Pinwriter (24-pin high-quality)..... 475/675
- P2200 (170 cps, lowest price 24-pin to date)..... 369
- Okidata 192-Plus (200 cps, NLQ mode)..... 339
- 193-Plus (132 column version of above)..... 489
- 292/293 (200 cps, 100 cps NLQ, 18-pin)..... (call)
- Citizen Tribute 224 (200 cps, 24-pin, wide carriage)... 675

DAISYWHEEL & LASER PRINTERS—
- Citizen Premier 35 (35 cps, fastest for the money)..... 499
- Qume LetterPro PLUS (45 cps daisywheel)..... 595
- NEC Elf (16 cps, par & ser interface, NEC/Diablo emul). 419
- 8830 (55 cps daisywheel, heavy-duty)..... 1149
- Diablo 635 (55 cps daisywheel)..... 825
- H-P LaserJet Series II (512k / 1.5 meg, 8 ppm)... 1795/2195
- Okidata Laserline 6 (6 ppm, H-P Plus compatible)..... 1495
- PS Jet (Postscript upgrade for Canon/H-P lasers)..... 2150
- AST Postscript TurboLaser (8 ppm w/Postscript)..... 3095
- QMS-PS 800 Plus (8 ppm, LaserWriter compatible)..... (call)
- Epson, Quadram, Qume, TI, Canon, NEC lasers..... (call)

MODEMS—
- Hayes Smartmodem 1200A (1200/300 card for IIC+/IIe)..... 249
- Micromodem IIe (300 baud card for IIC+/IIe w/sft). 145
- Smartmodem 2400 / 1200 / 300..... 429/295/145
- Anchor Automation Express (1200/300 loaded w/ features) 139
- Lightning 24 (2400/1200/300, RS-232). 179
- Prometheus Promodem 1200C (1200/300 baud, RS-232)..... 179
- Promodem 1200A (1200/300 card w/ software).. 209
- Applied Engineering DataLink (1200/300 card w/software) 175
- US Robotics Courier 2400 (2400/1200/300 baud, RS-232).. 375
- Courier 1200 (1200/300, autodial/ans)..... 219
- Sportster (1200/300 external, best buy).... 135
- ZoomModem IIe Plus (300 baud card w/adv software)..... 119

DISK DRIVES—
- Sider II (20-meg hard disk for IIe/+/gs)..... 549
- Video Technology half-ht floppy (for IIe/c/gs)..... 125
- Applied Engineering half-ht floppy (for IIC+/e)..... 119
- Controller for 2 drives..... 55

MONITORS—
- Amdek 300G/300A (12" green/amber anti-glare, 18Mhz) 125/139
- Color 600 (13" composite/RGB color, 16 mhz)..... 369
- Taxan 115/116 (green/amber composite, 20Mhz)..... 119
- Thomson 4120 (14" composite/RGB/analog color)..... 259

INTERFACES & BUFFERS & CLOCKS—
- Practical Peripherals SeriALL (for modems or printers).. 99
- Graphicard (parallel w/ graphics). 69
- Printerface (par w/o graphics).... 59
- ProClock (PRODOS compatible)..... 109
- Grappler c/mac/gs (makes any printer Imagewriter compat) 69
- ProGrappler printer interface (parallel w/ graphics).... 85
- Buffered Grappler+ (16K to 64K buffer plus graphics)... 139
- Hotlink (hooks any parallel printer to IIc)..... 59
- Quadram Microfazer (8K to 128K printer buffer)..... 139

MEMORY EXPANSION & VIDEO BOARDS—
- ALS 80-col card (w/64K RAM, AppleWorks-compatible)..... 69
- Applied Engineering RamWorks III (64K—3 meg + 80 col). 139
- RamFactor (256k—1 meg for +/e/gs). 189
- gsRAM (256k—1.5 meg ram for gs)... 139
- Viewmaster (80-column for IIC+)..... 189
- Microtek 16K RAM card (for IIC+)..... 69

CP/M & 6502C SYSTEMS—
- Applied Engineering Z-Ram Ultra 3 (256K+, clock, CP/M). 259
- TransWarp (3.6 Mhz 6502C, 256K RAM) 225
- PC Transporter (IBM on a card!!). (call)
- Laser 128 (complete IIc compatible computer)..... 399
- 128 EX (3.6 times faster, expands to 1 meg)..... 469
- Speed Demon (6502C high-speed coprocessor)..... 159
- Applicard (6 Mhz Z-80, 64K to 192K RAM, 70-col video).. 159
- Titan Accelerator IIe (gives IIC+/e speed of IIgs)..... 229

—— SOFTWARE ——

WORD & PAGE PROCESSING—
- Word Perfect (new IIgs version available now)..... 95
- Bank Street Writer (48K / 128K versions)..... 49/55
- pfs: Write IIe (w/speller)..... 69
- MouseWrite (IIe/c/gs)..... 95
- MouseWord Plus (w/speller for IIe/c)..... 49
- Sensible Speller IV (DOS or PRODOS versions avail).. 75
- Springboard Publisher (for IIe/c)..... 85

SPREADSHEETS—
- SuperCalc 3a (super spreadsheet/graphics for IIe/c) 125
- VIP Professional (IIe & c / gs spreadsheet).... 159/195
- Multiplan (best spreadsheet for IIC+)..... 70

INFORMATION MANAGEMENT—
- dBASE II (the best Apple database, requires CP/M).. 299
- pfs: File w/Report..... 69

BUSINESS & ACCOUNTING—
- Dollars & Sense (accounting w/graphics)..... 79
- Managing Your Money (accounting + investment mgmt).. 99
- DAC-Easy Accounting..... 69
- Peachtree Back to Basics Accounting (GL/AR/AP)..... 149

COMMUNICATIONS—
- Ascii Express Professional (best DOS/PRODOS program) 79
- MouseTalk (new, w/pull-downs for e/c). 69
- CompuServe Starter Kit (password & 25 dollar credit) 25

ODDS & ENDS—
- Print Shop/Print Shop Companion/Libraries..... 36/29/19
- Newsroom/Clip Art Collections..... 42/19
- Pinpoint Desktop Accessories..... 55
- Infomerge (mailmerge for Appleworks)..... 49
- Spelling Checker (pops up in Appleworks)... 42
- Typing Tutor IV..... 35
- Kensington System Saver Fan (w/surge protector)..... 66
- CH Mach III or Kraft 3-button joystick..... 39
- Curtis Emerald Surge Protector (6 outlets & cord)... 45

- General Computer Personal LaserPrinter..... 1495
- Word Perfect (best IBM prog now for the MAC).....(call)
- Microsoft Works (word proc, calc, dbase, comm)..... 185
- Word (new version 3.01)..... 245
- Excel (best Mac spreadsheet available)... 245
- Basic Interpreter/Compiler..... 75/125

MACINTOSH
- Chart (presentation business graphics).... 85
- File (easy to use database)..... 125
- ReadySetGo! / PageMaker (latest versions)..... (call)
- dBASE MAC (from the dBASE folks)..... 315
- McMAX (dBASE-compatible database)..... 185
- 4th Dimension (...the Silver Surfer has arrived).(call)
- Dollars & Sense (home accounting w/graphics)..... 95
- Peripheral Land 30-meg internal for SE, fastest!!!. 685
- 30-/ 50-meg SCSI drive.....649/995
- Infinity (10-meg cart, reads IBM).. 895
- Video Tech 800K external floppy..... 199
- Dove MacSnap & SIMM memory upgrades.....(call)
- SuperPaint / FullPaint..... 85/65
- Kensington Mac System Saver (fan & surge protector). 75

CALL FOR PRICES OF ITEMS NOT LISTED

—— Please Compare Our Prices ——

If you find a lower price, give us a chance to beat it.

Feel free to call for answers to technical questions.

TO ORDER: Call Jeff Dillon at (301) 434-0405

or

Write or visit:

OPERANT SYSTEMS, 7676 New Hampshire Ave, Suite 312
Langley Park, Md 20783

Md. sales add 5% tax. UPS shipping is available.
All items carry full manufacturer's warranties.

Q & A
by Robert C. Platt & Bruce F. Field

Try to stump our experts with your Apple II or Apple III dilemmas. Send your questions to the WAP Office.

Correction. In my note about Cyrus Roton's observations about the use of Hi-Res graphics page 2 in the March Apple Doctor, I referred to the HGR command to initialize page 2. Of course, the HGR2 command must be used.

Mailbag. Mervin Frank responded to our observation that the IIgs Color Monitor has a degaussing coil that is automatically used when the monitor is turned on. He suggests that IIgs users should keep their floppy disks away from the monitor during power-up to avoid any harm that may result from the magnetic field created by the automatic degaussing.

Appleworks 2.0

Q. Two spreadsheets in Appleworks 2.0 have developed extra lines (as many as three) and columns which are displayed constantly at the top and left of the templates when scrolling beyond these persistent line numbers or column letters. How do I get rid of them?

A. There are two features of Appleworks which could cause this behavior. The first is "windows." AppleWorks allows you to examine two different regions of your worksheet at the same time. To see if you have two windows, try typing open-apple-J to move the cursor (active cell) to the other non-scrolling window. Remember that you can create a second window by typing open-apple-W. To remove the window, type open-apple-W followed by a O (that's capital oh for One window.) The other feature is fixed titles. This feature allows you to keep a row and/or column of labels fixed on the screen as you scroll other rows or columns. To clear this feature, type open-apple-T and select None.

Q. I am using the new IIgs Finder. When I double click on the icon of an AppleWorks word processing document or of a spreadsheet, the Finder Launches AppleWorks but the document represented by the selected icon is not in my AppleWorks desktop. What am I doing wrong?

A. Nothing. AppleWorks has not been programmed to receive information from the Finder regarding which files were selected.

Q. How do you move data from an AppleWorks spreadsheet or data base file to an AppleWorks word processing document?

A. On a //e or //c you can "print to disk" and then open the resulting ASCII file as a word processing document on your desktop. On a IIgs, you can "print to clipboard." Once on the clipboard, you can open a word processing document and paste the file from the clipboard.

Q. How can I get Mac and IIgs quality fonts when I print out my Appleworks files?

A. AppleWorks uses the Apple's built-in characters to display its files on the screen and has not been reprogrammed to use IIgs fonts. However, "SuperFonts" from Beagle Brothers' TimeOut Series works with any IIgs font and allows you to type in any point size from 6 points to 127 points. However, SuperFonts is not WYSIWYG (what you see is what you get), so even though the fonts will print, AppleWorks will not display them on the screen.

Q. I'm typing equations in AppleWorks (with SuperFonts) or with Multiscribe on a IIgs. How do I get a delta or sigma symbol?

A. Use the Symbol font.

Printing with the IIgs

Q. What is the maximum font height I can print using a IIgs word processor program?

A. According to the *Apple IIgs Toolbox Reference* p. 8-4, the maximum font point size is 255. However, I have only printed up to 72 pts in Multiscribe.

Q. What is the best way to print text on the IIgs?

A. First, load a version of the font that is twice the size of the point size you are printing in the FONT folder of the SYSTEM folder. For example, if text is printed in New York 10 pt, and the system will use New York 20 and scale down for finer resolution. Many IIgs programs which have implemented the IIgs print manager give you two additional tricks. First, in the print style dialog box (also called the "page setup", select "condensed." Next, in the print dialog box, select "Better Text."

Paint vs. Draw

Q. I just bought both a painting program and a drawing program for my IIgs. When should I use each one?

A. A "paint" program creates an image of dots or pixels on the screen. You can edit the image by covering existing parts of the image with new patterns. In contrast a "draw" program keeps track of individual objects that make up the image. If one object is placed on top of another and later moved away, the original object comes back into view. As a result, each approach is better for certain projects. A draw program is better suited for creating a map with readable labels, making a diagram or organizational chart. However, a paint program is better for artistic freehand creations.

Telecommunications

Q. I have downloaded a file with the suffix .BQY in the file name. How do I convert it into a useful file?

A. Two separate transformations are commonly applied to files before they are transmitted. One process called "bunnying" (with no apologies to Hugh Hefner) stores ProDOS directory information about the file in the transformed file itself. A second process called "squeezing" compresses the file by using a special coding scheme. The squeezed file will take up less disk space and will transmit more rapidly. When files are bunnied, the suffix .BNY is added to the file name. When

contd.

files are squeezed, the next to last letter of the file name is changed to a Q. The trick is to perform these transformations in the opposite order to restore the original file. Therefore, you should first unsqueeze your file and then unbunny it. Many popular telecommunication programs, such as "Talk is Cheap" have routines to perform these tasks.

Q. When I call into the WAP Telecommunication System, everything appears on only one line of my monitor screen. The information gets jumbled very quickly, and I can't read anything. What can I do to correct this?

A. You must change your user profile in the TCS to generate line feeds after each carriage return. First, set your printer to add a line feed after each carriage return. Before changing any switch settings, write your current settings down so that you will be able to restore your printer later to its current state. (See your printer manual for the correct switch settings.) Then, route all output to the printer port before calling the TCS with your communications program (Try PR#1, if your printer is in slot 1.) This will allow you to read what the TCS is sending. Once on the TCS, use the "U" command for User Profile. An "L" command (for add line feeds) will enable the screen output to scroll properly. After that you are set up so that you can read the rest of the session from the screen. Reset your printer to its prior settings.

Q. How do I cut out an area of the hi-res graphics screen and save it in a file for later use in my own programs?

A. The "Chart 'n' Graph Toolbox" published by Roger Wagner Publishing has routines for this and other graphics-oriented operations which can be incorporated in the user's programs.

Apple][+

Q. I just bought an Apple][+. What books can I purchase or read which are applicable to my computer?

A. Virtually any book written for the Apple //e will also apply to the][+. On older Apple][+ models, the reset key worked without holding down the control key. If you have such a model, pressing reset will work just like pressing control-reset in many manuals. The Apple //e introduced the open-apple and closed-apple keys. These keys have the same effect as pressing the buttons on the game paddles. Note that the self-test triggered by closed-apple-reset is not available on the][+. However, although there are minor differences between the //e and the][+, the differences are outnumbered by the similarities. For example, DOS, ProDOS, Applesoft and Pascal all work the same on both computers.

Q. What accessories would you recommend for my new][+?

A. If you only have 48K of memory on your motherboard, installing a RAM card in Slot 0 is essential. This will allow you to run ProDOS and Pascal-based programs. An 80-column card in Slot 3 is also very helpful. Finally, with a spare piece of wire and two alligator clips, you can install the "shift key modification" which allows you to type in upper and lower case in many applications. Remember virtually any accessory for the //e, other than special memory/coprocessor cards which fit into the //e AUX slot, will also work on the][+.

Why Curse the Cursor? contd. from pg 10

```
360 GOTO 240
370 HOME
380 ON X GOTO 390,400,410,420,430
390 PRINT "CHOICE 1": GET X$: GOTO 220
400 PRINT "CHOICE 2": GET X$: GOTO 220
410 PRINT "CHOICE 3": GET X$: GOTO 220
420 PRINT "CHOICE 4": GET X$: GOTO 220
430 PRINT "CHOICE 5": GET X$: GOTO 220
440 DATA "THIS IS THE FIRST CHOICE"
450 DATA "THIS IS THE SECOND CHOICE"
460 DATA "THIS IS THE THIRD CHOICE"
470 DATA "THIS IS THE FOURTH CHOICE"
480 DATA "THIS IS THE FIFTH CHOICE"
```


HARD DRIVES 'IZ' ME

Sale!

Apple //e, IIgs & Mac	
20 MEG Sider	$525
40 MEG Sider	795
Back-up Tape Drive	450
40 MEG/w integral Tape	1295
60 MEG CMS	895

//c only
ProAPP 10 or 20 MEG
Special Price - $50 above manuf. cost

All ProDOS or CP/M Conversion for Siders $45.
(All above plus $12 shipping)
PLS, Inc.
(301) 439-1799 (ask for Lee Raesly)

NEW!
APPLE COMPATIBLE PRODUCTS
LOW FACTORY DIRECT PRICES!
DEALERS CALL!
UNIV & SCHOOL P.O.'s WELCOME!

ONE MEG RAM BOARDS?
WE'VE GOT EM!
THE Super Expanders!

S.E. IIgs	OK Now	$49
S.E. IIe	* OK Now	$59
S.E. IIc	* OK 1/88	$69
S.E. II+	* OK 3/88	$79

Above with 256K =
Above with 512K = CALL
Above with 1MEG =

* FREE Appleworks RAM Expansion Software!

QUIET COOLING FANS!

IIgs No Audio Noise	$25
II+/e w/Surge Protect	$27

OTHER PERIPHERALS!

64K/80 Column Bd	IIe	$35
Super 64K/80 Col	IIe	$49
16K RAM Board	II+	$35
128K RAM Board	II+	$65
80 Column Board	II+	$49
Super Serial Bd	II+/e	$49
Z80 CP/M Board	II+/e	$35
Numeric Keypad	IIe	$35
Graphic Par Bd w/Cble		$45
Joystick	$15 &	$25

A/B SWITCHBOX!
Centronics or Serial $29

ADD ON DISK DRIVE: 5¼
Specify Your Model $119

TWO YEAR WARRANTY ON ALL PRODUCTS
CALL OR WRITE FOR ILLUSTRATED LISTINGS!
ADD $3 Shipping / COD ADD $2 / VISA/MC OKAY 0%

NEXO DISTRIBUTION
914 E. 8TH ST., Suite 109, National City, CA 92050
(619) 474-3328 10AM-6PM Mon-Fri

IIGS STUFF: AppleFest and RAM Disks

by Ted Meyer

This month I thought I would tell you a little about the upcoming Applefest in Boston and then go into a little tutorial on using the RAM disk from the Finder.

Applefest

Applefest will take place on May 20th to the 22nd in the Hynes Convention Center in Boston. More information is available from the convention organizers. Last month's Journal had a double page ad containing further information. I'll be going and I'll be happy to report any exciting products or new rumors that I pick up. Exhibitors will include the companies that produce most of the big sellers in Apple IIGS software and hardware, as well as newcomers trying to reach the biggest audience possible. Seminars will include such things as: Managing Home Finances, Sophisticated Graphics Techniques, Programming for Experts Only, Desktop Publishing, Science Simulations, and many more. Steve Wozniak and Del Yocam from Apple will deliver keynote addresses, an Apple IIGS will be given away all three days, and a lot of new products will probably be announced. Washington Apple Pi will have a booth. If you're coming and want to take part in manning the booth, please let us know. It will be lots of fun.

RAM Disks: Memory in the IIGS

Various kinds of memory are available for your IIGS. We are going to discuss three types: RAM, ROM, and magnetic media. RAM (Random Access Memory) and ROM (Read Only Memory) are the types of memory that are inside the CPU (Central Processing Unit—don't ya just love the Alphabet Soup) box of your computer in the form of computer "chips." Your IIGS can have as little as 256 kilobytes (256K or 256,000 characters) and as many as 8 megabytes (8M or 8,000,000 characters) of RAM storage space. The IIGS comes standard with 256K of chips on the "motherboard," which is the large green board that lies flat on the bottom of the inside of the computer box. If you bought a memory expansion card, which fits into one of the "slots" or sockets on your motherboard, you probably have at least another 256K, giving you a total of 512K of RAM memory. If you've added all the chips you can add to your memory expansion card, you probably have a total of 1280K or 1 and 1/4 megabytes of RAM memory. (It could be more, depending on the type of memory expansion card that you bought.) RAM memory can be used to store programs, pictures, text, and any other form of data. But, when you turn your computer off, it all disappears. RAM needs electricity running through it to keep the data in place.

ROM memory is a special form of RAM memory. The data stored on it is permanent. You can't alter the data and programs on it and the programs on it will be there even after turning your computer off. The IIGS comes with various programs in ROM memory on the motherboard such as the control panel, Applesoft BASIC, and the software necessary to start reading the disk drives.

Finally, there is magnetic media memory. In the case of the IIGS, the most common forms of this type of memory are 3.5 inch disks (with the 5.25 inch floppy disks coming in a close second.) 3.5 inch disks can contain 800K, and 5.25 inch disks can contain about 140K. These forms of memory can only be accessed by your disk drives. The amount of memory available to your computer in this form at one time is dependent on the number of disk drives that you own. By swapping disks though, this form of memory is limitless. Disks can be written to and read from, they can be overwritten, and the contents of the disk doesn't disappear when your computer is turned off.

Although disk memory is fast compared to previous standards (it used to take hours to load some programs from cassette tapes), it is slow compared to RAM memory. RAM (and ROM) is (are) the memory that is most easily and quickly available to the CPU. Disk memory requires a relatively slow mechanical (spinning) process to access the programs and data, and then has to be transferred to RAM anyway to be accessed by the CPU. Programs that are on disk must first be loaded into RAM memory before they can actually start running.

Lots of software is designed to run while the disk is still in the disk drive. Many computers only have 64K or 128K of RAM and yet can run powerful software with multiple functions (like AppleWorks). To do this programmers can write software in "segments" which only load when needed. For example, in AppleWorks, when you choose to print something, the segment of code that deals with the printer must first be loaded. When you're finished printing and want to delete a file, a program segment that does file deletion is loaded from disk that replaces the print driver segment in RAM.

Sometimes software is designed to work with data files on disk. If you have a database or a document which is larger than will fit in the RAM memory available to you, then some databases and word processors store the data on disk. As you enter changes to or look at various portions of your document the disk file is written to or read from and constantly updated. This is how many adventure games such as Zork or Ultima work. As your characters move through their "world," the disk is read to bring data about the next location they are going to into RAM.

With the IIGS it is quite often unnecessary to access the disk memory so frequently. Since we can have LOTS of RAM memory, all of the program segments, and all but the largest of data files can probably fit completely into RAM. Most IIGS-specific software is designed to test your computer to see how much RAM you have. The software then loads all the program segments and all the data that will fit into RAM. The program may not have to access the disk at all after starting up and loading everything from disk. This allows the program to run much faster since it doesn't have to keep accessing the relatively slow disk drive.

Many programs that weren't originally written for the IIGS assume you only have 128 or 64K available and so spend time in disk access when it isn't really necessary. To make use of the IIGS's RAM these programs might have to undergo extensive reprogramming. One way around this rewriting of the software is by using the "RAM disk."

contd.

What is a RAM disk?

In December's issue of the Journal, the IIGS Stuff article described how to set up a RAM disk, but what is a RAM disk? Essentially, it is an area of RAM memory that is pretending that it is an extremely fast disk drive. Once you have designated an area as a RAM disk by using the Control Panel, the IIGS knows that it is no longer available to be used as anything but a "disk." ProDOS programs will see a volume or disk called /RAM5 or will be able to read and write to a "RAM disk" which might appear in slot 5. This disk, unlike real floppy disks, will be destroyed when you turn your machine off. It will work MUCH faster than a regular disk will. Saving or opening a document on this disk will happen so fast that you'll wonder if you've actually done it. DOS 3.3 programs generally can't make use of the RAM disk.

By copying a segmented program from its floppy disk to a RAM disk before starting up the program, you can do away with the time it takes to load segments for different functions. For instance, IIGS owners used to load AppleWorks to a RAM disk before starting it up. Since moving the print segment from the RAM disk into usable memory was almost instantaneous printing could be done instantly instead of having to wait to load the print segment from the disk drive. When AppleWorks was upgraded to version 2.0, the updaters had large amounts of RAM in mind. Version 2.0 will automatically use the extra RAM to load AppleWork's various segments into RAM, so moving this version of AppleWorks onto a RAM disk doesn't necessarily make sense.

Once you've set up a RAM disk though, you can't use that area of RAM for anything else. Suppose you have a total of 1280K of RAM in your IIGS. If you create a 768K RAM disk, then you only have 512K for the IIGS to use. Some programs, like DeluxePaint II, require 768K in order to run on the IIGS. Creating a 768K RAM disk would mean that DeluxePaint II would bomb while trying to boot due to lack of available RAM. The Finder requires 512K, so, if you only have a total of 512K in your IIGS it isn't advisable to set up a RAM disk at all, assuming you want to use the Finder.

In previous articles I've talked about "second generation" IIGS software. This is software that, I feel, makes the best use of the IIGS's capabilities. Second generation software for the IIGS should almost make RAM disks, as I've described them, obsolete. However, with the vast number of excellent programs which came from the Apple II+/e/c world available to IIGSers, it makes sense to see if you can improve their performance with this software by using a RAM disk.

That's it for this month. Hope to see you at IIGS SIG meetings!

DIRECTIONS TO PRE-CLINICAL SCIENCE BUILDING, GEORGETOWN UNIVERSITY (WAP Main Meeting)

Enter the Georgetown Medical School through Entrance 3 from Reservoir Road. Park in the garage and take steps up to Plaza. Look for Pre-Clinical Science Building sign. Go down the outside stairs into the building. You are on the G level. For GA24 go left to end of corridor and then right to room number. For the L level take the inside stairs down, go left to the end of the corridor and right to LA2 or LA6.

APPLE IIGS SIG NEWS
by Peg Matzen

About 30 SIG members met Monday, Feb. 29, at 8:00 p.m. at Thomas W. Pyle Elementary School in Bethesda, Maryland. Ted Meyer, Chairman, offered a lively 2-hour+ session with demos, Q&A's, and even contests with prizes for the winners! A lucky attendee, who happened to know that it was Superman's Birthday, walked home with a copy of Writer's Choice Elite. Apple File boxes were also handed out.

Doug Ferris demonstrated the PC Transporter card from Applied Engineering. The card provides both MS/DOS and CPM capability—it really runs MS/DOS software! In addition, Doug advised that Hamilton Avnet, a mail-order firm, 1-800-521-3387, sells hard disk drives from 20 to 70 megabytes. He suggested that Apple Crate's hard drives, which are available from this firm might be a good deal for IIGS owners.

Ted Meyer demonstrated the use of Sider hard disk with Finder and MultiScribe and has prepared this information for interested users:

To improve the efficiency of a hard disk with the Finder, or 3.5 inch disks for that matter, move the icon of the application programs that you commonly use out of their folders and directly onto the desktop. This does not actually remove the file from its folder (or sub-directory). You can close the folders and disk and the application's icon should remain on the desktop. Move this icon to the bottom of the screen. Now when you want to start up this application, just pop the disk into the drive with the Finder running. (Booting to the Finder from the hard disk will do the same thing.) The icon will still be at the bottom of the screen, allowing you to click twice to get it started. You don't have to wait for the Finder to open several windows to find it. You can have quite a few of your most often used applications immediately available on the desktop in this way, speeding up your computing.

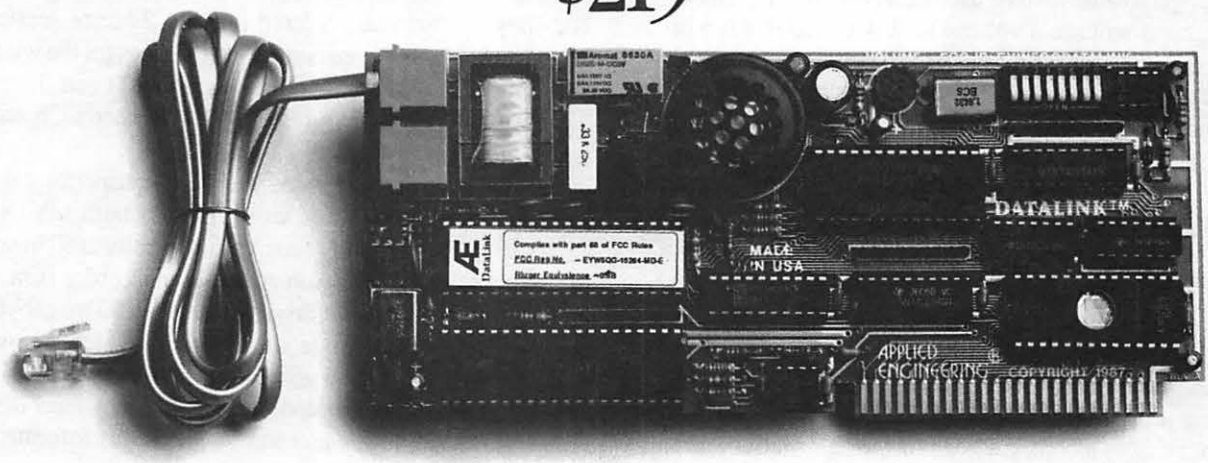
We also discussed ways to improve output with fonts and graphics. Take a look at the Q&A article in this issue for information on this.

Here's the low down on upcoming meetings! March's meeting will be at Kent Gardens Elementary School in McLean, Virginia on March 28th from 7:00 to 9:30 p.m. From the Beltway, take Dolley Madison Boulevard (Rt 123) east towards McLean. At Great Falls Street turn right. After one block on Great Falls, turn left at the stoplight onto Chain Bridge Road. Follow Chain Bridge to the next stoplight which is Westmoreland Street. Make a right on Westmoreland and go about 7/10ths of a mile to Lumsden Street. Turn left and follow Lumsden to Melbourne Avenue. Turn left on Melbourne and you'll see the school parking lot. We're meeting in the cafeteria.

April's meeting will be on the 25th, from 7:00 pm to 9:30pm, 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.

Global communications. Down-to-earth price.

$219



Introducing the DataLink™ modem. Get instant access to networks and databases – plus network memberships and discounts worth $177.95!

Now you can tap into a world of information — without draining your resources. Our DataLink™ modem lets your Apple IIGS, IIe or II+ communicate with other computers, download free software from networks and bulletin boards, access database services and more. For a remarkably low price.

The world at your fingertips.

With the DataLink modem, you'll be able to draw information from thousands of databases. Send and receive electronic mail — even overseas. Join clubs and bulletin boards to exchange software or solve computing problems with other Apple users. Download free public domain software. And share files with personal computers and mainframes.

There's nothing missing on DataLink.

Unlike the Smartmodem®, DataLink comes with its own easy-to-use communications software in ROM and on disk that supports macros, file transfers, on-line time display, data capture and datascope mode. The software also allows you to store hundreds of phone numbers for auto dialing and log on.

Because DataLink is 100% Super Serial Card compatible, you can also run virtually all other communication software, including Point-to-Point, Apple Access and ASCII Express, to name a few.

The compact design allows DataLink to fit in any slot — including slots 1 and 2 of the IIGS with a cooling fan installed. DataLink operates at 1200 or 300 baud. Built-in diagnostics check for accuracy of data transmission, and DataLink lets you track the progress of calls either electronically or via an on-board speaker.

Introductory offers from popular networks included.

When you purchase DataLink, you'll get a fee-waived membership to The Source worth $49.95. $60.00 worth of free on-line time from NewsNet. A free $50.00 subscription to the Official Airline Guide. And a free subscription to the GEnie network worth $18.00!

	Applied Engineering DataLink	Hayes® Smartmodem 1200A
Price	$219	$349
Max. transmission rate	1200 baud	1200 baud
Warranty period	5 years at no charge	2 years or 4 years for $75
Software included	YES	NO
Hayes AT command set	YES	YES
Help screens	YES	NO
On-board telephone jacks	YES	NO
Fits any slot (even with fan)	YES	NO

Smartmodem is a registered trademark of Hayes Micro Computer Products.

Order today!

To order or for more information, see your dealer or call Applied Engineering today, 9 a.m. to 11 p.m. 7 days. Or send check or money order to Applied Engineering. MasterCard, VISA and C.O.D. welcome. Texas residents add 6¼% sales tax. Add $10.00 outside U.S.A.

Applied Engineering
The Apple enhancement experts.

P.O. Box 798, Carrollton, TX 75006
(214) 241-6060

Satellite Scientific

Practical Peripherals 2400 Modem	$190
Avatex 1200HC Modem	$125
New - Avatex 1200e Modem	$90
New -2400 Baud Internal (IIe/+/GS)	$180
Orange Micro C/Mac/GS	$75
(Any parallel becomes Imagewriter Compatible)	
Panasonic 1080i Printer	$180
Applied Engineering GSRAM 1.5 Meg	$call
Cables	$18
Fan for GS	$30
Joystick	$30
Proterm V2 (Communications Package)	$72

We have memory for the II and GS

All Modems Hayes Compatible

Authorized Applied Engineering Dealer

Allan Levy
301-340-7839
Satellite Scientific
15200-A Shady Grove Road, Suite 800
Rockville, MD 20850
Call for all your computer software and hardware needs

Service

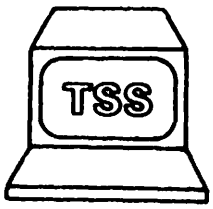
on Apple II+, Apple IIe
IBM and IBM Compatibles

We Test, Clean and Align Your 5-1/4" Floppy Disk Drives

Factory Service on
Epson and Okidata Printers
Expert Repairs on Other Brands

90 Day Warranty on All Service Work

On-Site Maintenance Agreements Available



For More Information Call
698-0347
Technical Sales & Service
2820 Dorr Ave
Fairfax, VA 22031

PROGRAMMER

Applied Engineering is seeking an experienced 6502 and 65816 machine language programmer. 2 years minimum programming experience is required. We offer an exciting opportunity for the experienced programmer to take his skills to the limit. Applied Engineering offers an excellent compensation package including paid vacations, 11 paid holidays per year, health insurance program and more.

Applied Engineering's location in the suburbs of north Dallas offers a "buyer's market" for housing, as well as excellent schools, shopping and entertainment.

Successful applicant should have heavy machine language experience on the Apple IIe and IIGS as well as familiarity with AppleWorks. We're the best at what we do; if you are too, please send your resume to:

Applied Engineering
P.O. Box 5100
Carrollton, TX 75011
Attn: Personnel

WANTED

FUTURESOUND REVIEW

by David Wood

Since Christmas, when I got my first add-on card for my Apple IIGS, I have been amused, confused, thrilled, and exasperated. Sometimes, it made me two or three things at the same time. Mostly, I enjoyed the experience, but I wouldn't mind the opportunity to change a few things...

The package which has me doing emotional loops is FutureSound, the stereo separator and digitizer from Applied Visions. AV seems like a rather small outfit (At least I'm not familiar with it), but if FutureSound is any indication of what they can do, expect a lot more hardware and software from them.

The FutureSound package consists of an add-on card for the GS, molex/RCA connectors for input and output, a microphone for your own digitizing, the FutureSound editor, and the Jukebox (which is also on the WAP TCS with a few other sounds). On the whole, the package looks pretty good, and I have to say I like it, despite the numerous quirks which I'll describe in a few places below.

1. HARDWARE

The card itself is a combination stereo separator and digitizer, and it appears well-built (just slightly funny; the components all appear on the right side of the installed card, facing my memory card in Slot 7). All output, either mono or stereo, comes through both the RCA and the headphone jacks. I have each of Winter Games, World Games, and Space Quest for the GS, and each one utilizes the stereo separation.

A. Installation

There are three connections made to the board. One for input jacks (two RCAs and a microphone) has four pins. Another for output jacks (two RCAs and headphones) has five pins. Finally, there is a jumper to run from the end of the card to the Ensoniq jack on the IIGS motherboard, which has seven pins. The wires attached in the molex connector would run out a slot in the back to hook up to the stereo or mike or whatever you wanted to play to or record from. The accessibility makes it possible and easy to work with the hardware without opening your IIGS.

The clarity in hardware was appreciated, since each step of the instructions where one of the molex connectors was mentioned also referred to a non-existent figure in the book.

Another thing that dismayed me while I was unbagging the equipment was the microphone. The majority of photos I'd seen of the card and hardware, including the inventory photo inside the documentation (and their logo) feature a large ball microphone. The microphone I got in my package was thin, cylindrical type, and the metal casing came off as I pulled it out of the bag. It doesn't affect performance any, but it makes a bad first impression. I have a rubber band around mine, so the cover is not only fastened on, but the microphone doesn't slip off of my desk.

B. Operation

There is no way for a rank amateur to use the card alone except to purchase and run a program that uses it. And even then, the quality of the sound depends heavily on the quality of the programmer and the arrangement and such. Professional programmers or music-writers may be interested in stereo for music and game sounds, but there are no controls on the FutureSound card itself.

C. Compatability with existing programs

As far as I can tell, it works with any program that makes sound through the Ensoniq chip, which is (I suppose) the optimal way of doing it.

2. SOFTWARE

To digitize, though, requires a program to act as a driver for the digitizing hardware, and that's what FutureSound (the program) delivers.

A. Appearance

The FutureSound program is run from a single window with a great many controls. The controls and displays are used for recording speed and duration (lower right), recording volume (lower center), track selection (lower left), and playback speed and volume (center left). You can also examine any portion of the sound on the graph at the top of the screen.

B. Operation

The program allows digitizing from 1 to 31.5 khz from a mono input, or up to 19.5 khz on stereo input (Yes, it allows you to digitize in stereo, recording into both the selected track and the one numbered directly above it). FutureSound also uses a ridiculously simple method of determining which sound comes out which speaker: The odd-numbered tracks output through the right jack and headphone.

C. Quirks

Nonetheless, it has problems too. Sometimes, on odd placements of the "Start" and "End" points, the system refuses to play the entire selected sound. You could grow a beard waiting for the system to perform operations on large portions of memory. (Ed. Note: And you know how long it takes the ladies...) And once in a while, the Memory Manager is called in such a way that it loses the first allotted handle in a session. However, these are all software problems that can easily be corrected with a revision or two.

The mystery I haven't been able to get an answer to yet is the ASIF format riddle. FutureSound offers two formats: The FutureSound format, which is incompatible with the SuperSonic format (see below), and the "Standard Apple Format," or ASIF format (Huh?). I never use the ASIF format because it creates a type $CA file—(get this) an ICON file! Don't ask me why yet; I have to send a letter to Applied Vision to find this out.

D. Software review

The "Start" and "End" points listed on the right side of the screen are cursor points, used for selective playing, splicing, and various options from the Bag of Tricks menu. They are placed by clicking on the graph itself, clicking on the "+" or "-" buttons to fine-adjust the cursor ("count") position, and clicking on the "Start" or "End" button. This allows a good deal of control over the working sound.

E. The Sound Incompatibility Problem

You'll excuse me for a moment while I wax technical:

There are initialization applications SYSBEEP and

contd.

STARTSOUND, and there's a program JUKEBOX. Some people may have come across ASCII files which run on all three, and some may have come across BINARY files which run on all but JUKEBOX. For what it's worth, I found out why that is:

The ASCII file was probably produced by FutureSound. The BINARY files were probably produced by the likes of SuperSonic or some other digitizer. A FutureSound application will look for a six byte header on the input file. The first four will be the length of the sound itself in low-high longword format. The next two will be the speed at which the sound should play in samples per second. When the FutureSound application finds that the first four bytes don't match the size of the file, it declares to the world that it's not a sound file, while SuperSonic applications like SYSBEEP and STARTSOUND read in everything, header and all, and play it normally. Since the header plays in about 1/10000 of a second, nobody notices.

Right now, I just about have a program to read in a SuperSonic file and convert it into FutureSound format. Aside from changing the type of the file, there's really nothing you need to do to change a FutureSound file into a SuperSonic file, unless your ears are that sensitive.

3. FINAL SUMMATION

The first thing I have to say is that $279 is a terrible price to pay for something you're just going to use to spice up your music software or game playing. You have to be interested in developing Apple software that uses digitized sound, interested just in digitizing sound, or intent on having an expensive toy that records and plays on command.

On the whole, though, it does what it promises: It digitizes, plays, and separates stereo signals produced by the GS's Ensoniq chip. It allows you to take a recording, turn it around, loop it, edit it, and mutilate it until it becomes something completely different. From what I've heard of the SuperSonic editor, the FutureSound editor is a joy.

However, I have been able to tolerate its idiosyncracies because I'm incredibly slack. At times, the software could boggle the greatest of minds. Consider what I said above about "Standard Apple Format."

In all, I'm happy with the card and the accompanying software, as long as I get user support and later software versions. It's certainly not perfect, but rarely is anything the first time around. A few minor adjustments and they'll have everything running smoothly. If this is any indication of Applied Visions's work, an expanded product line from them is going to be something to look forward to.

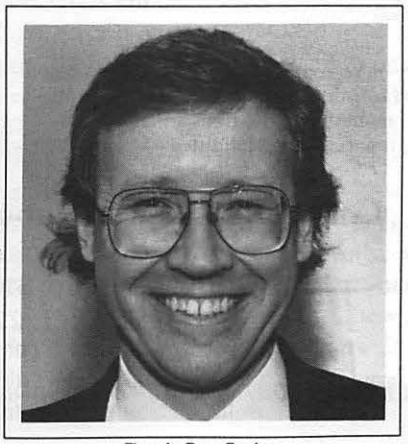


Photo by Peter Combes

Dr.Charles Smith, our visiting friend from LOGIC—Toronto, Ontario. Charles is Past-President of LOGIC and Disk Librarian, IAC.

THE PRICE IS RIGHT ON..

Apple™ Software		Macintosh™ Software	
Accounting			
DAC-Easy Acct.	$70	Back to Basics Sys.	$153
On Balance	70	Insight One-Write	225
Communications			
Commworks	60	Smartcom II	104
Point to Point	80	Straightalk	21
Database			
DBase II	350	Omnis 3+/Express	345
pfs: Workmates(f,r,p,w)	128	Reflex Plus	210
Education			
Computer SAT (HBJ)	28	Calculus; Physics ea.	70
Stickybear Series	ea. 26	SAT Improvemnt Sys	70
Graphics			
Create a Calendar	22	MacDraft	170
Springboard Publisher	92	Powerpoint	270
Leisure			
Beyond Zork	36	Beyond Dark Castle	35
Star Rank Boxing II	29	Chessmaster 2000	34
Programming			
Fortran Compiler (S'card)	71	Lightspeed C	110
Turbo Pascal 3.0 (CP/M)	55	Lightspeed Pascal	79
Spreadsheet			
Planner's Choice	29	Analyze	97
VIP Professional GS	205	MacCalc	97
Word Processing			
Multiscribe/GS 3.0	70	Mindwrite	185
Word Perfect/GS	100	MS Word 3.01	270

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

APPLE		MACINTOSH	
816/Paint	48	Afinifile	57
ASCII Mousetalk	63	Bumper Sticker	43
Award Maker Plus	26	Business Class	36
California Games	29	Focal Point	70
Maniac Mansion	26	Macintax	74
Music Studio - gs	64	Nord & Bert	29
Post Card - gs	22	Pixel Paint	300
Ski Crazed	20	Ragtime 1.1	250
"Timeout Series" by		ReadySetGo 4.0	330
Beagle Brothers	Call	Superlaser Spool	99

Ask for a copy of our Apple or Macintosh catalog containing hundreds of other programs. Also, ask about our volume discount prices for 10 or more of any one item.

$3 shipping and handling per order (UPS-$4). MD residents, add 5% sales tax. No charges or COD's. Prices subject to change. Call for items not listed.

COMPUTER WARE UNLIMITED

P.O. BOX 1247 COLUMBIA, MD 21044

301/854-2346

PROGRAM INTERFACE SIG (PI-SIG) NEWS

by Robert Golden

Monday's meeting, 7:30 PM in the WAP classroom, March 9, was a combination of a question and answer session, discussion on greater depth in programming the Apple IIGS, and general interest subjects. Some of the wishes and comments from the members are:

1. Could the WAP offer the use of a laser printer to members on the premises for use for a fee for the Mac and IIGS for instance?

2. Now that the Apple IIe and IIc may no longer be manufactured by Apple, Inc., what will happen to the magazine market which caters to users of these computers?

3. Could a more extensive documentation, in written form, be made available for the IIGS disks being sold, rather than just a listing of the files? (Ed. Note: Most all of the IIGS disks have been documented in the Journal, in the month in which they were released.)

Jim Winter explained how the higher languages, C and Unix, in a general way could be utilized to facilitate programming with the APW (Apple Programmer's Workshop). He demonstrated an extensive list of programming tools and showed their relationship to each other and the main body of a program. It soom became obvious that it takes a program during the programming to keep the components sorted out as to location, use, and degree of timeliness of a particular programming tool! Jim discussed ways in which the tools were modified and ways they were brought into a program.

For the rank novice, excited by this and tempted to plunge into programming and faced with armloads of expensive books and programming tips, the word was "CAUTION"—start with a plan, an idea to develop, or even an equation, like 2+2, then go step by step, becoming acquainted with the tools as they were needed. This, and getting on the TCS for discrete answers, would be a great way to get started and also become adept at telecommunication. We began to appreciate how helpful some of the regulars on the TCS, Kim Brennan, Jon Thomason, and others have been, as well as generous with their time and ideas!

One suggestion was that it would be great if the more knowledgeable WAP members would note differences they they learned between the beta and final versions the APW documentation. We were intrigued by an ad in the Washington Post, March 3, pg D13, offered by a bookstore, which included the title "Mastering the Apple II GS Toolbox". With severe magnification, the image under the title seemed to be "Yoko Ono". Has anyone read it yet?

Smart Computer

The Generic PC: An Enduring Classic

by Bud Stolker

These are the glory days for users of IBM-compatible personal computers! Ten million PC systems are now in use. Tens of thousands of free or inexpensive programs are available to release the incredible computing power of today's systems. Features are proliferating even as hardware costs plummet.

With hundreds of PC clones crowding the marketplace, the choice of IBM-compatible computers and programs has never been richer. There's the classic XT and AT series, the luggables and laptops, the 386-based systems, the new PS/2 line.

There's never been a better time to get hands on your own PC. But with the proliferation of options has come some hard buying decisions as well. Should you get a 386, 286, or 8086-based machine? Classic or Micro Channel? Color or monochrome display? HGC, CGA, EGA, or VGA video? Laser, daisywheel or matrix printer? Hard disk or floppy system? How many megabytes of storage is enough, and how many milliseconds should you wait to access it?

We can help you slice through the confusion. For nine years we've been giving clients straight talk on what's hot and what's not in personal computing. We are advocates of cost-effective computing, and we know how to wring maximum effectiveness from inexpensive hardware and software.

That's why clients who buy personal computers from Landmark can count on several things going right with their purchase:

- **The right software.** We equip each system with a mix of software, including word processing, data base management, financial analysis, telecommunications, file management, diagnostics, help screens, and tutorials—all custom-tailored to your needs.
- **Careful assembly and testing.** We build each machine from board-level components and run performance tests on everything. We know how to properly optimize PCs and do that as a matter of course. We install all software so it will work properly with your particular mix of equipment. When you get the machine it is ready to go to work for you.
- **Insured against obsolescence.** New designs and faster, cheaper computers will inevitably replace whatever you buy today. But our machines will last longer than many of the clones on the market. The reason: we take care to stick to proven architecture that can be upgraded easily. Even our XT models will handle up to 32 megabytes of main memory. We guarantee that we can convert any of our systems—even our earliest and smallest model—to a full, no-compromise 32-bit computer. And we offer clients a trade-up policy to further ensure a painless transition.

When you're ready to buy a personal computer, let's chat. We have elegant solutions at surprisingly reasonable prices. Dollar for dollar, there's no better value than a generic computer from Landmark, and we're prepared—and delighted—to show you why.

Landmark Computer Laboratories
Suite 1506
101 South Whiting Street
Alexandria, Virginia 22304

Telephone (703) 370-2242 ☎ SourceMail TCB076

IBM PC, PC XT, PC AT, and Micro Channel are registered trademarks of International Business Machines Corporation.

