

# Washington Apple Pi



Volume 11

April 1989

Number 4

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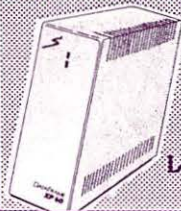
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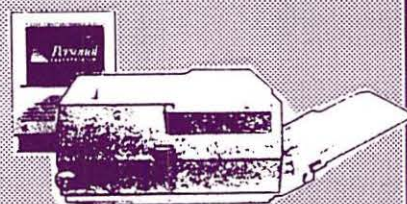
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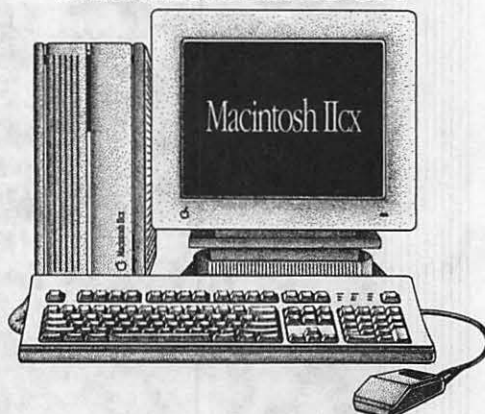
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## Journal Deadlines

**Writers' submissions**  
 May.....April 3  
 June.....May 1

**Editors' submissions**  
 May.....April 10  
 June.....May 8

**Ad space reservations**  
 May.....April 10  
 June.....May 8

**Camera-ready ad copy**  
 May.....April 12  
 June.....May 10

**Distribution Dates**  
 May.....April 22  
 June.....May 27



## President's Corner

by Robert C. Platt

### SuperMonth

April is shaping up as a memorable month for WAP. Our monthly meeting returns to USUHS on April 22. It features our annual MusicSIG computerized concert from 9:30-noon. Bruce Webster, a former editor of Byte Magazine and author of the NeXT Book will then speak. The afternoon will be completed with Guy Kawasaki of Acius and various other vendors who are visiting for MacWorld Expo.

We have arranged for the USUHS cafeteria to be open during lunch. Please plan to join us for lunch at a flat \$4.50 charge.

### New Office

April also marks the move to our new office at 7910 Woodmont Ave. Until a card system is installed at the lobby door, access to the building during the evening will be a bit of a challenge. We will give the building guard a list of tutorial registrants and regular SIG members. If you are not on the list for that evening, please call the office at 654-8060 to arrange entrance. We hope that after a few weeks, we will be able to arrange access via a "secret password" with the new security contractor.

To celebrate the move, we will have an open house for our members on Saturday, April 15 from 10 a.m. to 2:30 p.m. Please drop by for a tour and refreshments. We will also hold a separate open house for local dealers and Apple staff.

### FOSE

Our booth at the Federal Office Systems Expo proved to be a good source of new members. Many thanks to Chris Bastian, Berry Bedrick, Amy Billingsley, Brad Chapman, H. De Jarnette, Larry Feldman, Charles Franklin, Tony Goncalves, David Harris, Jody Joy, Debbie Lashbrook, Ambrose Lao, Bill Livingston, Susan Meehan, Ronald Weinstock and Ian Yeoman for staffing the booth. In addition to our thanks, as booth staff, each has earned 5 points in our membership contest.

### WAP Stack

A big draw at our FOSE booth was a new interactive presentation of Washington Apple Pi's services running on Apple II's under TutorTech. Many thanks to Ray Settle for translating our HyperCard stack to run under this Apple II based system. We will make this software available to local dealers and national bulletin-board systems. Thanks are also due George Venable for preparing a stack answering many of the questions most frequently asked of our Office Staff. All of these programs will be on display in our new office. Many thanks to Tektronix for donating a new QuickJet printer to our office.

### New Directions

The Pi is showing a number of new and positive developments, which are worth noting. First, our membership drive is proving to be an excellent success. Your continued support of the organization is a tribute to the many volunteers who make WAP's services possible. Second, our efforts at long-range and strategic planning are bearing fruit. I'm pleased that the Second Decade Committee will hold its public hearing on April 8. In addition, the Pi Board has scheduled a retreat for March 12. Members are sharing a number of exciting ideas worth exploring. We are considering a new set of "conceptual tutorials" which will help users learn what their computers have to offer. Rather than teaching how to use a particular spreadsheet package, we could teach novices what problems are best solved with a spreadsheet.

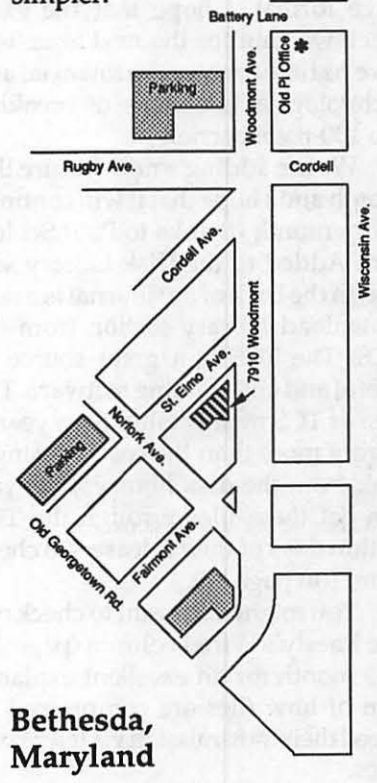
Another focus is how the Pi can

better reach out to serve and interact with the community. We could become a coordinating focal point for Federal and corporate users groups in the area. We are exploring how the Pi could cooperate with Apple's Federal Support Coordinators which will be designated in various agencies. We could also reach out to computer coordinators in the local schools. Gary Hayman has already started to work with the in-service training of teachers in Apple-equipped schools. Another area of cooperation is sponsoring various science fair awards or computer programming contests for students.

These are just a few of the ideas that we are discussing. I hope that you will share your ideas with us. Working together we can make WAP's second decade even better than its first! 🍏

## Where is the Pi going?

Good question. If you know where the current office is you will have no trouble finding the new office. Two blocks south and across the street. At 7910 Woodmont Avenue. Couldn't be simpler!



Bethesda,  
Maryland

**Thanks**

First of all I want to thank everyone who scrambled to get this issue of the Journal out on time. This was another of those (expletive deleted) issues that had to get done a week early. This month the general meeting is moved up a week due to the Easter holiday.

A number of the events we normally report on had not even happened by our copy deadline. Those of you who enjoyed our epic coverage of the Board of Directors meeting last month will find that we are only running a list of headlines this month. There was barely time to do even that.

By the way, I would appreciate your comments: do you prefer to see the Board of Directors meeting covered with only such headlines, or do you prefer the longer summary, or would you like to see the whole thing unexpurgated?

Thanks to our columnists, too. They had to start writing without their usual break between issues to think things over. I'm glad that most of them were still able to deliver their usual level of excellence.

**Still Bursting**

Despite the time constraint, we are again running our expanded 96 page format. I hope that the extra week we gain for the next issue will give us time to solve the financial and technological problems of breaking the 100-page barrier.

We are adding a new feature this month and I hope that it will continue every month (thanks to Paul Schlosser). Added to the Disk Library section in the back of the Journal is a new Download Library section from the TCS. The TCS is a great source of useful and entertaining software. The cost of TCS membership for a year is hardly more than the cost of a single disk from the disk library. Plus you can get these files through the TCS within days of their release. Do check it out (on page 93).

You might also want to check out Lee Raesly's Wired column (page 26) this month for an excellent explanation of how files are compressed to speed their transmission via telephone lines.

**Help**

We are having a terrible time converting ProDOS 5.25" disks and AppleWorks files for use in our desktop publishing system. (Graphics are next to impossible too, but let's work on this, one step at a time.) With all of the noise Apple is making about connectivity, I would hope that they are not just talking about IBM. While there are a multitude of solutions for our handling IBM files, no one we've asked has been able to make any satisfactory suggestions about the Apple II. While Apple File Exchange does allow file transfer from the UniDisk format, the files need to be in ASCII (text) format. AppleWorks files require hacking the system before they will even open, and you don't want to see what they look like. It would save us a lot of time if someone could make some suggestions to solve this problem.

**Lost Opportunity (editorial)**

I have for some time now believed that Apple is missing out on a great opportunity by not promoting better integration of the Apple II and Mac families. These are different machines for different purposes and Apple should be marketing each one of them for what it does best. They should be telling their customers, "You've got jobs that are best done with the Mac and others that are best done with an Apple II. We can give you an integrated solution fitting the right type of computer to each particular job and we will make sure that they will all work well together." Alas, they are hardly taking such a stance.

The last straw is the flurry of full page ads being run by Cambridge North America (the Yankee arm of Britain's famous computer genius Sir Clive Sinclair). They are pitching a computer to Mac owners called MacLite (a.k.a. the Z88). It is, of course, not a Mac, not MS-DOS, nor is it ProDOS. It is their own design (I would not be surprised if it were Z80 based) of a portable (2 lb.) computer with an 8 by 106 character LCD display. It includes word processing, spreadsheet, and diary programs, plus cables and a HyperCard interface to the Mac. It sells for \$849. I'd say it's what the IIc ought to be. Where's Apple? ☘

**Send Your Journal Submissions to the:**

**WAP Journal Editorial Board**

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1500 Massachusetts Ave NW, #34  
Washington DC 20005  
(202) 223-6813

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Hardware, Programming, TCS, Q&A  
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MHA Inc  
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# FC BUSINESS SYSTEMS

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## Your Friendly Apple Dealer.

Mon-Wed-Fri.  
9:00-6:00  
Tue & Thurs.  
9:00-8:00  
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Backlick Shopping Center  
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Springfield, Virginia  
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Fairfax Location  
10565 Lee Highway  
Fairfax, Virginia  
(703) 385-2758



### Trouble with Your Apple? Think: F.C. Service...



- On-site service
- Express service
- Courteous service

For Information,  
Call Our  
Service Dept. at:  
**644-8442**  
or just walk-in

**EXPRESS**  
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## Free AppleCare Inspection

...With AppleCare  
Purchase

## Mac/Dos Connectivity

AST 286..... \$895.  
 DAYNA FILE ..... \$499.



SYSTEM & FINDER, PAGEMAKER, MICROSOFT WORDPERFECT, MICROSOFT WORKS, ADOBE ILLUSTRATOR, APPLEWORKS, DESKTOP PUBLISHING, MANY CLARIS SOFTWARES, AND OTHER SOFTWARES.

**Call: 385-2758**  
for Registration & Schedule

## Macintosh Trade-in!

**Attention:  
Mac Users!**

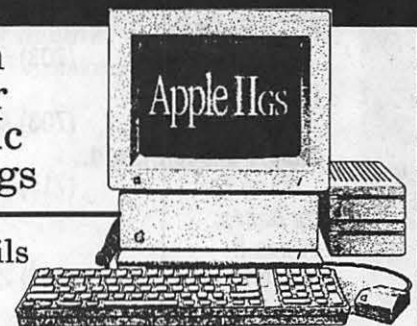
Trade Your Old Mac 512 or  
512ke for a Macintosh Plus

Call Gary for Details  
@ 866-9122

## Apple II Trade-in!

Now You Can  
Trade-in Your  
Apple IIe or IIc  
for an Apple IIgs

Call Gary for Details  
@ 866-9122



Have a computer problem? The following club members have volunteered to help other club members.

**Guidelines for Hotline Use**

- Hotline is for club members only.
- Remember that the people listed are volunteers: be courteous; ask for help, not for a job to be done for you.
- Respect all telephone restrictions where listed—no calls after 10:00 PM except where indicated.
- Calls regarding commercial software packages should be limited to those you have purchased. Do not call about software for which you have no documentation.
- All telephone numbers are home numbers unless otherwise specified.
- When requests are made to return calls, long distance calls will be collect.

**Hotline Coordinator**

Larry Feldman (202) 546-9556

**Apple II**

**General**

Dave Harvey (703) 578-4621  
John Wiegley<sup>after 2:15</sup> (703) 437-1808

**Accounting Packages**

**BPI Programs**

Jaxon Brown (301) 350-3283

**BPI & Howardsoft(Tax)**

Otis Greever (615) 638-1525

**Dollars & \$ense**

Barry Fox (717) 652-2899

**Home Accountant**

Leon Raesly (301) 431-0853

**APPLE SSC**

Bernie Benson (301) 951-5294

**AppleWorks**

Ken DeVito (703) 960-0787  
Bob Martz (301) 795-5689  
Ray Settle (301) 647-9192  
Harry Erwin (703) 391-0295  
Michael Osborn (301) 505-1637

**AppleWorks Data Base**

Morgan Jopling (301) 261-3886

**Communications Packages**

**ASCII Express**

Dave Harvey (703) 578-4621

**ProTerm**

Allan Levy (703) 578-4621

**Talk Is Cheap/Pt.toPt.**

Barry Fox (717) 652-2899

**Data Bases**

**dBase II**

John Staples (703) 255-6955

**dBase II&III, Data Perfect**

Leon Raesly (301) 431-0853

**Profiler 3.0**

Barry Fox (717) 652-2899

**Dvorak Keyboard**

Ginny Spevak (202) 362-3887

**Hard Disk**

**CMC (not CMS)**

Barry Fox (717) 652-2899

**Corvus Omninet**

Tom Vier (BBS) (301) 986-8085

**Corvus**

Leon Raesly (301) 431-0853

**Sider**

Jaxon Brown (301) 350-3283  
Otis Greever (615) 638-1525

**Hardware - //c**

Michael Osborn (301) 505-1637

**Languages**

**Applesoft**

Louis Biggle (301) 967-3977  
Peter Combes (301) 251-6369  
Leon Raesly (301) 431-0853  
John Wiegley<sup>after 2:15</sup> (703) 437-1808  
John Love (703) 569-2294

**Integer Basic**

John Wiegley<sup>after 2:15</sup> (703) 437-1808  
John Love (703) 569-2294

**Machine**

Ray Hobbs (BBS) (301) 490-7484  
John Love (703) 569-2294

**Pascal**

Michael Hartman (301) 445-1583

**C and TML Pascal**

Harry Ewin (703) 391-0295

**Operating Systems**

**Apple DOS**

John Wiegley<sup>after 2:15</sup> (703) 437-1808

**CP/M**

Art Wilson (301) 774-8043

**ProDOS**

John Love (703) 569-2294  
John Wiegley<sup>after 2:15</sup> (703) 437-1808

**ProDOS 8 and 16**

Barry Fox (717) 652-2899

**RWTS, Disk structure**

John Wiegley (703) 437-1808

**Print Shop**

Thomas O'Hagan (301) 593-9683

**Spreadsheets**

**General**

Walt Francis (202) 966-5742

**MagicCalc\*SuperCalc2.0**

Leon Raesly (301) 431-0853  
Terry Prudden (301) 933-3065

**Telecommunications**

Allan Levy (301) 340-7839

**TimeOut Series**

Morgan Jopling (301) 261-3886

**Utilities:ProSel**

Barry Fox (717) 652-2899

**Word Processors**

**General**

Walt Francis (202) 966-5742

**Apple Writer II**

Dianne Lorenz (301) 530-7881  
Leon Raesly (301) 431-0853

**Letter & Simply Perfect**

Leon Raesly (301) 431-0853

**Mouse Write**

Barry Fox (717) 652-2899

**ScreenWriter II**

Peter Combes (301) 251-6269  
Gene Carter (202) 363-2342

**Word Handler**

Jon Vaupel (301) 593-3316

**Word Perfect**

James Edwards (301) 585-3002  
Henry Donahoe (202) 298-9107

**Word Star**

Art Wilson (301) 774-8043  
Michael Osborne (301) 505-1637

**Apple IIGs**

**General**

Barry Fox (717) 652-2899

**General/Monitor**

Neil Walter (301) 946-4526

**General/PaintWorks+**

Paul Tarantino (703) 455-7670

**//e Upgrade**

Morgan Jopling (301) 261-3886

**APW**

Andy Gavin (703) 734-3049  
Jim Frison (703) 525-9395

**Deluxe Paint II**

Rich Sanders (703) 450-4371

**GS BASIC**

Barry Fox (717) 652-2899

**Multiscribe GS**

Ray Settle (301) 647-9192

**Telecommunications**

Dale Smith (301) 762-5158  
Allan Levy (301) 340-7839

**TimeOut Series & Utilities: ProSel**

Chuck Ward<sup>before 9pm</sup> (703) 830-3720  
Barry Fox (717) 652-2899

**VIP-Pro/Multiscribe**

Jim Frison (703) 525-9395

**816 Paint/Writr's Ch.El**

Andy Gavin (703) 734-3049

**Macintosh**

**General**

Jeff Alpher<sup>to midnight</sup> (301) 630-2036  
Bob Wilbur (703) 379-2960  
Donald Schmitt (717) 334-3265  
David Gursky (703) 522-8345