APPLE Discounts

from VF Associates

MACINTOSH CORNER

- DS/DD DISKS, BOX OF 10 .. $13.00 ★
- DS/DD DISKS, CASE OF 50 . $60.00 ★
- 10 DISK STORAGE BOX $2.50
- 36 DISK STORAGE BOX $9.00
- IMAGEWRITER CABLE $19.00
- MODEM CABLE $19.00
- IMAGEWRITER RIBBON $9.00
- MAC + TO MAC CONVERSION CABLE $7.00

5¼ INCH DISKETTES & STORAGE

- SS/DD, BOX OF 10 ..... $5.00
- SS/DD, PAK OF 25 ..... $11.00
- SS/DD, CASE OF 100 ..... $39.00
- SS/DD, CARTON OF 500 .. $175.00
- 2-NOTCH/DS/DD, BOX OF 10 ..... $6.00
- 2-NOTCH/DS/DD, PAK OF 25 ..... $13.00
- 2-NOTCH/DS/DD, CASE OF 100 ..... $45.00
- 10 DISKETTE CASES .. $2.25 EACH, 5 for $10.00 (SPECIFY COLOR CHOICES: BEIGE, BLACK, BLUE, GREEN, GREY, RED, YELLOW)
- 75 DISK FLIP TOP CASE ... $11.00
- 160 DISK LOCKING CASE .. $29.00 ●

PRINTERS

- CITIZEN 120-D $179.00
- STAR NX-1000 ..... $199.00
- PANASONIC 1080i/2 ..... $209.00
- PANASONIC 1091i/2 ..... $239.00
- CITIZEN MSP-15e, WIDE .. $399.00
- PANASONIC P3131, LQ ... $349.00
- NEC P6, LQ $495.00
- STAR NB-2415 ..... $625.00 ●
- LASERJET PLUS COMPATIBLE ..... $1825.00 ●

PRINTER ACCESSORIES

- 1000 SHEETS OF PAPER ... $19.00
- 2500 SHEETS OF PAPER ... $29.00
- PANASONIC/CITIZEN/EPSON RIBBONS $7.00
- GRAPHICS PARALLEL INTERFACE CARD $59.00
- PRINTER STAND $14.00
- PRINTER CART ..... $59.00 ●
- SWITCH BOX, 2 WAY ..... $29.00 ★
- SWITCH BOX, 4 WAY ..... $42.00 ★

DISK DRIVES

- 5-1/4" FLOPPY DRIVE $95.00
- CONTROLLER $49.00

MONITORS

- MED. RES. COMPOSITE $89.00
- HI RES COMPOSITE/GREEN . $129.00
- HI RES COMPOSITE/AMBER . $139.00
- RGB COLOR $269.00
- MONITOR STAND ..... $15.00 ●

THIS MONTH'S SPECIALS:
Printer Cart:
$59.00!
Mobile Computer Stand:
$139.00!
Static Mat:
$32.00!

MODEMS

- 300/1200 EXT $95.00
- 300/1200/2400 EXT $189.00

SOUND & VIDEO DEVICES

- MUSIC SYNTHESIZER $149.00
- COMPUTEREYES $119.00

CHIPS

- 2764 EPROM $6.00
- 27128 EPROM $8.00
- 64K, SET OF 8 ..... $25.20 ★
- 256K, SET OF 8 ..... $72.00

GENERAL ITEMS

- SURGE PROTECTOR $9.00
- 6-OUTLETS WITH SURGE PROTECT $19.00
- MINI POWER CENTER $58.00
- CABLE GENDER CHANGER .. $9.00
- CABLES (S OR P) $19.00
- 12-INCH GLARE SCREEN ... $19.00 ●
- STATIC MAT ..... $32.00 ●
- MOBILE COMPUTER STAND $139.00

COMPATIBLE COMPUTERS

- LASER 128 ..... $395.00
- LASER 128EX $475.00
- VF PC, APPLE II & IBM COMPATIBLE ..... $880.00 ★
- VF-PC, IBM COMPATIBLE . $534.00 ★
- VF-AT, IBM COMPATIBLE . $955.00 ★
- VF-386, IBM COMPATIBLE $2060.00

GAME I/0 DEVICES

- STANDARD JOYSTICK $29.00
- CH MACH III JOYSTICK ... $39.00
- I/0 PORT EXPANDER $25.00
- 9-16 OR 16-9 ADAPTER $9.00
- MOUSE $75.00

SLOT EXPANSION

- MULTI-RAM, 64K MEMORY $119.00
- RGB OPTION ON MULTI-RAM ..... ADD $40.00
- SERI-ALL $99.00
- ACCELERATOR $179.00
- EDD 4 PLUS EXACT BIT COPY BOARD $69.00
- MULTIPLE-SLOT CHASSIS . $149.00
- SINGLE-SLOT EXTENDER .. $29.00
- QUICK-LOADER PROM BD $149.00
- PROM BURNER $119.00

SPECIAL PERIPHERALS

- COOLING FAN WITH SURGE PROTECT $39.00
- POWER SUPPLY $69.00
- NO SLOT CLOCK $39.00
- SHIFT KEY MOD KIT $8.00
- RF MODULATOR $39.00

APPLE SOFTWARE

- COPY II + ... $29.00
- ESSENTIAL DATA DUPLICATOR $25.00
- PLUSWORKS (RUNS APPLEWORKS ON II +) $19.00

APPLE IIc CORNER

- SECOND DISK DR FOR IIc . $95.00
- HOTLINK TO PARALLEL PRINTER $55.00
- GRAPPLER C $95.00
- PRINTER OR MODEM CABLE $20.00
- DISK DRIVE CABLE ADAPTER $14.00
- 9-16 GAME I/0 ADAPTER $9.00
- MULTI-RAM CX, 256K $239.00

★ **DENOTES NEW PRICE**
● **DENOTES NEW ITEM**

VF ASSOCIATES

8231 Woodmont Avenue, Bethesda, MD 20814 ☎ (301) 652-4232
Bulletin Board Service (Modem) Bethesda ☎ (301) 320-6098

UPS SHIPPING: $4.00 per order plus $6.00 per printer or monitor.
Computers: $30.00
LONG DISTANCE: Call 800-666-STAR;
LOCAL: See Local Numbers.
PLEASE NOTE: Add 10% per 30 days for purchase orders.

PLEASE NOTE: Prices change often. Price on date of purchase applies.

BEST OF THE APPLE ITEMS FROM THE TCS

by Euclid Coukouma

ProDOS Error Codes

FROM BOB COSGROVE

When using Copy II Plus to transfer files (by uploading to my GS-RAM card and then downloading to the other disk) I'll sometimes be unable to download to a particular disk because of a "ERROR $51" message. I'll then put in another disk and all is well. What does the error message mean?

FROM JON THOMASON

ProDOS 8 Error $51: File Count Bad. Apparently your directory is touchy. Make a backup, and try using one of the disk recovery programs. I think I'll make a list of the ProDOS 8 MLI error codes, for putting in the library. People often ask to have particular codes looked-up. Of course, we still need people to EXPLAIN them...

FROM BOB COSGROVE

A listing of the error codes would be very helpful. Thanks for your help on my error!

FROM RAY COOPER

Was trying to download file 066 Press.a.Key.bny from Area 2. Could only get the message "ProDOS Error 3C" Does anyone have any ideas here? Anyone else successful in downloading and using this demo?

FROM JON THOMASON

I don't know of an error $3C. Anyone with more recent lists have any ideas? As promised, here are the ProDOS (MLI) errors in a list:

$01 Invalid MLI Function
$04 Invalid Parameter Count
$25 Interrupt Table Full
$27 I/O Error
$28 No Device Connected
$2B Write Protected
$2E Volume Switched
$40 Invalid Pathname Syntax
$42 Too Many Files Open
$43 Invalid REF NUM
$44 Nonexistent Path
$45 Volume Not Mounted
$46 File Not Found
$47 Duplicate File Name
$48 Disk Full
$49 Volume Directory Full
$4A Incompatible ProDOS Version
$4B Unsupported Storage Type
$4C End of File
$4D Position Past EOF
$4E Access Error
$50 File Already Open
$51 File Count Bad
$52 Not a ProDOS Disk
$53 Bad Parameter
$55 VCB Overflow
$56 Bad Buffer Address
$57 Duplicate Volume
$58 Bad Volume Bit Map

That's it for ProDOS 8. I don't have any P16 manuals.

FROM JAMES FRISON

From the beta version of the ProDOS 16 Reference Manual, some error codes. Note that Non-Fatal and Fatal errors are distinguished. The same erorr number means something different depending on its identification as fatal or non-fatal.

NON-FATAL ERRORS

General Errors
$00 (No error)
$01 Invalid call number
$07 ProDOS is busy Device Call Errors
$10 Device not found
$11 Invalid device request
$25 Interrupt vector table full
$27 I/O error
$28 No device connected
$2B Write protected
$2D Invalid block address
$2E Disk switched
$2F Device not on line

Reserved For Device Drivers
$30-$3F Error codes in this range are to be defined and used by individual device drivers

File Call Errors
$40 Invalid pathname or device name syntax
$42 FCB table full
$43 Invalid file reference number
$44 Path not found
$45 Volume not found
$46 File not found
$47 Duplicate pathname
$48 Volume full
$49 Volume directory full
$4A Version error (incompatible file format)
$4B Unsupported storage type
$4C End-of-file encountered
$4D Position out of range
$4E Access not allowed
$4F File is open
$51 Directory structure is damaged
$52 Unsupported volume type
$53 Parameter out of range
$54 Out of memory
$55 VCB table full
$57 Duplicate volume
$58 Not a block device
$59 Invalid level
$5A Block number out of range

contd.

$5B Illegal pathname change
$5C Not an executable file
$5D Operating system/file system not available
$5E Cannot deallocate /RAM
$5F Return stack overflow
$60 Data unavailable

FATAL ERRORS
$01 Unclaimed interrupt
$11 Wrong OS version
$0A VCB unusable
$0B FCB unusable
$0C Block zero allocated illegally
$0D Interrupt occurred while I/O shadowing off

AppleWorks Upgrade

FROM HARRY BACAS

A Claris ad still calls it 2.0 and gives the upgrade price as $75. No mention of what (if anything) is different from the current 2.0. I think I read somewhere that differences are minimal and cosmetic, not functional.

FROM LEE RAESLY

The upgrade is to upgrade from 1.0, 1.1, 1.2 or 1.3 to 2.0. There is no real reason to upgrade from the current 2.0. Do you realize that the ad you saw is the FIRST advertisement there has ever been for AppleWorks? Maybe NOW they will do things to make it better!

Appleworks—Copy][+ Bomb

FROM BILL HUGHES

Has anyone run into any problems with AW 2.0 leaving you hanging? I have 1 meg (AE). The other day I was using 'Find' in the spreadsheet and suddenly lost the cursor and the program went into never-never land. I waited a while and had to re-boot. Fortunately, I had saved it. The second time I wasn't as lucky. I was in the WP and suddenly the program dropped into the monitor!! The second time I know that I had removed some files from the desktop. Is there a bug in AW or in the AE expander?

FROM HARVEY KAYE

The last time I had a problem like that with AppleWorks, I called AE and they said that they have found that Copy //+ is the cause of many peoples AppleWorks creating problems. As a solution they suggested copying AppleWorks with the Apple System Utilities.

AppleWorks Wish List

FROM BILL HUGHES

Wish list for the next version of AW: It should have the ability to load or save a file (WP) as an ASCII file without having to type in the complete pathname each time. P.S. Text files could show up on the list of files that can be entered also.

FROM JON THOMASON

And those silly lines should extend all the way across the 80th column!

FROM BILL HUGHES

Hope I haven't said this one before! I wish that AppleWorks could "see" returns. It can show them with open-apple-Z, now all it has to do is be able to find/replace them. (Also, the replace feature could use a faster routine, Apple Writer is much much faster.)

FROM ANDY THOMASON

How about adding "soft" and "hard" returns. Soft returns being shown at the end of each line going to the printer and hard returns being the standard return now. It would help formatting when using more than 80 columns. And how about directly printing a word processor document to a spreadsheet file? I have had many instances where I have wanted to columnize or sort in the middle.

MS DOS on Apple?

FROM RAY COOPER

I was asked this rhetorical question this morning and do not know the answer. My friend had heard there is a convert program of some sort that allows you to run IBM-type programs on an Apple, and vice-versa. Does anyone know if that is possible? Or, would this just require the Apple be "fitted" with MS-DOS or the IBM with ProDOS/DOS 3.3 ?

FROM JON THOMASON

The Apple/IBM translation is not a problem of MS-DOS/ProDOS. It's a matter of 6502/8085, which is substantially more difficult. You need a foreign coprocessor in a machine to get it to bridge the gap. On an Apple, that answer is the PC Transporter.

Paintworks Gold

FROM CORY MCNUTT

The newest issues of *A+* and *InCider* show an ad for the new and improved PW Gold—it looks pretty impressive. I sent in my $40 and the first page of my DPII manual last weekend so we'll see how long it takes to arrive—if it's even ready to be shipped! I'll let you know what it's like after it arrives and I have a chance to play around with it. I never used PW+ so I won't be able to make that comparison, but I'm curious to see how it stacks up to DPII.

FROM DALE SMITH

I do hope you have enough memory; I've seen that the program requires 1.2Meg to run. Good luck with it.

FROM JON THOMASON

1.25 Megs is just an estimated figure, way above what they think is safe. Anyone with a simple Apple 1 meg expansion has 1.25 megs, and I'd expect that you only NEED .75 to do most functions. It looks like an intriguing package!

PaintWorks Plus Bug

FROM DAVE HARVEY

The following was taken from the February issue of *"Apple Access"*, the newsletter of the Louisville Apple Users Group: WARNING!! APPLE IIGS USERS, DO NOT USE PAINTWORKS PLUS TO OPEN OR LOOK AT 640 MODE PICTURES. While other paint programs have 640 pixel graphics mode, PAINTWORKS PLUS does not. It will read 640 mode pictures but converts them into 320 mode! When it converts a 640 mode into 320 mode it garbages up the picture AND it trashes the file on disk so that no other program will read it!

contd.

Paintworks Plus trashes the disk file when it reads it. If it finds that the picture is 640 mode, it automatically changes the file structure on disk by writing a new header for the file! You think that all you are doing is reading, but Paintworks Plus is also re-writing the 640 file into 320 mode!

BBS Addicts

FROM KIM BRENNAN
Boy, I'm sure glad the system is back up. A day without a BBS fix is like a day without snow (or sunshine for you fair weather types.)

FROM HARRY BACAS
I got so frantic without my daily BBS fix that I re-logged on to Novapple. I'm a member, but the new ProLine system was so intimidating (meaning I hadn't taken the time to learn it) that I got bounced for No Calls In The Last 30 Days. Anyway, it IS possible to switch from the WAP TCS to Nova to get a fix. Quite satisfying, too.

FROM KIM BRENNAN
Well, it is possible to get a fix on Novapple if one is a member. Being a FreeState resident, I have never joined Novapple. But, there are many good Apple specific boards out there. The Apple Pack has lots of interesting stuff (if you can overlook the teenage drivel). And of course, there is the Overflow Valve (a MAC board—but they are understanding folks over there—especially if you like chocolate!)

FROM RAY COOPER
Yeah—the OverFlow Valve is more talk and less music. And nobody really gets into being a Mac-oriented board. Just not that important. And lots of fun!

ProDOS HELLO Files

FROM RAY COOPER
Here is a weird one (from me) and I hope the question makes sense!! I have two floppies, formatted ProDOS. Both of them have ProDOS, Basic System and misc other files. The disk with ProDOS v 1.0.2 (15 Feb 84) has a "Hello" file which contains the following program: 5 HOME 10 Print "Good morning, Ray" 20 End. When you boot this disk, you get that message at the top of the screen. I tried to add a "Hello" file to the other disk, with ProDOS 8 v. 1.2; however, when I boot that disk, all I get is the basic prompt: "]" My question is this: why does one ProDOS disk recognize a HELLO file and the other one does not? Do I need to "tell" the ProDOS to recognize it? If this question gets into deep programming, please let me know and forget the question. If this is an easy one, I would appreciate knowing how to make it work!

FROM DALE SMITH
HELLO was the name that DOS 3.3 uses to indicate a startup file, but ProDOS normally uses the name STARTUP for the same type of file. However the earlier ProDOS may have been altered with a ZAP program to use the HELLO filename instead. Just change the file name to STARTUP on the ProDOS 8 v1.2 disk and it will work like the other.

FROM ART WILSON
Actually, DOS 3.3 can start up with a file of any name—whatever file the disk was initialized with. However, it is (was) good practice to be consistent and HELLO was the name of choice.

Languages For The IIGS

FROM MICHAEL ROBUSTO
Can anyone give me any advice or opinions on programming languages for the GS? I am disapointed in the BASIC that came with the machine. I would like to try my hand at writing programs but want to access the Super High Res graphics and sound chip. I would also like a good editor. I was considering purchasing either TML Pascal or TML BASIC. Should I wait for GS BASIC from APPLE? Or should I join the APPLE developers group and use C? I have some previous experience using FORTRAN and PL/1 on IBM mainframes. Thanks a lot.

FROM KIM BRENNAN
Mike, there are several languages to choose from when programming the GS. And in the very near future several more will most certainly be available. Currently there are TMLPascal and TMLBasic. These are compilers and give access to most of the Toolbox, including the SuperHires screen stuff. In addition, The Byte Works sells Orca/M and Orca/Pascal. Orca/M is equivalent to APW (The Apple IIGS Programmers Workshop—currently only available through APDA) and is an assembler. Orca/M (APW) allows for the addition of compilers such as APW C (and there used to be a version of TMLPascal that hooked right in). Orca/Pascal is an ISO Pascal (supposedly the same throughout various computers—whatever that means) and supports access to the Toolbox. Orca/Pascal is a stand alone product that can be hooked into Orca/M (APW). There is also GS BASIC which is an INTERPRETED basic that is very close to Business Basic for the Apple ///. There is also AC Basic which is a compiler which is supposed to be very similar to Microsoft Basic on the Mac. The Byte Works will have Orca/Basic ready for release in May (they say). This will be a compiled Basic. Orca/Basic will be similar to Applesoft with many extensions. Prior to programming in ANY of these languages you should start spending a little money on some of the manuals (such as the Toolbox reference Manuals). Unless, of course, you plan on using only limited access to the Toolboxes. I've not included any pricing on this stuff mainly because the prices vary depending on where you get them. Most of the stuff is available for $100 +/- $50. Possibly the most expensive route initially would be to join APDA, get APW, APW C and go on from there. There are definitely advantages going that route, which have nothing (or little) to do with prices(such as the early access to new additions or new languages).

FROM MICHAEL ROBUSTO
Kim, thanks for the rundown on programming languages for the GS. Since I left my original message, I've also looked at the GS MISC board and now have a pretty good idea as to what's available. It looks like my main choices are: 1. BASIC 2. Pascal 3. C. My problem is that I don't know enough about those languages. I DO know that I don't like the BASIC in the GS. I don't like having to use statement numbers instead of alpha

contd.

labels on goto's and subroutine calls. I also don't like the Editor (or maybe I just don't know how to use it—the manual, "A Touch of Applesoft Basic," that came with the machine didn't tell me a great deal about editing). How are these types of features on other Basics? Will GS basic have the same type of limitations? TML Pascal got a good review in the March issue of *InCider*, so I'm leaning toward that, but if I can get the same kind of features with BASIC (at a lower price?) I would consider that. I rember reading about a group purchase of Pascal in the Dec 87 issue of WAP Journal. What happened to that? Is it still available? That same article (I think it was the GS SIG meeting report) also said there would be a review of ORCA and TML PASCAL, but I haven't seen it in the JAN or FEB issues. Is it coming soon? Thanks again for the reply. Hope to hear more.

FROM DALE SMITH
Check out the Assembler review in the March Journal—there are 4 different ones covered.

FROM MICHAEL ROBUSTO
Sounds interesting. I cant wait to get my copy in the mail—probably in a week or so.

FROM JOEY SCHOBER
GS Basic (beta version, anyway) is quite nice, but very SLOOOOOW.. if you like BASIC, you might either 1) wait for the final version and pray to God they speed up the interpreter some, or 2) buy TML's compiled version (which I haven't seen, but I assume is nice and quick, being compiled). On the other hand, TML Pascal is a rather nice system that supports all the Toolbox calls, has a nice, multi-window editor, and is FAST, in both execution and compilation. There are other versions of both Pascal (ORCA/Pascal comes to mind) and BASIC (AC/BASIC..) out there, which I haven't actually seen—hope that gives ya' a start.

FROM JON THOMASON
I recently got my release copy of Absoft's AC/BASIC compiler. I helped beta for it, and I'm pleased to say most suggestions and bugs have been considered and fixed. It's an easy language to learn, once started, and it's compatible with MS BASIC for the Macintosh! I'd be interested in sharing info, particularly with people who use any other 16-bit native BASIC on the GS. Anyone out there have GS BASIC, TML BASIC, etc?

FROM KIM BRENNAN
My understanding is that AC/BASIC is also compatible with Microsoft QuickBasic I'm interested in getting AC/BASIC at sometime in the future (bank accounts are nearly dry at the moment). Let me know if you find any other problems with it.

FROM DAVID SUGAR
IIGS Basic from Apple is an interpreter. It also uses SANE for its math and is rather slow. For example, an integer loop in GS basic will execute about as fast as a loop in Applesoft (which always uses reals). Calculations with real numbers are typically 3x slower (although more precise!). I believe the TML compiler was designed to compile IIGS Basic (with it's Apple /// Business Basic syntax and commands) while the AC Basic compiler is compatible with Microsoft 16-bit basics (like GW-BASIC for MS-DOS and, perhaps, to some degree, with Microsoft Mac basic). I have also heard that AC Basic's access to the IIgs toolkit routines is cleaner, although all this is second hand.

FROM JON THOMASON
GW-BASIC? Never heard of it. Interesting. AC/BASIC was designed to be compatible with MS-BASIC for the Mac, and this compatibility was the bulk of its testing. In a more limited way, it is also to be compatible with AC/BASIC for the Amiga.

FROM KIM BRENNAN
GW-Basic was derived from MBasic—the original Microsoft Basic for the MS-DOS machines. GW-Basic includes graphic support which the old MBasic did not. Speaking of Basics, I just got a flyer in the mail from The Byte Works announcing various things with the one liner saying that Orca/Basic would be available in May 88. As far as YOU are concerned, the interesting announcement from The Byte Work is a add-on shell for Orca/M or APW that includes a debugger and works entirely on the SHR screen. Orca/Pascal includes this new shell layer. The Byte Works has a special right now, on this shell and Orca/Pascal. Until the end of February Orca/Pascal is only $75 (list is $150). The shell separately is now only $30 (list is $60). Isn't it wonderful being poor.

FROM DAVID SUGAR
That's where I last remember hearing about AC/BASIC for the Amiga. You are probably right about it being compatible with the other AC/BASIC's (which are all MS-BASIC compatible). This would be very very nice—as for GW-BASIC, that is the version of Microsoft basic supplied with most MS- DOS clones. Microsoft Mac (and Amiga) basics are downward compatible with this.

FROM JON THOMASON
I think that's upwardly compatible. The reasoning Absoft gave me was that they wrote the original MS-BASIC for the Mac, and licensed it away.

ProDOS & MS DOS WordPerfect

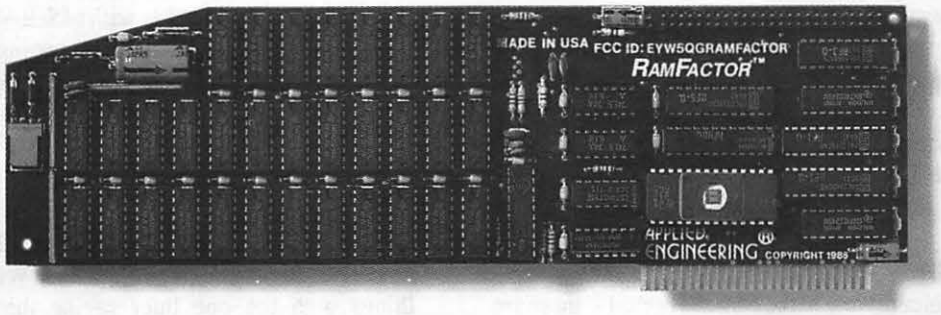
FROM KEN BISHOP
I posted this quest a few days ago, but it appears one of the TCS crashes wiped it out: My wife just went back to work in an office that uses WordPerfect running on MS-DOS machines. My question is—how close is the //e version of WP to the IBM version? Would there be any benefit to my buying it for my home machine to help her become adept at its use. I know some programs that cross machine families like that aren't too similar and I don't care to waste the $90 or so if it won't be very close to the Incredibly Boring Machine version. I have used WordStar in the past, but now use AppleWorks exclusively at home.

FROM DANIEL HANLON
I have some experience with using WordPerfect on both Apple and IBM systems. At work, I use it on an IBM AT, while at home I use it on a IIgs. Before you buy WordPerfect for home use, ask yourself if you really need it. It's an excellent word processor (better than the IBM version because it has more features), but it is also a very difficult one to use—on both machines. For most

contd. on pg 29

RamFactor™

The Ultimate Slot 1-7 Memory Card



RamFactor is automatically recognized as additional workspace memory by AppleWorks 1.3 and 2.0. In addition, RamFactor's memory can be used for creating the ultimate in program speed—a lightning-fast RAMdisk for the Apple IIGS, IIe, II+, Franklin and Laser 128. A RAMdisk does not depend on the slow moving parts of a conventional floppy drive. RAMdisks eliminate wear and tear on your disk drive plus your programs run up to 20 times faster! When a program is in RAM, your computer won't have to search for it in the mechanical disk drive during program operation. With RamFactor, you can have up to 9 seperate simultaneous RAMdisks—even in different operating systems! Now you can instantly switch from one program to another or even switch from AppleWorks to DOS 3.3 to CP/AM to Apple Pascal 1.3 to ProDOS.

Apple Memory Expansion Card Compatible

RamFactor is 100% Apple Memory Expansion Card compatible. This means that software designed for Apple's card is automatically compatible with RamFactor. Thousands of software programs—including AppleWorks, Pinpoint, MacroWorks, MultiScribe, and Managing Your Money—can take advantage of the speed and performance RamFactor provides. But with Apple's card, you can have only one RAMdrive partition instead of the 9 simultaneous RAMdrives that RamFactor offers. And that's only part of the story . . .

2.0 AppleWorks Power

Other slot 1-7 cards can give AppleWorks a larger desktop, but that's the end of their story. RamFactor provides many more powerful functions. It's the only slot 1-7 card that increases AppleWorks 2.0 internal limits by increasing the maximum number of records in the database to 22,600, increasing the maximum number of lines permitted in the word processor to 22,600, and expanding the clipboard size to 2,250 lines maximum. RamFactor is the only standard slot card that will automatically load all of AppleWorks into RAM, dramatically increasing speed and eliminating the time required to access the program disk. It will even display the time and date on the AppleWorks screen with a ProDOS clock. RamFactor will automatically segment large files so they can be saved on multiple 5¼" and 3½" floppies or a hard disk. All this performance is available for the Apple IIe, Laser 128, Franklin or 64K Apple II Plus when used with an 80 column card. No other standard slot card comes close to enhancing AppleWorks so much.

The "Electronic Hard Disk"

RamCharger is an optional battery back-up device, (about the size of a disk drive), that can plug into a connector on RamFactor. With RamCharger added to RamFactor, your program will appear almost instantaneously when you turn on your computer. RamCharger contains LED's that let you know RamFactor's reserve power status. Since RamCharger has its own built-in power supply, it can retain RamFactor's memory indefinitely. Plus, RamCharger's battery will continue backing up RamFactor's memory for up to 10 hours during power failures. An optional "Y" cable is also available that allows one RamCharger to power two fully expanded RamFactors.

If 1 MEG Isn't Enough

A 4 MEG RamFactor Expander can be plugged into the expansion port on RamFactor for up to 5 MEG's total. RamFactor Expander uses standard 1 MEG chips and can be expanded in 1 MEG increments. With the addition of RamCharger, both RamFactor and the expander will provide up to 5 MEG's of lightning-fast battery backed storage.

Features

- Compatible with Apple IIGS, IIe, II+, Franklin and Laser 128
- 256K to 1 MEG on main board with 256K memory chips; expansion port supports up to 5 MEG with Expander option
- 100% Apple Memory Expansion Card compatible
- RamCharger battery back-up option available for permanent storage
- Reduces power strain to internal power supply with RamCharger option
- Fully socketed and user upgradeable
- Expands internal limits of AppleWorks 2.0
- Automatically recognized by ProDOS, DOS 3.3, Apple Pascal 1.3 and CP/AM
- Built-in RAMDrive software (true RAMdisk not disk caching)
- Graphic memory test included
- Allows Apple II+ to run AppleWorks 2.0 without buying additional software
- Automatically recognized by AppleWorks 1.3 and 2.0
- Fits in any I/O slot except slot 3
- 5 year warranty — parts and labor
- Proudly made in the U.S.A.

RamFactor with 256K	**$269**
RamFactor with 512K	**$389**
RamFactor with 1 MEG	**$629**
RamFactor Expander with 1-4 MEG	**CALL**
RamCharger backup option	**$179**
"Y" cable	**$24**

(Allows one RamCharger to power two RamFactors.)

Order RamFactor today . . . with 15 day money back guarantee and our five year warranty. *See* your dealer or *call* (214) 241-6060, 9 a.m. to 11 p.m., 7 days, or *send* check or money order to Applied Engineering. MasterCard, VISA and C.O.D. welcome. Texas residents add 7% sales tax. Add $10.00 if outside U.S.A.

APPLIED ENGINEERING™

The Apple enhancement experts.

(214) 241-6060

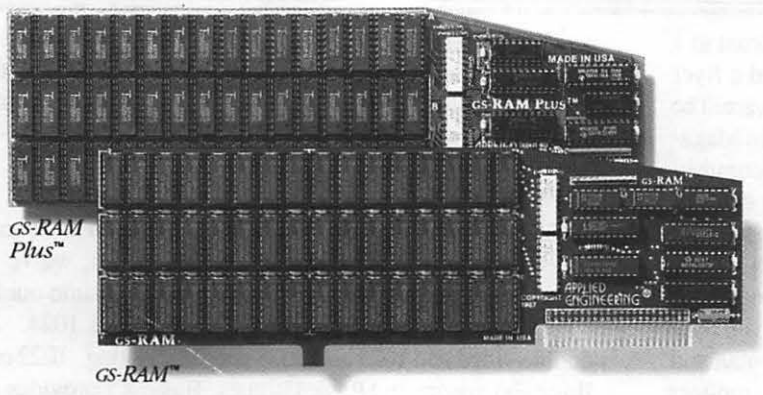
P.O. Box 5100, Carrollton, TX 75011

Prices subject to change without notice.

RamFactor and RamCharger are registered trademarks of Applied Engineering. Other brands and product names are registered trademarks of their respective holders.

For Those Who Want the Most. From Those Who Make the Best. GS-RAM.™

Now expand the IIGS' RAM and ROM with up to 8 MEG of "Instant On" memory with the all new GS-RAM!



GS-RAM Plus™

GS-RAM™

GS-RAM has an all new design. A design that delivers higher performance including increased speed, greater expandability, and improved software.

More Sophisticated, Yet Easier to Use

GS-RAM works with all IIGS software. In fact *any* program that runs on Apple's smaller memory card runs on the GS-RAM. But with GS-RAM you can have more memory, improved performance, and almost unlimited expansion capabilities. We've designed the new GS-RAM to be easier to use too—you don't have to adjust the size of your RAM disk every time you use a DMA device. No other RAM card with more than 4 banks of memory installed can make the same claim.

More than Just Hardware

Each GS-RAM and GS-RAM Plus includes the most powerful set of IIGS software enhancements available anywhere. In fact, our nearest competitor offers only a fraction of the invaluable programs that we include with each GS-RAM card. This software includes the most powerful disk-caching program available, the GS-RAM Cache. The Cache will make most of your applications run up to 7 *times faster.* Also included is a diagnostic utility that lets you test your GS-RAM by graphically showing the location of any bad or improperly installed RAM chips. And for AppleWorks users, we give you our exclusive Expander program that dramatically enhances both the capabilities and speed of AppleWorks.

Making AppleWorks Even Better

Applied Engineering's Expander program eliminates AppleWorks internal memory limits allowing it to recognize up to 8 megabytes of desktop workspace. You can increase the limits from only 7,250 lines to 22,600 lines in the word processor and from 6,350 records to 22,600 records in the database. The Expander allows all of AppleWorks, including print functions, to automatically load into RAM. The clipboard size will increase from 255 to 2,042 lines maximum. GS-RAM will automatically segment larger files so you can save them onto multiple floppies. And GS-RAM provides a built-in print buffer that allows you to continue working in AppleWorks while your printer is still processing text. You can even load Pinpoint or MacroWorks and your favorite spelling checker into RAM for instant response.

Grow by Kilobytes or Megabytes

We offer GS-RAM in two configurations so you can increase your memory 256K at a time (GS-RAM) or a megabyte at a time (GS-RAM Plus). Both are IIGS compatible and both come with our powerful enhancement software. GS-RAM can hold up to 1.5 MEG of 256K chips and GS-RAM Plus can hold up to 6 MEG using 1 MEG chips. And since both use standard RAM chips (not high-priced SIMM's), you'll find expanding your GS-RAM or GS-RAM Plus easy, convenient, and very economical. For further expansion, you can plug a 2 MEG "piggyback" card into the GS-RAM's expansion port for up to 3.5 MEG of total capacity. Or up to a whopping 8 MEG on GS-RAM Plus. If a GS-RAM owner outgrows 3.5 MEG, he can easily upgrade to GS-RAM Plus for a nominal charge.

Permanent Storage for an "Instant On" Apple

With our RamKeeper™ back-up option, your GS-RAM or GS-RAM Plus will retain both programs and data while your IIGS is turned off! Now when you turn your IIGS back on, your favorite software is on your screen in under 4 seconds! With RamKeeper you can divide your IIGS memory into part "electronic hard disk," and part extended RAM. Even change the memory boundaries at any time—and in any way—you want. Because Applied Engineering has the most experience in the industry with battery-backed memory for the Apple, you are assured of the most reliable memory back-up system available. And in the world of battery-backed memory, *Reliability* is everything. That's why Applied Engineering uses state-of-the-art "GEL-CELL's" instead of Ni-Cad batteries (if Ni-Cads aren't discharged periodically, they lose much of their capacity). RamKeeper has about 6 hours of "total power failure" back-up time. That's 6 times the amount of other systems. But with power from your wall outlet, RamKeeper will back-up GS-RAM, GS-RAM Plus, or most other IIGS memory cards indefinitely. Should you ever have a "total power failure," RamKeeper switches to its 6-hour battery. When power returns, RamKeeper will automatically recharge the battery to full power. RamKeeper incorporates a dual-rate charger, status L.E.D.'s, and advanced power reducing circuitry. RamKeeper comes *complete* with battery, software, and documentation.

"In quality, performance, compatibility, expandability and support, Applied Engineering's GSRAM and GSRAM Plus are number one."

Steve Wozniak, the creator of Apple Computer

GS-RAM's Got it ALL!

- 5-year warranty — parts & labor
- 6 RAM banks (most cards have 4)
- Memory expansion port
- ROM expansion port
- Ultra-fast disk caching on ProDOS 8 *AND* ProDOS 16.
- Expands AppleWorks internal limits
- Includes hi-res self test
- No soldered-in RAM chips
- Expandable to 8 MEG
- No configuration blocks to set
- RamKeeper back-up option allows permanent storage of programs & data
- 15-day money-back guarantee
- Proudly made in the U.S.A.

GS-RAM with 256K	**$219**
GS-RAM with 512K	**$339**
GS-RAM with 1 MEG	**$579**
GS-RAM with 1.5 MEG	**$819**
GS-RAM with 2.5 to 3.5 MEG	**CALL**
GS-RAM Plus with 1-8 MEG	**CALL**
RamKeeper Option	**$179**

Order today!

See your dealer or call Applied Engineering today, 9 a.m. to 11 p.m. 7 days. Or send check or money order to Applied Engineering. MasterCard, VISA and C.O.D. welcome. Texas residents add 7% sales tax. Add $10.00 outside U.S.A.

APPLIED ENGINEERING™

The Apple enhancement experts.

(214) 241-6060

P.O. Box 5100, Carrollton, TX 75011

Prices subject to change without notice.

GS-RAM, GS-RAM Plus and RamKeeper are trademarks of Applied Engineering. Other brands and product names are registered trademarks of their respective holders.

ON THE TRAIL OF THE APPLE ///

by David Ottalini, /// SIG Co-Chairman

Has Frank Moore returned? It seems that way, at least to a point. In the mail this past month, many ///ers received a flyer from an "assistant" to Moore, the President of Pair Software. The assistant, Byron Schrum, says that the reason The Three Magazine ceased publication one year ago was by "over-commitments" on Moore's part, followed by an "unfortunate deterioration" of his health. Schrum says Moore is now back to work on a part-time basis and hopes he'll be back to 100% in March.

The flyer also confirms that Pair went bankrupt, making a continuation of The Three Magazine an impossibility. The flyer says the company is currently under a re-organization plan and "as you are aware, in a bankruptcy the normal payout to creditors in the proceeding is usually small, if anything."

Fortunately for subscribers, Pair Software has decided to provide a credit to the company's software library. Schrum says this plan "would almost certainly be authorized by the court." 2nd class subscribers will receive $40 credit, 1st Class $50 credit and overseas subscribers will get a $60 credit.

The cutback means Pair will no longer be selling hardware items, and has had to discontinue other lines, such as Three-Works, GoForth and all the D.A. Datasystems programs (at least as commercial products).To make use of the credit, contact Pair directly by phone (916) 485-6525 or by mail (3201 Murchison Way, Carmichael, CA. 95608).

Pair has also added a new BBS, at (916) 929-4845. The flyer also claims to have a new backup program for hard disks on the way (named after a PC program of the same name, FASTBACK) and a couple of other programs.

As your /// Co-Chairman, I must tell you that I remain very skeptical of Pair and warn you in the strongest possible terms that this company's commitment to the /// Community remains questionable. The /// Community on CompuServe met this newly rejuvenated vendor with a great deal of skepticism (and even derision). As I've said in the past, if there was a problem, it would have been very simple to tell people about it and they would have more than understood. That did not happen and people got burned. They are not likely to forget anytime soon, even with the need for more Apple /// vendors.

One individual, in fact, /// SIG member Dr. Al Bloom, even wrote his own ASCII to DIF format converter program for the public domain after a similar program was announced in the flyer, and others notified FASTBACK's publisher inquiring about possible copyright infringement.

LET'S MOVE ON

On a happier front, Lt. Charles (Dale) Sykora has just come out with a modification to his Trackball driver which now allows it to work with On Three's Graphics Manager and all other mouse-driven software. He also has patched the driver onto .Console for use specifically with Catalyst (but it also works very well with Selector). These upgrades make the Trackball a much better buy, as it is now usable with essentially ANY Apple /// program. Those folks who bought the Trackball directly from Sykora can get the upgrade from him as well for an additional $8. Check with On Three about the availability of the newly revised drivers if you want to buy it from them. I've also been putting a beta version of the SOS Driver Optimizer through its paces. It still has a few bugs, but I think it will be an excellent addition to your /// library.

NEW PD DISKS

Our /// SIG PD offerings continue to grow. While continuing our work to bring the Pohlman disks together, we've moved ahead to get some of the D.A.Datasystem disks into our library.

This month, we add disks 1022, 1023 and 1024. All are double-sided and 1022 and 1023 are self-booting. 1022 contains Basic Extensions and Basic Utilities. Basic XT provides a series of Invokable Modules that allow you to use Call, Peek, Poke and other language add-ons from within Business Basic. Basic Utils provides a version of System Utilities from within Basic. Daryl Anderson wrote the Utility program so that it is self-contained. But you can use the various parts in your own Basic programs if you need to (for example, you could format a disk from within Basic if your program needed that ability.) Complete User Manuals are provided for both Basic XT and Basic Utils.

Disk 1023 contains "The Retriever", a program that will let you undelete deleted files. The User Manual is extensive and easy to use. Finally, disk 1024 has the parallel and serial versions of Power Print ///, a series of device drivers that set aside some of your ///'s memory as a buffer for printing purposes. In this way, you can print a document and continue working without having to wait for your printer to finish. The drivers come in different sizes so you can use only the amount of memory you need. I've been using one of these drives for quite a while now and have found it to be a great time saver.

Due to the size of these programs, disk 1024 is NOT self-booting. But it does contain Menu.Maker and the Text.Dump program. Remember Menu.Maker will make a menu of any disk in .D1 simply by changing the prefix. Hit the (ESCAPE) key and use the left arrow key to erase the old prefix. then type in the new one and hit (RETURN).

All these disks, by the way, have a newly updated version of our Menu.Maker program which I think you'll find a bit better than the older versions. Among the changes, the top menu bar has been fixed to better reflect the options available to the user. And the program now directly returns you to the menu after reading a text file. If you want to update old versions of the Menu program from earlier disks, all you have to do is copy the new version onto the COPY of your old PD disk. To change the disk name on the bottom Menu bar, simply retype line 260, letting d$ equal the name of the replacement disk.

Finally, I have also updated the New Member disk to reflect the many changes in the /// Community over the past six months or so. It has the new Menu.Maker program on it, an updated bibliography of WAP Journal articles about the ///, and an updated A3.Information file.

KEYBOARD LIGHT PROBLEMS

Your Apple ///'s keyboard "ON" light might seem innocuous enough, but it can keep your SARA from booting! If the light is

contd.

burned out, a circuit is broken and the /// doesn't think the keyboard is hooked into the system, and the machine won't boot.

There are two fixes to this problem. The easy way is to simply hit the RESET key. That will complete the circuit and allow the /// to boot. The second fix is more permanent and involves replacing the light. Your WAP /// SIG has some of these in stock if you need one, or you can get one from Radio Shack. The number is 276-036B. To make the repair follow these steps:

1) Turn OFF your ///'s power (better yet, unplug the power cord), and remove the disk in .D1.

2) Turn your /// over and remove the five screws holding the keyboard to the case.

3) Pop out the keyboard.

4) Carefully remove the old lamp.

5) Mark the positive side of the lead.

6) Trim the new lamp's wires to match the old lamp's.

7) Insert the new lamp into the socket (it may require a little squeezing) making sure the positive side is aimed towards the #3 key.

8) Turn on your ///. If the lamp does not come on, turn off the power and reverse it.

9) Replace the keyboard, hook everything else up and you're back in business!

If you have any other questions about how to do something on your ///, please feel free to write me in care of the WAP office, or call me (or Co-Chairman Tom Bartkiewicz). Our numbers are listed at the front of the Journal.

FINALLY

Reports are that On Three's new spelling checker for /// EZ Pieces is not selling well. If you need a spelling checker, this product is, by all reports, excellent and well worth the $69.95 cost. I'll be getting a copy soon and report back to you on its merits.

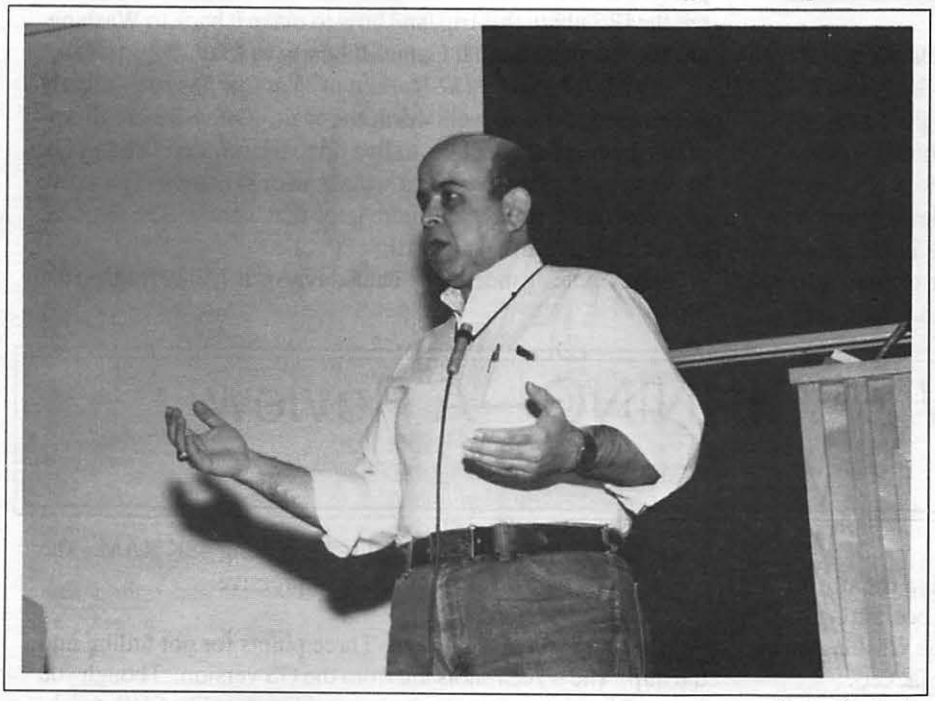


Photo by Peter Combes

Bob Marder. "Now all together ... Amaaazing Grace ..."

Best of the Apple TCS contd. from pg 25

people who don't have to do heavy duty writing like lengthy research papers, reports, or lots of letters, AppleWorks is much better. The command structure is much easier (especially if you have some of the TimeOut series add ons.) Now as to your question, no one working on the Apple version will ever be fooled into thinking that they're working on an IBM. The IBM version relies heavily on the function keys which obviously the Apple does not have. In addition, the IBM version uses the other alternate keys quite heavily (i.e. the Home, End, PgDn, PgUp keys). Some of this difficulty in learning new key arrangements can be corrected by using the macros function in both versions, but this can also be done in AppleWorks with a Macro Program. BTW, the IIgs setup defaults make use of the IIgs keyboard to make it work more like an IBM, but by doing that they use some of the things that make the IBM keyboard difficult to use (for example, they have a key lock feature on the numerical keypad so you can use it for cursor movement—how stupid!) My recommendation: unless your wife does a lot of writing, leave the WordPerfect at work.

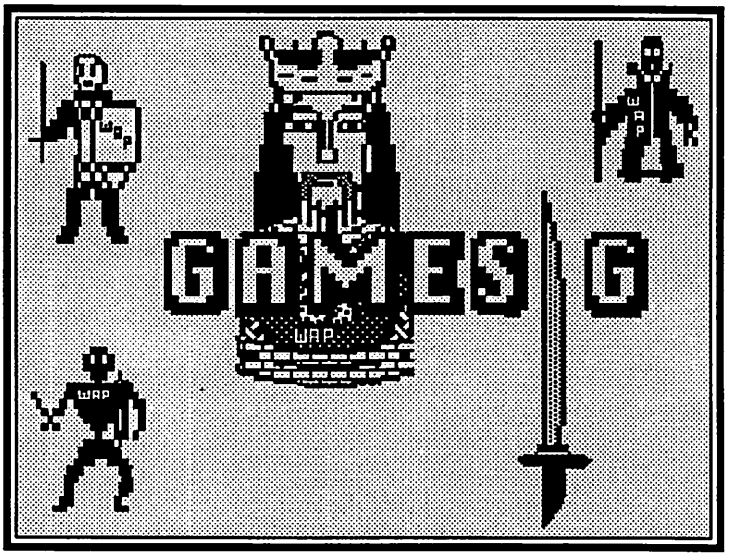
Multiscribe

FROM KIM BRENNAN

In my quest for the ultimate Word Processor for the Apple II (GS now), I bought Multiscribe 3.0 (version 3.01c actually). Compared to Writers Choice Elite, it is really a pleasure to use. Editing on the SuperHires screen is much faster than in WCE, and I can still make use of all those GS Fonts. I can still crash my system when using Multiscribe—but not as frequently as when using WCE (I don't know what's crashing the system, but it only happens when doing Word Processing or Sound Editing). Multiscribe also comes with a Spelling Dictionary and Thesaurus. Fairly nice and relatively fast—though I wish it were as well implemented as the Pinpoint Document checker. Specificaly, in the Document checker when I tell it to ignore a word, it ignores throughout the rest of the text (quite useful if you DON'T want to add that word to your personal dictionary). Multiscribe's Speller ignores the word only once. Next time it shows up in the text, up comes the Speller again. Too bad really. Another VERY nice thing is a NEW printer driver. Called IMAGE.BW, this is a FAST (relative—all things are relative) printer driver for the Imagewriter printers. It makes the printing out of the various fonts about as fast as the NLQ mode of the Imagewriter II. This is very serviceable. It also has a Darker Check box (it prints the characters twice for darker text—a new ribbon is a better choice). Multiscribe comes with 2 3.5 disks (one program, one utility which includes the speller thesaurus.) They recommend at least 768K—though it will work on a 512K machine. The more memory the better of course. The documentation hasn't fully caught up with the programming. Included in the box with the Manual was a rather thick (maybe they used thick paper) addendum manual for version 3.0. More Later (as I learn what NOT to do).