**Art & Video**  
 Nancy Seferian (202) 333-5817

**Borland Products**  
 Doug Ferris *day only* (800) 826-4768

**Data Bases**  
**Fourth Dimension**  
 Bob Pulgino (202) 474-0634

**FileMaker+**  
 Tom Parrish (301) 654-8784

**Helix**  
 Jim Barry *to midnight* (703) 662-0640  
 David Gursky (703) 522-8345  
 Harvey Levine (301) 288-9380

**MS-File**  
 John Love (703) 569-2294  
 John Spencer (301) 730-1084

**Omnis 3 & 3+**  
 Paul Tabler (703) 278-8657  
 Jeff Alpher *to midnight* (301) 630-2036

**OverVue**  
 J.T. Tom DeMay, Jr. (301) 461-1798  
 Tom Parrish (301) 654-8784

**Desktop Publishing**  
**General**  
 Jay Rohr (301) 655-0875

**PageMaker**  
 Eleanor Sontag (301) 251-0695

**ReadySetGo**  
 Jim Graham (703) 370-5737  
 Marty Milrod (301) 464-5981

**Graphics**  
**General**  
 Bill Baldrige (301) 779-8271  
 Jay Rohr (301) 655-0875  
 David Gursky (703) 522-8345

**Adobe Illustrator**  
 Ling Wong (703) 378-5102

**Canvas**  
 David Gursky (703) 522-8345  
 Bill Baldrige (301) 779-8271  
 Tom Parrish (301) 654-8784

**MacDraft**  
 Bob Wilbur (703) 379-2960

**MacDraw**  
 Tom Berilla (301) 434-3256  
 Tom Parrish (301) 654-8784  
 John Spencer (301) 730-1084

**HyperCard**  
 John Love (703) 569-2294  
 Holger Sommer (301) 474-3467  
 Rick Chapman (301) 989-9708

**Inside Mac**  
 Jon Hardis (301) 330-1422  
 John Love (703) 569-2294

**Languages**  
**Pascal**  
 Michael Hartman (301) 445-1583

**Machine**  
 Ray Hobbs (301) 490-7484

**MS BASIC**  
 John Love (703) 569-2294

**MacMoney**  
 Chuck Sicard (301) 963-2879

**MacProject**  
 Jay Lucas (703) 751-3332

**Spreadsheets & Graphics**  
**General**  
 David Morganstein (301) 972-4263  
 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

**Slidekick**  
 Ray Hobbs (301) 490-7484

**Telecommunications**  
**General**  
 Allan Levy (301) 340-7839  
 David Gursky (703) 522-8345

**MacTerminal**  
 David Gursky (703) 522-8345

**Versaterm**  
 David Gursky (703) 522-8345

**Thinktank-More**  
 Jim Graham (703) 370-5737  
 Tom Parrish (301) 654-8784

**Word Processors**  
**Word**  
 Marty Milrod (301) 464-5981  
 Harris Silverstone (301) 435-3582

**WriteNow**  
 Bill Baldrige (301) 779-8271

**WordPerfect—Mac**  
 Curt Harpold (202) 547-8272

**General**  
**Franklin & Laser 128**  
 Bob Martz (301) 795-5689

**Games-Apple II**  
 Charles Don Hall (301) 864-2715  
 John Wiegley *after 2:15* (703) 437-1808

**IBM**  
 Ray Hobbs (301) 490-7484  
 Leon Raesley (301) 431-0853

**Math-OR Applns**  
 Mark Pankin (703) 524-0937

**Modems-General**  
 Allan Levy (301) 340-7839

**Hayes Smartmodem**  
 Bernie Benson (301) 951-5294

**Practical Peripherals**  
 Allan Levy (301) 340-7839

**Music Systems**  
 Ray Hobbs (301) 490-7484

**Printers-General**  
 Walt Francis (202) 966-5742  
 Leon Raesley (301) 431-0853

**MX-80**  
 Jeff Dillon (301) 662-2070

**Stat Packages**  
 David Morganstein (301) 972-4263

**Stock Market**  
 Robert Wood (703) 893-9591

# Pitch In!

As you read this Journal, get help from the Hotline, and attend the general and SIG meetings remember that soul of the Pi is its volunteers.

**You too can be a volunteer!**

**Call the WAP Volunteer Bank**

at the Pi Office...654-8060

# APRIL

- 1 Saturday**  
9:00 AM ... Tutorial: Microsoft Word .....office
- 3 Monday**  
☞ Writers deadline—May issue  
7:30 PM ...PI-SIG (Program Interface) ..... mtg. cancelled
- 4 Tuesday**  
7:15 PM ... Tutorial: Introduction to Apple IIgs .....office
- 5 Wednesday**  
7:30 PM ... Mac Programmers .....office  
7:30 PM ...dPub (Desktop Publishing) SIG .....PEPCO
- 6 Thursday**  
7:30 PM ... GameSIG .....office  
7:00 PM ... Columbia Slice ..... Columbia
- 8 Saturday**  
9:30 AM ... Annapolis Slice ..... Anne Arundel Co.  
9:30 AM ... Frederick Slice ..... Frederick  
noon ..... Open Hearing: 2nd Decade Comm. .... Mazur Aud. NIH  
2:00 PM ... Music SIG ..... call for info.
- 10 Monday**  
☛ Editorial Deadline - May issue  
☛ Ad space reservations deadline - May issue  
7:15 PM ... Tutorial: Introduction to the Macintosh .....office
- 11 Tuesday**  
7:15 PM ... Tutorial: How to Use Apple IIgs Software .....office
- 12 Wednesday**  
6:30 PM ... Board of Directors Meeting .....office  
☛ Ad copy deadline - April issue
- 13 Thursday**  
8:00 PM ... StockSIG .....office  
7:30 AM ... Database/4D SIG ..... Computer Factory
- 17 Monday**  
7:15 PM ... Tutorial: Intermediate Macintosh .....office
- 18 Tuesday**  
7:15 PM ... Tutorial: Popular Apple IIgs Applications .....office
- 19 Wednesday**  
7:30 PM ... Excel SIG .....office  
7:30 PM ... AVSIG ..... BCCHS  
7:30 PM ... HyperTalk SubSIG ..... Arlington
- 20 Thursday**  
8:00 PM ... PIG (Pascal Interest Group) .....office
- 22 Saturday**  
8:00 AM ... AppleWorks GS SIG (also at noon) .....USUHS  
9:00 AM ... WAP General Meeting (until 3:00 PM) .....USUHS  
noon ..... NeXT SIG (sponsor of general meeting) .....USUHS  
noon ..... HyperCard SIG .....USUHS  
noon ..... Telecomm SIG .....USUHS
- 24 Monday**  
7:00 PM ... Apple IIgs SIG ..... Bethesda  
7:15 PM ... Tutorial: Introduction to the Macintosh .....office
- 25 Tuesday**  
7:00 PM ... Works SIG .....office
- 26 Wednesday**  
7:30 PM ... Apple III SIG .....office

## Have a Date?

Call Peter Cook  
with Club News and Calendar Dates  
(301) 585-7657

## WAP General Meetings

Monthly General Meetings are generally held on the 4th Saturday of the month at the Uniformed Services University for the Health Sciences Building B, affectionately known as USUHS. It is located at 4301 Jones Bridge Road on the campus of the National Navy Medical Center in Bethesda. Come as early as 8:30 a.m. to join, buy public domain disks, pick up your monthly WAP Journal. Attend the Q&A sessions to get your questions answered and hear the latest rumors. Listen to the main meeting topic at 9:30. We also have a special session to welcome new computer users and get them started. Group purchase items can be bought at the office after the meeting, beginning at noon.

### April 22 at USUHS, 9:30 AM to 3:00 PM

MusicSIG annual concert. Special NeXT SIG program features Bruce Webster, author of "The NeXT Book." Cafeteria open for lunch. Pre-Mac World special session. Rick Barron, President of Affinity Microsystems, demonstrates Tempo II. Guy Kawasaki, Rick Barron, Terry Kunysz, and more. See pages 5 and 23 for details.

### May 27 at USUHS

Springboard Software's John Paulson. A Claris demonstration of MacWrite II. Apple II retrospective. Election ballots distributed.

## Meeting Notices

**Annapolis Slice 2nd Saturday;** Anne Arundel Community College - Careers Bldg. lecture hall, Arnold, MD, 9:30 AM.

**Apple IIgs SIG** the Monday after the regular WAP meeting; alternates between Dolly Madison Library in McLean and Thomas Pyle Intermediate School in Bethesda, 7:00 PM.

**Apple III SIG** 4th Wednesday; WAP office, 7:30 PM.

**AVSIG** (arts and video) 3rd Wednesday; Bethesda—Chevy Chase HS 7:30 PM

**Columbia Slice 1st Thursday;** at the Howard County Board of Education bldg., Route 108, Columbia, 7:00 PM.

**Database SIG/4D 2nd Thursday;** Computer Factory,

## April

S	M	T	W	T	F	S
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2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## Meeting Notices (continued)

- Bethesda, 7:30 PM.
- dPub SIG (desktop publishing) 1st Wednesday; PEPCO auditorium at 1900 Pennsylvania Ave., N.W., 7:30 PM.
- Excel SIG 3d Wednesday; WAP office, 7:30 PM.
- Fed SIG (Federal) *no meeting in April*. 3rd Wednesday; alternates between Falcon Training Center, 1745 Jefferson Davis Hwy Suite 502, Crystal City, and Apple Fed. Sys. Office, 1892 Preston White Dr., Reston, 7:30 PM.
- Frederick Slice 2nd Saturday; at the library at 110 East Patrick St., Frederick, 9:30 AM.
- GameSIG 1st Thursday; WAP office, 7:30 PM.
- HyperCard SIG after the WAP general meeting; Uniformed Services University of the Health Sciences, Bethesda, 12:00 noon
- HyperTalk SubSIG 3rd Wednesday; Fairlington Community Center, 3300 S. Stafford St., Arlington, 7:30 PM.
- Mac Programmers 1st Wednesday; WAP office, 7:30 PM.
- MusicSIG 2d Saturday; call Bill Bittle at 236-9898 for location and times.
- NeXT SIG meets monthly. For info. call Hugh O'Neill (202) 328-9510.
- PIG (Pascal Interest Group) 3rd Thursday; WAP office, 8:00 PM.
- PI-SIG (Program Interface) *no meeting in April*, 1st Monday; WAP office, 7:30 PM.
- StockSIG 2nd Thursday; WAP office, 8:00 PM.
- Telecomm SIG after the WAP general meeting; Uniformed Services University of the Health Sciences, Bethesda, 12:00 noon
- Tutorials are held in the WAP office and at the Fairlington United Methodist Church, Rte. 7 and 395, Alexandria. Call the office for the location of any you wish to attend.
- Works SIG 4th Tuesday; WAP office, 7:00 PM.

For information on SIG's not listed on the calendar, please call the appropriate SIG chair. Phone numbers are listed on the Officers, Staff, and Volunteers page.

### May

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

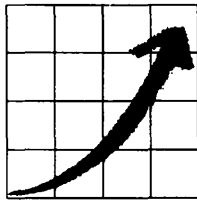
## MAY

- 1 Monday**  
 • Writers deadline—May issue  
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 8:00 PM .... PIG (Pascal Interest Group) ..... office
- 22 Monday**  
 7:00 PM .... Apple IIgs SIG ..... McLean  
 7:15 PM .... Tutorial: Introduction to the Macintosh ..... office
- 23 Tuesday**  
 7:00 PM .... Works SIG ..... office
- 24 Wednesday**  
 7:30 PM .... Apple III SIG ..... office
- 27 Saturday**  
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 9:00 AM .... WAP General Meeting ..... USUHS  
 9:00 AM .... NeXT SIG ..... USUHS  
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 noon .... Telecomm SIG ..... USUHS

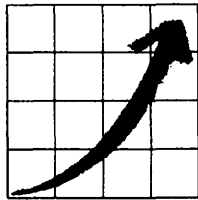
Tutorial details are on page 87.

# Find out what's up at MACWORLD Expo.

**Attendance 1985 - 1988**

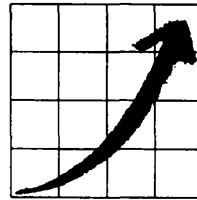


San Francisco  
Up 144%

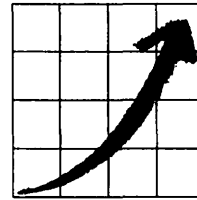


Boston  
Up 166%

**Expo Booths 1985 - 1988**



San Francisco  
Up 300%



Boston  
Up 280%

You can always count on seeing the newest, the best and the most at MACWORLD Expo. That's why, year after year, the original Macintosh-exclusive computer show keeps getting more and more popular, both for users and for vendors.

Fact is, MACWORLD Expo will:

- **Save you time and money . . .** by literally putting at your fingertips the hardware, software and peripherals that represent the entire state of the art of Macintosh™ computing. *You'll make smarter buying decisions.*
- **Build your knowledge . . .** by enabling you to attend a helpful tutorial that meets your specific need, whether you use your Mac at the office, at school or at home. *You'll learn from the experts.*
- **Develop your skills . . .** by giving you plenty of opportunities to practice what you've learned, using one of the many Macintoshes that will be available to you. *You'll get hands-on experience.*

The number of MACWORLD Expo cities is up too.

Now our nation's capital joins San Francisco and Boston in hosting MACWORLD Expo. You'll see special emphasis on the products, systems and applications representing the specific needs of government agencies and operations.

**Pick from these Expos still to come in 1989:**

**WASHINGTON, DC**  
April 26-28, 1989  
DC Convention Center

**BOSTON**  
August 10-12, 1989  
Bayside Expo Center • World Trade Center

**The next move is up.** Just fill in, detach and return the coupon below to MACWORLD Expo, Box 155, Westwood, MA 02090. We'll mail you the information you need to: get a special reduced rate on your admission, avoid the registration lines and make the most of your time learning what's up.

## What's up, MAC?

Please send me details about attending the following MACWORLD Expo:

Washington, DC April 26-28, 1989     Boston, August 10-12, 1989

Name \_\_\_\_\_ Company \_\_\_\_\_  
Street \_\_\_\_\_ City \_\_\_\_\_  
State \_\_\_\_\_ Zip \_\_\_\_\_ Phone \_\_\_\_\_ WAPI

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# General Meeting Reports: February 1989

## Apple

by Bob Siegel

"Attention, Will the meeting come to order?" An estimated 125 people became quiet in the comfortable USHUS auditorium. The Mac group was packing their equipment and we began to set up ours. Ray Hakim continued, "Will someone volunteer to take notes?" Silence. Everyone looked at each other. I could not take the silence, up went my hand. What I did not know was that I no longer had a deadline of 1 1/2 weeks no matter how snowy it was outside. I was accepted quickly despite being at my first WAP meeting—an unknown.

Ray Hakim was excited. His voice as well as his walk had a bounce to it. "Today we are going to demonstrate two tax programs: TaxView by Softview and Appleworks Tax Template:1988 by Paul Koskos."

Bob Platt took over the TaxView demonstration. His enthusiasm was also contagious. You must have an IIgs with 768K memory; either a hard drive with a 800K floppy drive, or two 800K floppy drives; and in order to print the forms you must use one of the three ImageWriters (I, II, or LQ). Taxview was developed by the same people that brought out the highly successful MacInTax last year. It handles forms 1040, 1040A, ES, EZ and, 4868. It picks the other forms (88) as needed. Since TaxView just arrived only hours before the meeting, Bob had not put the tax package to actual use. Retail cost is \$100.00.

A disk-eating drive prevented a full demonstration—all were disappointed. Bob asked for a volunteer reviewer for the Journal. My hand floated higher especially after he said the reviewer could keep TaxView.

The same disk-eating drive prevented a demonstration of Paul Koskos's famous shareware tax template. Paul reviewed the changes he made in depth. The template is available also on 5.25 or 3.5 disk complete with instructions and several memory configurations for AppleWorks.

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If you have 90K of extra memory it will even transfer to the right form. Ray Hakim reminded us that shareware means that if you use a product, you should pay the fee that the author asks because it is not free. A question and answer session followed.

After the meeting, Bob Platt handed the TaxView software to me and thanked me for offering to give a demo for the next WAP meeting at Georgetown Medical School. My eyes became very dilated then bounced back when I said, "Sure, no problem." After the meeting, I reflected that this very large club was made successful by the work of just a few people. These people have to take many hours out of their busy time schedules to develop, organize, present, set-up, and dismantle the meetings. I was impressed with their strong responsibility and how they pulled things together. The meeting was also fun. After reading the Journal for about a year and accessing the TCS, it was wonderful to see the people in person. I even managed to get free software! I will be back again for the next one to give you my TaxView demo. 🍏

## Macintosh

by Karen Rall

Over 200 WAP members braved the winter cold to see the exciting presentations from Informix, Tektronix and Symantec.

### Wingz

Wingz, from Informix, is finally shipping and it lives up to all the pre-release hype. Wingz (pronounced like wings) is a powerful, programmable spreadsheet program that does graphs. Numbers are nice and accurate, but you need a graph to convey meaning to others.

Mike McCamen, from Informix, compared graphing with Wingz to graphing in Excel. Excel has 42 types of graphs, while Wingz has 20. But don't let these numbers fool you. Wingz has more graph types. The numbers do not work out, due to the differences in how Excel and Informix define a graph type. Excel counts every single variation as a separate graph type. For example, if a line graph is created, then that is considered a graph type. If the same graph is displayed with grid lines, that is a second graph type. In contrast, Wingz considers a variation as style changes, in the way that font styles can be chosen for any font type. So Wingz can create more variations from graph to graph.

What types of graphs does it do? All the standard types, in addition to three-dimensional graphs which you can rotate and view from any side. Any data can be displayed in three dimensions. Mike showed us a color bar chart, filled with tiny multi-colored bars. Then he said, "Or would you rather see it like this?" With a click of the mouse, the data was transformed into a three-dimensional contour map of the Grand Canyon that looked like it was drawn with a CAD program.

Another illustration was of a line graph, the kind that does a best-fit curve of the data points. This same data can be displayed in three dimensions as ribbons of color. Mike men-

tioned that sometimes it is difficult to present your point to someone. He then rotated the graph so it re-drew the screen with the ribbon coming forward as if to hit you in the face. "See the point NOW?" (You really had to be there...)