THE RETURN OF WARTOW: A Review

by Barry Bedrick



This program, from Sir-Tech Software (which acquired it from the public domain, when it was known as **RonKool**), is for the Apple II series, Mac, and Porsche. In the scenario, you are a software designer and gaming evangelist who finds himself in New York City to be interviewed by ABC Radio. Although scheduled to return to Ithaca that night and equipped with only the clothes on your back (you dressed hurriedly and forgot the clothes on your front), and an empty swagbag (briefcase), you discover that the WAP Gamesig is meeting in Bethesda that night. Your first task is to get there, using only the meager resources of La Guardia Airport and your American Express card. (At least you don't have to worry about losing your luggage.)

A standing room crowd is at the club when you arrive, and is surprised and delighted at your arrival. Be careful, however: not all is as it seems in this game and, should you refuse to give the hints they seek, the crowd could quickly turn ugly. (You refrain from saying what you are thinking—that they are already ugly.)

As you expected, they ask you for hints for **The Return of Werdna**. You tell one poor soul that he can expect to finish the game, based on his current rate of progress, in mid-1993. (Actually, he is encouraged, having already reconciled himself to the prospect of spending the 1990's, and perhaps his own 90's, in the Cosmic Cube.

You then tell the group about the next Wizardry scenario, **Werdna Goes to Law School**, which will be packaged with the forms necessary to establish a testamentary trust devoted to completing the game, in the likely event that the player fails to do so within his lifetime.

The current Pretender to the Throne, Charles Don Hall, announces the arrival of a review copy of the long-awaited program, **Ultima V- Warriors of Destiny** (Origin Systems). Although you were voted a lifetime right of first refusal to review new software when you became Chairman Emeritus of GameSIG, you magnanimously agree to let Charles review **Ultima V**, only seconds before the short-memoried ingrates in the group would have voted to revoke your lifetime right or your life, whichever comes first. Dave Granite adds insult to injury, upon your disclosure that you are a non-player character in **Ultima V**, by promising to get that character's clue, preferably through torture, and then to kill the character.

You listen to the latest news of the gaming world, contributing a tidbit or two:

Might and Magic (Mac) - perhaps out in April

Might and Magic II (Apple) - maybe by December

Wasteland (a post-nuclear Bard's Tale for the Apple) - imminent

Bard's Tale III (Apple) - will be easier than II, with no timed puzzles

Questron II (Apple) - very soon

Finally, you watch a demo of **Bushido Wizardry**, Dave Porter's variation on **MacWizardry**, usable only with an original **Wizardry** disk. With many of the members, you then adjourn for the traditional post-meeting "pizza repast" (or is it "pasta repeats?"). You are left to solve the three remaining puzzles in this scenario: where to find clean underwear, what to tell the IRS about this trip, and how to make it back to Washington for the quasi-annual GameSIG party in May.

BOTTOM LINE: **The Return of Wartow** has been eagerly anticipated and was well worth the wait. Often we are disappointed when a sequel fails to live up to the original. That is not the case here. Sir-Tech has a winner with **Wartow**. The many admirers of the eponymous hero hope that there will be frequent sequels. I give it 10 out of10.

Next Gamesig meeting is Thursday, April 7, 7:30 P.M., at the office.

DONDRA: A NEW BEGINNING—A Review

by David Wood

>LOOK

You are sitting in front of your Apple IIGS. It is currently off and all of your disk drives are empty. There is a box sitting on the printer stand nearby. There is also an issue of the Washington Apple Pi Journal sitting on the floor next to your jacket.

>EXAMINE BOX

The box reads "Dondra: A New Beginning," by Spectrum HoloByte. It's a new six diskette-side graphic text adventure game for the Apple II+, IIe, and IIc, requiring 48K RAM. The screen shots on the back are pretty impressive.

>READ FINE PRINT

There are no flies on you! Three points for not falling into the trap. The screen shots are from the GS version. Though you have a GS, this version won't use anything neat like SHR graphics or digitized sound. On the other hand, it won't have unclaimed sound interrupts etc. either. There's always a trade-off.

contd.

>EXPLAIN GRAPHIC TEXT ADVENTURE

Dondra is different because of its presentation: By pressing return on an empty command line, you can toggle between a regular text screen and a screen with text on the bottom and a hi-res picture of whatever it is you're confronting.

>BOOT UP GAME

The 5 1/4" diskette whirls in the drive a few seconds. The program starts in a matter of seconds and shows the top half of the title page. When it's done loading, it scrolls down over the picture beneath (which doesn't look as much like the cover as the poster child for Heavy Metal) and stops on the credits. After a few seconds, it starts again.

>PRESS A KEY THEN PLAY GAME

In a few seconds, you're dead. Maybe you should take up knitting instead. Oh, by the way, did I forget to mention that, with the review copy, Spectrum HoloByte includes the entire solution in the form of step-by-step instructions?

>TAKE INSTRUCTIONS

Are you sure? Knowing what to do would spoil the game.

>PLAY GAME

You know what sort of fate befell you before. To avoid that, you spend several minutes trying to think of something else. I may have forgotten to tell you—The game uses some mysterious formula to deduct the time you spend playing from your experience. Who knows how fast your total is dropping?

>CHECK EXPERIENCE

Curious—Very few adventure games record the number of times you die. This one keeps track of deaths, restarts, saves, character experience. You're not doing too hot, you know.

>EXAMINE DOCUMENTATION

Ahh, no wonder it keeps track of all that stuff for you. The more you save, restore, and die, the more experience you lose. Of course, it doesn't know what you do with the step-by-step instructions. . .

>TAKE INSTRUCTIONS

Are you sure? Knowing what to do would spoil the game.

>TAKE INSTRUCTIONS

Grabbing a sheet of paper and covering up everything else, you look down step by step. You find the solution. You feel like kicking yourself for missing so obvious a trick.

>PLAY GAME

Doing so, you know how to get by that one trick. You do so. You solve a puzzle. You're doing great. You go into the next room and die.

>TAKE INSTRUCTIONS

Are you sure? Knowing what to do would spoil the game.

>ANGST 1 OFF

Guilt trip has been deactivated.

>TAKE INSTRUCTIONS

Repeating the same, careful procedure, you find the solution to the puzzle that killed you. Unfortunately, it was a "hat trick."

>EXPLAIN HAT TRICK

A "hat trick" is something only a magician can do, like thinking to use the least obvious object to do the most unlikely thing. It's called a "hat trick" because it's seemingly impossible, like pulling a rabbit out of an empty hat.

>PLAY GAME

You are actually doing well this time, but only because you've seen some of the solutions. You play some more. You get by one hazard. You get by the next. You're actually someplace you've never been before. You're doing great. You meet something and die.

>TAKE INSTRUCTIONS

Upon looking at the instructions again, you see another really sneaky, non-obvious "hat trick." The term may soon be applied in more ways than one.

>TURN COMPUTER OFF

Oh, did I forget to mention that it deducts the number of breaks you take from your final experience total?

>PLAY GAME

Good move. You play some more and die. You're getting tired of this . . .

>TURN COMPUTER OFF THEN READ WAP JOURNAL

The computer is now off. As luck would have it, there just happens to be a review of DONDRA in this month's WAP Journal.

>READ REVIEW

"Dondra: A New Beginning" is a new offering for various systems, by Spectrum HoloByte. It's a text-style adventure with a graphic option, which is sometimes important since there are some visual clues. The pictures on the II+/IIe/IIc version are regular Hi-Res; the GS version is graphically much more sophisticated. The game comes on three double-sided diskettes and asks for swaps at regular intervals unless you have a two-drive system. It will also work with a joystick, taking stick motions as directional inputs.

It acts most like a text adventure: There are no beeps or whistles (the system does buzz a little when it has more text than screen), and the pictures are cute but rather unnecessary with the text descriptions given. I'd suggest you keep the pictures on if you actually play it; you can get some unintentionally valuable clues by watching what disappears when you do a "look." The parser accepts multiple commands and CONTROL-direction inputs, and joystick input, as I mentioned. The system is usually good with synonyms (except in one or two cases), and almost something you'd see from Infocom.

As the storyline itself goes, you are Tellasien, the last hope of the Elders of Dondra, who are at this time being victimized by the evil inter-dimensional forces of Colnar. You are summoned, find yourself in a strange setting and have to orient yourself to the world around you.

As the storyline is written (programmed?), I have complaints. There aren't enough actual hints in the game to tell you what you have to do. In the short time I've been playing, I've found quite a few "hat tricks," puzzles which can't be solved without intuitive leaps or more object examining than you can possibly imagine. One I stumbled on by sheer luck, one was minimally hinted at, and a third was so seemingly counter-productive that nobody should think of trying it. It seems at times that the focus of the game isn't so much solving puzzles and getting through alive as it is learning as much as possible through dying and any sort of mishap you bring upon yourself.

Another classic trick this game uses is the "timed sequence." There are two of these. If you don't take an action or complete a series of actions within a certain amount of time, you die. Some people can't type fast, or just don't know what they are supposed to do, a real problem in this game. And in a timed sequence, you

contd.

may not be able to find out fast enough. Progress grinds to a halt.

The game seems well-packaged and -presented, but the only people that can do well at it are intuitive, psychotic, or both. I can highly recommend this adventure for anyone who likes guessing games, but as regular entertainment, I don't like it. My (and many others') rule on text adventure games (and this sort of hybrid text-graphic game is no exception) is that exceptional minds should be able to get through it in one or two trips. It is unlikely that anyone could get through this one in less than ten without the full solution. As I kept playing, I stopped thinking of looking at the solution as "cheating" and started thinking of it as "getting even."

On the whole: Dondra looks and feels good, but getting through the storyline is an awful lot like pulling teeth—from a chicken. If you are neither intuitive, psychotic, nor good at handling exasperation, you will probably get tired of this quickly.

Look: 7/10
Feel: 8/10
Play: 4/10 (points off for "hat tricks")
Total opinion: 4/10 (low because of play)
>PUT DISKS AND DOCUMENTATION IN BOX
Done.
>TEAR BOX APART WITH TEETH THEN GET "PINBALL CONSTRUCTION SET"
+5 points. Smart move.

JEWELS OF DARKNESS: A Review

by Dave Romerstein

Jewels of Darkness (FireBird Software, Macintosh and other computers) is a new twist on an old adventure game. It's a graphic update of one of the oldest adventure games, with a few new puzzles added.

The first part of **Jewels** is familiar to most adventurers as one of the oldest adventure games (alternately called **Original Adventure** or **Colossal Cave**) with added graphics, a slightly improved parser, a few new puzzles, and a new title, **Colossal Adventure**. After saving an adventurer in a bar one night, you are given a map that leads to the infamous Colossal Cave. You follow it to within a few miles of the cave when a freak gust of wind pulls the map from your hands. You're now on your own. You must find the cave and return with its treasures.

The second and third parts are new, and take place hundreds of years after **Colossal Adventure**. In part two, **Adventure Quest**, Evil is again abroad in the land, and it's once again up to you to combat it. You are given a briefing by the Guild of Wizards, where you discover that the evil is being caused by the Demon Lord AGALIAREPT, and then you are transported to a location that looks familiar...

Part three is **Dungeon Adventure** (a trend here?). The day after defeating the Demon Lord, you realize how much treasure he must have in his stronghold. With the aid of some magic items, you rush to the tower to loot it. But, a mile from the tower, you are magically attacked, and wind up without your equipment on the bridge leading to the Dungeons of the Demon Lord.

All three parts capture the essence of **Original Adventure** remarkably well. The addition of a more advanced parser (allowing more than two words, or stringing commands together with "and", "or", and "but") is a big help. The graphics, however, are almost totally superfluous. They show you nothing about what treasures are in the room, and only vaguely what the room looks like. Often, it's difficult to get an idea what exits are in the rooms (although the addition of an 'exits' command proved VERY helpful). In parts one and two, you cannot carry more than 4 items at once. However, there are several ways in part three to carry many more items.

The size of the documentation is a little daunting, until you notice that most of it consists of *The Darkness Rises*, a fairly entertaining story by Peter McBride. The game is not physically copy-protected, although to restore a saved game, you must have the documentation.

All in all, I liked the game. I've long been a fan of **Original Adventure**, and relish the chance to continue the adventure. I give this game 6 points out of 10, and recommend it for beginner to intermediate adventurers.

PIXEL'S REVENGE VII: A Review

by Charles Don Hall

PIXEL'S REVENGE VII: PIXELWORKS 7.0 is the latest installment in Parser St., Inc.'s enormously popular series. It is basically an integrated spreadsheet/database/word processor with fantasy role-playing elements. As usual, characters from earlier games in the series can be transferred, or new characters can be generated. Two new character classes—scribes and stewards—are available in this game, and you'll need at least one of each to solve certain puzzles.

The premise of the game: Way back in Pixel's Revenge III, you destroyed the Empire Kosher Deli. Subsequently, the Temple of Evil was constructed on the same site, and, in Pixel's Revenge V, you obliterated both the Temple and the theme park which the Temple operated. In Pixel's Revenge VI, you left the land of Mittelgard to fight the Nine Daemon Lords who had been the secret masters of the Temple. Now, as PixelWorks 7.0 opens, you have returned to Mittelgard, and are horrified to learn that the Empire Kosher Deli has been re-built on its original site. Evidently the prophecy of Pixel's Revenge I was true, and the Deli can never be permanently closed by force of arms alone. Your party sets up a competing deli next door, in an effort to put

contd.

Empire out of business.

Using the database, word-processor, and spreadsheet, you must make flyers and coupons, apply for permits, order supplies, hire clerks, and fight monsters. To win the game, you must bankrupt the Empire Deli by controlling at least 95% of both aspects of the Deli market (over-the-counter sales and catering contracts), and by recovering the Great Pickle from the lowest level of the Dark Dreadful Dungeon of Darkness (sic).

The software is almost exactly like AppleWorks—however, it is much faster, and a few improvements have been made. For example, it is now possible to send arbitrary ASCII control codes directly to the printer, once you've found the hippogriff-quill pen (HINT: Look at the +2 Swordfish in the display case at the Empire Deli). This allows you to put a non-Apple printer in Near-Letter-Quality mode, something that is much trickier to do in AppleWorks. In addition, sophisticated data-compression techniques allow you to have a 1024K desktop, even on an unexpanded 64K Apple. These same techniques are used for disk storage, allowing a normal floppy dish to have the speed and capacity of a typical 100-megabyte hard disk.

The graphics are the best that I've ever seen. Monsters are fully animated, and blood (or slime) spurts realistically when limbs are severed. The monster's death cries are especially impressive; apartment dwellers should expect frequent visits from the police if they play with the volume turned up. David Lynch (who directed the movies "Eraserhead," "Dune'" and "The Elephant Man") was hired to help design the graphics and sound, and his enormous talent is visible in every scene. Sophisticated graphics techniques allow surprisingly high-quality pictures to be produced—although I use a color television as a display, the graphics looked as if they were drawn using the full power of an Apple IIGS with an RGB monitor.

If you don't have a copy of AppleWorks, then you'll really appreciate one aspect of the game: It is possible to use the software in ways unrelated to the plot. For example, you can use the database to catalogue your record collection, or the spreadsheet to compute your income taxes. However, you should understand that this can lead to a certain amount of frustration. At the lower character levels, it is almost impossible to do useful work. You can't modify a numeric field in a database record unless you have at least fifteenth level Illusionist with an Iron Staff. To use all of the functions, you need at least 20th level characters in every class, and a huge assortment of weapons and artifacts. Even worse, in order to save a modified file, your party must help the file battle a group of guardian monsters. If the file is defeated, then both the original and modified versions are forever lost—even if every member of your party survives. The guardians usually aren't all that tough, but every once in a while you'll get a Steam Giant or a pack of Overmages. Losing a file isn't too critical when you're working with the short documents needed to play the game, but it can be devastating if you're trying to use it on large applications in an office environment.

I found this game to be relatively simple. The puzzles are mostly straightforward—the only really tricky one involves getting your Liquor License. (HINT: You need to get something from Spreadsheet Cell BX451. The dragon guarding this cell can only be defeated by something in the "Imported Cheese" database. When the Concerned Parent starts talking at the public hearing, say : <Concerned Parent, "Control-Shift-Open Apple-Z. Carriage return. Escape. Escape. Escape. Go stick your head in a pig. Open Apple-8."> Then cast the Earthquake spell.)

BOTTOM LINE: As a game, this program is up to Parser St., Inc.'s usual high standards; it gets a 10 out of 10 and goes on the Must-Buy List. As an integrated data-management program, it gets lower marks. While much more powerful than AppleWorks, the Fantasy-Role-Playing features frequently get in the way. However, assuming you have high-level characters, it can be satisfactorily used for small documents and databases. Note that it is a bargain at $39.95; AppleWorks (which does not contain any Fantasy-Role-Playing aspects at all) lists for $250.

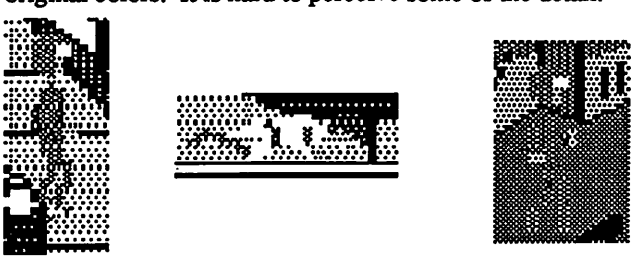
KING'S QUEST III—SPACE QUEST : 3-D Demo Disks

by David L. Porter

At our last GameSIG meeting, there was a package from Sierra On-Line. In the package was a stack of disks for the Apple and MacIntosh computers. I took one of the Mac disks to see what was on it. On the disk was a demonstration of scenes from two of Sierra On-Line's games: KINGS QUEST III and SPACE QUEST. In general, these demos were the type of continuous loop advertisements that stores put up on monitors to catch the eyes of customers. Therefore I can't say much about the play of the game. Each demo let you only watch scenes from the game. You could not participate. (At least you weren't supposed to. I tried, using the one menu that was active, and put the animated scene into an infinite loop of geese running around in their pen and the hero jogging in place.)

Basically the games are an animated version of the standard adventure game. Instead of just typing N to go North and having the software tell/show you what can be seen when you get there, these games show your character walking/climbing/swimming on command. When you want to look at something, you can click on it rather than having to type the old faithful "LOOK BOX" style command. The company has put a lot of incidental music and sound effects into the game.

However, the overall system on the Mac looks as if as little work as possible was done to port the game to the Mac. The screens suffer from "gross graphics". Those are those large square bits used on low resolution systems. I think they could have done a little more work on their grey scale adaptations of the original colors. It is hard to perceive some of the detail.



Also, the music is not being played as a background process.

contd.

If you enter a command while it is playing, nothing happens until the current portion of the music finishes. Then the music stops and your action takes place. One last "feature"—I could not get these demos to run on the Mac+ using the external disk drive. It appears that the software looks for particular files on the internal drive only. Possibly this is part of a copy protection scheme.

Will I rush out and buy either of these games? Well, I like role playing/adventure games very much, but these demos did not move these two any higher on my Easter basket list. I think Sierra should consider a different style demo if they plan to target individuals. This one was fine for crowds in shopping malls. I think something that lets you play the first few "rooms" like Sir-Tech does with Wizardry would whet the appetites of individuals more.

RATINGS:	(given as Good/Neutral/Bad)
Mac Interface:	Neutral
Documentation Content:	(Not available to evaluate)
Product Physical Quality:	(Not available to evaluate)
On-Line Help:	(Not available to evaluate)
Performance:	Neutral
Presentation:	Neutral
Price Value:	(Demo provided too little to effectively rate in this category)
Overall:	Neutral

SOLITAIRE ROYAL: A Review

by David L. Porter and Miriam Porter (age 6)

SOLITAIRE ROYAL v1.0 (Spectrum HoloByte—Mac/Mac+). Solitaire Royal allows you to play the game of solitaire on the Macintosh with lots of bells and whistles. The major feature is that it allows you to play, not just one type of solitaire game, but seven different forms of the game. The games that you can play are Pyramid, Golf, Klondike (the most common form of solitaire), Canfield, Corners, Calculation, Reno (the gambling version of Klondike), and Three Shuffles and a Draw. In each game, you play cards on your desk top as you normally would on a table. There is also a children's version with three more (different) games in it. The children's games are a small version of Concentration (using only half the cards), Pairs, and The Wish.

A lot of good work went into this software. The graphics are excellent. You won't get eyestrain looking at the game. The screens are well laid out and do not get cluttered as you play. The games, while obviously chosen for their ability to fit on the Mac's screen without scrolling, are sufficiently different from each other to maintain your interest in all of them. In fact, you can get hooked trying to beat some of the situations that look like just "a little smarter move last time" would have won the game. ('Beating old Sol' is how one says it in Solitaire games.) The children's games will keep them busy as long as their turn at the Mac lasts. Which child gets to play has already become a bone of contention in our house.

Complete rules for each game can be gotten from the menu. The rule writers are obviously solitaire fans because they use the proper jargon throughout. Because of this, children may have to have the rules for their games explained to them. Children four and older should have no trouble playing the children's games. Play for all the games is easy and fast. The only waiting you will do is for game startup. On the subject of startup, the documentation tells you you must wait while the "startup screen" is displayed. They mean the game startup, after you have double clicked the icon, not the system startup.

I mentioned the bells and whistles. This package has so many that it looks like it was created by a group of bored people, tired of playing solitaire, who were trying to get the Mac to do everything they knew how to make it do. You can change the style of the backs of the cards and the faces of the royal cards. There is a set of twelve back choices, each corresponding to one of five sets of faces: standard, jungle, oriental, classical, and movie horror. You can have the game recognize clicking or dragging as the method for moving cards. You have four choices of desktop patterns. You can have the sound of the cards. ETC ! Miriam, who is left-handed, especially likes that the "hand" cursor can be toggled to be a right hand or a left hand. Winning a game usually gets you a cheering sound track—especially big with the children. The children's game, The Wish, has a little animation instead, showing the king and queen of hearts meeting for an audible kiss. This is a hit with the daughters but not the sons (except when Frankenstein's monster kisses the horrified heroine). Turning on all the features slows play a bit.

I do have three complaints with this package. The first complaint is with the deck shuffling system. It could use a bit more randomness. Large runs and groups of pairs are common. It almost looks like they take the deck from how the previous game ended and use that as the basis for the next shuffle/deal. My second problen is with how one ends a game. There is no graceful way to signal the end of some of the games if you have reached a dead end. The only way you have is by selecting another game to play. When you are keeping score, this will cause the software not to recognise your score. This is only a minor problem when you consider that my main gripe is the score system itself. The only time the game monitors scores and keeps track of the high scores is during tournament play. However, during tournament play, successive selections of the same game play the exact same game. The deck is in the same order and everything. Presumably this is so several people can play against the same puzzle. However, not only does watching the first player play give a whole lot away to the following players, but if I had several people around I probably would not be playing solitaire. In solitaire the only person I care to keep score against is myself. High scores are not even remembered past the playing session. You can not come back tomorrow to try to win your place on the list. Furthermore, the high scores for a particular game can only be viewed while in tournament play and playing that particular game. The children's games don't even have a score system. I think more work should have been put into this instead of some of the bells and whistles. My frustration with this is the only

contd.

reason I can't rate this package GOOD in all categories.

In general conclusion, if you have a Mac and you like playing solitaire, this is a package that you should definitely own. If you suffer from occasional boredom and would like to turn to the paste boards, buy this package. If you are a hot competitive type, look for something else. Luck plays the major role in these games and not keeping your scores will frustrate you. On the other hand, I think I can win at Three Shuffles and a Draw if I only . . .

RATINGS:	(given as Good/Neutral/Bad)
Mac Interface:	Good
DocumentationContent:	Good
Product Physical Quality:	Good
On-Line Help:	Good
Performance:	Neutral
Presentation:	Good
Price Value:	Neutral
Overall:	Good

THE SPY'S ADVENTURES IN SOUTH AMERICA : A REVIEW

by Stephen Granite

When you first look at this game from Polarware, you say "Oh no! A Carmen San Diego clone," but you're half right and half wrong. In this game you search for Dr. X and his associates Drs. N, Q, Z, J, and K. You collect jewels to give to informants who in turn give you clues to find Dr. X. But this game also, while playing it, teaches you about South America, Central America, and the Caribbean Islands. It teaches you about the countries in each of these places and the people and places in each country.

The game comes in a box with a map of South America, documentation, and the game disk. When you start the game, you have a choice: 1) a one player game, 2) a spy network of up to 6 spies, 3) spy vs. spy with up to 6 spies, or 4) restoring a saved game. The game has 4 screens: the Map screen, the Location screen, the Dossier screen, and the Clue screen. The Map screen shows a map of South America including Central America and the Caribbean. The Location screen shows a picture from the country you are in and allows you to look around in that country. The Dossier screen gives a dossier on the country you're in and allows you to look at other screens. The Clue screen lists jewel clues, clues to finding Dr. X, places informants have been found, the number of jewels in your possession, and your efficiency rating. Your efficiency is rated by how quickly you retrieve jewels, how many jewels you save instead of giving them to informants, and if you get Dr. X on the first try. (You can only guess where he is 3 times.)

This game is good, but to play it you might need an almanac. This game should be bought by IIe and IIc users because the clues to finding Dr. X come out as numbers instead of letters on a II+. I liked this game very much and would suggest that it be played by children.

GAMESIG ERRATA

It was reported in last month's GameSIG News that one of the members was working on a Wizardry Construction set. Actually, he is constructing a Wizardry scenario. There is no product called Wizardry Construction Set.

FREDERICK APPLE CORE

A SLICE OF THE WASHINGTON APPLE PI

OFFICERS & CHAIRMEN

President	- Oscar Fisher
Vice President	- Stephen Hadley
Secretary/Treasurer	- Donna Logan
Apple II Librarian	- Tony Svajlenka
Macintosh Librarian	- Doug Tallman
Group Purchase	- Harold Polk
SYSOP (Cracker Barrel)	- Scott Galbraith
SYSOP (Commonwealth)	- Oscar Fisher

HOTLINE MEMBERS

Scott Galbraith (II&GS)	- (301) 865-3035
Kurt Holter (Mac)	- (301) 663-4199
Bruce Taylor (Mac)	- (301) 371-6181
Stephen Hadley (Mac Graphics)	- (301) 831-5353
Cracker Barrel BBS	- (301) 662-3131
Commonwealth BBS	- (301) 695-7203

The Frederick Apple Core meets on the second Saturday of each month in the large conference room of the Frederick Library at 110 E. Patrick Street, Frederick, MD. Meetings begin at 9:30 AM and normally last until 11:30. Demonstrationss are scheduled for both the Macintosh and Apple II with computers of both types provided.

If you have problems or questions concerning any program or application, you are encouraged to bring the program along and we'll see what we can do to help. We also have extensive public domain software libraries for both families of Apple computers.

FAC Upcoming Meeting Dates:

April 9	May 14
June 11	July 9

U.S. ADHERENCE TO THE BERNE COPYRIGHT CONVENTION

by Joseph A. Hasson

The United States Congress, through both the House and Senate Judiciary Committees, is currently considering whether the U.S. should adhere to the Berne Convention on the Copyrighting of Literary and Artistic Works. This Convention originally came into force in 1886 and has gone through several revisions and updates. The most recent revision occurred in Paris in 1971.

The United States has never signed this Convention for a number of reasons. Among them was the fact that the U.S. copyright law up until 1976 was incompatible in several important respects with Berne. The Copyright Law of 1976, passed by the Congress, removed many of the sources of that incompatibility. Hence, if the United States were to decide to join Berne today, it would require few, if any, changes in current U.S. law. However, current discussions of U.S. accession to Berne have raised several crucial questions. One important provision in Berne deals with the matter of "moral rights." The issue here is whether American law adequately provides for the "moral rights" of an author, etc., consistent with Berne. "Moral rights" has to do with the rights of an author or other creator of copyrighted material "to object to any distortion, mutilation, or other modification of, or other derogatory action in relation to said work which would be prejudicial to his honor or reputation."

The moral right of such a creator inheres in the work even if the copyright has been transferred to another and, even, after the death of the original creator. Most legal experts argue that American law is adequate to protect such moral rights. Second, American copyright law contains provisions for "formalities" that must be adhered to when a creative work is copyrighted. Berne does not contain such "formality" requirements. Hence, the issue here is whether or not these provisions in U.S. law are consistent with Berne. Other technical and legal questions arise and must be settled when assessing the compatibility between U.S. law and the Berne Convention.

It is not the intent here to enter into a dissection of the arcane legal issues that arise in assessing if U.S. Copyright Law is or is not congruent with Berne or to what extent. It is noteworthy, however, that in 1952, the United States took the lead in establishing the Universal Copyright Convention which has standards of adherence less stringent than those of Berne. Many countries belong to both Berne and U.C.C. The United States through its affiliation with U.C.C. is able, often, to obtain "back door" protection of Berne when it obtains copyright protection in a U.C.C. country that is also in Berne. Hence, U.S. firms will often get simultaneous copyright protection in the United States and Canada. Canada belongs to both Conventions. In this manner, then, U.S. materials can enjoy protection at home, in Canada and through the principle of national treatment, protection in Berne affiliated countries as well.

This procedure has, at least, three negative consequences, however. First, it is costly to follow so that the option is effectively open only to large firms involved in copyright activities. An IBM witness before the Committees, noted above, indicated it cost IBM as much as $10 million to follow such a procedure. Second, there is a certain resentment against the United States because it gets Berne protection while not a member of the Convention. Third, when the United States seeks to get countries to tighten their intellectual property laws, its leadership position is weakened because it is not itself a member of Berne. The upshot of all this: there is strong move currently underway to "clear the decks" so that the United States will adhere to Berne.

However, this article will not pursue further the pros and cons of U.S. adherence. In general, it is highly desireable for the U.S. to join; and in fact, it is long overdue that it affiliate itself. The IBM witness who testified in favor of U.S. adherence was a Vice President, Kenneth Dam. Some of the points he made are of general interest to people in the computer field. His first was that there has been an accelerated pace of international piracy of materials involving intellectual property rights. This accelerated pace makes U.S. adherence to Berne highly desirable. He noted that IBM derives over $5.5 billion in revenues from more than 4,350 computer programs published annually. Computer software is the fastest growing sector of IBM's business. The technology for creating, storing and communicating copyright works has become increasingly useful but that same technology has made the work of the pirates much easier. It is now no trouble for a pirate to knock off and distribute very large quantities of computer programs and even entire program libraries. Pirated materials are used not only in the countries where the pirating occurs. They enter into the international stream of commerce and are distributed throughout the world. It is estimated that domestic software vendors of IBM products alone lose some $800 million in sales overseas annually because of piracy.

While piracy and counterfeiting are spread out over a wide range of products, piracy of computer software, along with audio and video tapes, are the most easily accomplished on a broad scale. In a recent survey by the International Trade Commission, 245 U.S. firms reported they had world-wide sales involving intellectual property rights of $1.114 trillion in 1986. Many of these firms have distribution outlets outside the United States. This compared with total world-wide sales of U.S. industries of $5.167 trillion. Firms that deal in intellectual property rights find that an average 80 percent of their sales involve such property rights. Hence, these grand totals are of (a) total world-wide sales of U.S. industries and (b) world-wide sales of U.S. firms which involve intellectual property rights. Losses because of inadequate intellectual property right protection in computers and computer software alone—through piracy and counterfeiting—amounted to $4.13 billion in 1986. The computer industry was the second largest loser on this basis. Its losses were surpassed only by the scientific and photographic industry which sustained $5.0 billion of losses because of intellectual property right infringements. Other industries' losses were for the electronics industry, $2.3 billion; for motor vehicles and parts, $2.2 billion; for entertainment, $2.1 billion; for pharmaceuticals, $1.9

contd.

billion. The total world-wide losses by American firms and industries because of such infringements amounted to $23.85 billion in 1986.

Just two more figures. In 1986, the United States lost an estimated $705.0 million in exports and $235.0 million in royalty and related revenues because of the low level protection of intellectual property rights available in foreign countries. The loss of exports can be translated into a loss of American jobs; the loss of revenues can be translated into a loss of dividends to stockholders of companies affected, a loss of financial resources that might have been reinvested in product improvement, etc. It is estimated that close to 1,500 jobs were affected adversely in the computer industry alone because of such violations.

The most flagrant violators in the computer field were Taiwan, Mexico, Brazil, India, Singapore, Thailand, Argentina and Malaysia.

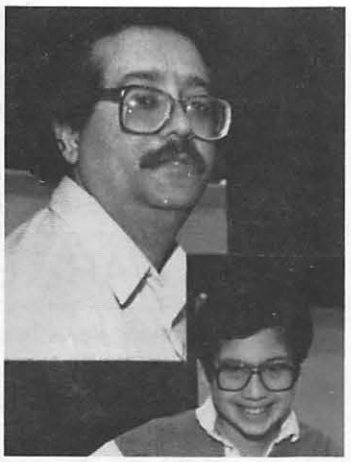
Through piracy and counterfeiting, therefore, millions of dollars spent on research and development in the computer and other industries is put at risk. Infringment actions brought against pirates in search of legal remedies are very costly. In the process, the whole industry suffers a devastating blow that carries with it serious consequences for the future development of programming, the computer industry, total U.S. trade and the U.S. economy. The United States needs a high level of worldwide copyright protection. Such protection will be better attainable through U.S. adherence to Berne. The basic approach adopted by the U.S. Government is to view the whole issue of intellectual property rights infringement within the framework of the GATT (General Agreement for Trade and Tariffs). The GATT is broadly concerned with issues of international trade and economic growth. It stands for free trade as a desirable international objective. If the U.S. can get its proposed approach adopted, the GATT would have within it a disputes settlement mechanism so that infringing countries could be brought "to court"—charges could be levelled against them; there would be appropriate investigations by established Panels; remedial measures would be recommended and put into place.

U.S. adherence to the Berne Convention would put it in a position of leadership in the international community for enforcing intellectual property rights. It is proper that the United States should take this stance in order to stop or, at least, sharply curtail actions that are plain international brigandage.

VOLUNTEER PROFILES

We continue our portfolio of WAP volunteers, without apologies to the scotch whiskey whose ads suggested the format.

Name: Ray & David Hakim (father-son computer team)
Occupation: Ray, Assoc. Prof. of Anatomy; David, Student
Residence: Silver Spring, MD
Computer: Lisa & Apple IIgs
Favorite Drink: Ray, Kona Coffee; David, soda
Favorite Software: Ray, Wizardy & Ultimas; David, Death Lord
Service to WAP: Ray, coordinates WAP Journal distribution to stores and active in GameSIG; David, Chairman of AppleSeeds



Name: Bob Platt
Occupation: Attorney
Residence: Arlington, VA
Computer: Apple IIe, IIgs and Mac Plus
Favorite Drink: Gatorade (after a long run)
Favorite Software: UCSD p-System; PageMaker
Service to WAP: Election coord.; Vice Pres. SIGs '84-85; Vice Pres. Mac '87-88; Pascal, HyperCard and Q&A columnist; Subst. Journal Ed., Aug '84; New Disk Librarian; Tutorial Coord. & Instr.; ByLaws SIG Chmn.

Photos by Peter Combes

COMPUTER DEN LTD.

Save more than 30% on software, peripherals and accessories for all Apple computers, including Mac, IIGS and Laser 128.
ATTENTION][+ OWNERS:
in stock hardware & software at giveaway prices!
Call for information . We attempt to beat all locally advertised prices

COMPUTER DEN, LTD.
11716 Kemp Mill Road
Silver Spring, MD 20902
301-649-6868

Call Sunday-Thursday 10A.M. - 9P.M.
UPS Shipping Available, Quantity Discounts

PASCAL NEWS: TML Source Code Library for the IIgs

by Robert C. Platt

PIG. The next Pascal Interest Group meeting will be held on Thursday, April 21 in the WAP Office. Our February meeting featured an excellent presentation by Jonathan Ashwell on the use of Lightspeed Pascal to enhance the performance of HyperCard stacks. Jonathan determined which operations were slowing down his stack. He then translated these operations into Pascal and compiled the results as XCMDs. PIG meetings are open to any Apple II or Mac user interested in Pascal. We encourage you to share your latest programming achievements, bugs or questions with the group.

TML IIgs Compiler. I have been avoiding the task of mastering the IIgs ROM Tools. I had many excellent excuses. First, Pecan's p-System (which I was using for Pascal on the IIgs) did not support them with the necessary glue routines. Second, no decent reference books were available. (The lack of adequate indexes in the APDA prerelease of the IIgs manuals is a crime against programming humanity!) Third, the Apple Programmers Workshop (APW) appeared to require a hard disk, which I do not have.

All of my excellent excuses have now vanished, and WAP Pascal fanatics can no longer avoid conquering the challenge of IIgs Toolbox programming. Not only is Apple's two-volume Firmware *Reference Manual* in print, but a number of more intelligible books by other parties are available. (By the way, I do not consider the "first wave" of IIgs books, which predated the 01 ROMs and ProDOS 16, to be as useful as the "second wave" of IIgs books.) More important is the release of TML Pascal version 1.00B (dated 9/12/87) and the TML Source Code Library.

I have reported previously on version 1.0 of the TML compiler. It is essentially the same as TML's Macintosh compiler. However, its programming environment is very easy to use. Pascal source code is entered through a window (or read from a source code file). A compile menu then permits the selection of compiling to memory, to disk, or merely to check syntax. A Preferences window on the Compile menu allows the user to specify the size of the symbol table, the number of spaces indented for each TAB character, and the location of a directory which contains other symbol files. An "auto save" option allows the user to save the source code automatically before transferring execution to the program.

Equally impressive is TML's implementation of desk accessories. Version 1.00B will compile classic desk accessories as well as new desk accessories. When a new desk accessory is compiled, its name is automatically added to the Apple menu.

Version 1.00B also improves upon the earlier version by supporting standard Pascal text input/output to whatever screen display environment which the program is using. As a result, text printed from a *writeln* command will appear on either the text screen or the super hi-res graphics screen.

TML Source Code Library. TML markets this disk and manual as a supplement to its IIgs compiler. It is well worth the expense. The disk includes 15 sample programs which use virtually all of the ROM tool managers. The full source and make files are included, and each example is documented briefly in the 33 page manual. In addition, a List Manager Demo was added to the disk after the Source Code Library manual went to press. The List demo is nifty. It presents a scrollable window of all IIgs tools and when the user clicks on a particular tool name, the window displays the tool number, version number and activation status of the tool.

Another impressive program is PaintMix. As you know, colors on the IIgs are represented by different values for red, green and blue. This program allow you to specify values for each color, with the results displayed on three overlapping circles. The region where all three colors overlap is the color represented by the value selected.

The GSObj program is derived from the Mac program which TML shipped to illustrate object oriented programming with version 2 of the Mac compiler. This program allows the user to draw or erase circles and rectangles of particular colors. The program illustrates QuickDraw and the use of double linked lists.

I learned a number of techniques from studying these examples which I did not pick up from other sources. Loading and deactivating tools is a non-trivial task, and I found TML's examples helpful. IIgs menus and dialogs are sufficiently different from the Mac, that I also valued these examples. Similarly, the ProDOS 16 demos were useful.

It would be unfair to claim that the Source Code Library and the TML Compiler manuals are sufficient to cover all that a programmer needs to know about using the IIgs ROMs. But they provide a helpful start on this process. As indicated in Ted Meyer's March 1988 column, the WAP IIgs SIG has a special offer on both the compiler ($85) and the Source Code Library ($32). Contact Ted for further details.

SOFTWARE UNDER REVIEW

The following items have been received for review by the Washington Apple Pi.

Product	Reviewer	Date Received
Training Tapes (Excel, Word, Works)	Patricia Kirby	12/87
Word Finder	David Gursky	11/87
Coach Professional	David Gursky	11/87
LookUp	David Gursky	11/87
AEC Information Manager	Steve Hunt	1/88
Cricket Graph 1.2	Frank Potter	2/88
True Forms	Phil Noguchi	1/88
Award Maker	Judy Spitman	9/87
Jeff Schiller	AutoSave DA	2/88
Illustrator	reviewer needed	11/87
LaserPaint	reviewer needed	11/87

We are in need of reviewers for Illustrator and LaserPaint. If you wish to review either of these items contact David Morganstein at (301) 972-4263. The job of the reviewer is to complete the review in a timely fashion, submit it to the Journal for publication, and mail a copy of the published review to the software vendor for comment.

LETTERS TO THE EDITOR

Dear Editor,

Lynn Trusal mentions in "Macintosh Bits and Bytes" in the February WAP Journal that Icon Review has cleaned up their act. Belatedly, I learned that the December '87 MacWorld alleged the same thing.

Tain't so in this writer's experience. I ordered a PC Mackey via phone on Dec. 12 '87 and was advised that they were temporarily out of stock but, "We will have some in in a couple of days." On Jan 15 '88 I received a notice from Icon Review apologizing for the inconvenience, etc. Interestingly, the date of the notice was Jan. 4 but the postmark was Jan. 12.

I called upon receipt of the notice, and again the familiar, "We'll have some in in a couple of days." Being a moderately patient sort, I waited until Jan. 29 and called once more inquiring as to the status of the order and was advised, "We will have some in today." On Jan. 30 a second notice was received (dated Jan. 26) with the usual apology. However, something new had been added which went on the explain that, "Credit card cancellations may take 2-3 billing cycles to appear on your statement."

Rather sleazy, according to my calculations. The order was placed on a Saturday and my account was charged the following Monday, but they indicate 60-90 days to credit an account. As of today (Feb. 18) they have had the funds in their coffers for almost 70 days and still no merchandise. You can reach your own conclusions regarding their integrity. I certainly have, in adddition to a theory regarding their probable ancestry, morals and personal habits.

Allen P. Kehr

Dear Editor,

It is not all that common that we take the time to recognize first class product support from the companies that distribute our Macintosh software. I would like to summarize one experience that makes me feel glad to be a Mac owner.

I moved to Australia from Washington DC in late 86 and brought my Mac with me. In starting a small family business here, I was in need of a simple accounting system which would meet my needs. I decided to try out **In-House Accountant** from Migent and am now happy I did. In using the program, I thought of a few changes which might improve its usefulness for my situation and wrote to Migent. In addition to a quick response from the product service department, I was also surprised to then receive a personal letter from Lawrence You, the programmer for the Macintosh version of IHA. He addressed each of the issues I raised and described what was planned for each of them.

A few months later, I was having some minor difficulty in closing out the 87 fiscal year to get ready for 88 and again wrote to Migent to alert them of my experience. Within a week I received a Fax message describing how to get around the problem. I thought this to be an amazing response considering the distance involved.

If any of the Pi members are looking for a basic, yet powerful accounting for small business I can eagerly recommend IHA. A company with that kind of dedication to customer support deserves to survive in the highly competitive world of Macintosh programming.

Also, for those interested, I brought my original 128K (since upgraded to Mac Plus) and Imagewriter I printer to Australia when I moved here and have experienced no problems (except for a failed internal 800K drive which I understand is somewhat common) operating off a transformer in a 220 volt, 50 Hz environment. I recently bought a Mac SE with internal drive and it runs equally well off the transformer or native power. However, if anyone is moving to Australia, advise them to bring their Macs along, since they cost about 2 1/2 times the stateside price here.

Tom Balzer

ANNAPOLIS APPLE SLICE NEWS

by Katherine M. Cave

Our February meeting was called to order by President Craig Contardi at 10:05 AM, with about 20 people in attendance.

The main item in the order of business before the telecommunications program was the re-naming of the bulletin board service that is now called BABBS. Cards were passed out and then returned with various suggestions. The one that caught everyone's imagination and acceptance was Chesapeake Region Apple Bulletin Board Service (CRABBS), and our SYSOP, Barry Conner, will make the necessary changes. The winning suggestion was submitted by Casey Kester, who will receive 3 disks of his choice as a prize.

The program on Telecommunications was presented by Barry Conner—"User participation: How, When, Where and Why." Through the telephone and an overhead viewer, the audience was able to see what actually happens when you contact CRABBS. Barry demonstrated what must be done to log on the first time, and he went through all the available options. Everyone enjoyed it immensely.

At the executive board meeting, the CRABBS guidelines were set. An access fee of $16 was set for non- members of AAS who wish access to the board. Slice members will have full access to all but board member areas. From 2 to 5 uploads must be made to get privilege to download, with Barry to determine range minimum. Barry will also have full authority to make any decisions necessary to the successful running of CRABBS. The phone number is (301) 974-0221.

The April 9 meeting will compare the IIgs and Mac computers, and will be held in the Lecture Hall, Careers Building, AACC, Arnold MD, at 10:00 AM.

VOLUNTEERS NEEDED

WAP depends upon the volunteer efforts of our members. Please consider contributing your time to the following activities. For information, call David Morganstein, Volunteer Coordinator, 301-972-4263.

- A tutorial coordinator recruits instructors, schedules classes, and writes course descriptions for the Journal. A volunteer is needed to work with the present coordinator in order to lead the effort for the 1988-89 "school year."
- Instructors to teach the introductory Macintosh tutorials on Monday nights.
- An instructor to teach a tutorial on Rez and MPW.
- Volunteers to staff the Disk Library Sales Table at the main meeting (Apple II disks).

WAPACROSTIC
by Dana J. Schwartz

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

1 C	2 T	3 L		4 D	5 F	6 L	7 S	8 Y	9 N	10 V		11 T	12 S	13 I		14 A	15 W	16 C	17 M	18 V	19 P
20 S		21 P	22 V		23 Y	24 B	25 J		26 W	27 J	28 X	29 A	30 K		31 A	32 C	33 G		34 G	35 U	36 W
37 Q	38 P	39 L	40 S		41 M	42 X	43 W		44 T	45 K	46 M	°	47 O	48 G	49 X	50 E	51 J	52 Y	53 Q		54 F
55 L	56 V	57 U	58 Q	59 A	60 K	61 W	62 M		63 G	64 T	65 E	66 A		67 S	68 F	69 D	70 C		71 M	72 R	73 L
74 G	75 Y	76 H	77 O	78 V	79 D		80 K	81 E	82 O	83 M		84 T	85 M	86 H	87 C	88 V	89 Q	90 R	91 E		92 N
93 R	94 Q	95 H	96 X	97 P	98 O		99 G	100U	101O		102J	103C	104R	105Q	106G	107P		108Q	109S	110J	
111Y	112R	113X	114N	115I	116P	117Q		118R	119S	120J		121T	122F	123X		124A	125I	126O	127H	128D	129L
130R		131B	132C	133Y	134J	135U	136L	137R		138Q	139J	140K	141N	142O	143D	144L	145U	146M		147F	148J
149W	150H	151B	152A	153X	154D		155U	156M	157P		158H	159K	160B	161I	162G	163A	164V	165S	166D	167L	

Definitions	Words
A. Strong and Robust	31 124 66 14 29 152 163 59
B. Catamount	131 151 160 24
C. Another Catamount	87 16 32 1 70 103 132
D. Pulpit	128 166 69 4 79 154 143
E. Urbans' Son	50 91 81 65
F. Sofa	147 5 68 54 122
G. Worked	106 34 74 162 48 99 63 33
H. Wild	86 76 127 158 95 150
I. Body of Water	161 125 115 13
J. Not Perfectly	134 51 110 148 27 139 120 102 25
K. Flung	60 45 30 159 80 140
L. Power Terminal	39 136 129 144 73 167 55 6 3
M. 17th Century Puritan	17 85 71 156 62 83 46 41 146

Definitions	Words
N. Golfing Call	92 141 114 9
O. Unclassified	142 77 82 98 47 101 126
P. Annoyed	107 116 21 38 97 19 157
Q. Magazine Source	94 58 108 105 53 89 138 37 117
R. Frothier	137 112 118 104 72 93 90 130
S. ____ Time	67 165 109 119 20 12 40 7
T. Roofing Material	44 11 64 121 84 2
U. Apple Source	22 57 78 100 155 35 135
V. Messenger	56 88 164 18 145 10
W. Obstruct	36 149 26 61 43 15
X. Forever	123 28 153 49 42 113 96
Y. Saunter	23 52 75 133 111 8

ANSWERS TO LAST MONTH'S WAP ACROSTIC

HyperCard is a four dimensional blank slate: height and width of a card, the depth of a stack and the power of your imagaination. I show you how to master the first three (...) and how to unlock the fourth to build your Macintosh world around HyperCard.