Text can be a part of the data. It is linked into a cell on the spreadsheet. Each character can have a different font or style. The text can have a dynamic link to the data. For example, if there was a number in the text that needed to be updated, this number could be linked to other cells and updated as the spreadsheet changed.

Wingz does not use macros. Instead, it has a scripting language called HyperScript that has a HyperTalk flavor to it. HyperScript is an event-driven language. It uses the concept of buttons and links. The buttons can be attached to the worksheet. A button is an object, so it can have any color or font. The buttons have scripts. The entire user interface for Wingz is written in HyperScript. It is in a text file that can be opened and modified to fit specific needs. Everything, including the Menu Bar, can be adapted to your specifications. It is easy to add menu items and things like pop-up menus in the middle of the worksheet. You can even simulate the Excel Menu Bar for easy transition (although there is a distinct loss of full facility of either program by doing this). There is a macro-like feature that will record all of your keyboard actions into a script for you.

Although not as flashy as the color graphs, this ability for customization appears to be the real power of Wingz. During this part of the demonstration one could hear many an "Oh my" from our sophisticated, high-tech-cool audience.

Mike then demonstrated another really useful feature: how you can incorporate sound into your spreadsheet. Mike has created a sound resource of numbers. The numbers read back the data stored in each cell. This frees the data entry person to check the numbers while the Macintosh reads off the data that was typed in.

There is extensive on-screen help. The help screens can be placed like stick-on notes all over your screen.

The images can be printed in color on color printers, or if you choose black and white, the on-screen colors are converted to shades of grey. For the Imagewriter, you would need to use patterns.

Lifetime technical support is free (you only pay for the telephone call). Informix is holding developer seminars around the country presently, where they will teach you not only how to use the product, but also how to use the programming language. If you attend the seminars for \$495, you get the information, the Wingz package and access to the 800 number technical support line.

Informix held a drawing and gave out four copies of the Wingz product. Two hundred Wingz test flights were also distributed. (These are two-disk, demo versions of the product.)

### Tektronix Color QuickJet Printer

Color graphs and graphics can finally be transferred to paper. Tektronix has just announced 2 more color printers to round out the product line. The high end is a \$16,000 color Postscript printer. The low end is the \$2495 color QuickJet Printer.

Chris Smith from Tektronix showed off the printer. The Color QuickJet printer works on regular paper or the coated kind. It even prints on overhead transparency material. The overheads used with this demonstration were created using the color QuickJet and were very attractive.

The QuickJet was designed to work with the Macintosh. The importance here is that its 216 DPI output is three times the screen resolution. This simplifies printing by matching resolution with what you see on the screen. Bit-mapped graphics are easily replicated without any of the "blockiness" of other printers.

It uses a SCSI interface which can be daisy chained onto other SCSI devices. This means you don't need to unplug something from the back of your Mac in order to use it.

The printer does screen color, 8-color, black and white and grey scale. It uses 16.7 million colors and is compatible with 32-bit QuickDraw. The printer is set to match the colors in an

Apple monitor, but you can tweak the RGB values in a color-match box to create close matches with other monitors. Colors shade smoothly.

Eleven fonts ship with the chooser level driver. The driver also allows you to save any image as a PICT file instead of printing. You can set for no page break, or do mirror printing for things like T-shirts (you can buy third party t-shirt transfer ink).

It prints up to one-half inch from the edge of the paper. It takes about two minutes for a standard letter-size paper to be printed, and four minutes for a transparency. To ensure best color for transparencies, the image is printed twice.

Each sheet will cost about 70 cents to print, compared with \$1.20 for the competitor. The color refills come in containers that look like a pen. In the front is a panel which opens. You just insert the refill pen and squeeze. That's all there is to it.

### Tektronix Donates Color QuickJet Printer to WAP!

The biggest excitement of the February show was when Chris Smith announced that Tektronix will donate a QuickJet Printer to the WAP office. The attendees gave a really enthusiastic round of applause, hoots and whistles for that special gift.

Chris' generous gift will be a welcome addition to WAP's new offices. This is a gift that will benefit our membership for a long time to come. As soon as it gets here, be sure to stop by and take a look. This printer will be shipping in late March and should be available locally from Clinton Computer and Falcon Microsystems.

### SUM

Ted Schlien from Symantec showed how to protect your data and recover from an unfortunate disk event using Symantec Utilities for Macintosh (SUM). SUM is a comprehensive set of disk utilities that improve disk performance and do data encryption and data recovery.

One day, each of us will try to turn on a Mac and no Happy Mac icon will appear. SUM is one of the best ways to minimize the disaster of such an event. SUM has a utility called



Guardian which can be installed in anticipation that it may actually happen to you. If you took the advanced precautions, you probably can have your drive functioning again in five minutes to under an hour. If not, you can rush out and buy a copy of SUM and once you get it home, revive your drive in one to five hours. Either way, it really beats the loss of everything on your drive.

The SUM utilities include:

*HD TuneUp* de-fragments your files. (It is a good idea to back up your drive before beginning any optimization, just in case of a power failure or glitch.)

*QuickCopy* is a quick floppy disk copy program.

*HD Partition* divides your drive so that you can encrypt some of your data. This protects your work from prying eyes.

*Disk Clinic* is like taking your Mac to the doctor. It asks you a series of questions, then writes out a prescribed course of action. It often gives more than one possible treatment. Start with the first and if that does not work, continue until your problem is solved.

*Guardian* is an invisible data file which saves the information necessary for quick recovery of your data. Update this file regularly. You can choose when you want this done, and whether you want it done manually or automatically (like when you shut down).

Ted gave us a step-by-step demonstration of how to recover a 70 megabyte hard disk. It looked to be straightforward. It helps to know that there is a way to recover from many disk problems.

He offered a 50% discount on SUM if ordered at the meeting.

During the question and answer session, our speakers dispersed around the cafeteria to answer questions on a more personal level. ☘

## Temp SIG?

Jess Porter is interested in starting a SIG for people like himself who use Macs to earn a living as freelancers or temporary workers.

Please write to him at:  
PO Box 3112  
Gaithersburg, MD 20878

# Frederick Apple Core



by Oscar Fisher

## February Meeting Notes

February's meeting was a good one for the FAC, with the addition of nineteen new members, and many more new faces. The winner of this month's software raffle was Tony Svajlenka, who walked away with PIRATES for the Apple IIe, IIc. Remember that for the token amount of \$1.00, FAC members can participate in the monthly raffle for the games donated by MicroProse Software.

For the IIgs, Scott Galbraith demonstrated the commercial quality game of Yahtzee. This is a public domain, super hi-res graphic game written by David Buell in TML Pascal. From the looks of the title screen alone, one can tell that this is no mediocre game. As with past Disks of the Month, and current FAC library software, this can be purchased from the club on a 3.5" diskette for \$4.00.

Our feature program this month was presented by Roger Meade of Frederick Computer Products, who was kind enough to demonstrate the new Apple CD-ROM player which is compatible with the IIe, IIgs and Mac. For approximately \$1,200 you can have at your fingertips the capability of reading compact disks containing up to 650 megabytes of data. If it is equipped additionally with two speakers, the system provides an ideal tutorial medium as well as an audio CD player. Roger provided a sample demo of an application database being released called "Medline," a medical research dictionary containing a wealth of abstracts and references to further published material. By typing in a series of keywords the program will search for all related articles. It also gives you a graph of the percent relevancy of each article to the keywords entered and allows you to retrieve those of your choice. Of course, CDs of this nature command prices in

the range of \$140 - \$160, but for 650 million bytes of information on an almost indestructible medium, I think you'll agree the cost is modest.

Are there other uses? Well, how about this. Let us suppose you enjoy listening to your favorite relaxing melodies while doing your word processing or other computing. Not everyone has a CD player in their office. With the Apple CD-ROM player, you do! This system also features a complete audio software control panel. Load in a disk, then type in the location of each of the songs on the CD and save the info to your hard drive. When you load in that disk again it will recognize it and give you the list of the songs for that disk. The audio panel features full audio programmability. You have the option of selecting songs or music to play in any order you choose, or you can select the "shuffle" feature which chooses the music at random. You can quit from the audio menu and run any other program of your choosing while listening to your favorite music.

For March's Disk of the Month for the Apple IIe, IIc, & IIgs, we have another commercial quality game called "Monopoly." Based on the board game, it retains all of the good aspects of the game without all the mess of handling the money, houses, hotels, etc. The program does it all for you. The disk also contains AppleWorks help files for use with the Timeout series, and some additional fonts for the GS which I am told can also be used with other Apple // computers. For the Mac, the Disk of Month will feature PostScript Fonts for the LaserWriter, Encapsulated PostScript graphics file, SCSI Accelerator Evaluator (tools to speed up your hard disk and measure its performance), and Stack Compactor to compact HyperCard Stacks. In addition it will include Anonymity, a program to remove the personalization message from many programs.

## FAC Help Line

The following individuals are volunteering to make themselves available to render assistance for both software and hardware problems on specified equipment. Please limit calls

to reasonable evening and weekend hours and never after 10 P.M.

Frederick		
Oscar Fisher 694-9237	II	
Dick Grosbier 898-5461	II	GS Mac
Harold Polk 662-6399	II	
Tony Svajlenka 694-6209	II	
Doug Tallman 663-3268		Mac
Monrovia		
Scott Galbraith 865-3035	II	GS
Mt. Airy		
Stephen Hadley 831-5353		Mac
Smithsburg		
R. Carl Myers 824-7122		GS Mac

### Future Meetings

The Frederick Apple Core meets the second Saturday of each month at the C. Burr Artz Library, 110 East Patrick Street in downtown Frederick, at 9:30 A.M.

We are actively searching for a place to hold our May and November meetings, as the library is not available on Saturday November 11th. This is Veterans Day, a legal holiday and possibly not a good time to hold our meeting. 🍏

## Annapolis Slice



by Katherine M. Cave

CRABBS (974-0221) has several new sections, including "Echo Mac," "Mac Developer," and "For Sale." In the Public Message section, a new title, "Ask the Lawyer," will bring responses from Allen Neidermayer.

Articles for the WAP Journal and the CrabApple are being encouraged through a bonus program. The first article published will bring a lapel pin, and succeeding articles will each be allowed a \$3 credit toward an Apple selection of items to be offered in June. Articles should go to the Secretary, Kay Cave, 1715 Woodlore Road, Annapolis, MD 21401.

Membership Chairman Bill Derouin announced 80 paid up members. 32 have not renewed from last year, so

will lose their bulletin board member privileges and receive no more newsletters as of the end of February.

Jones Intercable has a new program called Xpress. The \$99 box is attached to the TV, and through it and the computer, one can receive stock quotes, international news programs, wire services. The Apple IIC and II+ and IIE need super serial cards.

The April 8 meeting will be on Financial Planning, and the May 13 meeting will be on Games.

General Meetings are the second Saturday of the month in the Lecture Hall of the Careers Building at Anne Arundel Community College, Arnold, MD. Disketeria and Group Sales begin at 9:30 a.m.; program begins at 10 a.m. Pres. Charles Schindler, 437-4624.

Executive Board meetings are Friday following General Meeting, 7:30 p.m., 1715 Woodlore Road, Annapolis; members are invited.

Mac SIG meets the third Thursday of the month at the West Street (Annapolis) branch of the Anne Arundel Co. library, 7-9 p.m. Call Bob Peterson, 721-9151, for info.

Apple II SIG meets the fourth Wednesday of month at Magothy Middle School, Arnold, MD, 7-10 p.m. Call Craig Contardi, 674-2344, for info.

Laptop SIG meets in homes at various times. Call Seth Mize, 766-1154, for info. 🍏

# Columbia Slice News

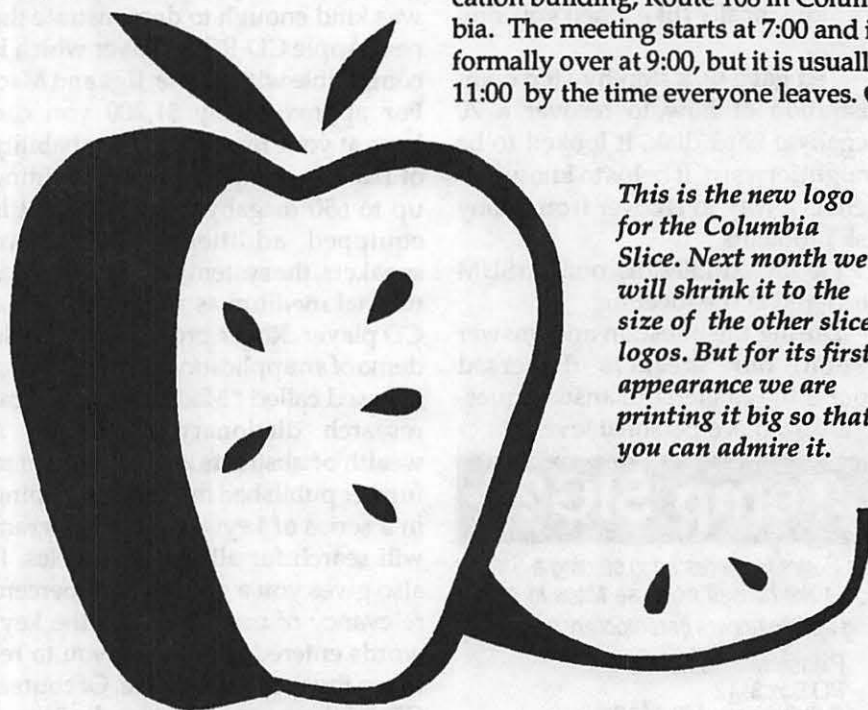
by Steven H. Gaston

The March meeting of the Columbia Slice featured Pat Cappalaere demonstrating "sound on the Mac" with SoundMover and SoundMaster. Pat also demonstrated Suitcase II, and gave us a programmer's viewpoint of how fonts and DAs work.

We had another huge turnout of over 40 members, and if this keeps up we may have to move our meeting to a more accomodating location, possibly Apple's East Coast office here in Columbia. Hopefully, a move there would give us the added advantage of being able to use Apple's equipment for hands-on training, demonstrations, etc. However, the next few meetings will continue to be held at the boardroom of the Howard County Board of Education building.

At a meeting in the near future, Bernie Hernandez will demonstrate how computers can be used to generate music using a MIDI interface. Bernie is a local music teacher at the Columbia School of Music, and is a computer aficionado.

As usual, April's meeting will be at the Howard County Board of Education building, Route 108 in Columbia. The meeting starts at 7:00 and is formally over at 9:00, but it is usually 11:00 by the time everyone leaves. 🍏



*This is the new logo for the Columbia Slice. Next month we will shrink it to the size of the other slice logos. But for its first appearance we are printing it big so that you can admire it.*

# NeXT SIG

by Hugh V. O'Neill

## Purpose, Goals & Objectives

The purpose of the SIG is to exchange information from an end-user's viewpoint on the capabilities (present and potential) of the NeXT computer/information system. The goals and objectives include the following:

1. Presentation of timely, accurate and complete information on the performance characteristics, hardware and software of the entire system.
2. Discussion of applications in various areas including: education, research, medicine, law, decision-making/management, policy making/analysis, science, etc.
3. Cost-effectiveness/benefits/performance evaluation from the viewpoint of the end-user.
4. Special topics such as networks, information system security/integrity, etc.

## February 1989 Meeting

The NeXT SIG met at the University of Maryland's Computer Science Center at 7:30 p.m. on February 27, 1989. Our hosts were Jennifer Fajman (Manager of Academic Environments), John Carroll (Coordinator of Hardware Services), Mark Feldman (Consultant) and Hollis Ross (Programmer). The goal/objective was to present some fundamental information and to see/use the NeXT Computer System. Two brief and informative presentations were made and then the machine was demonstrated in the stand-alone mode and two NeXT Systems were operated in the network mode.

The audience included medical doctors, educators/trainers, physicians, government employees, private sector people as well as academicians (U. of MD and Georgetown). During the second half of the meeting, individuals from the audience were allowed to use the machines.

The University of Maryland currently has 25 NeXT computers on campus. Obtaining, using and evalu-

ating the systems are all part of the University's plan to supply every faculty member and 1 in 20 students a capable work station, e.g., a NeXT class system. This means thousands of NeXT class machines by the early 1990's.

The NeXT SIG plans to meet at University of Maryland again later in the year (when the operating system version 1.0 will be available) with additional demonstrations and hands-on uses by the audience. 🍏

# DTP SIG

by Steven Payne

"Life after 300 d.p.i." was the theme of the March 1st meeting of the desktop publishing special interest group. During the initial "question and answer" phase, members discussed System 6.03 for the Macintosh, Apple's first entry in a new series of machine-specific upgrades. In this case, unless you have a Mac IIx or SE30, or are investing in one of the new FDHD drives, stick with System 6.02. The new version is only meant to take advantage of the 68030 chip and solve certain difficulties with Apple File Exchange on the new hardware.

Members also talked about memory upgrades, the WAP group purchase of same, and the question of whether installing memory chips yourself voids the warranty. Since Apple has included expansion slots, someone said, they have to allow for some work inside the machine by owners.

Folks had high praise for 1st Aid Kit HFS (1st Aid Software, Mac with 1MB of RAM or better, \$99.95 list) and Symantec Utilities for Macintosh (Symantec, Mac512Ke or better, \$99.95 list) when trying to recover data from a hard disk.

There were announcements for the "Graphics Communications: Type-X, Art-X and Printing" Expo in Philadelphia (April 6-8) and Folio's Magazine Publishing Congress in New York (May 22-26); call (212) 418-4118 or (203) 358-9900, respectively, for more details.