Author: Danny Goodman
Work: On His HyperCard Book
Source: The Complete HyperCard Handbook - Back Cover

Words			
A. Dollop	I. Deadhead	Q. Saudi	X. Aweigh
B. Anchors	J. Mostly	R. Hootch	Y. Rabid
C. Narrated	K. Attach	S. Yarmulke	Z. Duffer
D. Nephews	L. Nitrator	T. Pinion	a. Brassy
E. Youthful	M. Odometer	U. Epithet	b. Orchid
F. Growth	N. Nitwit	V. Rehashes	c. Onward
G. Outfit	O. Humanly	W. Cohort	d. Knockout
H. Offhand	P. Iowa		

AVSIG (Art & Video Special Interest Group)

by Nancy Seferian

Well-known Washington artist William Newman will show slides of his drawings, paintings and computer graphics at the April 21st meeting of AVSIG. Newman is an Associate Professor at the Corcoran School of Art where he teaches drawing, painting and computer classes in which students learn how to use the Macintosh as a tool for Fine Art.

Newman's colored pencil drawings established him as one of Washington's foremost realists. For over 15 years his work has been in exhibitions throughout this city, and acquired by galleries and private collectors nationwide. He started using the Macintosh in his artwork when it was first introduced in 1984.

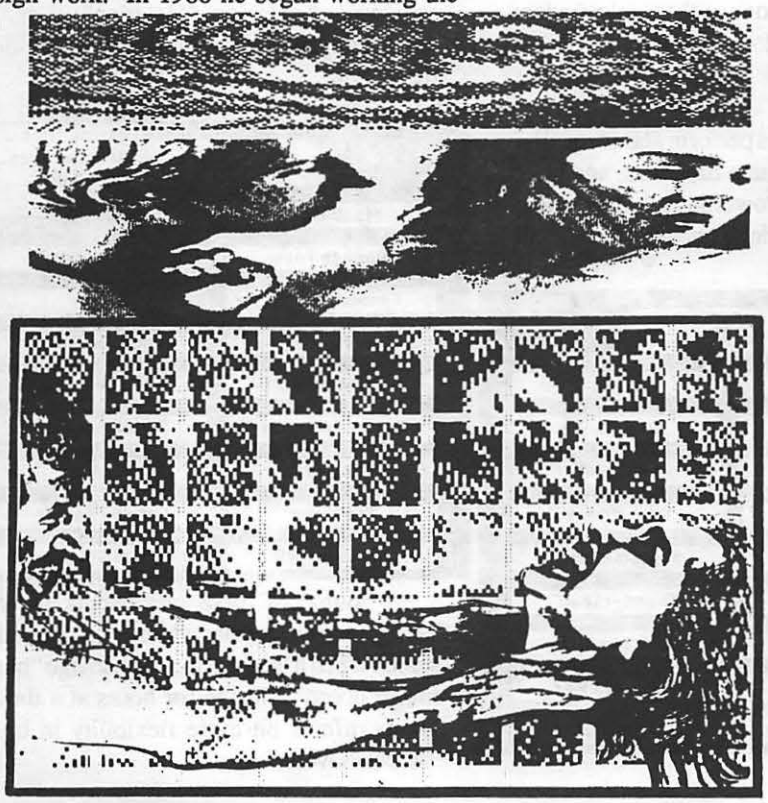
Newman explores the theme of relationships between men and women using the computer to stretch portraits to the point where they are recognizable only from a steep angle. Head-on they become strong abstractions.

"For me, the computer revolutionizes the capacity to produce images," Newman says. "The way I work, if I'm painting I can produce maybe 10 images per year. With a computer, I can produce a thousand images, with the same integrity and workmanship. I'm a meticulous artist, and I need the control.

What's really impressed me recently is the computer's ability to digitize images. This works well with what I'm doing now, because what I've been doing is taking videos of my models, and taking photos from the video with a monitor, or digitizing straight from the video onto the computer."

Jay Williams, president of Jay Williams Design Firm in Washington, DC, will also talk to the group about the use of the computer in his design work. In 1986 he began working the Macintosh into his graphics after winning design awards since 1965. Jay joined WAP in 1987, and initiated and chaired the AVSIG to encourage use of the Macintosh as a fine art and graphic tool.

The newly formed AVSIG will hold its next meeting on April 21, 6:30 PM, at Jay Williams' Design Firm, 1130 17th Street, NW, Suite 600, Washington, DC. For further information call Jay at (202) 728-5932 or Nancy Seferian at (202) 333-5817.



dPUB SIG MEETING—March 2

by Cynthia Yockey

March's meeting featured demonstrations of *PageMaker 3.0*, *Freehand*, and a video showing how the Mac can be used to do work formerly handled by much more costly equipment.

Joan Tierney used her Mac, *Videoworks II* and *ImageStudio* to help create effects for a documentary she is preparing on the effects of elements such as acid rain on monuments, art works and the like.

"The computer is the perfect tool for the independent video producer," Tierney said, "but we have to make sure all the peripherals work together."

PageMaker 3.0 due soon

Aldus representative Lida Jallali demonstrated *PageMaker 3.0*, which should be released by the end of March, and its new product, *Freehand*, a drawing program positioned to kill *Illustrator*, *MacDraw* and *CricketDraw*. Both look outstanding. Jallali showed that *PageMaker* update can do things like flow throughout a document, flow automatically around an illustration, and 400 percent magnification. It also fully supports color, and includes 20 business templates. Jallali said *PageMaker* does not have search-and-replace or a dictionary for two reasons: (1) not enough people asked for one; (2) Aldus believes you should make these amendments to your copy within your word processing program.

Jallali promised that Aldus will permit user groups to apply for permission to purchase one copy of *Freehand* for $100.

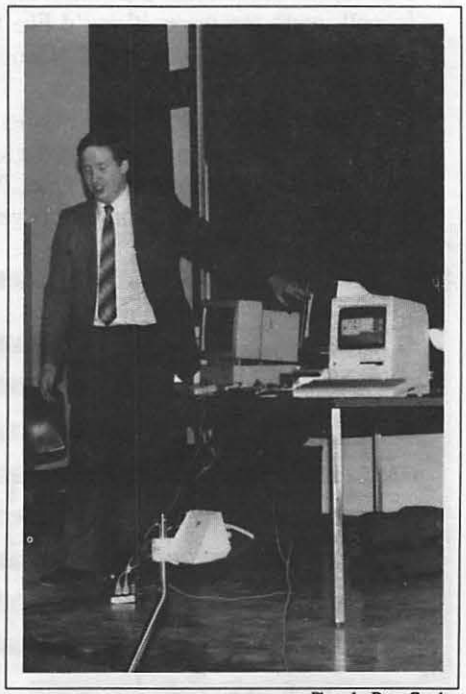


Photo by Peter Combes

Doug Rieder of Clinton Computer Topping off his lecture.

MacNovice Column

by Ralph J. Begleiter

Outgrowing The Finder

Even MacNovices at some point come to the conclusion that they've "outgrown" the standard Macintosh Finder, or desktop filing system. While the Finder, with its disk windows, folders, trash can and icons, is a convenient filing tool for new Macintosh users, it *does* become cumbersome when disks are really loaded with files, or when hard disk drives become so littered with hundreds of files that things become difficult to locate.

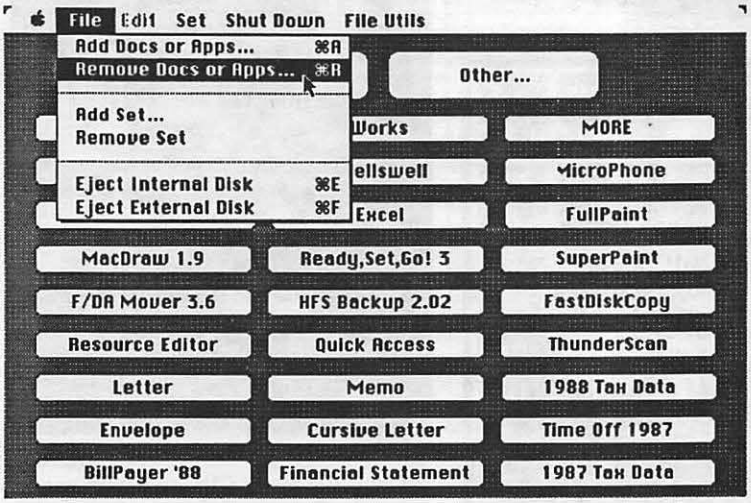
Macintosh users may also "outgrow" the Finder when they decide they can accomplish some filing tasks without the visual help of the icons, but rather with a simple system of buttons instantly leading to the files most-often used.

Enter the "minifinder," a smaller, simpler version of the Macintosh filing tool which can speed up your work, though it usually doesn't include the visual "cues" of the Macintosh icons.

There are a number of Macintosh minifinders now available, all of which operate on the same principle: Allowing the user to specify a certain "set" of documents or applications most frequently needed, assign on-screen "buttons" to those files, and automate the process of opening those items. Most of these minifinders now also allow users to perform many file management tasks (such as trashing, renaming and moving files) with menu commands instead of the familiar click-and-drag technique used in the Apple Finder.

These minifinder programs are available widely on telecommunications services, and some of them are available on Washington Apple Pi user group public domain software disks. A few are very low-cost items, but some cost as much as $60. Some are available as commercial products. Any one of these minifinders is well worth the price, if you'd like to streamline the single Macintosh function you use the most: the file management system called the Finder.

All three of the following minifinders perform about equally. That is, they all accomplish about the same functions, and have similar on-screen appearances. One, PowerStation, has a few bells & whistles the others haven't developed yet, but they're all basically the same product, so a single description will cover them all. Here's a brief survey of the major features, just to give you the flavor of what they're like.

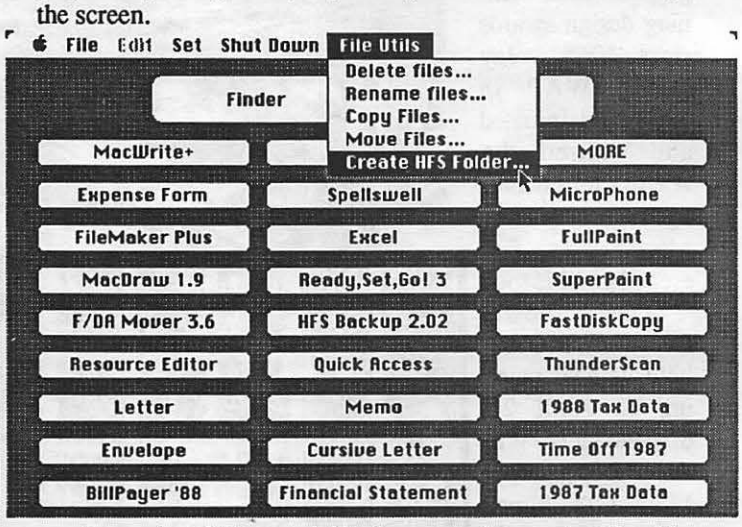


All of these minifinder products present you with a screen quite different from Apple's Finder "desktop." Filling most of the screen is an array of "buttons" which activate software programs or documents (in PowerStation's case, the buttons may also activate desk accessories).

You, the user, decide which buttons will call up which applications or documents. But each button is limited to opening a single item. In all of these minifinders, you are also given the freedom to "design" the shape, size and location on screen of each button. At this task, some of the products are a bit more flexible than others. Each minifinder automatically displays the name of the file you've chosen... inside the button. In most cases, you cannot adjust the font. Oasis allows you to choose fonts and font sizes, but it restricts the size of the button by automatically displaying *not only a document's name, but also the application which created it*, an unnecessary waste of space.

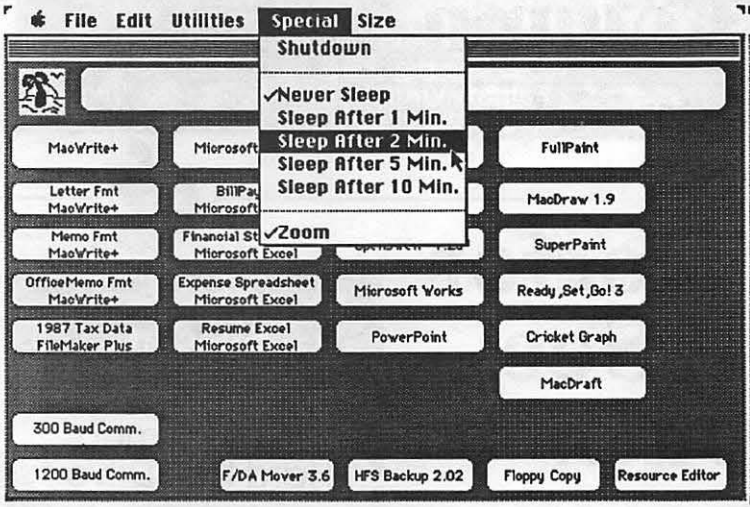
By creating buttons for your most-used files and applications, you can open them without having to search though the folders and windows of Apple's Finder desktop. One click on a button will locate and open the designated file. (Some of these minifinders are more adept than others at locating a file if it's been moved since it was designated as a button.)

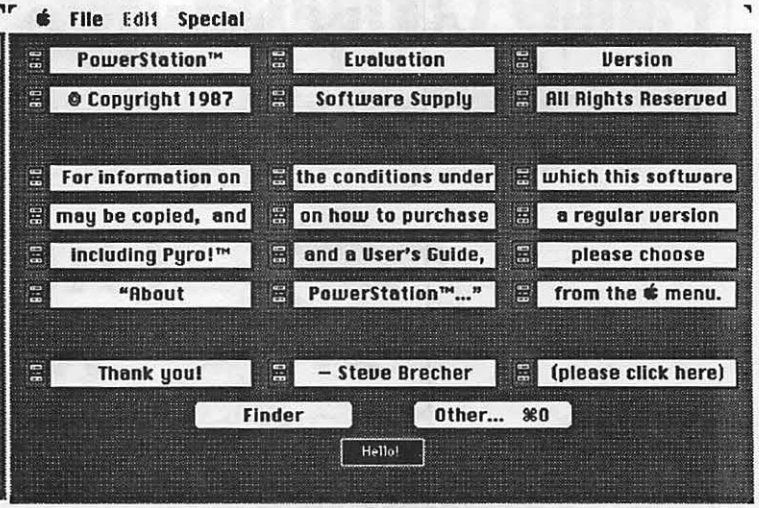
All of these minifinders also allow you to perform some of the basic file management chores, such as renaming, copying, moving and trashing ("deleting") files. Instead of doing this graphically, using icons, they use a pull-down menu at the top of the screen.



A couple of these minifinders are also equipped with a "screen-saver" feature which automatically darkens your Mac's screen when it's idle, to prevent image "burn-in" when the screen image doesn't change for hours at a time. Some of these programs offer a bit more flexibility in user preferences on the "screen-savers."

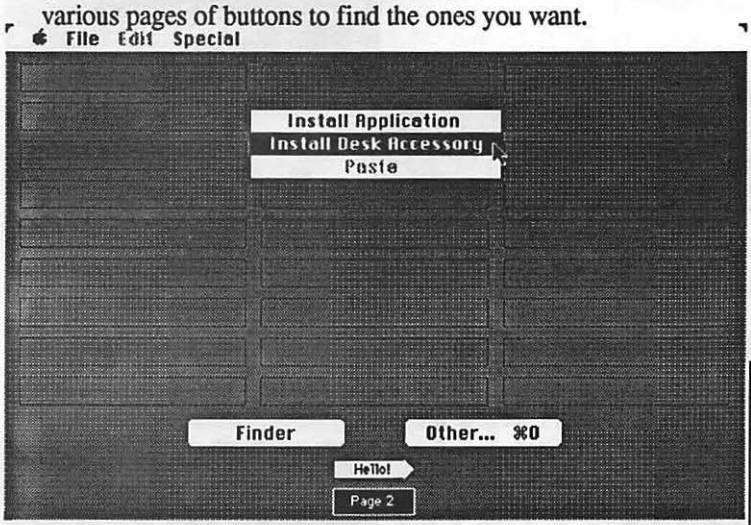
contd.





The "PowerStation" screen.

All of these programs allow you to create more buttons than will fit on a single screen. You could, theoretically, create hundreds of buttons for all of your documents. The minifinders accomplish this by allowing you to create distinct "pages" of buttons. (A page is one screen-full.) A menu at the top—or a special button on the screen—allows you to switch among the various pages of buttons to find the ones you want.



"PowerStation's" blank screen, and the choices of installing buttons. Note the "page" number and arrow allowing you to switch among pages of buttons.

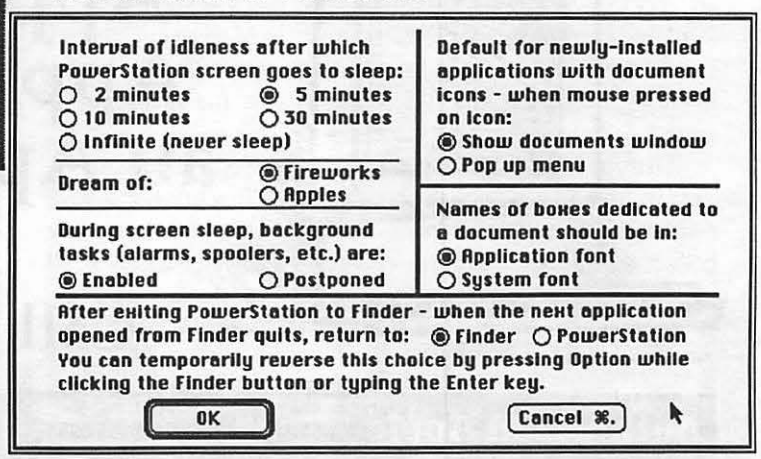
This feature has its pluses and minuses. Obviously, if you create hundreds of buttons on scores of pages, you'll find it just as difficult to locate the one you want as it was using Apple's Finder. On the other hand, the "pages" feature in each of these minifinders allows you to *group* buttons in logical ways. You might create one page for each of the users in your office or home, allowing each user to arrange his minifinder to suit him. Or, you could group buttons by project, keeping related file buttons together. Or, you could group buttons by function, such as "correspondence," "accounting," "taxes," and so on.

All of the minifinders allow you to access files which *don't* have their own buttons, with a special button called "Other." And all of the minifinders make it easy to return quickly to the familiar Apple desktop whenever you want to, by clicking the button called "Finder."

Of the three minifinders displayed here, price is a good guide to functionality. The least expensive program, Oasis ($15, by Jan Eugenides) is the least "elegant" of the three. But its features are quite serviceable and it's being improved constantly. It's a shareware product, and Jan will update you if you send in your fee.

"SuperFinder," ($20, by Matthew Russotto) is the latest name for a minifinder which has been around for a few years now. It is a bit more flexible than "Oasis," while performing all of the important functions. Its screen-saver isn't quite as jazzy as that of the last product, "PowerStation" ($60, by Steve Brecher). This minifinder is the top of the line, with a more elegant display than the others, and a few nice extra touches (such as allowing desk accessories to be assigned to buttons and having the "fireworks" of the free companion program "Pyro!"—the screen-saver included in the price.

Options available in "PowerStation"



By the way, "PowerStation" comes from Software Supply, the same firm which developed the highly-acclaimed, nearly indispensible desk accessory and font handler called "Suitcase." But its price might make you think twice and choose one of the less expensive minifinders at first.

Whichever choice you make, you'll find that substituting one of these minifinders for your Apple Finder desktop can make your Macintosh work go faster and help you avoid shuffling through scores of folders to find the files you use regularly.

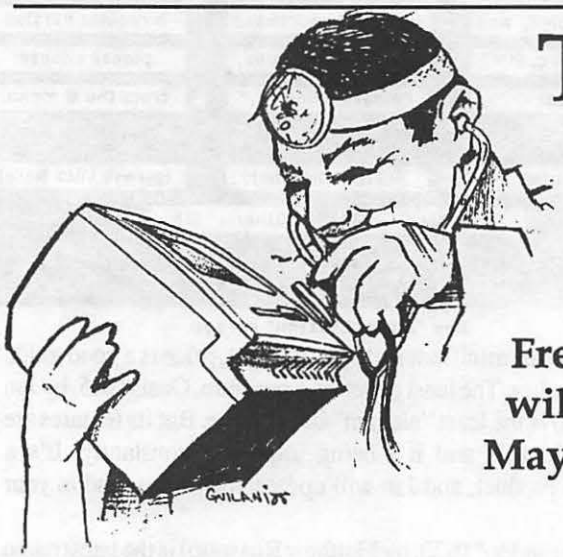
contd. on pg 47

Family Computer CENTER

Your Friendly Apple Dealer.

OUR NEW LOCATION
10565 Lee Highway
Fairfax, Virginia
(703) 385-2758

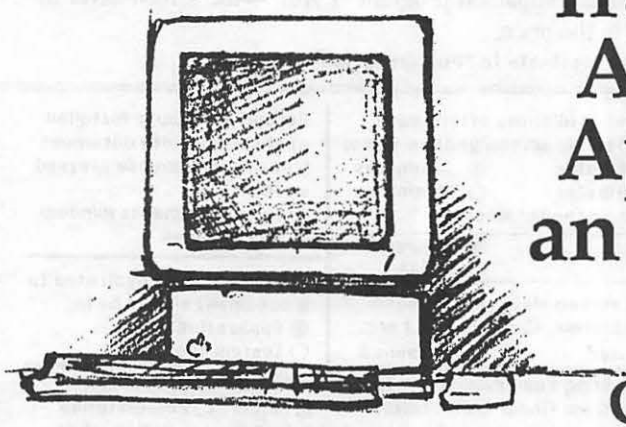
Backlick Shopping Cente
6691 Backlick Road
Springfield, Virginia
(703) 866-9122



The Doctor will See You...

Free AppleCare inspections will be conducted April 15 – May 15. Call for appointment. π I.D. required.

Sringfield Location Now Open Sundays From 12 to 5.



Trade-In Your Apple IIc or Apple IIe for an Apple IIGS

Call for Details

Authorized Apple *Express* Service

When your Apple equipment breaks down, you need it fixed, not excuses. That's why we're introducing ***ServiCenter*** **Express Service** for Apple π members at a special rate. But what does **Express Service** mean to you? **Express Service** means fast repairs at reasonable prices for you. As an Apple π member in good standing you pay only regular labor rates for **Express Service**. It means that if we have parts in stock for your Apple-brand peripheral, you can have it repaired while you wait in most cases.
To take advantage of this special offer you must do two things. First, call for an appointment before bringing you machine in for repair. Second, you must present your current Apple π membership card when you present your equipment for repair to receive the special Apple π discount on **Express Service** labor rates. For appointment call our service department: **644-8442** π discount applies only to express service rates.

Wap Bonus Buy Special

Nova 20 meg Hard Disk Drive

$639.

No other purchase necessary. Offer good with this coupon only.

π Member Discount

15%off All Computer Accessories*

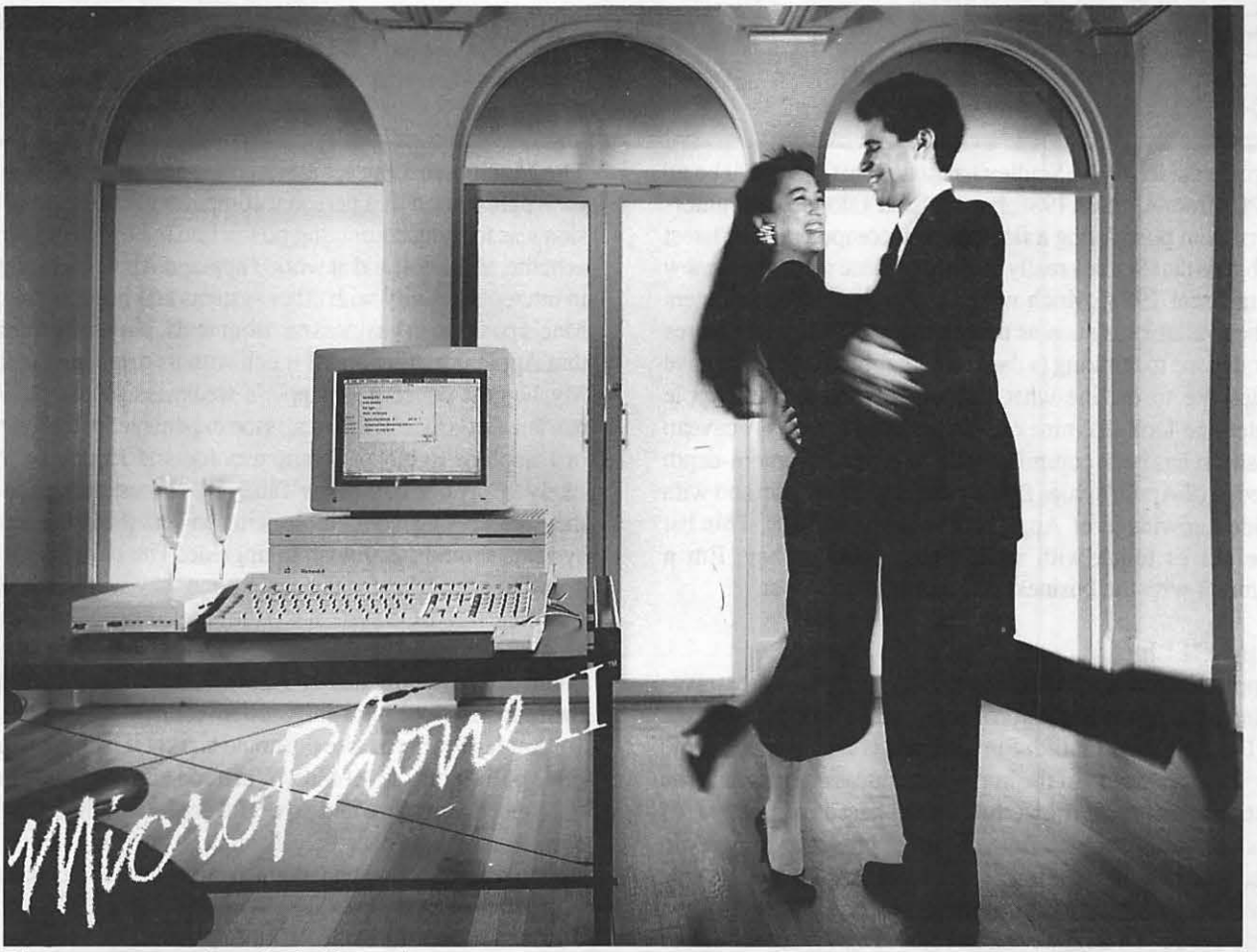
Offer good with this coupon only.

Wap Bonus Buy Special

Buy Two Boxes of Computer Paper and get a third one **free**.

Free Box of equal or Lesser value. No other purchase necessary. Offer good with this coupon only.

Apple and the Apple logo are registered trademarks of Apple Computer, Inc. Apple and Macintosh are trademarks of Apple Computer, Inc.
* Discount does not include peripherals. Discount applies toward accessories only (i.e. paper, diskettes, bags, ribbons, mouse pads, books, disk holders, etc.) Discount can not be combined with any other offers or discounts.



Telecommunications software for the Macintosh, a new version.

Soar to New Highs, Effortlessly

When Software Ventures set out to create MicroPhone, it had a simple mission: to develop the most intuitive communications software ever written. Indeed, when MicroPhone was born, it was universally hailed as a breakthrough in communications software. A product so friendly, it turned novices into experts. So sophisticated, it became, in the words of MacUser, a power user's delight.

MicroPhone is a legend. One of those precious software creations that single out the Macintosh as a superior computing machine.

With MicroPhone II, Software Ventures has set out to surpass itself: redefine power in telecommunications for years to come.

MicroPhone II is so revolutionary that PC Magazine was moved to say: "MicroPhone II is arguably the best comm software ever written." We won't have it any other way. MicroPhone II. The freedom to be yourself. At the top.

Critics' Choice

Stewart Alsop, P.C. Letter:
"MicroPhone . . . sets the standards that general-purpose communications software will have to follow."

The New York Times:
"MicroPhone is a breakthrough in communications software . . . "

SOFTWARE™
VENTURES

2907 Claremont Avenue Suite 220 Berkeley CA 94705
415-644-3232

Let's Get Technical

MultiFinder compatible. Supports background file transfer and script execution. Offers a full-featured script language: variables, counters, and expression-analyzer for string and arithmetic operations. Scripts allow: control of all communications settings; screen addressing and text editing; filtering of incoming text.

Supports import and export of scripts as text files. Allows control of PBX's, Hayes and non-Hayes modems through flexible modem drivers. Runs at 50 to 57,600 baud. Emulates DEC VT52, VT100, and TTY type terminals. Mac II and LaserWriter compatible. Works with all Mac large screen monitors. Supports the extended keyboard. Built-in text editor. Includes Glue, licensed from Solutions, Inc.

MicroPhone is a trademark of Software Ventures Corporation. Copyright © 1988 Software Ventures Corporation.

DEVELOPER'S VIEW... An Apple Wish List.

by Bill Hole

Apple president John Sculley has stated that there will be no new CPUs from Apple in 1988, but this hasn't stopped the rumormongers from postulating a flock of new computers. The latest scuttlebutt is that Sculley really meant that there would be no new CPUs in fiscal 1988, which would mean that new computers could be available as soon as this October. All the conjectures have gotten me to thinking (a dangerous habit, I know), and have prompted me to outline what I would like to see the Apple computer line look like nine or so months from now. A caveat: this wish list has been compiled without benefit of any in-depth knowledge of Apple's sales figures or market make-up and with no inside knowledge of Apple's development plans. This list may be out of touch with reality, but, what the hey, I'm a programmer with the business sense of a grasshopper.

The Apple II Line

"Apple II Forever!" This was the cry at the 1984 extravaganza introducing the IIc. It's probably true: the GS has given the Apple II a new lease on life. But I think this lineup needs some attention to stay on top of the home and education markets. The competition from the powerful 68000-based computers of Commodore and Atari and from cheap PC clones is going to do some serious damage to Apple's share of these markets. Apple has never been in the habit of competing on price, but I think the price gap between the II line and its competitors is big enough to merit some readjustment. In addition, I think Apple needs to compete more on the basis of power and features in this market.

Let's start with the IIc. I think there's a place for a small, appliance-like computer in the lineup. But the IIc is too underpowered and overpriced for today's market. I'd like to see the IIc replaced by a IIGSc. This machine would squeeze a slotless IIGS into a modified IIc case with one or two 3.5 inch floppies and a megabyte of RAM. The price should be in the $500 range: it should be possible to pick up a IIGSc with color monitor at a street price of under $700. This would undercut the appliance-like MS-DOS clones from Tandy as well as the more powerful but bargain-priced Atari 1040 ST and Commodore Amiga 500.

Apple II fans won't like my next suggestion: kill the IIe. This machine is hopelessly obsolete, and the price difference between it and the IIGS is not very significant. For all I know, Apple may still be selling scads of these machines, but I don't know why. Drop the IIe and lower the price of the IIGS significantly. A full GS system with floppy, one megabyte of RAM and a color monitor should cost under $1000. This puts it square against the Atari and Amiga machines that are its real competition, and positions it favorably against the PC clones.

I'd like to see one more addition to the Apple II line, an addition that will provide the bridge to the Mac line. When Bill Atkinson demoed HyperCard to the general WAP meeting, he hinted at the possibility of a IIGS add-in card that would allow the GS to run Macintosh software. I think this is a great idea. The card should have plenty of RAM and color QuickDraw to support the GS graphics hardware. This will give us a cheap color Mac and will tie the entire Apple computer line into an integrated package.

The Macintosh Line

Apple started as a personal computer manufacturer. Its mission was to bring computing power into the hands of individuals at home, at school, and at work. I applaud Apple's current efforts in interconnectivity with other systems and in strengthening the Mac's position in business environments, but I sometimes worry that Apple is getting out of touch with its original constituency. My biggest concern is Apple's weakness in the novice user market. Let's face it: the Mac is too expensive for the average Joe or Josephine to buy for home use. Joe and Josephine are more likely to buy one of the new Tandy PC clones: they're cheap and they are upward compatible with powerful 80286 and 80386 systems should J & J wish to upgrade. The only way J & J are going to get a Mac for the same price they would pay for their complete MS-DOS system is if they buy an obsolete 512K on the second-hand market. And if they do that, they'll be very disappointed. They could buy an Apple II, but when they upgrade to the Mac they lose their software investment.

Apple is going to lose the home market if it doesn't lower the price of the entry-level Mac. When Joe and Josephine are ready for a more expensive and powerful computer, they aren't going to upgrade to a Mac: they'll already have too much money invested in software and too much effort invested in learning the intricacies of MS-DOS. They'll buy an AT or a 386, and if they want Mac-ish features they'll buy Microsoft Windows or the OS/2 Presentation Manager and never know what they're missing.

Apple needs to introduce an entry level Mac at the $1000 price point. Maybe this could be an SE with only one floppy. Maybe this could be the rumored monitorless SE (but that $1000 price should include a monitor). Whatever it is, it should at least be powerful enough to run HyperCard, so it needs a megabyte of RAM. Apple could undoubtedly make a Mac to sell at this price and still make a hefty profit on it for both itself and its dealers. And it will salvage the home and upgrade markets from the MS-DOS predators.

Other changes I'd like to see in the Mac line: the much rumored Lap Mac, a cheaper 68020 machine, and a 68030 machine. All the trade magazines have been raving about internal Apple specs on a new laptop Mac. It would include a 16-mhz 68000, so it would be twice as fast as an SE. It would have a new active-matrix LCD display, battery power, a 1/3 height hard disk, and 1.44 megabyte floppies. It would also use a unique memory architecture involving SLIM memory modules that contain RAM or ROM on credit-card sized cards that can be slid into the Mac. These are all wonderful rumors, and I hope they're not just wishful thinking on someone's part. Apple needs a Lap Mac. Sales of laptops aren't stupendous, but they provide flexibility to the product line. Some agencies specify in RFPs for computer equipment that a laptop version of the machine be available, and this shuts Apple out of some markets. And I hate to think of all those Mac journalists, and according to rumor, even Apple employees who have to use MS-DOS portables when they travel. What a fate: airline food, lost luggage, and the A> prompt.

The last two additions to the line, a cheap 68020 box and a

contd.

68030, are obvious additions. The 68030 would probably be a Mac II with a new chip and a higher clock rate. I'd like to see this one priced in the same range as the current Mac II and the Mac II price dropped a grand or so. One addition I would suggest for this machine and the current Mac II is an optional DMA-equipped SCSI controller. This is necessary for adequate disk performance when running A/UX, and probably when running a future multi-tasking Mac operating system.

A cheaper 68020 could take the shape of either a smaller Mac II with only two or three slots or of a standard toaster-style Mac with a 68020. I'm personally in favor of beefing up the toaster Mac because I like its small footprint for home use. If Apple sold an SE+ with a 68020, the Mac II sound chip and an optional 9-inch color screen, and priced it at not much more than the current SE I'd be in heaven.

I think this proposed product line would do a lot for Apple's market share. It would solidify Apple's grip on the home and education markets, it would offer economical alternatives to the entire array of MS-DOS and OS/2 equipment, and it would give Apple technical superiority in the laptop and low-end workstation markets. And it would remove any sensible reason that anyone could have for buying non-Apple equipment. Of course, I'm just a techie, but it sure sounds good to me.

Erratum

Last month I said that Ann Arbor Softworks started shipping FullWrite Professional after the San Francisco MacWorld Expo. Well, it turns out that what they shipped was a pre-release version which went to customers who had already paid for the product. The final version is still vaporware, and its new owner, Ashton-Tate, projects a late April ship date.

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

MacNovice contd. from pg 43

"PowerStation" by Steve Brecher
$60 (plus S & H) from
Software Supply
599 N. Mathilda Avenue
Sunnyvale, Ca. 94086-3504

"Oasis" by Jan Eugenides
$15 from
Assembly Corner
P.O. Box 151
Maynard, Ca. 01754

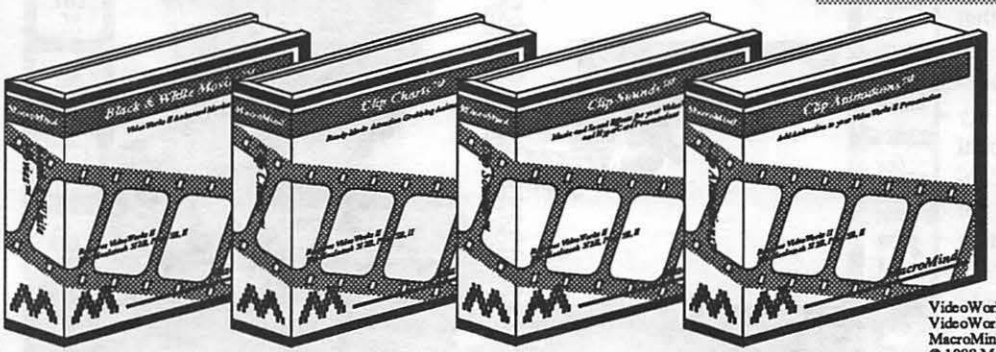
"SuperFinder" by Matthew Russotto
$20 from
Frederick Computer & Electronics
11301 Tree View Lane
Monrovia, Md. 21770

VideoWorks II™ Accessory Series

- ***Clip Animations***™ *$59.95*
  Enhance your business presentations with animated clip art that adds impact to static slideshows.
- ***Clip Sounds***™ *$59.95*
  Add these new sampled sound effects and music to your VideoWorks II documents and HyperCard™ Stacks.
- ***Clip Charts***™ *$59.95*
  Illustrate company sales figures or industry trends with dramatic animated charts and graphs.
- ***Black & White Movies***™ *$49.95*
  Learn VideoWorks II techniques while enjoying these movies created by our master animators.

Now available from your local software store. Or call (312) 871-0987 to order directly from MacroMind.

Watch for VideoWorks II Utilities Series, VideoWorks II HyperCard Driver ($99.95) and VideoWorks II Accelerator ($99.95). Coming soon to a dealer near you!



MacroMind®, Inc.
1028 West Wolfram Street
Chicago, IL 60657 (312) 871-0987

VideoWorks II, Clip Animations, Clip Sounds, Clip Charts, Black & White Movies, VideoWorks II HyperCard Driver, and VideoWorks II Accelerator are trademarks of MacroMind, Inc. HyperCard is a trademark of Apple Computer, Inc.
© 1988 MacroMind® Inc.

CongressStack (MacPlus, SE or II): A Review

by Herb Jasper

I was asked to review CongressStack, a 10.3 megabyte HyperCard database, because I have worked with the Congress in several capacities: in executive branch legislative coordination, as a Senate staffer, as an employee of two Congressional staff offices, and as a lobbyist. My computer skills are distinctly limited. I use a MacPlus primarily for word processing, though I have used some spreadsheet programs for tax purposes. This makes me as close to a novice as you're likely to find. I had not used HyperCard at all. Since HyperCard requires about another 3 megabytes, you'll need at least a 20 meg hard drive to use CongressStack.

I can say unhesitatingly that CongressStack, by Highlighted Data, Inc., ($159.95) is a valuable tool for those who deal with the U.S. Congress. It contains 19 stacks, including Members of Congress, their biographies and their staffs; some-300 standing, special and joint committees, and their subcommittees and their staffs; district staffs and phones; state and Congressional district maps, zip codes, and other information; and a plan of the main floor of the Capitol, with each room's name or function shown when you click on that room. All the stacks are linked in an overview card which is found by clicking on the Capitol Dome button. Many of the cards have a comment balloon. When you click on it, you get additional information about the card or how to use the data.

The stacks contain pictures of the 530 Members of Congress (including the 5 delegates or representatives from D.C. Guam, etc). Much of the information is gleaned from the Congressional Directory, published each year by GPO ($15, paperback). But there is a lot of information in that directory (for example, that relating to executive agencies) which is not in CongressStack. Having this database would probably make it unnecessary to purchase the annual, privately-printed Congressional Staff Directory ($45 from publisher, $50 in bookstores).

Another popular reference work about Congress, The Almanac of American Politics (also privately-printed at $42.95), would still be of use even if you had CongressStack. That is because (among other reasons) CongressStack uses the official biographies of the Members and official data about their states and districts, while the Almanac contains the more subjective analyses of the political-journalists who write its text. Another limitation on the data is that Highlighted Data collects them from the Congress, rather than developing them independently. So when I told them that my zipcode was missing from my congressional district and state card, they said that the Congress would also be surprised to learn that. Of course, they promised to add it in the next update.

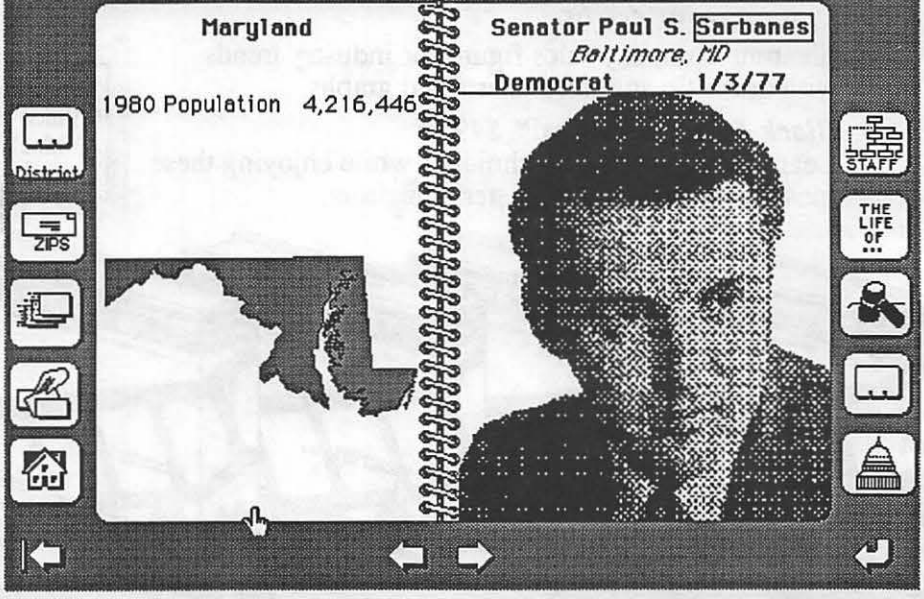
Those wanting to communicate with a substantial number of Members of Congress—say, those who serve on several relevant committees—can quickly construct a mailing list tailored to their issues. There are about 12,000 addresses and phone numbers in all. While the stacks are interlinked, the linkages are simply bridges from one stack to another. You cannot update all the stacks for a staff entry or phone number which appears in several of them merely by changing the entry in one of the stacks.

The problem of keeping data on Congress current is very difficult. Turnover among Members of Congress is, of course, infrequent except every two years. And the deaths and resignations are pretty easy to keep up with. But staff changes are another matter. Departures and reassignments occur all the time. And there are more than 10,000 staff. Higlighted Data plans to issue a new CongressStack database every two years. They will sell it a a discount to those who have purchased the prior edition of CongressStack. Their current plan is to do an update about two or three times each year, for which they will charge a modest fee.

I found the instructions for installing CongressStack pretty clear and easy to follow. It should take about an hour, as the authors state, to install the data (which have been compressed onto 10 disks) on your hard drive. But I did run into some difficulties, which were quickly remedied through a phone consultation with the authors.

I also found some bugs, not surprising for such a huge data base which has only been out for a short time. For example, there are 10 stacks which contain telephone numbers. Clicking on the phone button should automatically dial the number by using the HyperCard phone program. But three of the stacks were not properly connected with HyperCard's dialing system. The authors assure me that they will soon put out a correction, together with some updated information. There will be no charge for the first correction disk(s).

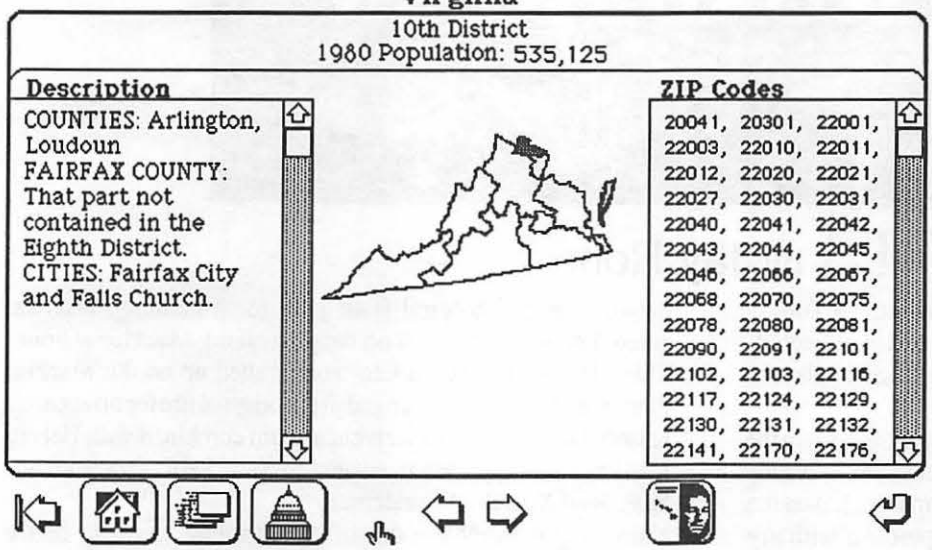
Summing up, I have found CongressStack to be relatively easy to install, to contain very useful information which is organized effectively, and to be a lot of fun to use.

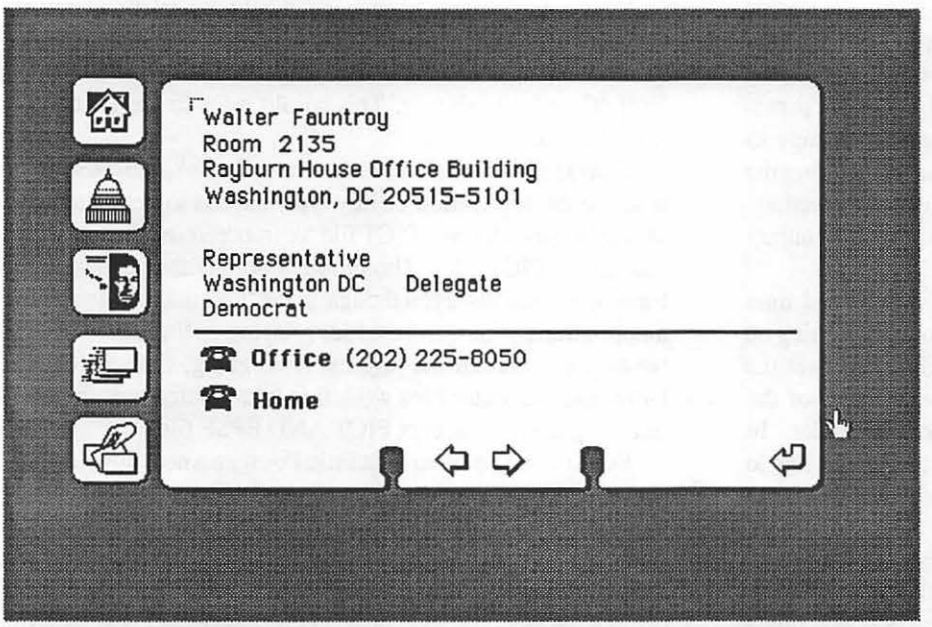


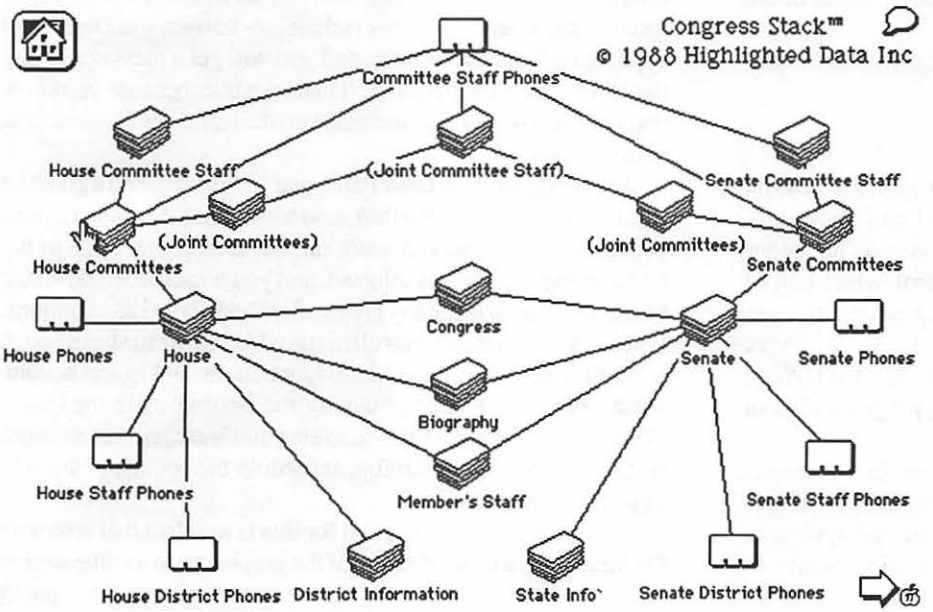
contd.

HYPERCARD NEWS

by Robert C. Platt







The HyperCard Special Interest Group meets at 11:30 a.m. on the morning of the WAP general meeting. The next meeting will be held on April 23, at Georgetown Medical School. We look forward to seeing you there.

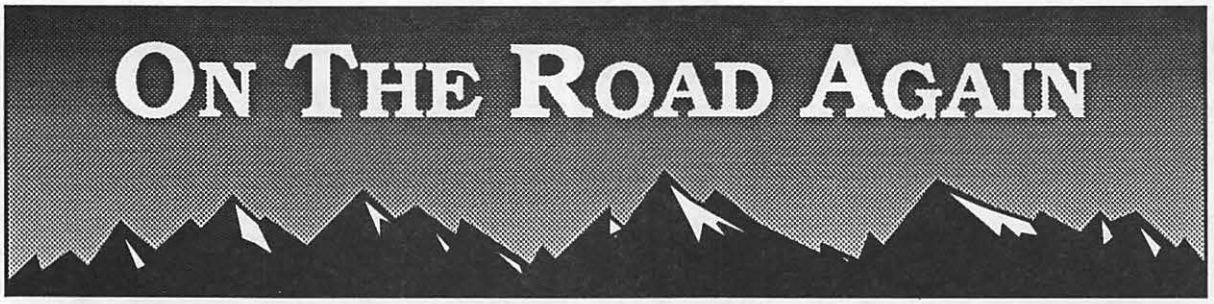
Stackware Disks. WAP's collection of public domain and shareware stacks continues to grow. Many thanks to Brooks Grayson, John Love and the other stack librarians for their efforts at documenting and sorting these materials. Please call Brooks if you have a few hours to contribute to these efforts. A list of our Stack Disks appear on the last page of the Journal. All Stack Disks have been assigned a number between 19.01 and 19.99.

Programs. Apple has placed a new emphasis on HyperCard as a "development platform." In plain English, this means that Apple is encouraging developers to use HyperCard to generate new Mac software, much in the same manner that they promoted the use of MacApp.

A good example of using HyperCard to develop a commercial software product is Jonathan Ashwell's Bookends stack. Jonathan joined WAP during his Apple II days. (His WAP number is even lower than mine!) Jonathan gave the main presentation at our February SIG meeting. Bookends is a bibliographic retrieval system which allows the user to enter a set of scientific references and then change their form to meet the requirements of various scientific journals. In simple terms, its a data base and report generator. Jonathan originally coded Bookends in assembly language on the Apple II and later ported it to MS-DOS microcomputers. It took him about two days to implement it on the Macintosh using HyperCard.

Jonathan explained that the original prototype implementation was too slow. He then translated many of his HyperTalk scripts into Lightspeed Pascal. The resulting XCMD's were easy to integrate back into his stack. The value of this approach is that many design and logical errors can be caught in the HyperTalk prototype before investing considerable effort in Pascal programming.

Please bring your questions and favorite stacks to our SIG meetings. We look forward to seeing you.



GRAPHICS ALERTS by Jay Rohr

TELEFOLDERS—The Ideal MacCommunications Tool

After an initial investment of $49.95 for the software (including several hours of "free" time, 20 hours time on Semaphore's Telefolders will run a whopping $12!

Based in California, the real expense with Telefolders is in the long distance call. The member list is impressive: LeVitus, Gassée, Cochran, McCandless, Dvorak, Goodman, etc. And the service is absolutely top notch. There was a problem with my non-Hayes compatible Avatex 1200 modem which Semaphore's Mike Gabrielson took the time and patience to help solve on the phone. He really knows telecommunications.

At present, the membership is small, and the files are somewhat sparse, but expect this Mac-to-Mac telecom package to grow by leaps and bounds. A tool for the rest of us, opening the doors nationwide for educating the Mac in the ways of Macdom. An effort is being made to set up "free hosts" all over the country to avoid the long distance call charges.

As of this date (3/7/88) there is no direct ASCII real time communication available, but contact can be made by setting up a text-only file in MacWrite or Edit, and sending this over the modem to either a Public Folder or to a private folder of the individuals who chose to be listed in the Accounts folder. In order for someone to respond to the sender, the sender has to select the Privileges Option to allow correspondence or files to be placed in the sender's folder.

At the 1200 baud rate, a 36000K file takes about 22 minutes, which in real time translates to at least a half an hour. Telefolders has a self-correcting protocol built into it when downloading a file, and the screen displays both that status and the status of the transmission as it is coming over the wires.

It's a great bargain, and a major breakthrough in telecommunications for the Macintosh.

CANVAS and DESK PAINT

Canvas can be used very successfully both as an application and a Desk Accessory. It is a well-designed and slick little program, more Draw oriented than Paint oriented. Its Zoom features, line widths (both horizontal and vertical, which can be used simultaneously), rotation tool and editing capabilities are impressive. As a DA, its biggest advantage is that it covers mostly all the tools that reside in the application. And the DA can be used in any page layout or word processing program without exiting that program.

However, the text problems that were evident in the earlier versions of MacDraw are now evident in Canvas: the typefaces lose their identity when transferring files from one system to another, even though those systems are configured identically. In drawing an architectural floor plan for a building, text was entered defining the areas on the plan on my MacPlus at home. This file was then taken into work, called up on the MacPlus there, and the typeface changed in the original file for no apparent reason. Instead of being Helvetica Light combined with Helvetica Black, the typeface translated to Sans Serif Xtra Bold and Sans Serif Xtra Bold Condensed.

Narrowing the problem down, text handling seems to be the problem with Canvas, and care should be taken to review Canvas' files before printing. Also, there may also be some conflict in identity between Hel. Light and Black and the Sans Serif (Casady) typefaces. This would refer to the ID number resident with each font.

Canvas cannot do a Free Rotate from the DA, and the solution is to use the application on any type that has to be rotated, and saving that rotation as a PICT file for import into other programs that accept PICT files. The problem here is that Canvas often translates rotations, even though in PICT formatted files, as bit-mapped translations, and the files print out on the LaserWriter as bit-mapped with all the jaggies. Nice going, Canvas! Cricket Draw and Illustrator files work fine with rotated type imported into programs that accept PICT AND EPSF files.

Desk Paint is another neat little DA with a neat little idea that does not work as the manual says it does. What else is new? How much money do we have to sink on half-baked, half-thought-out programs? It comes as an application (shell) and as a DA. If you want multiple windows present while working in a page layout or graphics program, and you want to access Desk Paint, then you install both Desk Paint 2 and 3 ONLY as DA's. Otherwise, just install Desk Paint. Once this is done, try to open the Desk Paint application from the desktop and you will get a message stating that it is not available as a DA. This is not true, because you know you have just installed it and made all the right moves, according to the manual.

Secondly, while in Desk Paint, and you want to edit a graphics file, the manual states that the Lasso tool is unique in that it allows you to select an area and work on that area alone while in the Lasso mode. The area is selected, and you want to tone down the blacks into one of the many grey scales Desk Paint has as options. Following the manual, you click the white arrow to step through some grey scales with the Matte function on, and lo and behold, when you unclick after obtaining the desired scale for LaserWriter output, it is NOT the lasso area that is greyed, but an entire rectangle around your editing, exceeding the bounds of the very object you wanted edited!

The unsatisfactory solution for this is to select that area with the lasso, move it out of range of the graphic onto a white area of

contd.

Open 6 Days a Week
9 AM to 7 PM
Visa • Master Charge

MacTography
MACINTOSH SERVICES

By Appointment Only
Call (301) 424-3942
702 Twinbrook Parkway
Rockville, MD 20851

What's New At MacTography

CAD

VersaCad
$2495.00
MacArchtrion
$1495.00
PowerDraw
$595.00

Call For A Demo Today

PageMaker 3.0
Now available from Mactography

Inorder to handle all your Desktop Publishing needs, MacTography has become an authorized Aldus Reseller. As a special introductory price we are offering Macintosh Pagemaker to the first 50 customers for only

$485.00

New From New Image Technology

Those Fabulous NIT people now have a flat bed scanner. Perfect for mounted artwork and books.

OCR $425.00
MacScan $1375.00
FlatBed $1725.00

15"Monitor

OCR

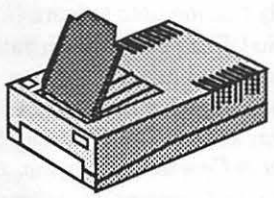
FlatBed Scanners

15" Monochrome monitor for the Mac SE

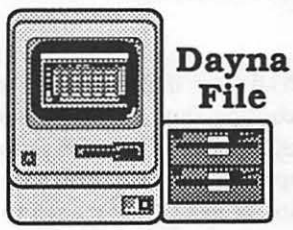
List $1150.00
Only 1050.00

Shipping Now

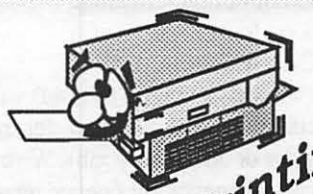
Macintosh WorkStations
3-SE's W/2.5 Meg Memory
Mac II W/5 Meg Memory and 19" 256-Color SuperMac Monitor



OCR Scanning Service And Sales



IBM to Mac File Transfer
5.25"-360 Kb
5.25"-1.2 Mb
3.5"-720 Kb
3.5-1.4 Mb



LaserPrinting Over 850 PostScript Fonts Available

the display, edit it there in the grey scale you want, and click to UNSELECT it. Then, select it again with the lasso and move it back very, very carefully into the white area you extracted it from in the original graphic. Tedious, ain't it? But it works that way. We buy these applications and utilities and are perhaps too naive to think that they will work as advertised, or at least as the manual states. WRONG. Very few of them do. It is the developers and designers who are at fault, and not us. Have you ever tried to return software? Usually, we are stuck with it. This is another reason to find some place to RENT the program first before committing to buying it.

Desk Paint has some real potential for editing graphics, bit-mapped and TIFF files. Because it has such potential and because the cost is so reasonable, all the more reason to complain when it does not work as advertised.

POWERHOUSE 2.3 and QUICKEYS

I purchased PowerHouse just before the new version 2.3 was announced, and had already installed it and used it very successfully. When the new version was announced, and since I was the registered user, I sent in the original disk requesting the upgrade. Within a matter of days, the upgrade was sent back complete with a new manual at no charge. This is service, and the Finder replacement works like a charm.

The new features allow the user to install anything, not just applications, into the applications boxes, including MultiFinder or anything that is not strictly an application. It also allows ALL documents for an application to be installed, and not just those documents selected for installation, no matter where these documents are. An excellent Finder replacement that works as advertised, and no bugs to date.

The same with QuicKeys, except that if you are using the Mac-101 keyboard, function keys, and some macros with key combinations, you have to be very, very careful not to duplicate these keys in QuicKeys. I keep a printed list available at all times.

If using Stepping Out, PowerHouse's Pyro (also upgraded) does not work so well when Instant Pyro is invoked by moving the cursor to the far top right side of the screen. Also, QuicKeys has trouble opening up applications when in the Stepping Out mode, and will often revert to Stepping Out's dialog box to REMOVE it first. The solution here is that if you want to remain in Stepping Out, open your application manually in the normal method of double-clicking.

MAC-IN-USE

It will drive you up the wall with all those dialog boxes, but the effort is well worth it for recording time spent on the computer or on specific jobs. We customized the form design to open up whenever we opened an application or task. You have the option of filling in the information or just hitting the return key. Your time is recorded for the exact time (seconds and minutes) that you are within that task. To avoid having to QUIT the file, and to remain within that same application in order to go on to the next job, use the key combination of Command/Shift/Option/M and a new dialog box for user input will appear on the screen, terminating the previous job, and allowing the user to record the new task.

Through much trial and error, and several phone calls to Mac-In-Use, we found out the hard way that Mac-In-Use DOES NOT LIKE STARTUP Screens! Please REMOVE your precious Startup Screen BEFORE attempting to use it. Mac-In-Use looks for a specific area in the Welcome to Macintosh dialog box in which to inform the user that Mac-In-Use is installed. If there is ANYTHING in the way of it giving you this information, you are in for some real trouble and some crashes.

MacPUKE

The biggest Mac laugh of the year. It works with everything we know of. MacPuke is an INIT that you place in the System Folder, and then it goes to town and does its thang! Every time you eject a disk, MacPuke pukes in real digitized sound, loud enough to be heard over the phone, in front of clients, and throughout the general office environment. Everybody with a sense of humor starts howling.

FEDIT, ResEDIT, MacZAP, AND MacTOOLS

Heaven help all of us when we have files that are corrupted! There seems to be no easy way to correct corrupted files, and the manuals and tips on all four of these utilities are anything but clear English! I would love to see something written on the use of these utilities in clear, straightforward layman's language for a change. Is this why I panic when I find corrupted files?

One of my treasured SmartScrap scrapbooks has blocks 1534, 1547, 1551, 1560 corrupted, with the error message reading -72, and one reading -71. MacTools told me this in no uncertain terms when I sector copied the SmartScrap file. Great! Now that we know these blocks are trouble, what do you do next to correct them or to delete them? Write down the bad block numbers and start hitting the manuals, and if you're lucky, you'll find a solution. Where it is I haven't the faintest idea. I've looked everywhere. Yet all the publications tell me that these are utilities no Mac enthusiast should be without. Why? Who can understand them? I'm not a programmer, but I do understand some things about disks. There is nothing in any of the indexes informing one how to correct a bad block in a file, and what procedures to take. What if I write over something by mistake? That is, if I am able to find what I'm looking for. And what do you replace it with, if anything?

It would certainly be nice and comforting to see some easy, simple-to-follow directions that could guide anyone to a solution to problems, but these do not exist. Instead, we find ourselves pouring over manuals, wasting our time learning things we never really had the time to learn in the first place.

So HELP! Here I sit with all these wonderful little utilities and manuals, wondering how to save my corrupted file, and left wondering what to do next to save it.

Jay Rohr is Vice President, Production and Systems Manager of Creative Communications, Inc., Laurel, MD, specializing in graphics, electronic publishing, consultation and seminars on the art.

(Ed. Note: Opinions expressed in this article are those of the author, not necessarily those of Washington Apple Pi.)

MACINATIONS 2

by Robb Wolov

As I get into the swing of writing this column, I will have to get used to the idea that things happen fast in the world of small computers. Previous words and criticisms may be rendered moot with a single announcement. Such is the case, when I recently bemoaned the growing list of graphics standards (seven to date) and the inability to conveniently interchange them. I mentioned the applications Glue and Super Glue, print-to-disk utilities, that serve to convert documents to QuickDraw commands. A new application, The Curator also by Solutions International has been announced. Intended as a graphics cataloger, it is designed to store graphics from all seven of the current formats and thereafter paste them in the appropriate format into any document. We'll keep an eye on this.

"It's Not a Bug—It's a Feature" Dept.

In my IBM days, I didn't worry about fonts. Heck, you could have any font that you liked as long as it was the standard ROM generated screen text. Now, I have been experimenting with fonts to my heart's content and have found an intermittent bug with the current Font/DA Mover (v 3.6) It seems that under certain circumstances, the Font Mover does not update the *FOND* resource. The *FONT* resource is properly handled, but old names in the FOND resource may not be purged. The result is that you will continue to see the names of fonts that have long since been deleted in such places as the character formatting menu of Microsoft Word. The solution—ResEdit to the rescue! Open your System file with ResEdit, click on FOND (not FONT), find the names of the fonts to be deleted, then cut them from the edit menu. If you use Suitcase, the same goes for any non-system file font collections.

As stated, this seems to be an intermittent problem. I'm still trying to nail down the offending combos.

Hard Disk Discipline

No folks, this is not as kinky as it sounds. The fact is, that many Mac'ers are now getting their first hard disks, and going crazy keeping EVERYTHING on them. It's this indiscriminate storage that can lead to some unpredictable problems.

There seems to be a compulsion amongst Macintosh software vendors to give all their customers a complete system folder along with the program they purchased. I'm not sure of this rationale. Whether it's to provide a bootable disk (usually with a badly outdated system and finder), or to fill up what might be interpreted as an embarrassingly empty disk (a 75 to 100K program leaves a lot of "empty" on a Mac floppy), this "bonus" can be a headache.

I have seen more than one Mac'er buy a new program disk and indiscriminately transfer its entire contents to their hard disk, along with a second system folder. Mac Rule #1: "ONE OPERATING SYSTEM TO A COMPUTER." If you want to see an impersonation of a Mac possessed by evil spirits, just leave a second system and finder lurking around in some tucked away folder.

Accordingly, hard disks seem to bring out the packrat in many of us. I am now trying to unscramble a MS Word document for a friend who after upgrading versions kept all his previous versions, 1.05, 3.00 and 3.01, all labeled identically, on his HD. It seems that when he went to store his document, all three version's formatting code interacted in such a way that now the document can't be opened by any of them! Mac Rule #2: "ONE APPLICATION VERSION TO A DISK." At least relabel the other versions to differentiate them (e.g. don't keep Word 1.05 and 3.01 both on your disk labeled "Word"). Besides, you're wasting storage space.

Mac Rule #3: "SPRING CLEAN YOUR HARD DISK." Go through all your folders. You may be surprised at what you find cluttering up things. Do you really need all five rough drafts of that letter to your Aunt Peg? Even if you do, do you need them now? Hard disks not only buy you storage, they buy you speed. If some files don't require the fast intermediate storage of a hard disk, do what the mainframers do, archive them onto slower, portable media—in our case, floppies. You might choose to use a compression utility, such as Stuffit to maximize the effect.

Finally, Mac Rule #4: "BACKUP, BACKUP, BACKUP!" I am a scientist, and not a superstitious man by nature, but I'm convinced that there are evil spirits in the universe. There are demons who live only to crash hard disks and scramble files. They know those that don't backup and which files are vulnerable. THEY KNOW! The surest way to an incident free life is to have a full backup. (Ed. Note: I call them poltergeists!)

Congress Reorganized !

Congress Stack™
puts
Congress on HyperCard™

Staffs, Maps, Committees, Faces
Biographies, over 12,000 Names and Addresses
and more...

all linked and organized using HyperCard

10 diskettes, 18 stacks, more than 10 megabytes of
Congressional facts for only $159.95

Congress Stack runs on Macintosh Plus, SE
or II with HyperCard and a hard disk drive

Highlighted Data, Inc.
P.O. Box 17229, Washington DC 20041
(703) 241-1180

Macintosh and HyperCard are trademarks of, or licensed to, Apple Computer, Inc.

MACINTOSH BITS AND BYTES

by Lynn R. Trusal

Macintosh Fact and Rumors

Apple really blitzed the TV bowl games with ads in January. In total there were twenty-two 30-second ads costing a total of $4,000,000 or over $18,000 per commercial. Apple targeted the ads to reach 85% of all men between the ages of 25 and 54. I say what about the women? (Ed. Note: Regina, where are you when we need you?)

Apple earnings for the fiscal year ending September 30, 1988 are expected to be $2.39 a share which is a 45% increase over FY 87. Apple stock has also made a come back from the low 30's to the low 40's.

Jerry Malec has been named vice president and general manager of central operations for Apple Computer. He previously managed the sales and sales support for the southern operations of Cullinet Software, Inc.

Datapro Research Corp., a computer-analysis firm from New Jersey, announced its 1987 awards for computer hardware and software and Apple Computer grabbed the two top honors. The Mac II was the hardware product of the year and HyperCard won for best software. IBM hardware and its new OS/2 operating system were not even mentioned.

Apple is trying to gain a 25% business market share by early 1990's. Macintosh sales have reached the 70,000 per month mark. One factor is the significantly lower operating cost of the Macintosh compared to the IBM PC. The Gartner Securities Corp. of Stamford, CN has estimated that the 5 year cost of operating a Macintosh is $14,000 while the IBM PC is $19,500 for the same period.

So you think MultiFinder and HyperCard are memory hogs because they require 2 MB for efficient operation? IBM's OS/2 "Standard Edition" operating system requires 1.5 MB just to load the operating system and the "Extended Edition" (due Nov 1988) will require 3 MB. I suppose that if you want to run any applications, that will require additional memory. Macintosh users who want to add memory upgrades cheaply will be competing with the MS-DOS and PS/2 world for 256K and 1 Megabit chips.

Someone in Florida has developed an intelligent fruit picker. It is a robot picker run by a Macintosh computer and it can detect individual fruit on a tree, determine its ripeness, and then pluck it from the tree. A commercial version would have several picking arms that could harvest 6 pieces of fruit a second. The Mac has been used for everything else, why not picking fruit?

Abaton Technology Corp., has been bought by Everex Systems, Inc. Everex makes hard disks, tape backups and modems for the Macintosh. Abaton will be turned into a division of Everex and will maintain its current product line and brand name recognition. In another acquisition, Access Technology Inc. has acquired the Macintosh word processing program Mindwrite and signed a letter of intent to acquire Trapeze. Access Technology is located in South Natick, MA and it has turned these two acquisitions over to its new California subsidiary, called Access California, Inc. Both of these acquisitions are more in a recent upswing of takeovers and purchases of the rights to Macintosh software by previously MS-DOS dominated companies. A recent article in *MacWeek* talked about venture capital companies falling all over themselves to acquire Macintosh software companies. At the top of the list was Cricket Software which has been very successful developing Macintosh software but apparently wants to remain private.

A Network By Any Other Name!

Just how do computer networks compare on speed! The following is a list of the speed of the various LAN's currently available (not complete): AppleTalk = 230 kilobits/second, Starlan = 1 megabits/second, Arcnet = 2.5 megabits/second, Token Ring = 4 megabits/second, and Ethernet = 10 megabits/second. Actual network conditions result in a degradation in speed so that Token Ring may run at 2.4 megabits/second, and Ethernet at 4 megabits/second with network overhead figured in. Apple has just renamed AppleTalk so that AppleTalk now refers to the network protocols and "LocalTalk" refers to the old AppleTalk connectors themselves. This is because the speed limitation of the old AppleTalk was never the wires or the network protocols which are capable of much faster speeds. The 230 kilobit/second speed was a limitation of the network firmware built into each Macintosh. Apple is trying to overcome the image that AppleTalk was a slow network not capable of faster than 230 kilobits/second by differentiating the communication protocols from the hardware itself. AppleTalk protocols support the seven layers of the OSI standards.

Scanners and the Copyright Law!

I'm not an attorney, but I have wondered about the legality of using a scanner to copy graphics for incorporation into newsletters, etc. I used Thunderscan to digitize several cartoons from the newspaper for inclusion in a Macintosh Newsletter I used to write at work. A recent article in *PC Week* (Sept. 8, 1987) touched on this problem and stimulated my thought processes on this topic. Did I break the law? Please tell me Tom!

Since this is a new area that Perry Mason never addressed, there are limited legal precedences but I guess common sense would dictate that if you digitize a copyrighted picture, graphic or text, you are breaking the law. Even if you use MacPaint to alter or erase portions of the digitized image, it is evidently only necessary for 10 to 20% of the original scanned image to remain intact for a violation to occur. The bottom line is if you are going to use a scanner or digitizer and incorporate the results into a public document, particularly for profit, beware! Clip art purchased from companies that distribute it must be ok for use in newsletters, etc. but this also need clarification. You may end up in court or face high court costs. I hope Tom Warrick or some other WAP attorney will address this issue. Maybe I'll find out if Tom really reads this column!

Excel 1.05b

As I mentioned in a previous column, I was having trouble printing Excel templates from the Macintosh II to the Laser-

contd.

MacTemps... Solutions for MacProblems

MEMO

From: David Ordorfer
To: Janet Smithson, Personnel
Re: Our Personnel Needs

I was reviewing our personnel need for the next 4 weeks and am concerned about our ability to produce the Lambertson proposal by the deadline.

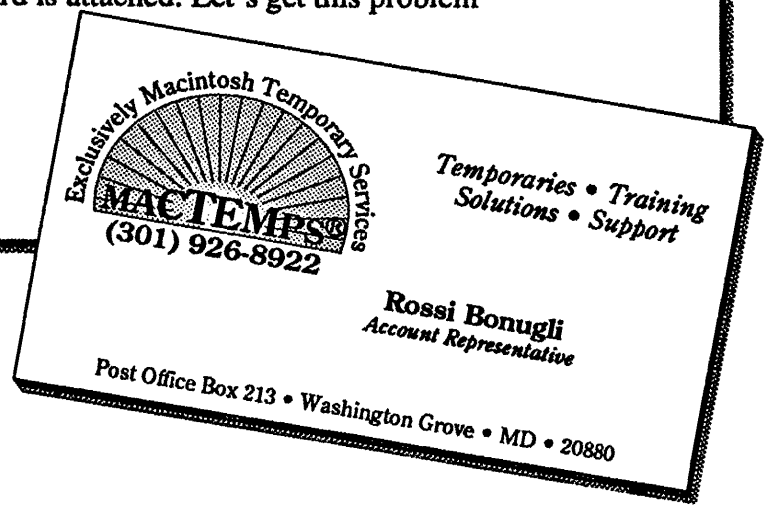
It seems that the complexity of the proposal dictates that we hire an additional 3 people to help us out.

According to my review, we need talent in the following areas:

1) A person who can help us produce Vu-Graphs (MacDraw or maybe a more sophisticated graphics program?)
2) A person that can type quickly and accurately in Microsoft Word.
3) A person that can use a page layout program (Pagemaker or ReadySetGo)

I spoke with Harry from our Virginia office, and he suggested that we call MacTemps. According to him, they have experienced, quality people that are Macintosh literate and are available with only a short notice.

Their Business card is attached. Let's get this problem solved immediately!



Temps. This ad was created entirely on the Macintosh computer.

Washington

Writer. About 75% of the time I received a system bomb and had to reboot the computer. Microsoft was aware of the problem which appeared to be a timing error and they took my name and address to let me know when they had a fix. Several weeks later, they called me to tell me they were shipping me version 1.05b to fix the problem. Being a typical cynical computer user, I did not expect Microsoft to call me back and expected to have to bug them several times to get a response. I'm glad that was not necessary and it restoredmy faith in large software houses. Version 1.05b is 1K smaller than version 1.04 and has fixed the printing bug which Microsoft attributed to 68020 CPU differences compared to the 68000. I have not noticed any new problems.

GEnie

GEnie is General Electrics BBS located in Rockville, MD. It has been up and running for over one year now and basically is in competition with CompuServe and the Source. Several changes have been made that may affect current and future subscribers. Effective November 1, 1987 the cost of 2,400 baud service for non-prime time has been cut from $15 to $12.50. The rate for non-prime time for 300 and 1200 is still $5 per hour. The faster 2400 baud rate is available from only Baltimore and Rockville (340-5565) in Maryland. There is now a Frederick number for 300 and 1200 baud which is 293-1920. GEnie has always been one of the cheapest commercial BBS's for non-prime time which is all day Saturday and Sunday and between 6:00 PM and 8:00 AM on weeknights. It has also been one of the few BBS to charge the same rate for 300 or 1200 baud.

Forty-four more cities have been added to GEnie for local access. In Maryland, you have a choice of Rockville, Hagerstown, Baltimore and Salisbury. Rockville has both 300 and 1200 baud service but Hagerstown and Salisbury have a surcharge for use from these cities.

Effective January 1, 1988, GEnie's sign up charge increases from $18 to $29.95 but you get two free hours to be used within the first 30 days. I think GEnie is trying to get new users hooked on using the service, and by adding the cost of the hours to the initiation fee they hope to stimulate initial usage.

I originally joined GEnie because of the FreeSoft Library and Roundtable support for Red Ryder. Registered users of Red Ryder were originally given free sign-up to GEnie (without the GEnie users manual). You then had to log onto GEnie and ask Scott Watson for access to the FreeSoft Roundtable. Scott is still putting up new versions of Red Ryder (10.3 as the latest in Nov. 87) to registered users, but he no longer permits versions past 9.4 to be treated as shareware and posted on local BBS's. The Macintosh Library portion of GEnie now has a "stackware" section that contains close to 400 stacks including "The AIDS Stack" that is very well done and is an excellent learning tool for educating people about the disease. One word of warning! This particular stack took 90 min. to download at 1200 baud. If you can call Rockville on a local line, you can't beat the price for using GEnie during non-prime hours.

So the Macintosh II isn't fast enough for you!

It is common knowledge that the Macintosh II uses the 32-bit Motorola 68020 CPU running at 16 MHz. It is noticeably faster than any previous Macintosh but attempts are being made to speed it up. Rumors have floated around for some time that 68030 based Mac II's were in the hands of developers. Look for new Macintoshes using the 68030 to appear in 1989 but not in 1988. This new 32-bit processor from Motorola will be the successor to the 68020 and will initially have a clock speed of 16 or 20 MHz. By late 1988, the speed will be increased to 30 and 40 MHz versions. This new CPU is expected to double the processing speed of the Mac II. The new chip features an on-chip data cache, an on-chip paged memory management unit (PMMU) and an improved bus architecture. Software written for the 68020 will be compatible with the 68030 but the Macintosh operating system will have to be rewritten to utilize the full power of the 68030 chip.

I would initially expect to see the new 68030 in top of the line workstations from Sun and Apollo with eventual incorporation into the Macintosh line. John Sculley has already affirmed that the "30" has a definite future at Apple, but he says Apple will not release a 68030 version of the Mac II in 1988.

Two Macintosh third-party vendors already have released or announced 68030 based accelerator boards for the Mac II. More should be forthcoming but I doubt they will be of much use to all but heavy CAD/CAM and number crunchers. (Ed. Note: Yeah, who would ever use more power than a 128K Mac with an 8 MHz clock 68000?

Keep in mind that the 68020 chip is relatively new and already Motorola has a successor to it. This is in contrast to the top of the line Intel 80386 chip. A 80486 chip is in development but it has no rumored release date or specifications discussed. The 80386 is currently available in 16 and 20 MHz versions. Intel has redesigned the mask used to produce this CPU which fixed a bug discovered in the 32-bit accuracy of the chip. This mask change also resulted in faster chips with clock speeds of 24 and even 35 MHz versions. Intel does not have plans to increase the 12.5 MHz clock speed of the earlier 80286 CPU but another manufacturer recently announced a 16 MHz version. The Intel series of microprocessors also appears to have more upward compatibility problems than the Motorola chips.

So One Megabyte isn't Enough!

I realized a long time ago that 1 megabyte (MB) of RAM was not enough when I tried to use Switcher with programs like More, Excel, Cricket Graph, etc. I noted with interest Jim Lanford's column (WAP Journal, September 1987) that only 5% of IBM PC's have 1 or more meg of RAM, while 75% of all Macintoshes do.

The Macintosh II comes with 1 MB of RAM which consists of four 256K megabit SIMMs (single inline memory modules). This leaves four of the total of eight memory slots vacant. If you wish to add a second MB for a total of 2 MB, using Apple's upgrade, you end up with all eight of the slots filled with eight SIMMs consisting of 256 megabit chips. This does not permit adding more memory beyond the 2 MB unless you remove four of the SIMMs and add the new one megabyte SIMMS which consist of one megabit CMOS (complementary metal oxide semiconductor) RAM chips. Don't confuse the "megabyte" upgrade with the chips themselves which are "megabit" chips. You must add 4 of these SIMMS in the remaining 4 slots for a total of 5 MB. Removal of the original 1 MB (4 slots) RAM that comes with the Macintosh II permits a total of 8 MB to be placed

contd.

in the four slots if the one megabit chips are used and if all slots are filled with the megabit chips. The only way to have 2 MB is to use the older 256 K chip SIMMS that fill all eight slots. Therefore, you can have 1, 2, 4, 5, or 8 MB's in a Macintosh II. In an SE, using the Apple RAM upgrades, the possible memory configurations are 1, 2.5 and 4 megabytes. I hope that wasn't too confusing. (See *MACazine*, January 1988, p.78.)

Cricket Graph 1.2

A new version (1.2) of Cricket Graph has been released which is not to be confused with "announced" since that was done many months ago at the Boston MacWorld Expo in 1987. The following changes have been added:

1. Each column of data can have different formats including alphabetic, decimal, scientific, dollar and percent.
2. An increase from 15 to 31 character width for a column label.
3. 32 new plot symbols have been added for a total of 48. Included are circles, squares, triangles and + signs.
4. Line thickness can vary in 1 point increments and the user can choose six different line styles.
5. The legend items can be ungrouped and rearranged to suit the user.
6. Curve fits printed on the LaserWriter are now smoothed and are not jagged as in the past.
7. The text tool can create multiple lines of text at the same time rather than having to do them individually and aligning them my hand.
8. The window menu allows the user to call up windows by name and organize them by stacking or tiling them.
9. The program has been altered to be compatible with Crickert Device Drivers which will be released in 1988. This will permit printing Cricket graphs on inkjet, thermal and laser printers and support film recorders.

Upgrades to owners of Cricket Graph before October 1, 1987 will cost $20 and will be free if you purchased the program after that date. These improvement are some of the ones I have wanted added to Cricket Graph and they can only help to make this excellent program better. I also feel the upgrade price is very reasonable.

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

FEDERAL JOBLINK

The Complete Federal Job Package

OPM 1170/17	SF 171	SSW 32
OPM 1386	SF 171-A	SSW 555
SF 15	SF 172	SSW 585

A 20 page reference guide provides clear steps for "where to start" and "what to do" in obtaining Federal employment, how to produce a well organized application using our page numbering scheme, and how to quickly update your application.

All forms will print using ImageWriter or LaserWriter printers. Fill-in the form on screen and print it in one step. There is an unlimited supply of forms; tailor your applications to specific jobs.

All this for only $49.95 plus $3.00 s/h
(MD residents add 5% tax)

Send check/money order to: MULTISOFT RESOURCES
P.O. Box 235
Washington Grove, MD 20880
(301)-977-6972

Federal JobLink requires Macintosh™ and MacDraw®.

MacSource
2121 Crystal Drive
Crystal City
Arlington, VA 22202
(703) 521-9292

MacSource is up and running with all of the latest hardware peripherals and software for the Mac at discounted prices.

MacSource has made its mark on Washington for its service, low prices, outstanding support to the customer, and its Mac-Intelligent sales people.

Software
MacInTax
AEC Information Manager
Desktop Publishing Packages

Hard Disks by:
Everex
Peripheral Land
PCPC (MacBottom)
Supermac (Data Frame)

Rent time on our computers to do your scanning, laser printing, or to use our large screen display for your layouts. Use our software or your own...Instruction available for beginners or old hands looking for shortcuts.

Ask about our MacSource Membership Program for greater discounts on our software, hardware, and rental time at our Mac Workstation.

MacSource...the place to remember not only for price, but for product and service.

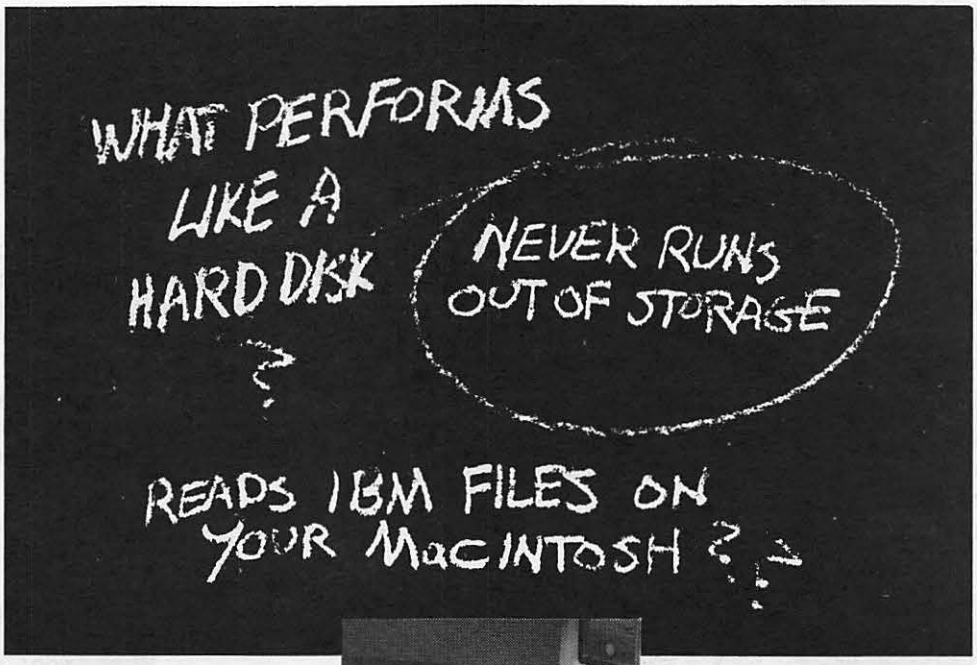
QMS 810 Printer
MacViewFrame
Large Screen Monitors

Call for directions: 521-9292.

Apply your creativity at
PC Resources
DeskTop Publishing Services
By Appointment • 860-1100 • Best Prices
Self-service and Full-service
1850 Centennial Park Drive • #300 • Reston, VA 22091
M - F 8:30 a.m. - 5:30 p.m. / After hours by request

New Products at MacCorner!

A 10 MB Drive that reads DOS?



10 MB of Infinite Storage?

MacCorner introduces the Infinity™ Drive by Peripheral Land --a SCSI 10MB removable disk system that will change the way you think about disk drives. Let MacCorner show you how!

Now you can end the limitations of standard hard disk capacities and their lack of transportable data. Infinity™ not only performs like a hard disk drive (65 millisecond access time) but it provides unlimited storage capacity using removable 10 MB high density diskettes.

Run out of room? Just insert another inexpensive diskette. Your storage capacity is infinite. And the cost is amazingly low: Only $18 for a 10 MB diskette. That $1.80 per megabyte!

Communications bridge between your Macintosh and IBM PC's, AT's and compatibles.

The Infinity™ System also reads and transports IBM MS DOS files from 1.2M and 360K AT and XT diskettes: it lets you display, edit and print IBM files on your Macintosh. That's flexibility!

Each Infinity™ Drive comes with LaserSpeed™ a LaserWriter spooler by ThinK Technologies, BackPrint™ and ImageWriter spooler by Cortland Computer and PII's advanced backup utility with image, file, folder, volume and incremental capabilities.

Storage & Connectivity for all Macs.

Infinity™ is compatible with Apple's complete line of Macintosh computers. Stop by MacCorner to test drive an Infinity™ today and see the difference between standard disk drives and Infinity's boundless capacity. MacCorner's experts will show you the possiblities!

Call MacCorner today for more information on this excellent new product!

948-1538

MacCorner, your fully authorized Peripheral Land sales & service center.

Mac Corner
The Macintosh Only Store

8653 Zetts Avenue, Gaithersburg, MD • 948-1538

Call Us Today!

Now At at MacCorner!

MacCorner Presents

The DirectDrive Series

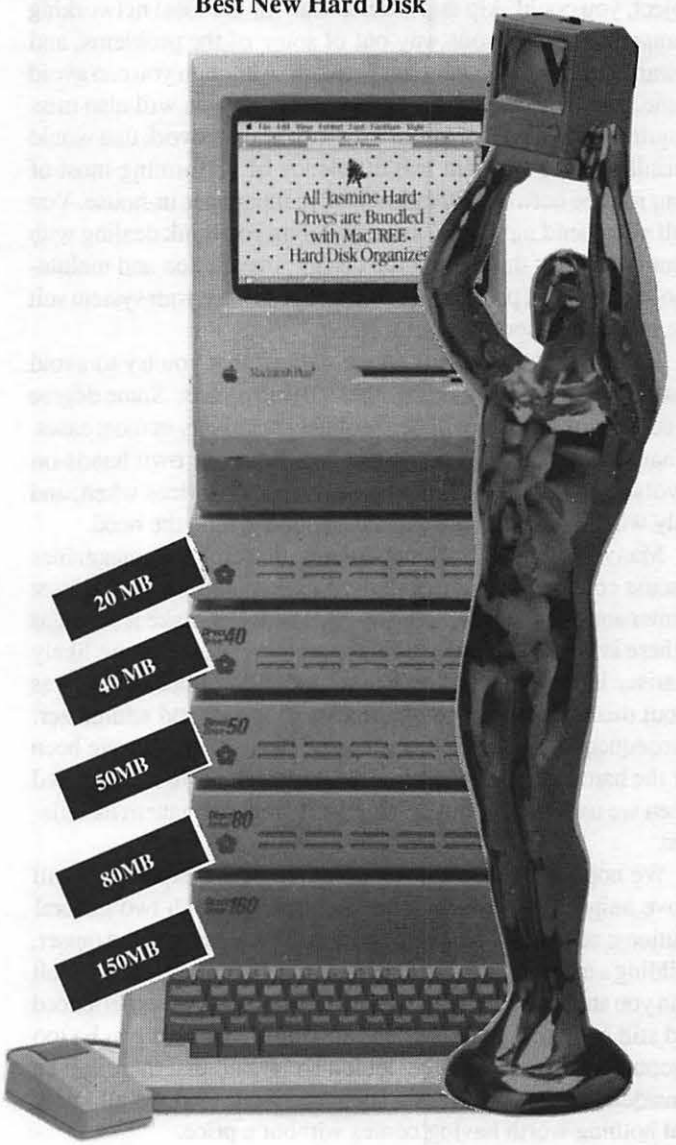
MacCorner is proud to announce that it is now the D.C. area's authorized full service Jasmine Dealer carrying the complete product line, from the creative "BackPack" to the legendary "Direct Drive 80".

Their excellent construction, high reliability and 'no cost' extras has won Jasmine drives a wide following. Each includes:

- Pre-formatted, they work right out of the box.
- Three way surge protection
- The origingal external SCSI select switch plus a terminator access panel.
- 10" X 10" x approximately 2" high, they fit neatly beneath the Macintosh
- Back-up software plus 9 MB of share ware and PD software.
- Full 1 year limited warranty.

Come test drive them now at MacCorner!

MacUser Eddy 1987
Best New Hard Disk



Technical Specs: Direct Drive 20, 40, 50, 80 and 150

Drive:	20	40	50 80	150
Capacity, after formatting:	21Mb	40Mb	51Mb 77Mb	150 1Mb
Access Time:				
Track to Track	20 msec.	8 msec.	5 msec.	4 msec.
Average	65 msec.	40 msec.	26 msec.	16.5 msec.
Maximum Seek	150 msec.	95 msec.	38 msec.	43 msec.
Average Latency	8.33 msec.	8.33 msec.	8.2 msec.	8.33 msec.
Mean Time Between Failure:	20,000 POH	20,000 POH	25,000 POH	30,000 POH

AC Outlets:
3-way with ground Fully fused
Rated Capacity: 7 Amps
Switched: At power on
Surge Protection: Protects drive and outlets

SCSI controller:
Transfer rate (per second) maximum
1.25 Mbytes, supports 1:1 interleave.

Come to MacCorner today for more information on these fantastic products! Or call:

948-1538

Jasmine Technologies, Inc.

Mac Corner
The Macintosh Only Store

The Washington area's authorized Jasmine sales & support center.

8653 Zetts Avenue, Gaithersburg, MD • 948-1538

Now In Stock!

A MACINTOSH AND DEC NETWORK

by James Cooper & Wayne Slaughter

Since a number of readers may eventually get involved in constructing a Local Area Network for their offices, we thought that they might find our experiences in building a medium-sized network in a Federal office to be of some interest. For several reasons, primarily budget constraints, we elected to do a lot of the planning, design and installation work ourselves. If money is no object, you could skip this article, head for the local networking company and buy your way out of some of the problems, and rewards, of building your own network. Although you can avoid some, but by no means all, of the problems, you will also miss acquiring the degree of familiarity with your network that would permit you the freedom and efficiency of performing most of your routine network alterations and maintenance in-house. You will also spend more time and effort than you think dealing with your contractor throughout the design, installation and maintenance processes, particularly if you hope to have your system suit the particular needs of your office.

Having said all of that, do we suggest that you try to avoid contracting for services altogether? By no means. Some degree of contractor services will be absolutely necessary in most cases. What we encourage is a balance between your own hands-on involvement in the job and using contractor services when, and only when, you percieve and clearly understand the need.

Many of the networking articles in computer magazines discuss connecting less than a dozen microcomputers to a laser printer and a file server. Usually, these articles make it sound as if there is very little work involved and few problems are likely to arise. Indeed, our first network, further described below, was about this size and proved quite easy to install and administer. Consequently, we were less prepared than we might have been for the hard work and technical difficulties that we encountered when we undertook a much larger and more permanent installation.

We hope that the following narration of our experience will prove helpful to others, but we should begin with two general cautions: no matter how prepared you think you are at the outset, building a medium-sized network will probably be more difficult than you anticipated; you can avoid the problems we experienced and still have some unique ones all your own. Lest you be too discouraged by such advice, let it also be said that there can be considerable benefits from a sound network, and we all know that nothing worth having comes without a price.