The SIG's DTP seminars have been very successful; more are

planned for the future.

Bitstream has announced that it cracked Adobe's PostScript encryption code, and will soon be releasing hundreds of "functional equivalents" of the Adobe fonts.

Closer to home, we learned that the dPubSIG's favorite paper for laser printing (Consolidated Paper's 70lb FrostBrite White Matte) is available from Alling and Cory at a very reasonable price; if interested, call them at (800) 523-2012. We won't have to bother with group buys any more!

Next, Chairman Tom Piwowar introduced the meeting's feature, a panel discussion of desktop publishing at resolutions higher than 300 d.p.i. (dots per inch). David Geller from Electric Logic began with a presentation on the BirmySetter 300 (from Birmy Graphics of Florida). It is a high resolution PostScript clone typesetter, capable of rendering type at 3,000 d.p.i. on paper, plate or film. In place of Adobe's PostScript, it relies on an RIP translator. The machine comes with 8 to 12 MB of RAM, and uses an infrared laser diode as an imaging source, as well as an Ultrasetter from Hell (the company, not the place!). It does very well in speed tests, and works over EtherNet; *The Washington Times* uses one to produce their 800 page monthly, *The World and I*. The Birmy 300 weighs only 72 lbs. and costs around \$35,000.

Ron Moore (Unicorn Graphics) talked about the greatly improved PostScript on the Linotron. He showed samples of projects using multiple fonts which version 47 was unable to handle, but which ran perfectly using version 49. He also talked about modifying APD files to allow 40-inch-wide printouts. Ron reminded us of the importance of testing before attempting to run a complicated project on any high resolution printer.

David Buell (Imprints) briefly described the difficulties his company has had with the Varityper VT-600, which prints at 600 d.p.i. (four times as many dots per inch as Apple's LaserWriters). Most of the problems encountered with the VT-600 had to do with its uneven use of toner on the page, and so on. David claimed it took them six months to get acceptable output

from the machine, though others report more success with it. The machine requires constant maintenance to produce consistent results. They just got rid of their machine.

Finally, Tom Piwowar discussed PSO (PostScript Outline) typefaces from companies other than Adobe. Two major type foundries have begun to provide PSO type this year: Bitstream and Compugraphic. There is a problem that these typefaces do not reproduce as well as Adobe's at 300 d.p.i., because Adobe keeps its scaling hint methods secret. However, non-Adobe type does produce acceptable results at higher resolutions because hints are not needed.

The next regular monthly meeting of the group will be on Thursday, April 6th at 7:30 PM in the auditorium of the PEPCO building at 1900 Pennsylvania Avenue, NW. The local rep from Letraset will demonstrate Letra Studio and the new features in Ready-SetGo! 4.5, and promises dramatic news from the Seybold Conference. You are all invited. 🍏

## HyperCard News

by Robert C. Platt

### HyperCard SIG

The HyperCard SIG meets after the main WAP meeting at USUHS. Last month, Bob Platt demonstrated his adventure game based upon navigating the New York City Subway system. Rick Chapman demonstrated his new commercial collection of XCMDs called HyperExternals 2. It is available from Chapman, Heiser Software and APDA.

One of the most useful set of XCMDs in HyperExternals 2 speeds up the process of treating a field which has been delimited by comma into a matrix. XCMDs insert or extract particular "columns" in the field—that is, all items in all lines of the field with the same item number.

The March meeting will be held at Georgetown Medical School. We

expect to see SuperCard, demonstrated by Charlie Jackson. If this product is not ready in time, we will have a demo of Heiser Software's script compiler. Otherwise, the script compiler will be demonstrated at our April meeting.

### Disk Library

Our collection of Stackware continues to grow. You can purchase them at our monthly meetings, at the WAP Office, or by mail using the form in the back of the Journal. Dave Condit, our head Stackware Librarian, needs volunteers to sort through about 40 megabytes of material waiting to be processed. If you can review and document some stacks, please call him at (303) 349-8752.

### HyperTalk SubSig

John Chin is now the chairman of our HyperTalk SubSIG. It meets on the third Wednesday of the month at 7:30 p.m. at the Fairlington Community Center, 3300 S. Stafford St, Arlington VA. To reach the meeting, take I-395 to the Shirlington/Quaker Lane exit. Go south, one block past the first traffic light and turn right onto 33rd Street. Stafford St. is one block west of Quaker Lane, and the Center is at the corner of 33rd and Stafford.

### HyBase

A powerful combination can result from a HyperCard front-end

coupled with a serious database "engine" (that is, a program which is designed to retrieve information more quickly than the HyperCard Find command). One example is the stack Texas which prestores the location in large fields of specific words. HyperSQL from Oracle permits a HyperCard front-end on mainframe databases which support the Structured Query Language. Neither approach implements a HyperCard front end to an efficiently structured Mac-based database.

Now, HyBase appears to fill the missing gap. Reportedly, HyBase is a series of XFCNs which will support access to a database. Instead of using the SQL query language, HyBase uses its own language, called "Stretch." HyBase is produced by Answer Software, 20045 Stevens Creek Blvd, Cupertino, CA 95014.

The reason for needing a database engine in place of just the HyperCard Find command is that Find slows down in direct proportion to the size of the database, while other database techniques slow down only with the log of the size of the database.

### Tutorials

Our introductory HyperCard tutorial is back by popular demand. It will be offered on Monday night, May 29 at the WAP Office. A written account of the tutorial has been running as a series in the Journal. 🍏

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## WAP Office News

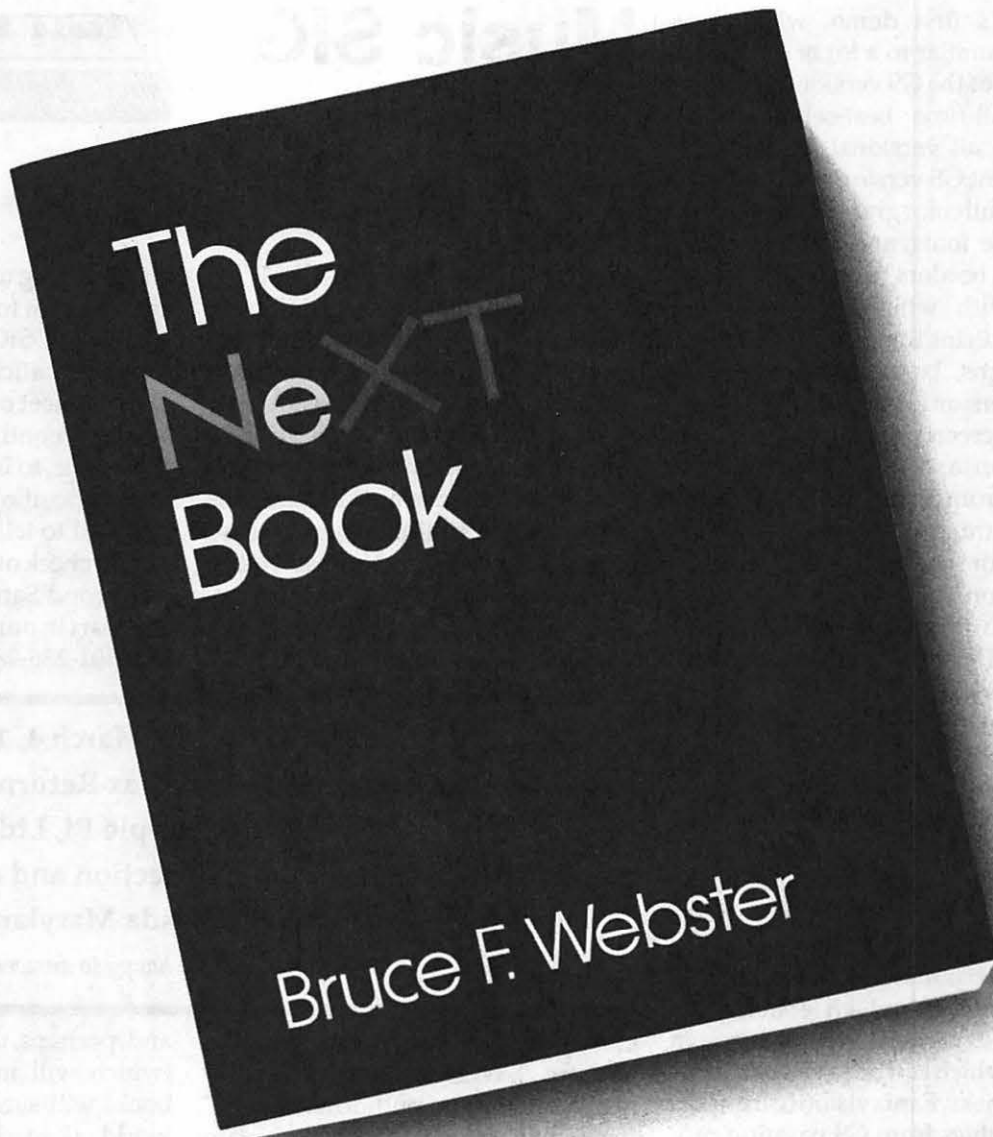
The Pi booth at FOSE distributed 600 membership applications during the three days of the show. We twice ran out of forms and had to send for more! Three volunteers were working the booth at all times and we were the busiest booth on the aisle. Thirty disketeria catalogs and 20 journals were sold. Thirty people signed up as new members on the spot. The show was really impressive due to the new, major presence of Macintosh hardware. Manufacturers stopped by the booth and were asking if they could please demonstrate their products to the Pi. They were very aware of the size and significance of the Pi.