Background

Our network saga begins in late 1985 when we acquired thirteen Apple Macintosh computers, the first stand-alone micros in our Division of 55-60 people. At the time, we had given little thought to a network beyond recognizing that at some point in the future we would need to fit into the overall agency data processing and networking scheme. However, we knew that most of the offices with which we would eventually need to share data were starting to use VAX-based versions of ORACLE for their database management work and they were accessing it through Ethernet. We also knew that the majority of computer equipment in our agency was IBM and DEC and the predominant local-area network is Ethernet. We did have a few people using DEC VT-220 terminals for accessing specific applications running on larger VAX computers. We had connected these terminals to communication servers and outside systems support staff had connected the communication servers to Ethernet allowing us to access two special-purpose data bases on a remote VAX. At the time we acquired the Macs, we had not reached the point of considering when, or if, it would be necessary to integrate these VAX systems into the larger scheme of our office automation efforts.

Another reason for building our own network was that there was no resident Macintosh expertise in the systems staff that supports automation efforts for our agency. As is the case in many government offices, systems expertise is largely absorbed with work supporting the "bread-and butter" program activities of the agency. It should be said that our systems people were generally supportive of our efforts; their reactions seemed to range from mild curiosity to outright cheerleading. Perhaps we're merely lucky, or maybe the stereotype of DP center professionals feeling threatened and behaving antagonistically toward the Mac is more myth than reality. We couldn't say for certain. In any case, without their support, and occasional technical advice, we couldn't have completed our network. None of the people on our immediate staff were ADP professionals and the majority of our people had very limited exposure to computers. However, the authors and one other professional in the division had purchased Macintosh computers for themselves soon after the Mac came on the market, and we were very impressed with the Mac's ease of use and short learning curve. We also thought that the Mac offered substantial advantages over other microcomputers primarily because of the innovative things Apple was doing such as a consistent user interface, built-in networking capability, bit-mapped graphics, small footprint, state-of-the-art processor, 3 1/2" disks, etc. (To be absolutely candid, we probably couldn't have made that list back then; what we really knew four years ago was that we were onto a computer system that looked very promising.)

Initially, we used our thirteen Macs on a stand-alone basis. Eight of them were given to managers and five to their support people. Each of the support staff was given a daisy-wheel printer, and three Imagewriters were scattered around the office for "quick-and-dirty" hard copies. The theory behind this configuration was that initially our professionals would have relatively little need to generate final hard copy versions, and sneakernet would suffice to get their work to support staff or they could go to one of the Macs which was connected to an Imagewriter. Before any blood was spilled, and only one or two personal relationships were damaged beyond repair, our vendor agreed to exchange the five daisy-wheel printers for a LaserWriter and provide the necessary connectors so that we could use the LaserWriter as a shared resource among our thirteen users. The authors spent about three hours on a Sunday afternoon with a friend from WAP who owned a soldering iron and had the

contd.

knowledge of how to put the Appletalk connectors together, and we, more or less accidentally, found ourselves with a small network.

(HINT: standard lengths of Appletalk cable are available from most Apple dealers. However, you can buy a 500 foot spool from a cable company for considerably less than the price of the ready-made stuff; same with the connectors; but you need someone with good soldering skills in order to put the custom lengths together) Since the standard Appletalk cable is PVC-coated, we found that the fire code would not permit it to be placed within the walls of our office. So we just ran the cable around the exterior of the office wall baseboards and over doorways. We held these initial cables to the wall with Super-clips which are available at any hardware store.

Our small pilot networking efforts looked a little kludgey, but it was relatively simple to set up and served as a good testbed for us to gain experience with both Appletalk and Ethernet and to identify possible problem areas.

In working with our initial pilot network we noticed that the Appletalk Connectors, unlike the RS-232 type connectors used in Ethernet, did not screw together and thus they tended to work loose and cause portions of the network to crash. This was a very aggravating problem. In addition, having the Appletalk cables outside the wall increased the potential of the connectors getting accidentally disconnected.

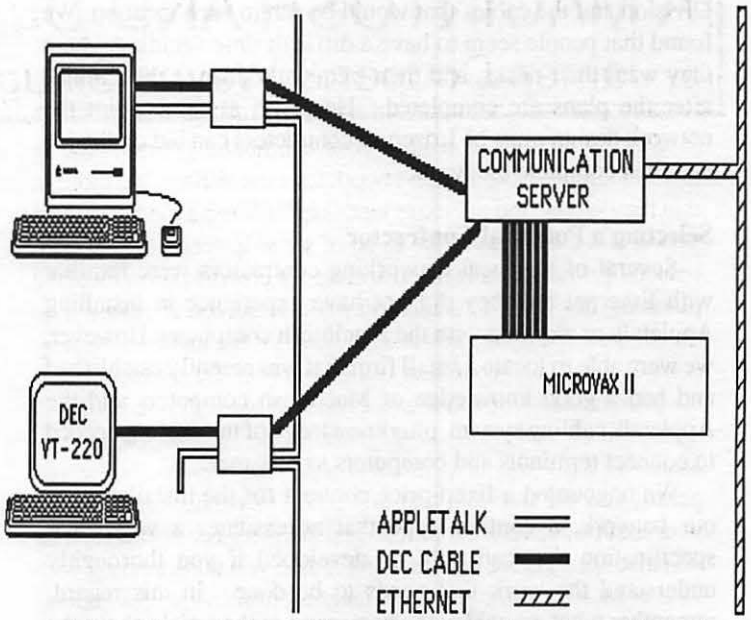
In February of 1987 management made a decision to move our division to another building. This presented us with an opportunity to proceed with more extensive plans for our network. After reviewing our initial experiences with the small pilot Macintosh & DEC networks, as well as considering the larger agency ADP environment that we wanted to fit into, we decided to plan a custom network that we hoped would provide us as much flexibility as possible, given what was readily available on the market at that time. We also wanted to lay the foundation of a network that could serve as a platform for future developments and could gradually be expanded or modified as needed.

Planning the Macintosh/DEC Network

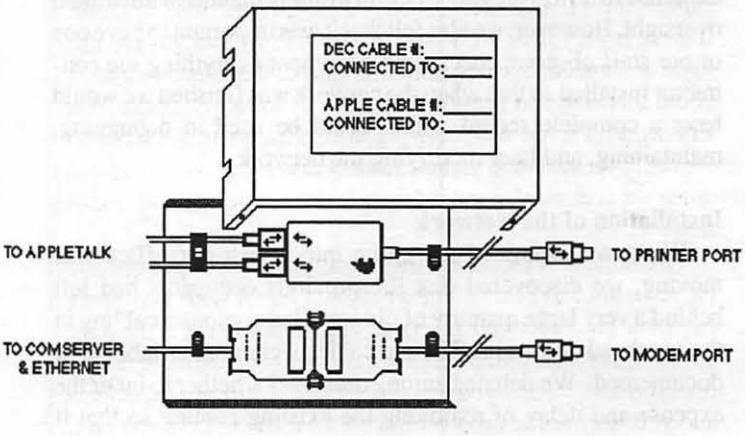
Our initial network design problem involved how to construct a relatively simple network that would give us the flexibility to connect either a Mac, a DEC terminal, or a PC at any location in the Division. This flexibility would allow our people to access either the local Appletalk Network for their shared resources such as printing and file service, or the larger Agency-wide Ethernet for access to central DBMS's such as ORACLE or when other offices in the Agency needed direct access to our data. After giving the matter some thought, we decided to run two cables to each workstation in our Division. One of the cables would be connected to Appletalk and the other would be connected to Ethernet. Basically, we settled on a Star topology for the Ethernet Cables, which ran to communication servers, with an Appletalk bus topology around the perimeter of the star as shown in the next diagram.

The Appletalk cable would be connected to the printer port on the Mac and the cable leading to Ethernet would be connected to the modem port. DEC terminals or PC's could be connected to the Ethernet cable.

For the actual cabling we decided to purchase larger spools of Teflon- coated cables, run them through the ceiling overheads



and down through the walls, and terminate them in small metal boxes that we designed ourselves. The small metal box for terminating the cables at each workstation would contain both the Appletalk Connectors and the RS-232 connectors to Ethernet. Within the box we decided to bolt down both of the connectors in order to prevent them from coming loose and to provide additional protection and a better appearance. The outside of each box would be clearly labeled with the node number and cable numbers. The next diagram shows the interior of one of these simple boxes:



The above diagram shows one of the boxes configured to connect a Macintosh to the network. Connecting a DEC terminal or a PC simply requires replacing the lower right-hand RS-232 connector and cable with a similar one that has the appropriate type of connector for a DEC terminal or PC. In that case, the Appletalk side of the net is left unconnected.

After designing how the cables would be terminated at each workstation, our next task was to determine specifically where the cables would be run within the new office space. We first obtained the floor plans for our new office and then visited the site for a complete examination of each room as well as the ceiling overheads and walls. We then had each of our people mark the floorplans to indicate where they wanted their desks positioned. Based on our physical examination of the space, and the input from all staff members, we made up detailed charts showing the proposed location of each desk or workstation in the

contd.

Division and the cables that would be run to each location. We found that people seem to have a difficult time deciding where they want their desks, and then frequently change their minds after the plans are completed. However, at some point the network design must be frozen so contractors can bid on the job and then complete the work.

Selecting a Potential Contractor

Several of the local networking contractors were familiar with Ethernet but they did not have experience in installing Appletalk or working with the Macintosh computers. However, we were able to locate a small firm that was recently established and had a good knowledge of Macintosh computers and the Appletalk cabling system, plus knowledge of the cabling needed to connect terminals and computers to Ethernet.

We negotiated a fixed-price contract for the installation of our network, a contract type that necessitates a very clear specification that can only be developed if you thoroughly understand the work that needs to be done. In this regard, remember what we said at the beginning of the article about the level of involvement that you must be prepared to undertake yourself. We were able to save money on the contract by purchasing the bulk cabling and connectors ourselves and supplying them to the installation contractor, thus reducing the contractor's risk, and making a fixed-price contract more palatable. Again, without a lot of thought and effort in the planning and design phases, we would have been unable to do this.

The contractor that is selected is of utmost importance. A good contractor should have the staff, equipment, and technical expertise to do a professional job in a timely manner with limited oversight. However, we also felt that it was important to have one of our staff observe, check, and document everything the contractor installed so that when the network was finished we would have a complete record which could be used in debugging, maintaining, and later modifying the network.

Installation of the Network

When we examined the space into which our office was moving, we discovered that the previous occupants had left behind a very large quantity of old installed computer cabling in the overhead and walls. The old cables were neither labeled or documented. We debated among ourselves whether to incur the expense and delay of removing the existing cabling so that it would not get confused with our new cabling, and finally decided that it was necessary to do so. We were right on that one; do it!

Since our staff had not moved into the space, our contractor was able to proceed on an uninterrupted basis during regular daytime hours and thus made good initial progress. We made it a point to try to check all work to be sure that everything was being done in accordance with the specifications in our contract. One of the things that we found to be very important was a clear, logical cable layout with permanent markers on both ends of every cable. We discovered that after you install more than about fifteen cables, it becomes very difficult to tell where the cables are running, unless they are very clearly laid out, tagged, and documented on a chart.

The network charts and cable tags proved to be invaluable to us both during and after the installation. We also found it is important to keep the network documentation current. Whenever anyone makes any change to the network it should be documented. Good documentation will help you to maintain control of your network and you will not have to rely completely on a network maintenance contractor.

A Change in the Game Plan

Originally, we had planned to position the Macs so that one computer would be placed between every two professional employees to be shared as needed. This approach works very well if you've always harbored a secret desire to become a boxing or wrestling promoter. We had planned gradually to add additional computers or DEC terminals as our needs and experience increased. However, soon after we had completed the network, and finished moving into the space, a management decision was made to purchase additional Macs and to alter several walls within the Division. In addition, management decided to move several of our people to an off-site location which would require a separate remote computer link back to Ethernet. These changes proved to be more difficult to implement than the entire original network. All of the additional work (29 nodes changes) had to be done at night, or on the weekend, in order not to disrupt the daily operations of our staff. In addition to the above changes, our contractor decided to phase out his business and accept a job with a local computer dealer; thus our work was now competing with other projects his new employer was doing. In order to get our additional work completed in a reasonable time, it became necessary for us to provide extensive assistance to the contractor. This was a difficult period for everyone involved.

Finishing the Network

Since computer networks are often installed in environments that are subject to frequent change, many of them are probably never totally completed. However, almost a year to the day after we first started to move into our office, our network is basically finished. We are isolating and correcting any remaining bugs that we find in the network and related equipment. Most of our people are now using the network and we are not experiencing major problems. We are working with the people in our Division, and as they gain additional experience we plan to improve and gradually add additional Mac & DEC software. We also have a lot of work to do in improving the accuracy and uniformity of our data, as well as making sound decisions about where our data can best be stored, considering the many devices which are now available through the network.

Special Problems That We Encountered

Probably the most extensive and troublesome problem we encountered was the poor design of the Appletalk connectors when used in a larger office environment. As mentioned earlier, these connections are made with small, round, pressure-fitted Mini DIN 3 connectors which have a tendency to work loose. This problem might not be serious in a small organization where you could easily walk around and check each connector, but in a medium-sized installation like ours, loose connectors can create significant problems. We found that this type of connector should definitely be held together with strong clips or bolted down as we have done. Related to the design of the Appletalk connectors are the additional problems that develop when you

contd.

A Long Word Wiser

by

John A. Love, III

OR, MacWrite Version 5.Ø...Shame on You!!

Although I don't use MacWrite nearly as often as MS Word, because of my cherished presence on the WAP Hotline I felt obligated to send Claris $25 to upgrade MacWrite from Version 4.6 to Version 5.Ø. SO—I did!!

It is my sad duty to report two serious errors in MacWrite 5.Ø, one of Claris' initial ventures into commercial software. I discovered the first and my ingenious friend, Dave McWherter, author of the absolutely fantastic 68000 Assembler "McAssembly™"(from Signature Software), discovered the second.

The first centers on the built-in Spelling Checker. Apparently, the latter issues a CMD-A (for "SelectAll") and a CMD-C (for "Copy") to implement some of its code rather than doing an absolute branch to the requisite Procedure. Even if this conjectured cause is false, the bottom line is NOT—if you change either of these CMD-key equivalents in MacWrite's attached MENU Resource, MacWrite bombs away when using the Spelling Checker!!

The second oh-oh violates another precept cemented in the concrete of "Inside Macintosh". The latter stipulates that the Clipboard can safely transport up to 32K of data. Dave McWherter states that MacWrite hangs when you attempt to Paste in more than 23K—and he suspects ditto performance for anything greater than 16K.

— and what about MacPaint Version 2.Ø ??

MacPaint Version 2.Ø worked seemingly without flaw while I was operating under System Version 4.1 and Finder 5.5 and while under MultiFinder. Fooled you!! Want to try something neat—tear off the Tools Menu and the Pattern Menu. Then type "T" and/or "P". Kinda reminds you of "Option-Tab" in "HyperCard" doesn't it?

A Macintosh and Dec Network contd. from pg 62

have to solder a large number of joints in order to make custom lengths of Appletalk cables. Each of these connections must be electrically sound.

We also experienced problems using the Hayes Interbridges. We had purchased early models of the Interbridges and discovered that they had serious defects. It was necessary to return the Interbridges to Hayes for upgrading the ROMS etc. We are not sure if Hayes has all the bugs worked out of their Interbridges, but the more recent ones we received seem to work much better. Hayes has been extremely responsive in providing technical support over the phone, and repairs and upgrades for these devices have been promptly handled. (HINT: if your network requires Interbridges, consider purchasing a spare so that you will have a replacement immediately on hand in case one gets damaged.)

After our network was completed, we discovered that several of the electrical outlets that were being used to provide power to key components were not properly grounded, and in fact had surges and sags occurring on the neutral ground wire. We would advise anyone installing a network to have the wall outlets professionally checked as a first step.

Another problem that we encountered related to our network management. Since the Apple equipment is easy to install and move, our people tend to relocate it without first informing the network manager. These changes frequently cause some sort of problem or disruption to the network.

Was it all Worth It?

After having installed approximately 67 Ethernet cables, 75 Appletalk cables, 142 short extension cables, and 643 connectors which total over 2,000 individual connections; one has to wonder if it will all be worth the effort. Although our network is far from perfect, we are currently operating 50 Macs, 11 DEC terminals, a Micro VAX II computer, a scanner, 3 laser printers, and 5 impact printers. In addition to the word processing, spreadsheet, limited desktop publishing, and business graphics work, our people are using several ORACLE database applications residing on larger computers in the Agency. We hope our network will serve as a platform to allow our people to use micros, minicomputers, and possibly mainframes to meet their increasing computer needs as we move toward becoming an information-based organization within our Agency.

Jim Cooper and Wayne Slaughter are with the Division of Contracts and Grants Management, Food and Drug Administration.

SELF SERVE LASER PRINTER!!!
at
Master Copy
Desk Top Publishing
We also offer copying, laser typesetting, graphics & design, binding, and facsimile service
8601 Westwood Center Drive
Tysons Corner
(next to American Cafe)
893-7878

	A
1	Excelling on your Mac
2	Part 19
3	by
4	David Morganstein

Let's take a look at a sample macro developed to help Elizabeth with one of her monthly chores. The macro shows you how to determine the size of an area and then use the size to set databases, criteria or print areas for files which vary in size. First a little background.

A while ago, I wrote of a problem Elizabeth faced. She maintains the accounting data on the use of computers in my office. Most people work on a variety of projects and a record must be kept of the hours of use which are chargeable to specific projects. To do this we bought the program "MacInUse". (As an aside, the latest version of MacInUse, 2.04, is not compatible with Apple's MultiFinder.) The MacInUse program prepares a single record of data each time you quit an application. This record, as you can see below, contains the application name, the date, the time the application was launched and the time quit, the difference in these times (in seconds), the use (Business or Private) and an optional string of data which the user can enter. In our case, we supply the project number, shown in column G. (As another aside, MacInUse now allows you to create a record whenever you want through the issuing of a special key sequence. This eliminates the need to quit a program whenever you work on a different project to assure you assign the hours accurately.)

	A	B	C	D	E	F	G
35	WordV3.01	12/7/87	3:04:40 PM	432	0:07:12	Business	901561
36	WordV3.01	12/7/87	3:12:58 PM	476	0:07:56	Business	958408
37	Microsoft Excel 1.05	12/7/87	3:22:16 PM	225	0:03:45	Business	958408
38	Canvas 1.02M	12/7/87	3:33:02 PM	1593	0:26:33	Business	958408
39	Microsoft Excel 1.05	12/7/87	4:02:28 PM	658	0:10:58	Business	901561
40	WordV3.01	12/7/87	4:14:06 PM	1214	0:20:14	Business	901561
41	PageMaker	12/7/87	4:34:39 PM	589	0:09:49	Business	901561
42	PageMaker	12/7/87	4:45:14 PM	249	0:04:09	Business	912107
43	PageMaker	12/7/87	4:52:52 PM	1702	0:28:22	Business	912107
44	Canvas 1.02M	12/8/87	8:46:03 AM	2733	0:45:33	Business	912107
45	WordV3.01	12/8/87	9:33:42 AM	723	0:12:03	Business	908600
46	MacDraw 1.9.5	12/8/87	9:46:55 AM	408	0:06:48	Business	908600

Each month, Elizabeth gathers from each computer's System Folder the text files created by MacInUse. Her job is to create a report identifying the unique project numbers and the hours charged to each. Of course, she can do this manually using Excel. She can set a database area (the length of which is different for each person, each month, since the number of records in the file is random), create criteria, do an Extract Unique to find the unique project numbers, then create a table with the total seconds, convert these to hours and percentages of a total work month and lastly print the selected area. To repeat this process for each person every month is a bit tedious. It is all the more unnecessary since Excel allows such quick creation of macros, programs designed to do repetitive operations. All of which brings us to this month's topic, the required macro.

Before the uninitiated react to the following macro by saying, "Oh my heaven, I bought a Mac because I didn't want to have to deal with a lot of arcane computerese!!", let me allay your fears. Ninety percent of the "code" which follows was generated by Excel, automatically, using its "recorder" function. Excel created a complete macro which performed every task Elizabeth needed but for a file of fixed length. I had to go over the program, finding the lines which referred to specific locations, add a couple of commands to store the varying last row number, and then change a few commands so they used a variable for the last row number. If you have never examined Excel's macro language, these last few steps would indeed be a challenge. But let's look at it together and see if you could do the same thing yourself once you see what is needed.

Without going into a lot of detail, you will have to open a macro sheet, and type in a macro name. I chose the title "MacInUse" for this project. Next you issue the Set Recorder command under the Macro menu. Now you are ready to record. Just issue the Start Recorder command. I did these preliminary steps and then performed all the operations Elizabeth needed. I began by inserting a row of database variable names. (Excel recorded the steps B2:B16 as I did this.) The macro commands indicate a row INSERT, SELECTing individual cells and entering text via the FORMULA command. I selected the entire area and issued the Set Database command. I then copied the labels and pasted them twice at the bottom of the database area, once for the criteria and once for the extract area. I selected the "Project" label in the extract area and did an Extract Unique. Next I sorted the unique project number, added a DSUM command and formatted the results. Lastly I added at Table in the bottom area and set it to be the print area. Finally, I issued a print command. Excel recorded all these steps in the macro sheet, translating each operation into appropriate Excel macro commands.

After the macro was recorded, a number of changes were needed since Excel acted as if there were a fixed number of rows. First, I had to insert B18:B19 and change B20. Cells 18 & 19 were used to store the row and column of the last cell in the file identified by the SELECT.LAST.CELL() command. B20 is certainly a challenge. It is a SELECT command which must contain a range of cells, entered as a character string, that is, between quotes. The "&" command is Excel's symbol for concatenating strings. If you saw "R1C1:R20C5" you would interpret it as the area between the cell in row one, column one and the cell in row twenty column five. All that B20 does is substitute variable names, LROW and LCOL, for the last row and column of the file. The variable names LROW & LCOL are labels assigned to cells B18 and B19, the ones containing the last row and column numbers. (To solve Elizabeth's problem, the last column is not needed, since it is a constant. It is always column G, but I included references to LCOL in the macro for generality).

All the cells from B21 to B37 were entered automatically by Excel. Again at B28:B39 and B41:B42 manual intervention was needed to set up variables identifying the upper left hand corner

contd.

New Products at MacCorner!

Double Helix™

"Best Database of the Year"

MACWORLD Readers Poll, 1987

Double Helix II is at MacCorner!

"Double Helix or nothing!"

...Double Helix II is the 4th generation of the first true relational database for the Mac... (Double Helix) takes a back seat to NO other Mac database currently on the market and comes out the winner where power, flexibility and ease of use are considered."

MacUser, April 1988

Double Helix II gives business professionals the power to create integrated solutions to information management problems.
Using words and pictures rather than a complex programming language, Double Helix II is both easy to learn and fun to use.

Business & personal applications of all types can be rapidly developed with Helix. And they are instantly expandable so you can share information with other Macintoshes via Appletalk and /or DEC's VAX computers, without modification! Have one of our MacCorner experts demonstrate this powerful and exciting new database for you.

INTRODUCTORY OFFER
Get 30% off retail on your copy of Double Helix II.
With your WAP membership card.

Mac Corner
The Macintosh Only Store

8653 Zetts Avenue, Gaithersburg, MD • 948-1538

30% OFF

	A	B	C
1		MacInUse	
2		=SELECT("R")	
3		=INSERT(2)	
4		=FORMULA("Program")	
5		=SELECT(,"RC[1]")	Created by
6		=FORMULA("Date")	the Recorder
7		=SELECT(,"RC[1]")	
8		=FORMULA("StartTime")	
9		=SELECT(,"RC[1]")	
10		=FORMULA("Seconds")	
11		=SELECT(,"RC[1]")	
12		=FORMULA("TimeOn")	
13		=SELECT(,"RC[1]")	
14		=FORMULA("Type")	
15		=SELECT(,"RC[1]")	
16		=FORMULA("Project")	
17		=SELECT.LAST.CELL()	
18	LROW	=ROW(ACTIVE.CELL())	Store the last cell's
19	LCOL	=COLUMN(ACTIVE.CELL())	row/column in variables
20		=SELECT("R1C1:R"&LROW&"C"&LCOL)	
21		=SET.DATABASE()	Set the database area
22		=SELECT("R1C1:R1C7")	
23		=COPY()	
24		=SELECT.LAST.CELL()	
25		=SELECT(,"R[2]C[-6]")	
26		=PASTE()	Paste database variable
27		=SELECT.LAST.CELL()	names into Criteria
28		=SELECT(,"R[3]C[-6]")	
29		=PASTE()	and Extract areas
30		=SELECT.LAST.CELL()	
31		=SELECT("R[-3]C:R[-2]C")	
32		=SET.CRITERIA()	
33		=SELECT("R[3]C[1]")	
34		=FORMULA("=DSUM(Database,""Seconds"",Criteria)")	Add up the "Seconds"
35		=SELECT("RC[-1]")	using the DSUM command
36		=EXTRACT(TRUE)	Extract the unique
37		=SELECT("RC")	project numbers
38	ROW1	=ROW(ACTIVE.CELL())	
39	COL1	=COLUMN(ACTIVE.CELL())	
40		=SELECT.LAST.CELL()	
41	ROW2	=ROW(ACTIVE.CELL())	
42	COL2	=COLUMN(ACTIVE.CELL())	
43		=SELECT("R"&ROW1+1&"C"&COL1&":R"&ROW2&"C"&COL1)	
44		=SORT(1,"C",1)	Sort the project numbers
45		=SELECT("R"&ROW1&"C"&COL1&":R"&ROW2&"C"&COL2)	
46		=TABLE(,"R"&ROW1-2&"C7")	Create a table which uses the
47		=SELECT("R[1]C[2]")	DSUM command
48		=FORMULA("=RC[-1]/576000")	
49		=SELECT("RC:R["&ROW2-ROW1-1&"]C")	Compute the hours
50		=FILL.DOWN()	
51		=FORMAT.NUMBER("0.00%")	
52		=SELECT("R"&ROW1&"C"&COL1&":R"&ROW2&"C"&COL2+1)	
53		=SET.PRINT.AREA()	Set the print area
54		=PRINT(1,,,1,1)	
55		=RETURN()	

and lower right hand corner of the summary table. In B43:B44 I selected this area and sorted it so the project numbers would appear in numerical order. In B45:B46 you see the creation of a Table using the DSUM command entered earlier at the top of the table by the command in B34. B49:B50 show the selection of an area prior to performing a fill-down command which converts the seconds to a proportion of a total work month (576000 seconds!!) The last manually changed cell is B52, a SELECT command used to define the print area.

As you can see, the only changes that were required over and above Excel's excellent "shorthand" were the determination of certain cells forming the ends of specific areas (the variable length database and extract areas) and the modification of a couple of SELECT commands to reflect them.

The result of running the macro:

	G	H	I
161	Project	1214819	
162	901561	29594	5.14%
163	903205	1089	0.19%
164	903213	370	0.06%
165	905602	5366	0.93%
166	906800	5722	0.99%
167	907301	18463	3.21%
168	908213	20680	3.59%
169	908300	27513	4.78%
170	908600	18891	3.28%
171	909800	7644	1.33%
172	912107	131557	22.84%

Excel 1.5 and 2.0 (the future is coming...) If you have a chance to play with PC Excel, you will get a look at what is coming for the Mac version. We can expect version 1.5 within a month or two and version 2.0 by the end of the year. The PC version has numerous new functions, including Matrix inversion, multiplication and determinants, many financial options (including a number of depreciation choices) and several text operators. For program developers, we can expect to see custom menus, macros which run automatically when opened, and additional control structures within the macro. Localized scrolling will help us all. Instead of jumping from the topmost rows of your chart to the empty void at row 16000 when you drag the scroll bar to the bottom, Excel will adjust the scroll bar to move you from the topmost row of your sheet to only the bottom most row with data in it. (As always, holding down the mouse button causes the line number to which you will drag to appear in the upper left hand corner) You will be able to move below this area to add new rows by using the GOTO or by scrolling a few lines at a time, but restricting the scroll box to the active area of your sheet will be a big help. Microsoft has sent Excel owners a note suggesting that v1.5 will be multi-finder intelligent, allowing time-consuming operations to run in a background window. We can expect color support in the charting functions and clickable editing to change labels, legends and titles.

EXCEL SIG/DISCUSSION GROUP

by Larry Feldman

A first meeting of the EXCEL SIG/Discussion Group will be held at the Pi office on Wednesday April 20th, at 7:15 PM.

Some of us doing a lot of work in Excel feel the need to ask questions of (and/or bounce ideas off) others doing the same kind of work. We would like to do this in person, rather than on the TCS or over the phone. Thus we envision the initial meetings of this group as having a Q&A, round robin format, with an emphasis on mutual support. Once it gets organized, of course, such a group can go in whatever direction it decides. David Morganstein will be available as a resource person for at least the first couple of meetings.

If this idea interests you, please call Larry Feldman at 546-9556 (day or evening) with any input you have on content or format. This will also give us a general idea of the number who might come.

LOWEST PRICES - GUARANTEED

Second 800K Floppy (internal)
for any Macintosh SE or II*
$ 50
*when purchased with system

30 Meg SE

$ 2,596*
* Keyboard extra
Macintosh SE with 1 800K Disk Drive, Fuji 30 Meg Int Drive, (1 yr. warr. On Hard Disk) ,with HD Software, Hypercard, and Free Stackware.

Image Studio from Letraset in stock! Come see Pagemaker 3.0 for Mac!

800k External Drive for Mac SE, or *IIgs* Special Price!
Sony 3.5" Floppy Disk Drive
$ 199
Authorized Dealer

SONY DOUBLE-SIDED DOUBLE-DENSITY FLOPPY DISKS
$ 13.95 for 10

Imagewriter LQ in Stock!

COMPUTER AGE

Sales Locations

9433 GEORGIA AVE.
SILVER SPRING, MD
(301) 588-6565

10606 US 1
BELTSVILLE, MD
(301) 937-0300

Service Center

9431 GEORGIA AVE.
SILVER SPRING, MD
(301) 565-9130

We have while-you-wait service on most Apple equipment!

Of Nash-Ramblers & Other Things
by Bill Baldridge

Do you remember the Victrola®?...the Nash–Rambler? ...the Mac 128K? Well, no Nash–Rambler, this little Mac... maybe closer to the Victrola—a classic, but a little behind the times. There ARE people who still listen to and enjoy their Victrolas, but I'd hazard most are living in Florida and driving a Nash–Rambler, to boot!

This is a position paper, of sorts. An "everyman's" guide to those 128K (and 512K [a.k.a. "Fat Mac"]) owners who may be getting an itch in the general area of their deep–pocket resources —torn between their love for a machine which has served them well, and the sometimes overpowering feeling that they're missing out on a new generation of "power software" and "micro–mainframe" computing wherewithall in toaster oven coveralls. Dispair not, young rebel...this too shall pass.

I have an acquaintance...a retired federal muckety–muck, who feels the Macintosh is the machine for linguistic professionals—and he is correct. He still uses his 128K Mac for word processing in various languages, and would still be using just the 400K internal drive had I not convinced him how much an external drive would lower the "grief factor" (about the time of the 20th disk swap to copy a 25K MacWrite document to a data disk). The point I'm making is this—if you use the machine, and it does everything you need it to, then KEEP IT! Don't go out and get a machine whose power you'll never tap, just because it's the latest or greatest—this is the consumer's trap. Look at the Porsche 911... here's a machine designed in the early 1960's that still looks great in the late 80's! The Macintosh is just such a classic design—it should have won some design awards (and may have) for functional elegance. The 128/512/Plus will look right at home in the home/office of the year 2000...

For those who may like (or even love) their Mac, but are getting a little tired of the same khaki Mackey staring back at them every day there are the Maaco's of the Mac world, who will turn your beloved into an objet d'art. One Mac owner suggested chromeplating the Mac and calling it a Mirror Mac! (Monitor & Mirror Mac...get it?) Manny DeVera, a Pi member, paints Macs with a difference—he has a friend who will airbrush any design or pattern on your Mac. He does an "Attack Mac" in camouflage paint, and a very attractive Art Deco Mac with various colored geometric designs. One suggestion, though ... avoid the purple like the plague, and bring MONEY (note the caps).

People who truly need the greater memory or computing power should be prepared to take advantage of those home equity loans or tap those CD's when they mature. It's a seller's market out there right now, and Congress has seen to it (with their trade sanctions against Japan, Inc.) that it stays that way for the forseeable future—though market pundits state prices should be dipping sometime this summer.

There have been a rash of articles in recent periodicals on the myraid of options available for turning your 4-banger into a muscle Mac. The two that come immediately to mind are the February '88 issue of *MacWorld*, and the October '87 *Ames Applegram.* Each had an outstanding article on memory upgrades. To boil it all down to a single sentence... there are upgrades and enhancements galore to tap the deepest pockets. The secret? Bring MONEY!

My advice is as follows... If you own a "lesser" Mac (i.e., any Mac with less than 1024K of on-board memory), and love it dearly, but would like to ditch the "not enough memory" messages, consider the following... To bring a 128K up to the Plus standard would cost around $750—this upgrade is available from various sources. (The Computer Shopper, (305) 269-3211, is a good source.) The current market value of a 128K Mac is around $600, if you can get it. Add $750 to that and you get $1350. Apple just lowered the price of a Macintosh Plus by $400 to $1799, and you will probably be able to purchase it for $200 under that by purchase time. So for around $250 more than you would pay to upgrade, you could have a brand new computer—that's new keyboard, new power supply, new everything... not just logic board, internal drive, and case back. And to upgrade a 512 (unenhanced) is even less of a deal, because its marketability is better—i.e., you're better off selling the thing and rolling the money over into a new machine.

So, we get to the bottom line, and it's this... If you're happy with your Mac, and it does everything you want it to do... keep it! Don't use your master disks for work disks! (I've seen people doing this and cringe!) Keep your original disks in a box, in a cool place, away from magnetic fields, and work only from copies. That way, you're assured of at least having your favorite software available for the forseeable future.

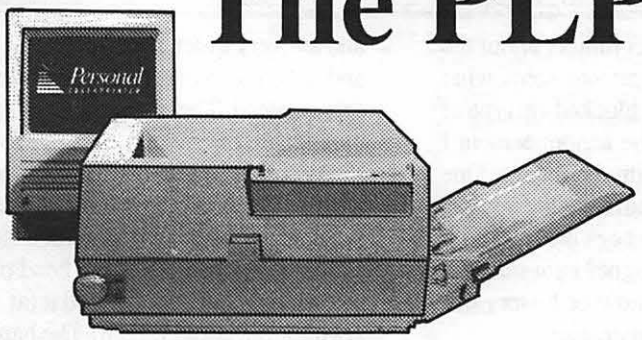
If you need the added memory and storage for large, memory hungry (engineering, design, or spreadsheet) applications, or have just "outgrown" your current machine, but don't want to fork over the money to go to a Plus, there are options available. If you can't afford the "single–whack Mac attack" (sorry), consider doing your upgrade in stages. Consider adding an external 800K drive—at less than $200 it's one of the cheapest means of adding workspace and allowing room for more fonts and desk accessories on your work disks. Upgrades from 128-512K of memory are relatively cheap (around $200), but the shops which will do them are harder and harder to find (locally, check MacCorner or the Computer Clinic Center—be careful, though, and ask for an Apple brand 512K motherboard... if you can get it). The next stage is to get the Apple 128K ROM (Read Only Memory) upgrade, which includes an 800K internal drive—cost: $250 at Apple dealers offering 25% discount to Pi members. (This upgrade may have been discontinued by the time you read this—I haven't checked, but rumors abound to this effect.) The last stage is a memory upgrade to 1 megabyte and beyond. The price for memory upgrades range from $140 (for 128-512K) to "the sky's the limit" (for the Fire–breathing, Multi–MIPS [Million Instructions per Second] Mac).

As a final thought, let me gaze into the crystal ball and foretell the future, circa 1990... The Mac Plus will be history. The standards will be the Mac SE and the Mac II. There will be a Mac SC (for Color) to fill the middle ground. The standard memory configuration will be 4 megabytes (maybe 5), and the familiar mouse will still be the method of navigating the desktop.

The world of consumer electronics has infiltrated Apple, Inc—in the form of John Sculley, and (as with most consumer products) if you want the latest and greatest, the biggest and bestest, be prepared to dig deep. BEEP BEEP!

New Products at MacCorner!

The PLP Wins!



General Computer's PLP outdistances the Apple LaserWriter® II SC in all major areas. Following is a QuickDraw laser printer comparision brought to you by General Computer and MacCorner.

	PLP™/PLP Plus	LaserWriter® II SC
Price	$1999 (PLP Plus: $2129)	$2799 (No Plus Available)
Outline fonts	Yes	No
Scalable & rotatable fonts	Yes	No
True italic & bold fonts	Yes	No
Bitmap fonts for fast printing	Yes	Yes
Font families included	6 (PLP Plus: 13)	4
Printer resolution	300 Dots Per Inch (DPI)	300DPI
On-screen page preview	Yes	No
Draft modes	150 DPI, 75 DPI	None
Kerning & Track Kerning	Yes	No
Number of PicComments supported (Apple-defined extensions to QuickDraw)	16	3
Final cost after Postscript® upgrade	$3999	$4899
Reduction & Enlargement %	Any size from 25% to 400%	50%, 75%, 100% only
Footprint	1.85 sq. ft.	2.57 sq. ft.
Pages per minute	6	8
Networking options	PLP Share™: $499 PostScript upgrade: $2000	PostScript upgrade: $2100
Stack-feed of envelopes & legal size paper handling	Yes	Only with optional trays purchase seperately
Weight	38 lbs.	45 lbs.

Call MacCorner today for more information on this excellent new product!

948-1538

MacCorner, your fully authorized GCC sales and service center.

Mac Corner
The Macintosh Only Store

8653 Zetts Avenue, Gaithersburg, MD • 948-1538

Special WAP Discount $1599 95

Macintosh and LaserWriter are a ™ of Apple Computer Corp.

RAMBLINGS FROM SOUTH BRAMBLE, ENGLAND

by Peter Trinder

I was interested to read Tom Piwowar's comment about the LaserWriter II NT that he had been using, and was some what surprised to see that he complains of "heavy, blocked-up type of unacceptable quality". About 4 days after the announcement I received my NT and have been delighted with the results. One day I had the old Plus and the NT on the system together and ran some comparisons between the two. Now it begs the question, am I the lucky one or is Tom the victim of a rogue? I am sure that due to the editorial time lag this will all by now be history but perhaps Tom could keep us up to date on the problem.

Here in the UK the supply of LaserWriters is acute; however Apple has about 1000 coming in during March, which is the last month of the UK tax year. This quantity will not fulfill the backlog.

Lynn Trusal talked about downloadable laser fonts last month. May I recommend the use of Laser Status, one of the Desk Accessories that come with DiskTop from CE software. Laser Status allows you to download any laser font whilst you are using an application. It also lets you check the amount of RAM available in the printer. Talking about RAM, Tom implied that the extra half megabyte of memory doesn't do much for you. Well I disagree. I did some tests with the Plus and the NT. I first ran up PageMaker and did a print which meant that Aldus prep was downloaded. I then printed something from MacWrite so that Laser Prep was also in RAM. I then downloaded all four of the Garamond laser fonts. I then checked the available memory and it was about 141,000 on the LaserWriter II NT, whereas the old Plus only had about 40,000 left. This figure is usually insufficient for anything but the simplest stuff.

Users of PageMaker should of course make sure that they have the LaserWriterII NT.apd file in their system folder. I have yet to see this file here; I have asked Aldus for it and await their disk. In the meantime you can use the LaserWriter Plus.apd file but should change the line @Product: "(LaserWriter Plus)" to @Product: "(LaserWriter II NT)" using a suitable text editor and resave it under the new name as a text file. If you use an A4 paper tray as we do in England change the line @DefaultPageSize: "Letter" to @DefaultPageSize: "A4" as well.

The interesting bit, if you examine the .apd's is the comment about the VM in other .apds (like the NEC Silentwriter) that have the same amount of RAM, which states that 'a value of 350000 allows 6 or 7 fonts to be loaded; this is safe'. I have changed my .apd and it seems to work. When I get the true LaserWriter II NT one I will check it!

I read with great interest about the ImageWriter II Mark I paper sensor problem. In the dealership where I work we have had many similar problems and we have had to resort to stripping the platen out and realigning the three little fingers of the microswitch sensors. I would much rather have been able to upgrade the printer. When I last had one of these it was a few months ago and at that time Apple did not have a retro fit solution because the logic board is different (I gathered that the logic board was altered to drive the optical paper out sensor).

By the way the SE's here are all being fitted with the new fans and are very quiet, not before time. I have a twin SE in the store and have taken out the upper drive and it now has a Rodime 45 drive instead. The liberated 800K drive is now in my MacII—the mounts are the same.

My other Mac is the one with the TurboMax fitted and it has a 40Mb Conner drive in the TurboMax drive case. Unfortunately I had someone put a disk with a damaged shutter into the drive and this wrecked the upper head of the drive. So I changed the mechanism and reassembled it (at 1:00am, of course!!). Could I get it to run, could I, hell!! The hard drive was giving error after error. I tore off the system, got rid of INITS etc, etc. Then I thought 'Did I check the voltage?' The TurboMax has a separate PSU for the daughter board, hard drive and fan. Although I have not touched the pot when replacing the floppy drive, I must have knocked it because it was reading 5.12v against a recommended 4.9v (I did not check the 12v line but this must have been up to 14v +! Re-adjustment to the correct 4.9 level cured everything and in fact has eliminated many other bombs that I had attributed to software before. I hope this comment is useful to others with added goodies stuffed in the box!

Peter Trinder runs an Apple Dealership in Maidenhead, about 35 miles west of London during the day and sleeps with his Mac for the rest.

Mac Disketeria News contd. from pg. 86

Switcher) "Startup" application that randomly switches StartUpScreen, BackDropScreens or DeskPictures, StartupSounds, BeepSounds, and ShutDownSounds in any combination you desire from all of them to none of them (if the appropriate files and folders are or are not in the System Folder). **SSSwitcher©** works on a Mac Plus, Mac SE, and a Mac][. **SSSwitcher©.doc** is the documentation.

(DeskPict *f*) !DeskPict An INIT that will put up a color background picture on a Mac II. It should work on any size monitor, any number, and any depth. **DeskPict README** is the documentation for **!DeskPict.**

(ProdigalStart *f*) ProdigalStart A startup screen derived from daVinci's "The Return of the Prodigal Son." To use ProdigalStart, rename the file "StartUpScreen" (no quotes, no space), place it in your System Folder, and reboot your Macintosh. **ProdigalStart** is sized for a standard Apple monitor or the Sony 1302. **ProdigalStart Documentation** tells all.

(Switch-A-Roo.Fkey *f*) Switch-A-Roo.Fkey Switch–A–Roo is an FKey that will quickly switch all your video monitors from one preset mode to another preset mode. A mode, in this case, is whether the monitor is displaying color or monochrome, and how many colors or grays are displayed. Switch–A–Roo works much faster than the Control Panel and so is handy for moving from one mode to another. **Switch-A-Roo.Doc.Wrt** is the documentation.

Become a colorful character with a little help from the Ad Center.

Ad Center

2070 Chain Bridge Rd.
Vienna, VA 22180
703-827-5967

Become an entre-preneur with a little help from the Ad Center.

Color Presentations Sell

Design Services

- Chart Preparation
  - Word Chart – $5
  - Graph Chart – $10
  - Map Chart – $15
  - Custom Chart – $25+

  Typed/printed & popular PC & Mac formats are OK.
- Chart Revision
  - $1/Element Changed
  - 50¢/Color Changed

  We can save your files to facilitate future revisions.

Have Us Help

Printout Services

- Color Overhead Transparencies
  - $12.50/Transparency
  - $7.50/Proof & Color Copy Master

  Requires standard color PICT 2 files. Use proof for one-on-one presentations also.
- Camera-Ready Master for Color Slides
  - $10.00/Master

  Requires standard color PICT 2 files.

Have Us Print It

Access to Tools

- 300 dpi Color Printer
  - $6.25/Transparency
  - $3.75/Paper Sheet
  - $11,000/Tektronix 4693D 8mb Printer & Mac I/F.

  Printer is available for your use at the Ad Center or for purchase. Printer requires Mac II with 2-8 mb. We are *Tektronix Authorized.*
- Color Mac II
  - $100/4 hours, $60/2 hours

  Reservations required.

Do It Yourself

BEST OF THE MAC ITEMS FROM THE TCS

by Dan Hughes

Business Accounting

FROM DEACON MACCUBBIN

There are a number of video tape rental applications (written under Omnis3+) available for the Mac. Check into a copy of The Macintosh Buyers Guide, you'll probably find some listed, or you could call Blyth Software for a copy of their catalog of Omnis applications.

Programming

FROM SEAN ABBOTT

I am 16 and am teaching myself C. I have met several people who know C and they been surprised at how much I know from teaching myself, and they gave me some additional pointers. However Macintosh programming is quite different in some ways, so they can't answer all of my questions. I am looking for somebody who could help me figure some of this stuff out. I have Lightspeed C, and the Inside Mac books, as well as Sybex's "Learning to program in C", K&R, and about 5 other miscellaneous books on C. It helps but what I really need is some examples, and somebody to give me a hand. I would greatly appreciate any help.

FROM HARRY ERWIN

Take a look at C Programming on the Apple IIGS. The two machines are much more similar in terms of C and the toolbox than you'd think. Also, read Kernigan and Ritchie. One of my 13-year-olds learned C, and that was his primary reference.

FROM STEVE SCHNEIDER

I recommend the book: "C Primer Plus". Its a great tutorial even though not designed specifically for the Mac. Nonetheless it starts you out real easy with lots of examples. For any problems that you develop because you have the Mac you should just post your question here. I was in your shoes just 6 months ago, and all the people on this board were a great help to me. Charge on!

FROM LARRY STEDMAN

Which programming language is the easiest for a novice to learn? I would like to be able to write some small DAs—ones that could manipulate the contents of the clipboard—say to sort lines or switch order of text items. Should I go with C or Pascal or something else? Which commercial product should I buy?

FROM BRAD FLIPPIN

The easiest to learn is LOGO, then BASIC, but they don't seem to be the ones for programming the Mac. Although, True Basic does support the toolbox. You can get a free demonstration diskette by writing (or calling) them at: 39 South Main Street, Hanover, New Hampshire 03755 (603) 643-3882. (I could upload this one, but I don't think it would be a good idea to put a commercial demo package in the download section.) I am kind of in the same boat, being a VAX Fortran programmer with VAX Assembly background also. I finally decided the best thing was to go with the "natives", so to speak. All of the notes, books, references, including Inside Mac, and Mac Revealed are all in Pascal. At 51, I don't like having to learn something new. But I think it was a good decision because I now have directly related reference material. My suggestion is go with Pascal. As for the compilers, I am using Lightspeed Pascal and am pleased with it. You can get it for about $89 from MacConnection or some of the mail order houses, which is not much (much cheaper than the $200 for Apple's MPW. I am having fun with it. Give it a try.

FROM HOLGER SOMMER

Larry, the easiest language to learn might be "Hypertalk" but you will not be able to write stand alone applications. I think you might want look into MicroSoft Basic (interpreter and compiler). Basic is very easy to learn and provides the time to pay attention to the Mac-User interface. Of course any "professional" programmer will advise you to learn C or Pascal... It all depends on how much you know already.

Data Bases

FROM BRAD FLIPPIN

For all you (any of you) dBASE Mac fans out there—I learned two new undocumented features from the Ashton-Tate BBS regarding dragging down columnar views onto a page. If the items being dragged down are to large, they won't fit on the page and you get a beep (sorry about that). There did not seem to be any way to compress them because you cannot drag them down several at a time. It is a all-at-once-or-none-at-all situation. If you hold down the option key when dragging a column into a Layout View, the column will size to the size of your view. If you have caps-lock ON and hold down the option key, the column will size to the size of your form size (which is by default your page size). Other items included:

1) Be sure to have TALL ADJUSTED on when printing columns to an IW or they wont match the ruler on the screen.

2) To add leading zeros (i.e. ZIP codes, although they should be text), use a formula field.

3) Although you cannot DEFINE SORTS programatically, you can DEFINE SELECTIONS programatically. Thus, if you assign a field to a value, you can then accomplish the same thing (such as doing sorts based on a dialog box selection).

For example:

```
CASE {choicefield} OF
    WHEN 1 {field1*file}={variable}
    WHEN 2 {field2*file}={variable}
END
```

Desk Accessories

FROM TOM DEMAY

I may be asking a question that has already been answered, but here goes: Is there a Desk Accessory that can be used to keep phone numbers that also will print a sorted tabular listing of the names and numbers? It would be nice if it would also print a short note to go along with each name/number.

FROM JERRY WALZ

QuickDEX comes from Greene Wildo, I think. I just got it today and it will dump SideKick's MacDialer for QDEX. I'll try and put a demo up called QDEX.sit.

The ** MAC ** Union

FROM DAVE LAVERY

I am not sure what you may have seen in Dallas 18 months ago, but according to DEC, "there ain't no such animal as a CN01, and DEC is not marketing ANY color laser printers". I am sitting here with an open copy of the current DEC GSA schedule (contract #GS00K88AGS5918) for 1988, and there is not a listing for either a "CNxx" anything, or any other color hard copy device other than the LCG01/LCN01 color inkjet (mentioned in a previous message), and the LCP16 pen plotter (a converted HP7475A with a DEC label on it). Additionally, I have talked with several contacts within DEC in Landover, Atlanta, Colorado Springs, Maynard MA, and Dallas. All responded with the

contd.

same reply—DEC does not make or sell a color laser. The technology just does not currently exist at an affordable level, and it will likely be well into 1989 before anyone releases a color laser in the <$30K price range. I am not sure who told you that a CN01 color laser by DEC could be found in the DC area, or that it was on the current GSA schedule for $11K, but they were either misinformed or pulling your leg.

FROM DAN YURMAN
I agree that color laser printers are a least 18 months away from commercial sales, especially since ink jet technology has improvement remarkably in the past couple of years. Also, variations of ink jet technology, such as the use of specially coated papers which respond to the application of an electrical charge to draw the ink more precisely from the jet, are cheaper than the lasers.

Graphics & Design Software

FROM LOUIS M. PECORA
I recently received SuperPaint. A nice application, but it can't rotate text. This is something I use a lot. You mentioned that you had and loved Canvas. Can it rotate text? Also, SuperPaint seems to take a lot a memory. Large PICT files made in MacDraw cannot be opened in SuperPaint (out of memory with a Mac Plus). Does this problem surface with Canvas?

FROM KARL WOLF
Try copying the text to the Paint layer. Select it with the rectangular selection tool. The text can now be rotated just as any bitmap can.

FROM DAVID GURSKY
Yes. Text objects can be rotated through either the Free Rotate option under "Effects" or a duplicate of the object can be made that is rotated a specific amount. When using this latter method, the center of rotation may also be specified. The advantage here is that the text remains an object, which is good for those with LaserWriters.

FROM DEACON MACCUBBIN
You might be interested in a program called PosterMaker Plus. It allows you to stretch, distort, add depth to, circle and otherwise play with fonts to your heart's content. It only works with the six built-in laser fonts (called Smooth Fonts), but you can do an incredible amount of tinkering with them, adding 3-D effects, shading—well, if you've ever seen a circus poster, you know what I mean. The result can be saved in an EPS format and pasted into any other program that supports EPS. It lists for $59.95 (a great price for a powerful package) and ComputerWare has it for about $50. My first use of the program resulted in a banner headline that warped up and down, narrowing in places, then expanding in other areas. Really quite nice for special effects.

FROM ADRIAN ABINERI
Can anyone explain why a Fullpaint drawing pasted into Canvas prints differently than when it is printed from Fullpaint. I'm talking Imagewriter printer and the output from Canvas is of much better quality. Also is there any application that would convert a Paint (bitmap) image into an object oriented representation so that Laserwriter resolution can be realized?

FROM DAVID GURSKY
Check the settings under Custom Rulers if you have it set for Imagewriter Units or Laserwriter Units. This may explain the difference in printing. There are not utilities (that I know of) to AUTOMATICALLY convert a BMG (Bit Mapped Graphic) to objects, but there are a number of packages that can be used to do so manually. Canvas and the new version of SuperPaint have some features to do this, but the best would be Illustrator and Aldus' new package, Freehand.

FROM ADRIAN ABINERI
Thanks for the response David but—The custom ruler settings have no effect on print quality. It's as if Canvas has a different Imagewriter driver, which is much better. I only ask because I still use Fullpaint and I have to bring the file up using Canvas in order to get this better quality output. Also with regard to my other question concerning BMG to object conversion, can't see any features of Canvas which helps. Any clues?

FROM DAVID GURSKY
Try selecting "Tall Adjusted" on your page setup before printing.

FROM KIM CIMMERY
I have scanned through previous messages related to the Paint file format. How much and where can the Apple Volumes (development?) be purchased for/acquired? Where can the technical notes be acquired? Cost? I am looking at the feasibility of "desktop scanning" using a below $2000 300 dpi scanner to convert resource map information, e.g. soils, into a Paint format (assuming most scanning support software will save a file in Paint format similar to Thunderscan's capability). The file would then be processed by adding polygon (or line or point) labels and reformatted to a raster GIS (grid cell) or vector GIS format for entry into GIS data base. I am not knowledgeable enough yet about Paint format. Initially I want to explore the possibilities using MS BASIC since I am more comfortable with it then other languages. It would seem that each bit in the string should be easily retrievable, looked at, translated and rotated for location, etc. and re-stored with corrected location and label. Any thoughts, comments, etc. would be appreciated.

FROM RICH NORLING
Kim, Inside Macintosh is published by Addison-Wesley and should be available at most Apple Dealers; look for a stand labeled Apple Technical Library. The Macintosh Technical Notes are available from many BBS systems—including, I think, this one.

FROM BRAD FLIPPIN
I have been playing with the MacPaint format. Right now I am working on a Pascal program to translate the first 240 x 64 bits of a MacPaint image to a TRS-80 format. Details on the MacPaint format are in the Tech Notes.

First, you will want to look at #86 which gives a general overall discussion. Follow this with #171 which discusses the PackBits Data format used by MacPaint. The same information (without the explanations) is contained in Inside Macintosh Vol 1 Page 469/470. The calls is PackBits to compress bytes. They are compressed when there are three or more consecutive equal bytes. UnPackBits expands the data compressed with PackBits. It's really not that hard. You can look at a MacPaint file with FEdit+ and see the compressed strings. I have implemented that unpacking in Fortran on the Vax, and its not that hard.

FROM BILL BALDRIDGE
I don't know why everyone is having to refer to Inside Macintosh for MacPaint file format, when it's right here in the Graphics & Design Software library. I've left this message before—maybe I should put it on a Macro, so it can be repeated every so often. The library file even includes some Pascal code for packing & unpacking a paint file. Enjoy...

FROM LOUIS M. PECORA
Just got my copy of CANVAS this week. What a fantastic graphics program! I have permanently removed SuperPaint,

contd.

MacPaint, MacBillboard, etc. from my Hard Disk. With Canvas I don't need them. It's a beautifully written, solid program. If you can use MacPaint and MacDraw, you can use Canvas. But "hidden" at the next level are all sorts of options and extensions to those "standard" things you're used to. Example, you can duplicate an object in the normal way. But you can also change many of the default settings in the duplication—number of copies, arrangement, fill pattern, etc. of the duplicates. Amazing. There's also Laserbits support (up to 2450 bits/inch!) and, if you're so inclined, there are postscript objects (you write your own postscript). It's loaded with features, but it's easy to use. You can discover many of the extended features by just poking around, but do read the manual to catch some real goodies. It even has many of the features of the CAD program MacDraft (which may go from my hard disk, too, someday). I can't begin to list all the neat things it does, but the guys who wrote it not only can program, but understand what needs to be done in a graphics program and the best way to do it for the end-user. A big Well-Done to Deneba, the company behind Canvas. Oh yeah, if that's not enough it comes with a Canvas DA that does 80% of what the program does! I mean do we live in a great country, or what?

FROM DAVID GURSKY
I'm a bit disappointed in how well Canvas performs in bitmap mode, so I'm keeping MacPaint around (I just got version 2.0, great stuff). Drafting a letter to Deneba seems to be a good idea though. I use Canvas and Spelling Coach Pro from them, and I've found them both to be incredible packages!

Hard Disks

FROM FERNANDO SALAZAR
And so ends the saga of the MegaDrive! If you were thinking of getting one, I have had one since November and can make the following report: Every disk I used with the MegaDrive developed bad blocks after 5-20 hours use. Sometimes these were not detectable with Disk First Aid, but would show up with DiskExpress. Eventually, the megafloppy refuses to boot, and then, fails to reformat. Having a large capacity storage device fail every 1-5 days does not make for an efficient and happy workplace. I had TWO MegaDrives. I returned my first to Jasmine for an exchange in January, and the second behaved like the first. I made the original purchase mail-order from ComputerWare. Having explained the problem, they agreed to accept a return for credit (which is going towards a Jasmine 40 meg). Conclusions: I don't recommend the MegaDrive, until its problems are announced and fixed. I DO recommend Jasmine. Their tech support people were helpful, and shipping out a replacement Federal Express 2nd day before I had returned my original was a noble act. Finally, I DO recommend ComputerWare. They are an all-Macintosh outfit with good prices and good service.

FROM WICK WICKRAMASINGHE
There's a $399 (retail) unit introduced recently that backs up to the common home VCR. This apparently works with all Macs, works at 1 M per minute, image and file by file backup is supported by the s/w, (and by date or application). The full details are on page 12 of the Feb 12 issue of MacWeek. Now the interesting thing is that this simple unit can also be used to broadcast (over satellite or cable). Course notes/Handouts are being sent all over the place with this thing! It's made by Alpha Microsystems, Inc. 714/641-6329.

FROM TOM VIER
I recommend a second hard drive for a backup with full redundancy, especially for business use. No down time if you have a mechanical failure. Otherwise you have to wait for the repair or loaner/rental. Backups are a fast copy-over. At most, it's only a cable swap to be running again. There is a temptation to use the extra drive for additional space, though. I'd still keep tape or floppy image backups for business archival purposes.

FROM DEACON MACCUBBIN
But if you have a fire or other major disaster, both your hard drives go up in smoke! I prefer a removable media that I can take off premises for storage. And I wouldn't want to have to lug a hard disk to the safety deposit box!

FROM BRAD FLIPPIN
Saw a neat SCSI Evaluator in this week's MacWeek (Feb 23, 1988-Page 17). It gives users of had drives a much better way to evaluate the effectiveness of software drivers and the drives than any other program previously available, according to its author William A. Long. It operates via the drive and can bypass the driver and plot the difference on a graph (color on Mac II). You can read/write/seek. It is better than DiskTimer II which was rather crude (according to the article). It is $20 from Digital Microware, P.O. Box 3527, Mission Viejo, Calif. 92690. It is also available on-line from Compuserve and GEnie.

FROM KARL WOLF
The SCSI Disk Evaluator has NOT been uploaded to Compuserve yet. As of last night, there was nothing in the MACPRO forum and I saw messages suggesting that MacWeek was wrong about it being on-line yet.

Hypercard

FROM DAVID HARRIS
Here is a short way to control the hiliting of radio buttons, abstracted from the January issue of Macazine. (Of a group of radio buttons, only one is supposed to be "on" at a time.) This example will involve 3 radio buttons, named Name1, Name2, Name3. Put this script in the CARD script:

```
on mouseUp
    get the short name of the target
    set hilite of button "Name1" to it = "Name1" —it
        = "name" returns true or
    set hilite of button "Name2" to it = "Name2" —false
    set hilite of button "Name3" to it = "Name3"
end mouseUp
```

Each BUTTON script, in addition to having whatever script is needed to carry out its function, must have a pass mouseUp message in its message handler. If the buttons are background buttons, they must be identified as such in the message handler, which should be put in the background script.

FROM JOHN VANBEEKUM
I have been playing with HyperDA some and have three things to point out for anyone designing a stack to be used with HyperDA.

1) the menu bar is always present;

2) locked field text is accessible for copying and THEREFORE does not react to any scripts you may have added so the field would become a button (i.e., the cursor does not become a browse tool over the field, but an insert tool);

3) openStack commands are treated like an openCard command on the first card.

Otherwise, it's pretty hot for simple stacks.

FROM DAN HUGHES
Wow, I am finding the HyperCard really eats up hard disk space fast. Just for fun I checked the info on the HC folder. It holds 5.3 Megs! That's what I get for going crazy with those Genie sound stacks I downloaded recently.

FROM RICK STICKLE
I know the feeling—about the only thing you can do is make sure

contd.

LOWEST PRICES - GUARANTEED

MACINTOSH SALE!

$ 2,596*

** Monitor & Keyboard Extra

With 30 Meg Hard Disk

Macintosh SE with Internal Fuji 30 Meg Drive (1 yr. warr.- On Hard Disk), Hypercard, and Free Stackware.

MacScan Digitizer on Sale

$ 1195

$ 2,396*

* Monitor & Keyboard Extra

Macintosh SE with Miniscribe 20 Meg Drive (1 yr. warr.- On Hard Disk), w/ HD Software, Hypercard, and Free Stackware.

With 20 Meg Hard Disk

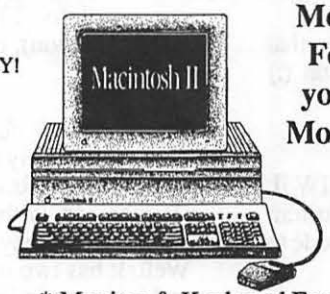
Flatbed Scanner from New Image Available

Upgrade //e to GS Pi Special Call!

Mac II System Sale

AVAILABLE AT BELTSVILLE STORE ONLY!

Put together a system that works the way you do.



More For your Money

- 68020 CPU at 16 MHz
- 1 Meg RAM
- 6 32 bit expansion slots
- Wide selection of configurations
- 1 800 K Floppy

* Monitor & Keyboard Extra

$ 2,699

Authorized Dealer

Macintosh SE with 45 Meg Fuji (1 yr. wrnty on Hard disk) including keyboard

$ 2,795

Macintosh II 60 Meg Drive	**$ 895**
Macintosh II 80 Meg Drive	**$ 1095**
Macintosh II 140 Meg Drive	**$ 1495**

COMPUTER AGE sm

Sales Locations

9433 GEORGIA AVE.
SILVER SPRING, MD
(301) 588-6565

10606 US 1
BELTSVILLE, MD
(301) 937-0300

Service Center

9431 GEORGIA AVE.
SILVER SPRING, MD
(301) 565-9130

Certain restrictions apply. See us for details. Offer subject to availability of product. Apple expressly reserves the right to subtitute and delete add-on products © 1987 Apple Computer, Inc.. Apple and the Apple logo are registered trademarks of Apple Computer,Inc. Macintosh , Laserwriter and The power to be your best are trademarks of Apple Computer, Inc

that you compress a stack before you close it. The stacks tend to grow while in use and this can save between 0-50k per stack, depending on how many stacks you have it turns out to be like saving pennies—they add up!

FROM BRAD FLIPPIN
I picked up a new reference manual at B. Dalton the other day. It is called the "HyperTalk Pocket Reference" (ISBN 0-945266-00-6) for $11.95. Although a bit big for the pocket (4-3/4 x 11), it does have all the Hypertalk command in large type, easy to read, 4 per page. It includes the XCMDs and XFCNs. It is by Softpress publishing. I think its neat because now I don't have to thumb through the big "HyperCard Handbook".

Misc. Programming

FROM JON THOMASON
In MS-BASIC, what does a string look like after a PRINT FILES$(1)? If you take that string, and pass it on to a FILES$(0,name$) without any modification, does it turn out right in the dialog? I ask because it doesn't in AC/BASIC for the GS. I have to strip the filename from the complete pathname (for example, /HARD.DISK/SUBDIRECTORY/FILE). If it messes up, like AC/BASIC does, I need to know the format of the string. Is each subdirectory level delimited by a slash, as in ProDOS? Thanks. The only other changes I have to make are reducing screen width, and taking out color! <grin>

FROM RICH NORLING
Jon, I'm not familiar with that function but I CAN tell you that subdirectories on the Macintosh are delimited by a colon (:) instead of /.

FROM GENE GARNER
A fellow worker is learning MS Fortran on a Mac SE and IW II. He can't send output to the printer. If anyone uses MS Fortran and knows the page number in the Manual or the correct code to open the I/O device, lease leave the information here.

FROM WILLIAM RABINOVICH
I believe that the printer is a predefined device in MS FORTRAN. If you do not st the *=9 option on in the compiler then the * output devices the printer. Otherwise I believe the printer is device 5 or 6.

Mac 'System'

FROM JUDITH BADER
Thanks for you helpful message about exchanging old systems/finders for new ones. Your caution prompts me to look for "installer scripts" in the "File area". I did look in the utilities download area but couldn't exactly find what you describe. Do you have the precise name or location for what I'm looking for. I finally learned how to download and would prefer to do it this way rather than go to the office. Since the main reason I am going to this trouble is to be able to install Suitcase, perhaps I'll just download one of the WAP DA's or Twilight Clone DA's that lets me put 32 DA's under the apple and not chance messing up the whole thing.

FROM ROBERT DOHERTY
The file you want is file #25 in dl area 20 called installer.sit. It should contain a number of installer scripts in addition to some directions. The point Bill made about copying out all your old fonts and DAs is well taken, however, if you want to start using Suitcase(which I highly recommend, BTW), you would be stripping out most of your DAs and fonts anyway. A couple of caveats for using Suitcase:

1) You MUST leave at least one DA in your system file, else it will be logically destroyed. The one I usually leave in is the Control Panel.

2) You also should leave all font sizes of three fonts in your system file, i.e., Monaco, Chicago, and Geneva. The reason for this is that Font/DA mover will not remove Chicago 12, Monaco 9, or Geneva 9 and 12. If you remove the other sizes of these fonts into a Suitcase container, the system will NOT be able to access them, so that when you choose one of the sizes not in the system, the font you see will be scaled (and ugly). BTW, although it is possible to do without installer scripts, the least you should do is find out from the system distribution documentation or the installer scripts themselves what resources are necessary or desirable in your configuration. These will definitely be different for different machines(i.e., ROM versions). I'm a reasonably experienced MAC user, and I still use the installer scripts. You also will need many of the other files from the DL 20 area in order to user the scripts, because the script checks for the existence of any file it will need before it begins installation. It will not continue if any are missing.

FROM BRAD FLIPPIN
System 5.0 is the famous "MULTI-FINDER" that you have heard about. (I don't run it in that mode because my Mac+ only has 1 meg), but at work we have 2 meg and run multi-finder all the time. The nice thing is it has a spooler for the LaserWriter (for work, anyway). Here at home I use the Supermac IW spooler. There are some other nice things, plus you get some new utilities and new versions plus a separate manual to describe them. You can get it for $39 from your local dealer (if you want the documentation), otherwise the files are free if you bring in a diskette.

FROM BRAD FLIPPIN
I just received my copy of the MiniEdit program that is published in Macintosh Revealed Volume Two by Stephen Shernicoff. (Remember, in the back you could send off $19.95 +2.50 for handling and they would send you a diskette with the sources). Well, It has two source files and an image file. I ran the image and it is a compiled version of the sources (what else would one expect). ANYWAY...Running that causes the Mac to ignore double-clicks. Very interesting. IT does it every time, without fail. So, I have found something that will do it, but I don't know why. Could it be an Apple System problem? Or is it something a programmer might have overlooked in the "Macintosh interface" or maybe violated an Apple No-No.

Pascal Programming

FROM BRAD FLIPPIN
A resource question for anyone. I have a menu resource in RMaker. It works fine, but the items are disabled. I thought a preceding left paren '(' was what indicated it should be disabled. My item is:

```
UL=(0,0)
UL=(1,1)
```

But, when I compile it with RMaker and then look at the results with ResEdit, I see the text is in there as:

```
UL=0,0)
UL=1,1)
```

and they are disabled. I tried to use "UL=\280,0)", but it was smart enough to know that was a left paren. How can I tell the resource compiler that the item is not to be disabled, or am I stuck and have to use the EnableItem() toolbox procedure?

FROM FERNANDO SALAZAR
I think it might be a menu manager thing, and not RMaker. In IM p346, it talks about meta characters "interspersed" in the menu text string. It also suggests using SetItem if you want meta characters to appear in menu text.

contd.

FROM BRAD FLIPPIN
You are correct. I see on page 347 that it say you have to use SetItem if you want any of the meta-characters to appear in the text of the menu item. When you look at SetItem (p357) it says it does NOT recognize any of the meta-characters. So, I guess I'll have two dummy items in the RMaker file and then use SetItem to put the "(" in.

Printers

FROM ALLAN LEVY
Is there a way to force the Mac to print to daisy wheels attached to a parallel to Mac adapter. For example is there a driver that says no graphics, ASCII characters only?

FROM DAVID GURSKY
If you have Microsoft Word, it comes with print drivers for ASCII printers. You might also want to try selecting "DRAFT" mode when you print.

FROM DOUGLAS BLOOMFIELD
I am having a problem getting my Mac SE Chooser to recognize the LaserWriter Plus it is connected to. As a result (apparently) I am unable to print from PageMaker. This is a recent occurrence and I know not how it happened. All I am certain of is it began sometime yesterday (after I don't know what happened), it had been printing fine until then, the publisher of PageMaker (Aldus) and PostScript (Adobe) tech support people can't figure it out either. In any case, I am stuck. Any ideas? Any suggestions?

FROM LARRY STEDMAN
I have problems with the system getting corrupted after installing fonts or DAs many times—when that happens I take a new disk and start from scratch by copying my back-up system onto it, adding fonts, and then installing printer drivers. On the other hand, it could be something different. Does the printer work with any other software? Have you tried redoing all the physical cable connections? To sort out which hardware might be producing the problem, you might get a friend to bring by his/her computer and connect it. Or test your Pagemaker, system disks at a dealer who has a laser printer hooked to an SE—that would tell you whether your software is okay. But before running all over creation, I would try original system disks and try a print catalog or some other software first.

FROM DEACON MACCUBBIN
Save yourself a lot of trouble in the future by getting Suitcase. No more futzing around with your system. Want to "install" a new font or DA or FKey? Just stick its icon in your system folder and boot up. Want to install one while you're in the middle of word processing? Control-K your way to font flexibility! Want to upgrade to the latest system/finder? Just replace the old with the new, install Suitcase, delete the excess DAs and fonts from the System, and away you go!

FROM BRAD FLIPPIN
I have two questions about my IWII... 1) When it has color ribbon it prints in four colors, so obviously it know it has a color ribbon to do this. I use a full black ribbon. How does it know it has a full black ribbon (or does it?). Does it take advantage of this and print in all four sections or am I simply wearing out one track all the time? 2) What is the cheapest you can get ribbons and where? I have seen them at $6.95 (ugh), and $5.95 (ugh again). There are some mail order places that have them for $20 for 6 of them (others offer $25 for 6). I would appreciate some leads...

FROM HOLGER SOMMER
Brad, if you do serious printing the best solution is a reinker (I have one from a mail order place which I modified to do generic ribbons (Commodore, IBM etc). It works like a charm. There are color ribbon reinkers too. I saw one in a catalog—can't remember which.

FROM KIM CIMMERY
I have been using a MacInker for two years with my IWI. It works great. Saves a lot of funds. I just recently bought two NEW ribbons because my other two were getting frayed after a year or so of use. Another nice thing about a reinker is that as soon as you notice the print starting to gray you can just start up the old inker and presto 15 minutes later a ribbon as good as new or you can wait until you need that absolute best print output and reink at that time.

Software Misc.

FROM LOUIS M. PECORA
For those of you using both QuicKeys and Stepping Out, you should be aware of the following problem in the interaction of these two, otherwise nice, pieces of software: Stepping Out will not work with the use of a program opened from the Finder using a QuicKey ("File..." under the QuicKeys "Define" menu item). When you open a program this way the system forgets that Stepping Out is active, yet it keeps the memory allocated to Stepping Out! Upon return to the finder, you find that you no longer have the "large screen" you should have. You are back to the usual Mac-size screen. You have to run Stepping Out again to get the big screen, but you will eat up more of your memory! So, launching applications using a QuicKey will cause loss of Stepping Out and memory. If you keep doing this and re-installing Stepping Out, there will be no memory left. The way around this is to launch the application from the Finder the old-fashioned way: double-click on them. NOTE: You can jump from one application to another using that "File..." assigned QuicKey. Apparently, the same problem only appears when you launch the application from the Finder using the QuicKey. I have called both CE Software (makers of QuicKeys) and Berkeley System Design (makers of Stepping Out) about this. Don't let this stop any of you from getting either of these products. The work around is simple and both are very good Mac products (especially QuicKeys). I still recommend them to everyone.

Tech Notes

FROM STEPHEN STERN
Dumb question. Will the Apple File Translate utilities enable one to translate a Mac 3.5" disk so that an MS-DOS computer with 3.5" drives can read the disk? Translate an MS-DOS 3.5" disk so that it can be read on a Mac drive?

FROM DAVID GURSKY
In a word, no. To do that, you will need something called DaynaFile, which is a combination 5.25" and 3.5" disk drive that will let a Mac read IBM formatted disks.

FROM PAUL CHERNOFF
I believe that future versions of the Mac ROM will allow for the reading of MS DOS 3.5" disks.

FROM BOB MASSO
Although there is an item in the Rumor mill that the 256K ROM machines (SE and II) will eventually have the capability with the next ROM upgrade to read/write IBM 720K format using the regular 3.5" drives. Certainly, there is no technical reason the drives could not do this with the proper controller hardware & software.

Telecommunications

FROM KARL WOLF
Has anyone been able to get the cursor keys on the Standard Mac

contd.

SE keyboard to work with Red Ryder 10.3 in vt100 emulation mode? I believe I am using the Keypad utility correctly (yes I define all the keys and select "Save..."). However, when I log onto my company's Vax, the proper escape sequences are not being sent. Does anyone have the cursor keys working for an SE or Mac II?

FROM ROBERT DOHERTY
There is an obscure problem associated with arrow keys in a VT100. They have two 'states' and the states generate different escape sequences. The normal settings generate <ESC>[A,B,C and D whereas then cursor keypad is set then generate <ESC>OA,B,C, and D instead. Some VAX programs recognize either(VMS EDT for one), others only the normal versions(VMS Emacs and I think UNIX vi). Red Ryder has a check box in the VT100 preferences for cursor keypad mode, and the assumption is that if you're going to use the keypad, that this should be selected. Unfortunately what cursor keypad mode means is that the cursor keys will generate escape sequences syntactically similar to those generated by the keypad in application keypad mode. This is not generally what you want. If the problem you're seeing is the appearance of OA etc. or [A etc. in your files, the reason is the incorrect setting of the check box in the preferences screen. There is also an escape sequence which will remotely toggle between the two modes, <ESC>[?1h and <ESC>[?1l, unfortunately, I don't remember which is which.

FROM KARL WOLF
The problem with the cursor keys appears to be within RR 10.3. I wrote a program on our VAX to spew out the hex equivalents of the keys I typed. The cursor keys did not send any escape sequence but rather a single character such as "1E" "1D" etc. The only key that sent the proper escape sequence was the "clear" key on the SE keypad. It's as if the Keypad install program is not properly mapping my SE keys to the appropriate escape sequence. Maybe I should post this problem on the Freesoft forum on GENIE.

FROM JIM TAYLOR
Another question from a "newby"! What seems to be the "default" standard telecomm package for use on the Mac? Our organization has a Mac+ and we need to get organized on-line, so that we can not only browse, such as the TCS, but be able to transfer files among Macs, MS-DOS generated text files (hopefully in the future WordPerfect files), browse on CI$, Source, etc. I think we need XMODEM capability, as that seems to be the only "common" thread I detect in watching the Telecom boards here on the TCS. Red Ryder gets lots of mention; Microphone only barely, I hardly see any mention of Smartcom. How about any votes of confidence from anyone reading this message.

FROM DAVID GURSKY
Red Ryder gets a lot of mention because it was one of the first comm packages and started out life as shareware; thus it garnered a large user base. It is now commercial, and pales in the light of other packages, notable Versaterm, SmartCom, and Microphone. Any of these latter three would make an excellence choice. Red Ryder is (in my view) slow, clunky, unreliable, poorly supported and ought to have been shelved two years ago.

FROM BILL BALDRIDGE
Microphone is a good choice for ease of use, general purpose telecomms. Versaterm is a good choice for VTXXx emulation and general comms. Versaterm Pro is a heavy duty communications program, heavily promoted as THE Mac-to- Mainframe package. Red Ryder (which I have used for almost two years with no problems) is the "darling" of the BBS/On-line crowd, mainly because of its grass roots origins. However, it is generally poorly documented, and its scripting capabilities, though fairly powerful, are a bit arcane—I like it because it's fairly straightforward, and it does what I want it to do.

Utilities

FROM MARK OSTROFF
I seem to be having a minor problem with the Disk Librarian utility I got on one of the WAP disks a while back. (Yes, I'm just now getting around to using it.) Running Disk Librarian v8.2 on a 512E Mac with dual floppies, everything works fine UNTIL I try to PRINT the catalog of disks it just created. The catalog has about 1100 entries from about 55 disks. The "About..." item on the Apple Menu states that I have 61% of my memory free before I start the print operation. DL gives me a "Formatting page xx" message box and continues to work fine up to about page 25. Then, I get the infamous bomb box. What do I do now? The catalog is USELESS to me unless I can print it.

FROM ERIC RALL
Try putting a bare bones version of system on one disk and a copy of disk librarian and the catalog on another disk. Have nothing else on either disk. Use the system disk for startup and file disk librarian in the other drive. In the future, breakup long catalogs. I think this should work.

FROM RICHARD BROSNAHAN
A wild guess. Sounds like a memory management problem and bug from the DL folks. Some kind of memory collision or something. Lower quality takes less memory, and therefore would not use all you had. The program should be doing some kind of memory compaction occasionally, or it would run out of memory. It would then try to write over memory blocks that were still allocated. Somebody correct me on this if I happen to be full of beans. I am interested in other ideas.

Word Processors

FROM PAUL CHERNOFF
I just got my beta copy of WordPerfect Friday. They are shipping it with the release version of the manual. While I have had little time to play with it (a college roommate from years ago is visiting me) I can state that the manual is not only better than the WORD manual, but is better than the MS-DOS WordPerfect manual. It looks very interesting, but I think that current users of WORD might find themselves shifting gears when trying it out. One current defect in the program is the inability to export WP 4.2 documents for MS-DOS systems. It seems that the footnotes are getting scrambled. It is also designed to automatically take advantage of the Saratoga keyboard (the one with the 15 function keys), though I cannot test this since I own a Plus with a Datadesk keyboard. BTW, I have not yet encountered any conflicts with QuicKeys, though I have been warned that such a conflict might exist. I hope to transfer some of my office documents (WP 4.2 for MS-DOS) and WORD documents to see how well the transfer works.

FROM BILL QUALLS
I had a brief opportunity to use WordPerfect the other day at the CAP '88 Conference (held at the Washington Sheraton). WordPerfect Corp. had a booth and was demonstrating their full line of products (which has grown considerably). Mac WordPerfect was up and running on an SE. Let me give my reactions—which once again, were based on about 10 minutes of using the program.

1. NOT VERY MAC-ISH. The pundits hammered Microsoft Word 3.0 when it came out because they felt that it didn't adhere closely enough to the user interface standards for the Mac. Wait until they get their hands on WordPerfect. I had real difficulty getting started with using the program because of

contd.

"different" user interface. Even dialog boxes are worded strangely. For example, the Mac is famous for letting you cancel any action that you can call up that presents a dialog. The name of the button you hit to do this is called CANCEL, right. Well, in WordPerfect it's called EXIT. Everything's EXIT. I kept looking for CANCEL buttons, and everything was labelled EXIT. Personally, I found that one little feature very disturbing. There are other examples.

2. SLOW-SLOW-SLOW. I was using a beta version, and it's obvious that one problem WordPerfect has to fix before they release this product for real is the speed factor. There are noticeable pauses between most actions. Again, very disturbing to me—an interruption to my train of thought and concentration.

3. NO SPLIT PANE EDITING. As best I could tell (and maybe Paul or one of the other folks out there actually using the program could verify this) there is no way to split the window into two panes and look at one part of the doc. while editing in another part. This is an absolute requirement in any word processor, programming editor, or any other text manipulation tool. A $395 word processor ought to have this feature.

The bottom line is that I didn't like it enough to send in $99 for a beta copy. Maybe someone in transition from an IBM PC to a Mac will think it's very intuitive or something, but that isn't what the Mac is all about. I also recognize that there are going to be other viewpoints on WordPerfect; let's hear 'em!

FROM DAVID GURSKY
I have to recommend a word processor for a project I'm involved with. I want to recommend MacWrite because of its acceptance as a de facto standard format for the interchange of WP Docs in the Mac world, and its ease of use. The alternative would be Write Now. I'd appreciate any comments you have out there about (1) MacWrite 5.0 (2) Write Now! (the current version or the new one due out RSN) and (3) MacWrite vs. Write Now!.

FROM LARRY STEDMAN
Write Now offers footnotes, multiple windows, and SPEED! If the project will require footnotes or long reports, WN would be a good choice—when it saves a document it only saves the updates, so you get back to your work faster. Its ruler works differently than MacWrite's however—each paragraph has a ruler and that takes getting used to. As of now, the translator (what you need to read a text file or MacWrite file into Write Now) is a separate program—they are supposed to be building that in with the new release (which is late). The dictionary is also supposed to be expanded so perhaps it will match the size of the new MacWrite (the spell checker in Write Now is very easy to use, and even at its current 50,000 words does a good job—you can also easily add words to it). Write Now gives you better control over line spacing (it's done in points, so you can produce documents that have just about any spacing)—in MW you do single, 1 1/2, or double spacing. But, unfortunately, in Write Now, you have to find out on your own that 12 point is single spacing, 18 point in 1 1/2, etc, because the manual doesn't tell you (there is no single spacing or double spacing icon). I do heavy duty report and academic writing and have found it much more useful and efficient than MacWrite. I also like the fact that it is a small program so that the addition of outliners (ACTA supports WN), printer drivers (PRINT WORKS), or use with SWITCHER (put MacPaint in the other section) is possible. Memory hogs like Word or Word Perfect wouldn't allow that much room.

The Mac Fed SIG

FROM JERRY WALZ
I'm looking for the best way to add a remote Mac located in Suitland to my TOPS network in downtown DC. Does anyone have first hand experience with Solana's R Server or Shiva's remote device? Also, a Hayes Interbridge running remote. We will have two or three Interbridges for tying in local networks so that is a possibility too as the Hayes can handle two remotes in addition to the local bridges. Problem with the InterBridge is that you need one on both ends of the remote. Any experience will be appreciated.

FROM DAVID GURSKY
Shiva seems to be getting a lot of positive press (ignoring the name, which is given to the period of mourning for a parent, child, or sibling in Judaism) for their NetSerial and NetModem products.

FROM JERRY WALZ
QuickDex is a fine DA phone book or other rolex-card type of package. Got mine today and will dump SideKick's Mac dialer for QDEX. Ver 1.4 does have a problem now and then with MF but a version 1.4a is about to be mailed. Each card can hold 512 characters and has an autodial feature either through phone (hold up to Mac speaker) or through a modem. Up to 8 files can be open and on the desktop at a time.

FROM CHRIS ST.JOHN
Last year I finished the conversion of an IBM based LISP program I wrote in 1986 (after graduate school at Carnegie-Mellon) which predicts the outcomes of Torts cases in a non-jury Federal court setting. Following the interactive questioning (5-25 minutes depending on slander, PI, etc) there are three transaction records printed: (1) Your points of law, (2) Points of law for your opposing party, (3) probable damage award. In actual cases tried at five law firms, 500 cases, the program (CASSANDRA) was wrong only 13 times! Level of confidence is 87%+. It got so damn good that I went to several trials (3 actually) where counsel actually read off the printouts! We/I also wrote an expert system for the US Courts for financial reports. We do AI work here, and we are an 8(a) firm, unlike the AMS's of the federal arena. Glad to be of any service... (703) 534-7590.

WHY USE LASER WRITER™ OUTPUT (300 DPI)?
NOW YOU CAN GET LINOTYPE L100 OUTPUT
(1270 DPI, &17 TIMES SHARPER)

AS LOW AS $5.00* PER PAGE!
* 3rd day service, 8.5x11 RC

THE PUBLISHERS SERVICE BUREAU is a **Graphic Design firm**, an **ADOBE Authorized Dealer**, and an **L100 Service Bureau** that can imageset your:

PageMaker® • XPress™ • Ready, Set, Go! 4.0™ Illustrator™ • Cricket Draw™ and many other PostScript™ applications at 1270 DPI (RC or Film)

We also offer a wide variety of services to satisfy all of your graphic design/publishing needs such as:

B/W Stats • Halftones • Color Stats • Paste Up Layout • Graphic Design • Scanning and Digitizing.

Select same day, 2nd or 3rd day turnaround services, depending upon your budget and schedule.

• We also sell **ADOBE's** Illustrator™ and Typefaces. Call for Pricing

THE Publishers SERVICE BUREAU
A Tradename of Murad Enterprises, Inc.

4900 LEESBURG PIKE
SUITE# 310
ALEXANDRIA,
VA 22302
824-8022
BBS 824-8024

GS DISKETERIA NEWS
by David Todd

Errata for /WAP2015: Sounds II Nostalgia

This disk was released last month without a full description. It contains sampled sounds from TV, Radio, and Movies that may be used with the utilities on /WAP2013 to create custom startup sounds, system beeps, or background sounds. A playback program (Sound Studio) is on the first sound disk, /WAP2014. If you have the playback program Jukebox, it will not work with these BIN type files. Most of the titles are descriptive and have a numeric extension that represent the suggested playback speed.

Stop reading NOW if you want to try to guess the source as you hear the file played. Otherwise here are some vague descriptions and/or sources:

Birthin.440	Gone With the Wind
Does.she.440	Commercial line from '64
Engineer.440	Another commercial line
Fiddlelede.440	Miss Scarlette
Frankly.440	My dear, I don't give a hoot
Goood.220	Aunt Bea, that shore was
Looking.440	At you kid
Hi.Ho.440	Silver
Perry.220	Mason
Play.it.Sam.440	Miss Elsie's whisper
Rosebud.440	Citizen Kane
Shadow.440	Who knows what evil...
Nixon.sock.440	Tricky Dicky on Laugh In
Sorry.chief.440	Agent 86
Three.Intro.220	Chip, where's Uncle Charlie
WitchTwitch.440	Darren, you've changed!
Friendship.220	In the beginning there was Nick's Cafe
Charlie.440	Another commercial

I didnt do it! He did!

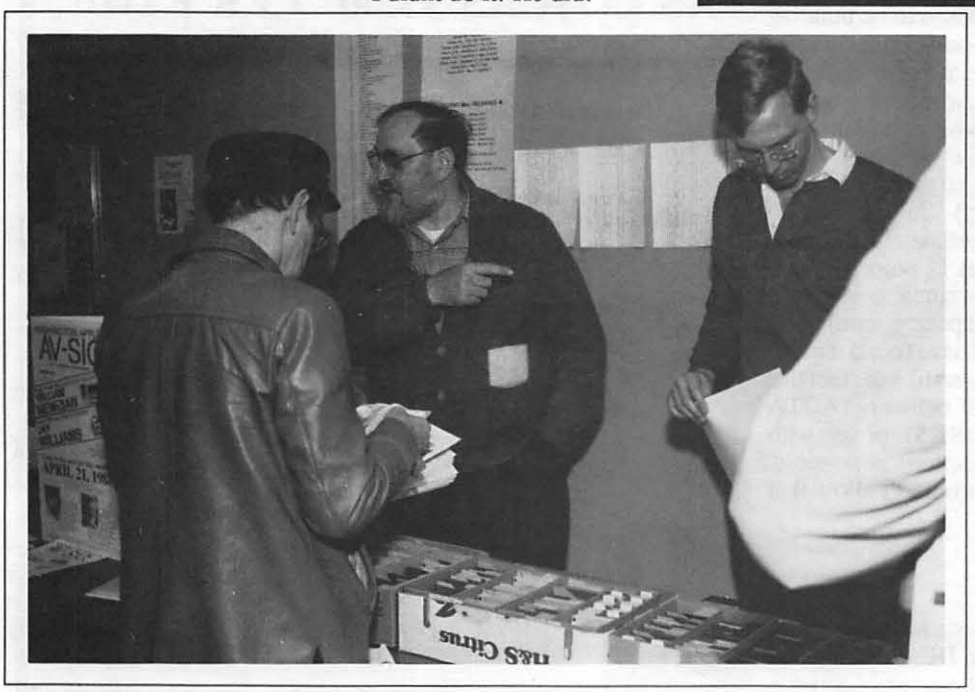


Photo by Peter Combes

SPRING TUTORIALS
by Robert C. Platt

We are offering the following non-regular tutorials in April and May. The fee for each tutorial is $15 ($20 for non-members).

Introduction to Applesoft (Apple II). Saturday, April 30, 9 a.m. - noon. — *Bruce Field.* Every][+, //e, //c and IIgs has the same powerful BASIC language built-in. This course assumes no prior programming experience. Topics include: variables, strings, arrays and hi-res graphics. Bruce Field is a long-time BASIC programmer and writes a Q&A column for WAP and A.P.P.L.E.

Intermediate Applesoft (Apple II). Saturday, May 7, 9 a.m. - noon. — *Bruce Field.* This session continues the coverage of BASIC. Topics include using disk files.

Introduction to HyperCard. Saturday, May 14, 9 a.m. - noon — *Bob Platt.* This introduction to Apple's hypertext application for the Macintosh will include: browsing through existing stacks, creating new stacks by editing backgrounds, adding fields, adding buttons, basic linking and painting. We conclude with suggested sources for stackware. Hypertalk and scripting are not covered by this course.

Apply your creativity at

PC Resources

"Full Color DeskTop Publishing"

By Appointment • **860-1100** • Best Prices

1850 Centennial Park Drive • #300 • Reston, VA 22091

Monday - Friday 8:30a.m. - 5:30p.m.

Evening & Weekend Appointments Available

DISKETERIA HELP WANTED

A conversion of many of the Apple II DOS 3.3™ public domain library disks into ProDOS™ format is in the planning stage. We could use several volunteers to speed the processing. Specifically, Basic, Pascal, or assembly programming skills are a plus, and knowledge of both systems is necessary. Other help could be used in documentation of the resulting product. Time required will be spread over several months. Contact Jim Little (301) 975-6080 days and (301) 762-3215 evenings or weekends.

MAC DISKETERIA NEWS

by Martin Milrod and David Weikert

800K Format for All Mac Disks?

We issue Mac II and StackWare disks in the 800K format, as these programs cannot be run on Macs with 400K drives and 64K or 128K ROMs. We are considering a change to the 800K format for other disk series as well. Due to the large size of many of the files for Fonts, Paintings and Sounds, the 800K format for these disks would make a lot of sense and probably makes sense for the other series as well. We don't want to disenfranchise any members with 400K drive machines but the direction of Apple Computer and the majority of the Mac community is to 800K. Many newer programs are now larger than 400K or require the 256K ROMs for efficient operation.

Tom Warrick will poll the members at the March general meeting to sense the desires of the membership. If you are not at the meeting and would like an input, please register your opinion on this issue on our answering machine (301-948-9646.) Please leave your name, WAP membership number and your opinion on 400K vs. 800K.

If we do convert to all-800K disks, then we will try to provide access to the 400K format for those with older Mac machines. This would have to be done by special order and will likely require a small surcharge since two disks would be required instead of one. In the meantime, we recommend that you check with our advertisers who are Apple dealers to determine the price of an upgrade to 800K disk drives and 128KROMs. Don't forget to inquire about discounts for Pi members. (Now that that's settled, what are we going to do about the rumored 1600K disk drives that Apple may put in future Macs?)

Updated DAs Series Available

Two new disks of DAs have been issued since the series of ten DAs disks was released last fall. Disk #2.11 was released last month and Disk 2.12 is being released this month. The DAs are arranged alphabetically within the first ten disks and on the two supplemental disks. The 12 disk-set is available at a package price of $42 and is accompanied by a mini-catalog with program notes and catalog listing. Disks in this series may also be purchased individually without the catalog at the standard price of $5 each, or $4 each when five or more disks are purchased.

New Member's Sampler

Tony Anderson, Mac Librarian during the formative years of the Mac Library, was temporarily coaxed out of retirement to assist in assembling the latest New Member's disk. What started out as a 400K disk with updated program material to replace Disk 57.1, has become Disk 147 in 800K HFS format. Disk 147 includes sample programs from most of the functional categories of the reorganized Mac library.

Functional categories of disks assigned to date include:

2.XX	Desk Accessories*
3.XX	Education
4.XX	FKeys*
5.XX	LaserWriter Fonts
6.XX	ImageWriter Fonts
7.XX	Fun and Games
8.XX	Graphics
9.XX	INITs
10.XX	Miscellaneous
11.XX	Paint
12.XX	Sounds
13.XX	Telecommunications**
14.XX	Programmer /Hacker Utilities**
15.XX	Miscellaneous Utilities**
16.XX	System Utilities*
17.XX	Word Processing Utilities**
19.XX	StackWare***
20.XX	Mac II***

Those series noted with a single asterisk have been issued; those with a double asterisk are being tested and annotated now. A triple asterisk denotes a series that is being incrementally issued. Each functional category has its own number series as noted above, disks within the series are labeled sequentially, e.g. 16.01, 16.02, etc.

Disk Series In Process

The remaining Utilities series are being assembled and tested by our volunteer staff as follows: Dave Condit and William Jones—**Miscellaneous Utilities**, Bob Tobias—**Programmers/ Hackers Utilities**, and Charles Redmond—**Word Processing Utilities.**

The four Utilities series will replace disks 36, 38, 39, 49, 52.1, 53, 68, 69, 70, 71, 72, 73, 81, 82, 86, 87, 90, 103, 112, 117, 119, 121, 130, 132, 133, 138, 139, 140, 141 and 142 **which will no longer be available for sale after April, 1988.**

Eric Rall is currently working on the Telecommunications series which will replace Disks 17.3A, 17.2B, 24, 51.2, 83, 115 and 129. Bob Soule has started to catalog, assemble, test and annotate the Imagewriter Fonts Series. Our thanks to the recent volunteers who assist Bob in this effort. The LaserWriter Font Series effort will probably start within the next two months. We will list the volunteers for each of the fonts series as the series are released.

Help Requested, Help Received

Brook Grayson has received a number of responses to our request for volunteers to help in testing, assembling and annotating StackWare disks. She has spent this past month organizing and categorizing the stacks to pass out to the annotators so you can expect to see the results of their efforts in the forthcoming months. There are over 70 disks of StackWare candidates (in 800K format) that must be reviewed and culled; this remains a monumental task.

And Now, Here Are the Disks...

This month we issue seven new disks including one New Member's Sampler, one Sounds, one Paintings, two Fun and Games, one Desk Accessories series and one Mac II series. This month's submissions are brought to you by Tony Anderson, Rick

contd.

Chapman, William Jones, Bob Soule and Dave Weikert and the efforts of all the duplicators listed under the masthead. The folder information, where appropriate, precedes the listing of program contents. Folder information is parenthesized, programs and files are printed in bold with shareware information printed in bold italic print.

Disk 147: New Member's Sampler

This disk is a small sampling of the thousands of programs available to you, through the Washington Apple Pi, as "public domain," "copyrighted" or "shareware." As a new user, you should become aware of the meanings of the three terms "public domain," "copyrighted" and "shareware." Public Domain refers to software that the author has given to the public with no strings attached. Copyrighted refers to software to which the author retains rights; however, the author may permit noncommercial distribution without any fee. Shareware is software that is being marketed without the normal middleman. It is provided to you on a trial basis, usually for a period of 30 days. If you find it useful and wish to keep it you are bound by your honor to send the developer the requested licensing fee. If you don't think the shareware is worth the requested fee, please remove it from your collection or pass it on to someone else who may find a need for it. The shareware concept has provided the Macintosh community with many valuable programs at very attractive prices. Please support it.

(System *f*) [Most of the WAP disks do not contain any System or Finder files or a System Folder. This is because they are Apple's proprietary material and we want to maximize the number of programs on each disk; the System and Finder take up a lot of disk space even when most fonts and desk accessories are removed. By not including the System and Finder files, we do not have to revise disks to keep up with the latest of Apple's releases. Through a licensing agreement with Apple, the WAP is authorized to distribute the latest Apple System Tools and Apple System Utilities disks which include the system files, utilities, desk accessories and fonts. These Apple disks do not include comprehensive documentation; if that is required, Apple dealers sell the same disks with official Apple's documentation for a nominal price (ask if there is a discount for WAP members). Instead of the Apple system files, WAP disks include a small INIT file not normally visible except when accessed by some special utilities (such as Disk Top 1.2 on this disk). When your Mac is booted from this disk, the INIT file is loaded and flashes a message on the screen asking you to boot from a system disk and giving the address and telephone number of the Washington Apple Pi. The Mac then ejects the disk and waits for you to insert a disk with the proper system files.]

(Desk Accessories *f*) [Desk Accessories are found under the Apple menu (symbol in the menu bar along the leftmost top portion of your screen). Desk Accessories (DAs for short) are usually installed using the Font/DA Mover utility found on the System Utilities disk that came with your Macintosh, (or by using some commercial program such as Suitcase or Font/DA Juggler Plus.) This is easily accomplished using the instructions in the *Apple Macintosh Utilities User's Guide*. A DA may be installed in either the System file or directly into an application such as MacWrite. To select an application file rather than a system file, hold down the option key when opening the DA file from within the Font/DA Mover.]

(Artisto+ 2.01 *f*) Artisto+ 2.01 Allows you to open a MacPaint or FullPaint document from inside any application that supports Desk Accessories and select any portion of the image and copy it to the clipboard. This is all described in the **Artisto+ 2.01 Instructions.** ***Shareware—$5 or $10.***

Calendar 1.7 A Macintosh version of a desktop calendar. Calendar starts up with a display of the current month. A 12-line note pad appeares below the calendar to jot down notes associated with the current day (your day's agenda) Click on another month to see the calendar for that month. Click on another year to see the calendar for the current month in that year. After you have moved away from the current day, click on the date and time display at the top of the calendar window to return. Calendar's editor provides cut, copy, paste, and undo. **Calendar 1.1 Doc** explains how to set up, use this desk accessory. ***Shareware—$5.***

DiskTop 1.2 An evaluation copy of CE Software's utility which will find HFS files, copy, delete and move files, and more, all from within any document or application. ***Commercial—49.95 for the full version, (currently version 3.0.2).***

(Dvorak3.0 *f*) Turns your keyboard into a Dvorak keyboard arrangement. It acts as a toggle switch; select the DA and the keyboard is re-configured to Dvorak, select it again and the keyboard is restored to the normal configuration. **Dvorak (MacPaint)** shows the Dvorak keyboard layout or use the Key Caps DA to see the layout.

Maxwell 2.2a Try to get all the "fast balls" on one side of the wall and all the "slow balls" on the other side. Tough, takes time and patience.

(Education *f*) [The education series includes a variety of informative and interesting applications; the following is representative.]

(Wator *f*) Wator You determine the starting parameters, birth rate, number of fish, etc. and then observe the population of sharks and the fish they eat over time. **Wator Documentation** is the author's notes about Wator edited by WAP to conserve disk space.

(FKeys *f*) [Function Keys (FKeys) are accessed by pressing the Command (cloverleaf ( ) or open apple key) and Shift keys and simultaneously pressing one of the top–row number keys. The Mac comes with four built in FKeys and you may easily add up to six more. The four FKeys are <Command-Shift> 1, eject disk from internal drive; <Command-Shift> 2, eject disk from external drive; <Command-Shift> 3, print screen to disk as a MacPaint document and <Command-Shift> 4, print screen to ImageWriter. (A <Command-Shift> 3 with Caps Lock set will print the current window to disk as a MacPaint document.) FKeys are installed into the System file. Since the FKey assignments aren't visible, you have to remember where specific FKeys are installed; FKeys are not really very Mac-like since they are opaque rather than visible to the user.]

(FKey Installer *f*) FKey Installer This utility installs FKeys into your system file and performs FKey maintenance functions of Load, Save, Rename, Renumber, Delete and Get FKey Information. The **FKey Installer Manual** and **FKey Installer Notes** explains how to use it.

(Date Key 2.05 *f*) Date Key 2.05 Puts the current date or time at the location of the insertion point as described in the **Date Key 2.05 Docs**. You have a choice of date and time formats. (Installs

contd.

as FKey #6.) ***Shareware—$5.***

(Fonts *f*) [The WAP font disk collection includes installable fonts for both the Apple Imagewriter and the LaserWriter. Because of space limitations on the disk, the following fonts are only made available for the ImageWriter.]

AUTHOR This "plain typewriter style font for the Imagewriter" was created by one of our own Washington Apple Pi members at the University of Maryland. He created it because of the lack of a font for the Macintosh that looked like a familiar typeface. In his words, "It has the virtue of being peculiar in no particular way." With a very limited number of optional characters, Author takes less space than other fonts. For example, Author 12-point requires 2382 bytes compared to 2892 for Geneva and 3864 for Boston II.

Chicago 9 Add this smaller font to your System file so the Mac doesn't have to construct the smaller size from larger sizes which are difficult to read on the screen.

Neon Make your own Neon signs in 18-point font size.

(Fun & Games *f*) [Adventure, arcades, board games, cards, fantasy role playing—all for entertainment and fun and there's no end in sight.]

Golf 1.1 A solitaire card game to while away the hours. ***Shareware—$10***

Reversi Here's the old favorite Othello-type game. Although the program refers to the documentation for information, we don't seem to have a current address to which the shareware payment can be sent. ***Shareware—$5 or $10.***

(Graphics *f*) [Patterns and visual esoterica are the hallmark of the graphics collection. Every once in a while there is something practical but that is not the case for the files in this folder.]

Block Ball A block and a ball bounce around your screen, tracing patterns as they go. As the traces cross over one another, the patterns grow more intricate. Click the mouse to exit.

Lines Groups of "sticks" move rapidly across the screen, tracing patterns as they move. Under the variations menu, you can change the sticks pattern to boxes, ovals and wave plots. You may open multiple windows so that you can fill your screen with different patterns being traced simultaneously.

(INITs & cdevs *f*) [Place the INIT files in the System Folder of your startup disk and they will be automatically loaded when booting. The cdev files are also placed in the System Folder and they will be automatically accessed when you open the Control Panel (under the Apple menu) if you are using the latest versions of the Apple System.]

(AutoBlack 1.5 *f*) AutoBlack 1.5 This automatic screen blanker (darkener) is an INIT that is renamed to MacsBug so that it is loaded first. See the **AutoBlack.Doc** for a description of its installation and use. ***Shareware—$5.***

(beep.init *f*) beep.init An INIT that plays any sound file in the System folder that has been renamed BeepSound. The sound replaces the beep that your Mac makes when it wants your attention. The **beepinit.docs** describes what you must do and how the INIT works.

(ChooseCDEV™ *f*) ChooseCDEV™ This cdev permits you to arrange the cdev files in the most convenient order for access rather than the alphabetical order that the Mac would use. **About ChooseCDEV™** tells you all about it.

(Curlers *f*) Curlers Tired of the finger contortion that it takes to reach the Option- and Shift-Option- bracket/brace keys just so you can get the "curly double quotes" and 'curly single quotes' depicted here? (You do know about curly quotes?) This INIT re-maps your keyboard so that curly quotes replace the " and ' key presses. It's all described in the **Curlers manual.**

(Menu Clock *f*) MenuClock101, MenuClock124 These two INITs place the time (in either 12 or 24 hour format respectively) in the upper right hand side of the menu bar as explained in the **MenuClock101.doc.**

(MFMenu *f*) MFMenu Tired of scrolling down to the bottom of the DAs to get to the application selector when in MultiFinder? If so, add this INIT and the selector will be moved to the MultiFinder Icon. **MFMenu Doc.wrt** illustrates how.

(Paintings *f*) [Any of these or any other MacPaint images may be converted into a Startup Screen as described in the Make Screen application in the Utils (System) folder or viewed with View Paint 1.5 in the Utils (General) folder.]

Tiger An excellent example of a scanned image that is in the MacPaint format. This one makes a super startup screen and also prints out beautifully.

(Sounds *f*) [The following sounds require later ROM instructions sets and may be played with the SoundPlay application in this folder or may be converted to BeepSounds as described in the beep.init folder in the INITs and cdevs folder. Sound files may also be used for startup sounds and shutdown sounds when the Mac is booted with the proper INITs in the System folder.]

Hal "I'm sorry Dave, I'm afraid that I can't do that!" The voice of the errant computer Hal, from Stanley Kubric's movie production of Arthur C. Clarke's novel *2001, A Space Odyssey.*

Hi Just a little sexy Hi! to make your day.

Sound Play This sound player is one of our favorites for previewing sounds since it doesn't require much disk space.

(StackWare *f*) [Stacks for HyperCard, the tour de force of Bill Atkinson and his team of programmers, is the fastest growing element of Macintosh public domain and shareware today. This may be because most of us are frustrated programmers at heart and HyperCard brings the art of programming (called scripting) within our reach. Whatever the reason, HyperCard and its stacks are fun and useful.]

The Record Stack 3.0 This stack, requires HyperCard, and permits you to catalog your record collection. Larry is a member of the Washington Apple Pi and was one of the previous Mac Disk Librarians.

(Telecommunications *f*) [The exciting world of uploads and downloads, bulletin boards and sysops, teleconferencing and roundtables. The confusing world of baud rates, protocols, parity and stop bits. This is telecommunications at its best and worst.]

(FreeTerm 2.0 *f*) FreeTerm 2.0 This easy to use terminal emulator supports ASCII text file transfers, the XMODEM protocol and the Macintosh MacBinary II format. FreeTerm works with asynchronous devices which support data transfer rates from 300 to 57,600 baud. If you have a Hayes compatible modem, there is support for auto-dialing and hang-up commands. **FreeTerm 2.0 Doc** describes its features and lists a number of the XMODEM error messages.

(UnStuffIt *f*) UnStuffIt This utility uncompresses Stuffit archives. "What is a Stuffit archive?" you ask. Well, Stuffit is a program which compresses files so they may be telecommunicated at less cost (and time). Stuffit also can bundle two or more files so that they remain together and can be sent and received as

contd.

if they are a single file. Files may also be compressed by Stuffit prior to archiving them to save disk space. UnStuffIt decompresses archived files, including those compressed using Packit.

(Utils (General) *f*) [A utility is an application that does something useful and the following programs fit that description. The General Utils category is the potpourri which remains when programs don't fit into the other categories.]

(Quick File *f*) Quick File A simple card file program by the author of the original MacPaint and HyperCard. Select the Quick File icon on the desktop and then use the File menu Get Info to check the creation date on this one; it was one of the earliest Mac applications that has still passed the test of time. **Quick Data** is the data file that tells you how to use Quick File.

View Paint 1.5 This utility permits you to easily preview any file that is in the MacPaint format and create StartUpScreens.

(Utils (Programmer) *f*) We purposely left this as an empty folder as such programs are for the more skilled and adventuresome. *Hacker's Warning: Use of some of this material without an understanding of the potential adverse impact is hazardous to your programs , ego and data.*

(Utils (System) *f*) [System Utils perform their magic on the system and finder environment and they include a broad variety of useful functions. Remember to make a copy of the files that you are going to use these utilities on before you start.]

Complete Delete Assures security for deleted files by writing zeros to both the data and resource forks of a file or application before deleting it.

Make Screen For customized startup screens run this application on any MacPaint file selecting the part of the painting to be used for the screen. Save the file with the name *StartUpScreen* (exactly as shown including upper and lower case). Place the *StartUpScreen* file in the System Folder of your boot disk and the picture will appear during your next boot (startup) of the Mac.

Mass Copier 1.2 The most effective, affordable bulk disk duplicator for 400K disks of which the WAP disk library duplicator staff is aware. This program and its 800K sister are the workhorse of the disk duplicator staff producing over 53 disks an hour. Simply insert the disk(s) to be copied and Mass Copier will read, format, write, verify and eject each disk. When you pay the shareware fee, you get the bonus program that copies 800K disks. ***Shareware—$20 for license and disk, $15 for license only.***

(Preview *f*) Preview Preview is a replacement printer driver which allows printed output to be viewed on the screen in miniature before it is printed. **Preview FKEY-6** is the FKey resource to allow the use of <Command-Shift>-6 to bypass the Chooser. **Preview.doc** is a MacWrite document describing Preview and its installation. ***Shareware—$10.***

(Utils (Word Processing) *f*) [Word and text processing support is provided by the utilities included in this category. Utilities may not always be well behaved or do what you think they are supposed to, so make a copy of your files before you start. They are sensitive to variations in the ROM and version of System and Finder being used.]

Macify 2.5 Converts a plain-vanilla (text only) file into a Macintosh document. Removes hard returns, excess spaces and "gremlin characters" (non-printing characters with ASCII values less than 32). Changes quotes to curly quotes, double hyphens to dashes and "fi" and "fl" to their ligatures when printed in a LaserWriter font. Also has three user-selectable character pair filters to generate special symbols such as ™, ®, ©, £, §, etc. ***Shareware—$10.***

Disk 148: Sounds VII—Yet More Sounds

Yet more sounds for your Mac. Convert any of these sounds into beep sounds by renaming the sound files to *BeepSound* and placing **Beep.Init** (on Disk 99 and 120) in your System folder. Make the sounds into startup sounds by renaming the sound files to *StartUpSound* and placing **aSoundInit** (on this disk) or **SoundInit** (on Disk 109) in your System folder. Play the sounds with **SoundPlay** (on this disk) or with **Super Play 4.0** or **SoundPlay.DA** (on Disk 102).

(Dragnet Screen/Sound *f*) Place these files in your system folder and reboot to see and hear the show. The sound doesn't work with a 68020 chip.

aSound Init Plays any sound file at startup when both files are placed in your System folder.

StartUpSound The lead-in refrain of the Dragnet theme (dum-de-dum-dum.)

StartUpScreen The shield (Badge 714) and actors from the recent Dragnet movie.

Oh, Joy! This would make a great beep sound, since, from the inflection in the voice, this appears to be anything but a joyous occasion.

Spanish Inquisition The crack of a whip and *"Nobody expects the Spanish Inquisition"* makes a great startup sound.

Tarzan Sound The primal call from the Lord of the Jungle is another great startup sound.

SoundPlay This player for digitized sounds doesn't take up much space.

Disk 149: Paintings X
Aerospace and Automobiles

The theme of the paintings included on this disk is the technology of aerospace and automobiles. Any painting may be converted into a startup screen by running the **Make Screen** utility on Mac Disk 16.04, 140 and 147 or the **ScreenMaker** utility on Mac Disk 16.07; rename the resulting file to StartUpScreen and place it into the system folder of the boot disk. You may also use the **ViewPaint 1.5** application on Mac Disks 123, 135, and 147 to view these files if you do not have *MacPaint* or an application like *SuperPaint* that can read MacPaint files.

(Automotive *f*) 944 Turbo 1 and **PORSCHE.PNT** scanned images are for those devotees of legendary German craftsmanship.

Old Cars and **More Cars** add to the nostalgia of yesterday.

(Aviation *f*) Attack is a Thunderscanned image from a Popular Mechanics article on the Advanced Tactical Fighter.

HUD F-4.1, HUD F-4.2 and **HUD F-4.3** are scanned images of an F-4 Phantom Heads Up Display (HUD).

SR-71 side view, SR-71 TR-1 Check 6, SR-71 TR-1 Formation, SR-71 TR-1 Formation1 and the **TR-1** are scanned images of our current "spy" aircraft from the late Kelly Johnson's "Skunk Works".

F-15 Vertical Climb is a scanned image from the cockpit of an F-15 Eagle.

(Space *f*) Energia.pnt is a scanned image of the Russian large space booster.

contd.

1stTrek, KlingBC, Enterprise 1701-D, Star Trek are provided for the Trekkies.

shuttle is a painting of the U.S. large space booster and shuttle.

Disk 150: Games XXVII—Arcade Games

Nine arcade-style game programs are offered on this disk, providing you with ample opportunity to rest your brain while you develop those "mousing" skills.

Dragon As King of Bosnia, you and your eight knights must rid the land of the fire-breathing dragon, before it gets you! Move your knights across the squares on the board by clicking the mouse in the direction you wish to travel. Kill the dragon by attacking from the right angle. The game allows you to vary the speed and IQ of the dragon. Instructions are under the "About Dragon" item in the Apple menu. ***Shareware—$5.***

Mac Pong II A nice version of pong that allows you to play against the Mac. You can vary the skill level, speed, and sound. (Requires MacPlus or greater ROMs.) ***Shareware—$5.***

MazerLaze 2.0 A somewhat addicting game in which you fire a laser gun against random targets by using "bank shots" off mirrors on the game board. ***Shareware—$5.***

New Social Climber Use the elevators at each end of the floor to climb to the next level, but watch out for the elevators going up and down or you get squished! The game provides you a real incentive to avoid that fate by emitting an incredibly obnoxious sound for several seconds. ***Shareware—"Small monetary token of appreciation."***

Silicon Volleyball Another version of the old Breakout game. ***Shareware—$10.***

Sitting Duck As the hunter (with his dog Dart), you take shots at the ducks flying overhead.

Space Attack 2.0 Another version of the original video arcade game, Space Invaders. ***Shareware—$5.***

(Hot Air Balloon *f*) Hot Air Balloon Avoid the trees and, most of all, the stork by controlling the balloons height. Instructions are available through the "About Balloon" command under the Apple menu. **AboutBalloon (MacWrite)** is a one-page MacWrite document that explains how to use Hot Air Balloon.

(King *f*) King The object of "King of the Tower" is to put your foot soldiers on the top of the tower for 20 rounds before the King does the same to you. You have 15 horsemen and six foot soldiers, against the King's unlimited forces. **King.MacWrite** is a four-page MacWrite document explaining how to play.

Disk 151: Games XXVIII—Strategy Games

Seven games to challenge your strategic thinking are offered on this disk, including an update to the Air Traffic Controller game offered most recently on Mac Disk #128. Keep an eye on the clock; a couple of these games can be quite addicting.

ATC 4.0 A new and improved version of the Air Traffic Controller simulation game previously offered on Mac Disk 106 and 128. New features in this version include the addition of obstacles (such as hills and towers), restricted zones, and weather variations. The object of the game is to guide all of the aircraft in your sector safely to their destinations within the time constraints imposed on your "shift." You have a radar screen and status and command panels for monitoring and controlling the headings and altitudes of a steady succession of aircraft entering and exiting your sector. The level of difficulty for each session can be varied by altering the number of aircraft, the minutes to complete your shift, the number of airports, and the required altitude and distance separations. ***Shareware—$10.***

GoMoku A very challenging game similar to tic-tac-toe, but played on a larger scale. Playing on a 19 by 19 grid, you must place five stones in a row horizontally, vertically, or diagonally before the Mac accomplishes the same objective.

Guess™ A neat Word Guess game that can be played with words of three to six letters. As you guess the letters, the program tells you how many letters are correct and in the right positions. The program even talks to you if you have MacinTalk is on the same disk. ***Shareware—$10.***

MacPuzzle V1.0 Like a real jigsaw puzzle, you must drag the pieces to the right places. The game comes with 25 different puzzles, which get progressively harder. Instructions are under the File menu.

TicTacToe Called TicTacToe on the desktop, this game goes by the name "Luff" under the Apple menu. The game is the same as GoMoku, with your objective being to place five Xs in a row before the Mac. One nice feature is the "Give Me a Hint" item under the Command menu.

(PUZZ'L v1.0 *f*) PUZZ'L v1.0 A very slick jigsaw puzzle game. The program has a "Status" window that tells you how much time has elapsed and how many pieces have been solved and how many remain. The program comes with two puzzles and it also allows you to create new ones from MacPaint pictures. Certain features are disabled but can be enabled through the innovative "Keycode #2" system. You'll find help under the Options menu. ***Shareware—$3 for the second keycode that enables four extra features.***

Cat Puzzle One of the two pre-made puzzles.

Big Pattern Puzzle The second pre-made puzzle.

(Tablut *f*) Tablut It's Swedes against Muscovites in this board game in which the Muscovites tries to capture the Swedish King while the Swedish King tries to escape to the edge of the board. The Mac does not play against you in this game, so you'll need two players. The Rules menu explains how to play the game. **Tablut short doc** is a half a page of documentation for the game. Not a MacWrite file, so you'll have to open this one from within MacWrite, rather than double-clicking from the desktop.

Sample A sample board showing a game outcome.

Disk 2.12: DAs 12—Desk Accessories

(Big Ben II) An updated DA version of London's famous clock. This one looks just like the earlier one (Mac Disk 2.01) except for the copyright date, but it's twice as large in bytes, so Riccardo must have done something to it.

Error Displays and describes four screens of Mac error codes. ***Shareware—Donations accepted with thanks.***

Event Reference Displays the cursor location and other information useful to programmers. (For some reason, doesn't work well with Word 3.01.)

(Font Lister *f*) Font Lister Lists all Font families and the sizes in each family that are in the system file and in a font Suitcase™ file. Note that the source code mentioned in the documentation is not included.

Graphics Viewer Opens PICT (MacDraw) and PNTG (MacPaint) documents for viewing in full-sized or show page

contd.

formats. ***Demoware—$7 for a version that copies to the clipboard..***

(KIWI Envelopes DA *f*) KIWI Envelopes! A DA to print envelopes on LaserWriters or compatibles. ***Shareware— 5 for registration and documentation.***

Klutz This DA, for the Mac II only, allows the Color Lookup Table (CLUT) to be changed, hence the name.

Memory Monitor Displays the condition of the memory as a pie chart with various options as to the heap.

(MemroMeter *f*) MemroMeter A display of the current free memory situation as a thermometer, with free memory represented as the mercury. ***Shareware—$5.***

Microscope Displays the cursor location and a view of it in various magnifications.

MIDI Prog. Sel. Lets a MIDI program and up to 16 channels be selected or initialized.

New Scrapbook An alternative scrapbook file with additional features. ***Shareware—A small contribution or a postcard.***

(RoomMate *f*) RoomMate Feel silly talking to an inanimate computer? Here's someone to whom to react. ***Shareware — $5.***

(Smart Quotes 2.7 DA *f*) Smart Quotes 2.7 DA Changes straight quotes into curly quotes, "fl" and "fi" pairs into ligatures, and double hyphens into em-dashes; and catches double capitals at the beginning of words. ***Shareware—$10 for an INIT version.***

(TextCount *f*) Textcount Can be used to analyze various aspects of a text document such as the number of words, sentences, and paragraphs in the document and "the approximate grade level of the document reader." That's fine, as long as it doesn't try to determine the grade level of the document writer.

(vt100 *f*) vt100 A VT100 terminal emulator with a wide range of baud rates. No documentation; you need to know what you are doing. **vt100 font** Needed for the emulator to work.

Windows 2.0 Adds a window menu to the menu bar, allowing windows to be brought to the front or closed. ***Shareware—$5.***

Wolfman Displays the dates of the next twelve full moons and a graphic reminder why you need to know them.

Yahtzee A dice game based on Parker Brothers' similar item, of which some knowledge is required in the absence of documentation here. ***Shareware—$15 for MPW source code.***

(ΣEdit *f*) ΣEdit 1.1 A full-featured text editor in a *free* DA. See the documentation for features.

Mac II Disk 20.08: Utilities 1

This disk contains a mix of useful utilities for everything from sound to image processing to FORTRAN programming to startup screens.

Screen Dump][All Macs have built-in function keys for dumping the screen to the printer or a disk file (Command-3 and -4). Unfortunately these keys don't work on large screen monitors, or on the Mac II in color mode. They also rotate the screen image sideways on the Mac II. This program fixes all of that by generating three separate FKeys for dumping large Mac screens (including the MacII) to either printer or disk. The first FKey, Printer-Dump, will dump any Mac large screen to an Imagewriter or LaserWriter. The second FKey, Disk-Dump, will dump the screen to a MacPaint disk file. The last FKey, ColorDump, is specific to the MacII and will dump a color image into a GIF disk file. ***Shareware—$12.***

(Sound Mover 1.2a *f*) This folder contains a set of four programs for managing sounds. These sounds can be used on the Mac II, within HyperCard and on other Macs using the routines in this folder. ***Shareware—$10.***

Sound Mover A sound resource mover similar in function to the Font/DA mover. This program will handle just about any kind of sound (snd resource), it will play sounds for you, allow you to edit a sound and will convert between Mac II and HyperCard sound resources.

IBeep2 A small program which when placed in the system folder of a Mac Plus or SE will allow the user to pick an alternative to the standard Macintosh beep.

Sound->snd This program converts sounds digitized at any of four sampling rates by the MacNifty sound digitizer into standard sound resources (type "snd").

StartupSndInit This INIT file will automatically play one or more sounds at startup.

Sound Mover User Guide 1.2 Complete documentation for all four of the sound programs.

(Mac2Vax *f*) Mac2VAX A program for converting Absoft FORTRAN programs into VAX-compatible FORTRAN, and vice-versa. The program automatically performs several conversions to aid in porting software between the two machines. **MactoVAX.docs** is the documentation for using Mac2VAX.

ForCharCount A utility that counts the number of characters in source code lines and issues warnings in a warning file and (optionally) on screen when the column number exceeds 72 for regular source code statements or 80 for comments. ForCharCount properly treats TABS embedded in the code as being placed every 8 spaces which is the usual standard.

Absoft Fortran Notes Notes of some bugs and quirks in Absoft Fortran 2.3 (and earlier versions) that you should be aware of.

READ ME FIRST (mactovax) A general description of the contents of this folder.

(Image .35 *f*) Image .35 An incredibly impressive image processing/painting program for the Mac II. Although this is only version .35, this program is as good as some commercial packages I've seen. When complete, it will perform standard image analysis techniques such as densitometry, morphometrics, histograms, contrast enhancement, thresholding and density profiling. It currently provides many MacPaint-like editing functions, including the ability to draw lines, rectangles, ovals and text. Objects may be drawn either outlined or filled, in any of 256 colors or shades of gray. It can open PICT or Grayview files. **About Image** is the documentation for Image .35.

Image CLUT *f* A set of 5 color lookup tables (CLUT) for use in Image.

(Image .33 Source *f*) The Turbo Pascal source code for a slightly earlier version of Image.

(Cricket Graph Patch *f*) Cricket Graph Patch Cricket Graph version 1.1 has a minor bug which restricts the size of data files on a Mac II to less than 32K. This program patches Cricket Graph 1.1 to work with larger files on the Mac II. **Cricket Patch Instructions** are the instructions on using **Cricket Graph Patch.**

(SSSwitcher© *f*) SSSwitcher© (Screens & Sounds

contd. on pg 70

WASHINGTON APPLE PI DISKETERIA MAIL ORDER FORM

This form is only for ordering disks that you want mailed to you.
5 1/4" Diskettes: - Members $ 5.00 each; Non-members $ 8.00 each, Plus $1.00 each postage up to a maximum of $ 5.00.
3 1/2" Diskettes (IIgs & Mac): - Members $ 5.00 each; Non-members $ 8.00 each, Plus $1.00 each postage up to a maximum of $ 5.00.
A $1.00 per disk discount on the above prices is offered for orders of 5 or more disks. Postage remains as above.

DOS 3.3 Volumes

( ) 41 IAC 25 Mach. Lang. Util.
( ) 42 One Key DOS
( ) 43 IAC 29 Utilities H
( ) 44 Utilities I
( ) 45 Diversi-Copy
( ) 46 French Vocab. Tutorial
( ) 47 Tic-Tac-Toe in French
( ) 48 Boot for l'Hote
( ) 49 l'Hote Story
( ) 50 l'Hote Quiz
( ) 51 French Poetry Tutorial
( ) 52 Apollinaire Biography
( ) 53 Albert Camus Interview
( ) 54 Tic-Tac-Toe in Spanish
( ) 55 Rafel-Boot
( ) 56 Rafel
( ) 57 Rafel Quiz
( ) 58 Matute
( ) 59 Lo Fatal
( ) 70 Business/Math/Statistics
( ) 71 Music
( ) 72 Keyboard Games
( ) 73 Text Adventure Games
( ) 74 Paddle Games
( ) 75 Color Graphics for Fun
( ) 76 Education
( ) 77 Utilities
( ) 90 Spreadsheet C Genl. Bus.
( ) 91 Spreadsheet D Investment
( ) 92 Spreadsheet E Bus. Recd.
( ) 93 VisiPlot & VisiTrend
( ) 95 Spreadsheet F-Coin Coll.
( ) 100 Utilities A
( ) 101 Utilities B
( ) 102 Games A
( ) 104 Business A
( ) 106 Science Engineering
( ) 107 Games B
( ) 108 IAC 10 (Graphics)
( ) 109 IAC 11 (Applesoft Tutrl.)
( ) 110 Personal/Education
( ) 111 Games C
( ) 112 Utilities C
( ) 113 Business B
( ) 115 IAC 12/13 Misc.
( ) 117 Picture Packer
( ) 118 Utilities D
( ) 119 IAC 15 Misc.
( ) 120 IAC 16 Misc.
( ) 122 IAC 17 Misc.
( ) 123 French Vocabulary
( ) 124 Utilities E
( ) 125 IAC 18 Misc.
( ) 126 Sights and Sounds
( ) 127 Math/Science
( ) 128 Games D
( ) 130 Diversi-DOS (rev.)
( ) 131 Personal/Educ. 2
( ) 132 IAC 19 - Utilities F
( ) 133 IAC 20 - Pascal & DOS3.3
( ) 137 IAC 21 Spreadsheet A
( ) 138 IAC 23 Utilities G
( ) 139 IAC 24 Education 3
( ) 140 Education 4
( ) 141 Special Data Bases
( ) 142 IAC 28 Pinball Games
( ) 143 Sports
( ) 144 IAC 27 Applesoft Prog.
( ) 145-147)3 disks)Ap.Logo Util.
( ) 150 EDSIG1 (Elem. Math)
( ) 152 IAC 31 Miscellaneous
( ) 153 Investments A

DOS 3.3 contd.

( ) 154 Investments B
( ) 155 IAC 33 Miscellaneous
( ) 156 IAC 35 Applesoft-AW//e
( ) 157 IAC 36 Arcade Games
( ) 158 Apple Logo Programs
( ) 159 Recipe Files
( ) 160 Utilities & Games
( ) 161 Wizard Worker
( ) 162 Games E
( ) 163 Graphs and Displays
( ) 164 Games F
( ) 165 Happy Holidays
( ) 166 Charts and Graphs
( ) 167 IAC 40 - Pilot Lang.
( ) 168 IAC 41&47 - AW Util.
( ) 169 Hayes Term. Prog.
( ) 170 Love's Follies (Utilities)
( ) 171 Cat-Graphix
( ) 172 Print Shop Graphics
( ) 173 Riley's Pers. Instrum.
( ) 174 Imageworks
( ) 175 No Name Yet
( ) 500 Master Catalog Listing
( ) 501 Util.-Beginner's Choice
( ) 502 Util.-Intermediate User
( ) 503 DComm
( ) 504 Database - LOGIC
( ) 505 Reading Fun
( ) 506 Astronomy Programs
( ) 507 Griffith Observatory

Eamon Series Volumes

( ) 180 Dungeon Designer
( ) 181 Beginners Cave
( ) * 182 Lair of Minotaur
( ) * 183 Cave of the Mind
( ) * 184 Zyphur Riverventure
( ) * 185 Castle of Doom
( ) * 186 Death Star
( ) * 187 Devil's Tomb
( ) * 188 Caves of Treas.Isl.
( ) * 189 Furioso
( ) * 190 The Magic Kingdom
( ) * 191 The Tomb of Molinar
( ) * 192 Lost Isl. of Apple
( ) * 193 Abductor's Quarters
( ) * 194 Quest for Trezore
( ) * 195 Underground City
( ) * 196 Merlin's Castle
( ) * 197 Horgrath Castle
( ) * 198 Deathtrap
( ) * 199 The Black Death

Note: Eamon disks 200-229 are also available. See previous month's order form.

ProDOS Volumes

( ) 802 Utilities (A)
( ) 803 Filecabinet
( ) 804 Shareware
( ) 806 ZAP
( ) 807 Imageworks
( ) 808 Comm-Term
( ) 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 PIG0:ATTCH 1.1/BIOS
( ) 301 PIG1: ( ) 302 PIG2:
( ) 303 PIG3: ( ) 304 PIG4:
( ) 305 PIG5: ( ) 306 PIG6:
( ) 307 PIG7: ( ) 308 PIG8:
( ) 309 PIG9 ( ) 310 PIG10:
( ) 311 PIG11: ( ) 312 PIG12:
( ) 313 PIG13: ( ) 314 PIG14:

CP/M Volumes

( ) 401 Master Catalog
( ) 402 Utilities 1
( ) 403 Communications
( ) 404 Utilities 2
( ) 405 Utilities 3
( ) 406 ZCPR2 Install
( ) 407 ZCPR2 Documentation
( ) 408 ZCPR2 Utilities
( ) 409 Modem 730
( ) 410 Essential Utilities
( ) 411 Text Editor
( ) 412 Spreadsheet
( ) 413 MDM740(SSC&Com)
( ) 414 MDM740(7710&A-Cat)
( ) 415 Orig. 350 Pt.Adventure
( ) 416 Kermit Source Code
( ) 417 Kermit Documentation
( ) 418 Kermit Running Code
( ) 419 Util.-Z83,REZ,VDE
( ) 420 Small "C" Compiler

Apple /// Volumes

( ) 1001 Games Volumes 1 & 2
( ) 1002 Basic Utility Vol. 1
( ) 1003 Basic Utility Vol. 2
( ) 1004 Sys. Utils & Data
( ) 1005 New Member Disk
( ) 1006 Word Proc. & WPL
( ) 1007 Games for Kids
( ) 1008 The Best of MAUG
( ) 1009 The Best of the Source
( ) 1010 The Best of TAU
( ) 1011 D3. Backup
( ) 1012 Sketchpad&Slideshow
( ) 1013 A3 Diagnostics
( ) 1014 Basic Boot Disk
( ) 1015 Best of ///s Company
( ) 1016 AppleCon
( ) 1017 Pohlman Disk 1
( ) 1022 Basic XT and Utilities
( ) 1023 The Retriever
( ) 1024 Power Print ///

Apple IIGS Volumes @ $5

( ) 2001 Utilities & Pictures A
( ) 2002 Demo Disk A
( ) 2003 Freeterm
( ) 2004 Slide Show I
( ) 2005 Demo Source Code 1
( ) 2006 Demo Source Code 2
( ) 2007 M18 Courses
( ) 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
( ) 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
( ) 102 Sounds I
( ) 104 Fun & Games XXII
( ) 105 Fun & Games XXIII
( ) 106 Fun & Games XXIV
( ) 108 Fun & Games XXV
( ) 109 Sounds II
( ) 110 Fonts XI
( ) 111 Sounds III
( ) 113 Fonts XII
( ) 115 Telecom IV
( ) 116 DAs XII
( ) 118 Paintings V
( ) 120 Inits II
( ) 123 Graphics II
( ) 124 Paintings VI
( ) 125 Sounds IV
( ) 127 Paintings VII
( ) 128 Fun & Games XXVI
( ) 129 Telecom V
( ) 131 Sounds V PeeWee+.
( ) 134 Fun & Games XXV
( ) 135 Paintings VII
( ) 138 Utilities XXV
( ) 139 Utilities XXVI
( ) 140 Utilities XXVII
( ) 141 Utilities XXVIII
( ) 142 Utilities XXIX
( ) 143 Games XXVI
( ) 144 Sounds VI
( ) 145 Paintings IX Clip Art
( ) 146 Fonts XIII

*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.

NAME: _____

ADDRESS: _____

CITY, STATE, ZIP _____

Make check (U.S. funds on a **U.S. bank.**) payable & send to:

Washington Apple Pi, Ltd.
Attn. Disketeria
8227 Woodmont Avenue, Suite 201
Bethesda, MD 20814

Telephone _____

WAP Membership No. _____

Macintosh Disks contd.
( ) 147 New Member's Sampler
( ) 148 Sound VII
( ) 149 Painting X
( ) 150 Games XXVII (Arcade)
( ) 151 Games XXVIII (Strategy)

DAs Series: (12-disk set $42) *
( ) 2.01 ( ) 2.02 ( ) 2.03
( ) 2.04 ( ) 2.05 ( ) 2.06
( ) 2.07 ( ) 2.08 ( ) 2.09
( ) 2.10 ( ) 2.11 ( ) 2.12

FKeys Series:
( ) 4.1 ( ) 4.2

Util. Series (9-disk set $31.50) *
( ) 16.01 ( ) 16.02 ( ) 16.03
( ) 16.04 ( ) 16.05 ( ) 16.06
( ) 16.07 ( ) 16.08 ( ) 16.09

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 4.2 and Finder 6.0
( ) Set of 4 disks

* Series disks are regular Mac price when purchased individually.

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

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 experimenting with alternating the sessions between Apple IIgs and other Apple II. (The tutorials start promptly at 7:30; if you bring your computer please arrive 15 minutes early to set up.) You may sign up for any or all of the series. They are designed for the "beginner" and will be repeated monthly. The fee for each **session is $10.** 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.

( ) April 5 (IIgs specific) - **WELCOME TO THE WORLD OF APPLE** ( ) May 3 ( ][, //e, //c specific)
( ) April 12 (IIgs specific) - **HOW TO USE YOUR APPLE SOFTWARE** ( ) May 10 ( ][, //e, //c specific)
( ) April 19 (IIgs specific) - **POPULAR APPLICATIONS: APPLEWORKS** ( ) May 17 ( ][, //e, //c 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. The fee for each **session is $10.** You may sign up for 1, 2, or all 3 sessions. You are strongly urged to bring your Macintosh—WAP does not have equipment for you to use. These tutorials fill up quickly - call the office to verify space before mailing in your registration. (Note: April tutorials are full.)

( ) Monday, May 9 or ( ) June 13 - Introduction to Macintosh. Prerequisite: Guided Tour to Macintosh.
( ) Monday, May 16 or ( ) June 20 - Intermediate Mac Skills. Prerequisite: Familiarity with Desktop, disk copying, etc.
( ) Monday, May 23 or ( ) June 27 - Personalizing Your Mac for Productivity. Prerequisite: First two sessions or equivalent.

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.

( ) **Introduction to ReadySetGo 4.0 - Marty Milrod - Saturday, April 9, 9-12 am, Office.** Fee $15 ($20). Learn the major features of this popular desktop publishing program. Bring Mac, hard disk, RSG, blank disks.

( ) **Introduction to Applesoft (Apple II) - Bruce Field - Saturday, April 30, 9-12 am, Office.** Fee $15 ($20). Learn the fundamentals of Applesoft Basic. No programming experience necessary.

( ) **Intermediate Applesoft (Apple II) - Bruce Field - Saturday, May 7, 9-12 am, Office.** Fee $15 ($20). Continues the coverage of Applesoft Basic.

( ) **Introduction to HyperCard - Bob Platt - Saturday, May 14, 9-12 am, Office.** Fee $15 ($20). Prerequisite: Familiarity with browsing, painting, cutting and pasting buttons. Bring Mac, hard disk, HyperCard, blank disks.

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 ADVERTISERS

Ad Center 71
Applied Engineering 16,17,26,27
Clinton Computer 1
Computer Age 67, 75
Computer Den Ltd 37
Computer Ware Unlimited 19
Falcon Microsystems ..... Inside Front
Family Computer Center 44
Highlighted Data, Inc 53
Landmark Computer Laboratories 20
MacCorner 58, 59, 65, 69
MacCorner (contd) . Inside Back,Back
MacroMind 47
MacTemps 55
MacTography 51
MacSource 57
Master Copy Inc 63
Nexo Distribution 13
Operant Systems 11
PC Resources 57, 80
PLS Inc 13
Publishers Service Bureau 79
Satellite Scientific 17
Software Ventures 45
Technical Sales & Service 17
Tempest Products Inc 2
VF Associates 21

INDEX TO AUTHORS

Baldridge, Bill 68
Bedrick, Barry 30
Begleiter, Ralph J 50
Cave, Katherine M 39
Cooper, James 60
Coukouma, Euclid 22
Feldman, Larry 66
Field, Bruce F 12
Golden, Robert 20
Granite, Stephen 35
Hall, Charles Don 32
Hasson, Joseph A 36
Hole, Bill 46
Hughes, Dan 72
Jasper, Herb 48
Koskos, Paul 8
Love III, John A 63
Matzen, Peg 15
Meyer, Ted 14
Milrod, Martin 81
Morganstein, David 64
Ottalini, David 28
Page, Chester H 10
Platt, Robert C 12, 38
Platt, Robert C 49, 80
Porter, David L 33, 34
Porter, Miriam 34
Rohr, Jay 50
Romerstein, Dave 32
Schwartz, Dana J 40
Seferian, Nancy 41
Slaughter, Wayne 60
Todd, David 80
Trinder, Peter 70
Trusal, Lynn R 54
Warrick, Tom 4
Weikert, Dave 81
Wolov, Robb 53
Wood, David 18, 30
Yockey, Cynthia 4, 41

Mac Corner
The Macintosh Only Store

SPRING SALE

PL-30
30 Meg Hard Disk by Peripheral Land

The hottest item in town! Peripheral Land gives you a fast, reliable & affordable hard disk. 1 yr. warranty.

$679
MFSG RETAIL: $995

QUARK XPRESS
Electronic Publishing Software

The most powerful desktop publishing program for the Mac with new features like color support & no copy protection!

$499.99
MFSG RETAIL: $695

HYPERCHARGER 020

Power up your Mac with a 6820 processor and 1 meg of additional ram from General Computer! One year warranty!

$895
With 68881 option available in stock.

ACCELERATOR
By Radius

The #1 Speed Board for the Mac+ and SE on sale one week only!

$769
68881 option available

Spring Cleaning Sale!

Hard disks

Everex 20-DL	549.90
Everex 40+60	1779.70
Jasmine 20	529.95
Jasmine Backpack	1249.70
Peripheral Land:	
PL-30i Turbo	749.95
PL-50i (SE)	995.00
PL-50	1049.70
PL-100i (II)	1398.15
PL-100	1569.95
PL-140i (II)	1748.15
PL-140	1889.70

Displays

Big Picture SE (2)	1398.70
" " Mac II (1)	1398.70
" " IQ (1)	2379.60
EasyView 14" B/W (5)	329.95
Megascreen +/SE (2)	1399.95
Radius FPD SE (3)	1389.70
" FPD Mac II (1)	1589.95
" TPD (2)	1878.15
Superview 19" SE (4)	1499.95
Supermac 19" color (2)	2178.15
" " 16" trinitron (2)	1789.70

Software

Apache Strike	29.95
Coach Professional	139.90
Cricket Draw	179.95
dBase Mac	249.95
In House Accountant	99.95
Insight	399.95
MacRaquetball	34.95
Mac 3D	109.95
MindWrite	124.95

Hundreds of returned and demo items are on clearance at up to 80%off!! Some examples:*

Canvas	89.00
Excel	175.00
MacEnhancer	149.00
MacFlow	49.00
Performer MIDI	199.00
Trapeze	199.00
Tops	99.00

*** Cash or check prices only!**

RADIUS DISPLAYS

The top monochrome screens for the Mac are in stock and one sale this week!

Starting at

$1249.95
FPD Mac Plus

IMAGE STUDIO

Turn your Mac into an editing photography studio. Works with all major scanners & Mac II.

$299.99
MFSG RETAIL: $495

Color for your Mac SE!
Color Vue SE By Orchid

Bring color to your images! Choose up to 16 colors out of a palette of 4096. Prints on ImageWriter II.

$649.95

CABLE NEED

EMAC 2400

- Full Hayes™ compatiblity
- Built-in speakerphone
- Includes cable

$279.95
MFSG RETAIL: $399

NEW VERSION

MacMoney

The #1 home accounting program on the Mac!

$89.95
MFSG. RETAIL: $119.95

JUST IN STOCK

DATADESK 101
Keyboard for the power user!

$169.95
MFSG RETAIL: $999.95

IN STOCK

MacInTax
- TaxView -

- Over 30 forms
- IRS forms on screen
- Instruction on-line
- Full itemization
- Print IRS approved forms

NOW AT MAC CORNER!

MFSG RETAIL $119

$79

FREE GUIDE

ILLUSTRATOR
Attention Designers!

The most advanced post script drawing program by Adobe!

MFSG RETAIL: $499.99

$349

FOR MACH

PIXELPAINT

Now at MacCorner the most advanced color illustration program ever written. A must for all Mac II owners!

$299

MFSG RETAIL: $499.99

IN STOCK

DaynaFile
MS-DOS disk drive for any Mac with SCSI port.

- Dual-drive capability
- 5 1/4", 360K or 1.2 MB disk formats
- 3 1/2", 720K or 1.44 MB format

360K Version

$499
MFSG RETAIL: $595

NEW

HYPER DRIVE FX80

The FX-80's internal RAM caching makes it the fastest drive available!

$1599
MFSG RETAIL: $1999

DATAFRAME

30 of the fastest megabytes available for the Macintosh!

- Over $500 worth of SW
- 1 year full warranty

MFSG RETAIL: $995

$689

NEW ACCESSORY

TURBO MOUSE
Helps you get around your screen FASTER!

- A must for large screen users
- Thru port for other ADB devices

MFSG RETAIL: $139

$99.95

IN STOCK

READ IT!

Our most popular OCR software, works with any scanner.

$229
MFSG RETAIL: $295

NEW

Felix
The first post-mouse device

- Complete optical tracking system
- Very accurate
- Leaves room on your desk

$99
MFSG RETAIL: $150

50% OFF
FULLPAINT, SUPERPAINT, GRAPHICWORKS
*with this coupon

***FREE GAME**
WITH ANY PURCHASE OVER $300
More than 20 to choose from

FREE DISK DRIVE
cleaning Kit with every hard disk purchase
*with this coupon

30% OFF
any software package in stock
*with this coupon

APRIL SPECIAL
SKIDOSE
$39.95
Limit one per customer

APRIL SPECIAL
QUICKEYS
$74.95
*with this coupon

STORE HOURS:
Mon. - Fri.: 10 - 6, Thurs.: 10 - 9, Sat.: 10 -6

948-1538

8653 Zetts Avenue Gaithersburg, MD 20877

MacCorner
Where Macintosh Dreams Come True

* All items are in limited quantities. Coupons are not additive, nor combined with specials, & one per customer. Macintosh is a ™ of Apple Computer.

* Cash Only Price
Sale price good March 26 - April 30, 1988