The office move is ahead of schedule but the actual move dates will be April 1. If possible, we will move on March 25. We still need volunteers to help out. If you can help, please call Nancy at the office.

If you are holding a meeting, be sure to call Nancy with any room or equipment reservations.

If you can participate in any volunteer work, please call to match your interests with our needs. Also, please feel free to donate any plants, art, etc.

— Nancy Pochecko



# The First Word On The NeXT™ Technology.

From the time NeXT, Inc. began work on a new personal computer, its extraordinary features have been kept a well-guarded secret. Now, for the first time, the details on the revolutionary technology of the NeXT™ Computer System are revealed in *The NeXT Book* by Bruce Webster, one of the computer industry's foremost journalists.

As the only author who was allowed access to NeXT, Inc. during the develop-

ment of this remarkable system, Bruce Webster is uniquely able to discuss its innovative and truly impressive features: the read/write/erasable 256 Megabyte Optical Disk, the 68030 and 56001 microprocessor, the CD-quality stereo sound capability, the MegaPixel Display, and the sophisticated object-oriented programming environment. In addition, Webster demonstrates how to perform various functions and create

applications.

If you want to understand one of the most significant breakthroughs in computing today, *The NeXT Book* is the next book you should read.

Available wherever computer books are sold; Suggested retail price is \$22.95.

◆  
**Addison-Wesley  
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Ryan's first demo, which was already familiar to a lot of our members, was of the GS version of Broderbund's all-time best-seller (1.25M copies, in all versions), **Print Shop**. The current GS version of **Print Shop** includes full color graphics, upper and lower case fonts, and a large assortment of borders and background panels with which to do all the standard **Print Shop** tricks (greeting cards, signs, banners, stationery...). The GS version is mouse-driven, has a slick on-screen preview feature, and can import and modify **Print Shop** graphics from the older II library disks. The only thing that hasn't (yet) been adapted for the IIGS is the **Print Shop Companion**. New features include options to print your products full-size or reduced (turning a banner into a bookmark, for instance) and reverse printing in case you wish to start your own t-shirt business. (Tips for budding t-shirt entrepreneurs: you will need special heat-sensitive ribbons for your printer (try "Connections," 1-800-643-0800). You should use heavy weight paper in your printer when doing t-shirt transfers.)

**Fantavision GS** is a dazzling animation toolbox which enables the Apple IIGS owner to create his own movies, which can be saved onto self-booting disks. **Fantavision** can import SHR graphics from GS painting programs as backdrops for your creations. The **Fantavision** disk includes several impressive demos which can be modified or adapted to the user's needs. Pretty slick!

**Broderbund** has expanded into educational software, and already has three Mac products on the market, interactive high-school level texts on geometry, calculus, and physics. Of these, the **Geometry** program, based on the five standard high school geometry texts now in use in the USA, has been ported over to the IIGS, and the others will follow. This software, on three 3.5" disks, employs the standard GS interface to make a formidable subject (I remember!) a lot less tedious, using point-and-click to define terms or to highlight features in an illustration. A mouse-manipulated protractor can be used to measure angles, and resulting calculations will

# Music SIG News

by Raymond Hobbs



The March meeting (03/11/89) was held at the public library in Chevy Chase. Two dozen enthusiasts watched (and listened to) a demonstration of **Finale**, Coda Music's new notater/sequencer for the Mac. The first time a person sees the music appear on the screen as he or she is playing it is incredible. There were so many questions that we resolved to schedule another look at this program, perhaps in another two or three months. Our thanks to Mac Corner

for providing us with a really interesting program for our meeting.

**MUSIC SIG** is a group of music/computer aficionados that finds a place to meet on the second Saturday of every month to discuss computers and music, to listen to and play musical compositions, to share ideas and tips, and to tell stories.

To check out our next meeting, on the second Saturday in April, and to take part in our April concert, contact Bill (301-236-9898). 🍏

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Effective, Saturday, March 4, 1989:

The State and Federal Tax Returns of the  
Washington Apple Pi, Ltd

Are available for public inspection and copying at our  
Offices in Bethesda Maryland.

*Ed Myerson and Bob Platt will be happy to answer any questions.*

---

change on the fly (I guess you had to be there...). When the student is working problems, a pull-down "help" menu will refer to the appropriate page of text, or provide hints or the final solution. Why wasn't this around when I was in the tenth grade?

As time was short (we had to be out of the Dolley Madison Library before 9:00pm), Ryan just briefly mentioned **ShowOff**, a GS-specific slide show generator, and **VCR Companion**, which runs on all Apple IIs and enables the user to prepare title screens and the like for home video presentations.

Ryan's final act was a demo of the brand new IIGS version of "Where in the World is Carmen San Diego?" which has vastly upgraded graphics, a mouse interface, pull-down "dossiers" on the characters, and lots of other bells and whistles. This program runs under **Prodos 16**, and can be loaded onto a hard disk (keydisk protection scheme). The other Carmen San Diego programs (USA, Europe,

and, perhaps, the long-awaited Idaho (which will include a Boise phone book) will surely follow into the GS world. (I made up the Idaho part; sorry, Ryan.)

Owners of IIe versions of **Broderbund** programs can find out about upgrade procedures by calling 1-800-521-6263. Ryan also announced a bundling of **Ultima I, II, and III** in a single good-deal package for spring '89 release by **Origin** (I didn't figure out the connection between **Origin** and **Broderbund**), and closed the show with a few giveaways to our eager membership. The culmination was a trivia contest for the new **Carmen San Diego** program; the tiebreaker among the three finalists was won by **Milt Goldsamt**, who obviously took careful note of Ryan's short summary of the corporate history of **Broderbund** (and may have checked Ryan's driver's license when he came in!).

Our April meeting (Monday the 24th) will be at the Dolley Madison Library in McLean. Join us! 🍏

# Pascal News

by Robert C. Platt

## PIG

WAP's Pascal Interest Group meets on the third Thursday of each month in the WAP Office. We expect that the April meeting will be our first to be held in the new office at 7910 Woodmont Ave. (We note with a touch of PIG pride that our SIG was the first to establish a regular meeting date with our present office, and we look forward to many future years in our new digs.) Our basic purpose will remain the same: helping programmers (novice or experienced) learn more about Pascal and Modula-2.

## USUS

The UCSD p-System User Society, P.O. Box 1148, LaJolla CA 92038 continues to support users of the p-System on a variety of machines. It turns out that a majority of their members are Apple or Mac users! Frank Lawyer, who has been doing an excellent job heading the Apple II SIG, is also organizing a separate Mac SIG. His first achievement is a welcome disk for Mac owners which features a great deal of useful information in MacWrite format.

One interesting request that appeared in the most recent USUS newsletter is for a GIF decoder program written in UCSD Pascal. Reportedly, there are a number of such programs in the public domain which have been written in Turbo Pascal, but none have been written for the p-System. This sounds like a good group programming project. 🍎

# AVSIG

by Nancy Seferian

The next meeting of the AVSIG will be on April 19 at BCCHS. Scott Frederickson of Adobe Systems, Inc. will demonstrate Illustrator '88. He'll also talk about other new programs from Adobe. 🍎

# GameSIG

by Steven Payne

Using the February WAP Journal as our official clue book, several of us played our own version of WAP-Quest on March 2nd, looking for the regular GameSIG meeting at the address given for the new WAP Offices. Since the move did not occur on February 26th as announced, we lost experience points and sadly retraced our steps to the old location. (*Our apologies. We predict that the WAP will move into its new offices precisely on the day when all of the GameSIG shows up at the old office. Aren't you glad we're not moving to Crystal City?!—ed.*)

Once the meeting got underway, Chairman Charles Don Hall described and distributed the many software packages we had recently received for review. The packages distributed were:

**Dungeon Master** (FTL, Apple IIs): fantasy/role-playing game;

**GrailQuest** (Artworx, Mac with 800K drive, \$29.95 list): "World Builder" adventure;

**King's Quest IV: The Perils of Rosella** (Sierra, Apple IIs with 512K, \$49.95 list): latest installment in the "King's Quest" graphic adventures;

**Might and Magic II** (New World Computing, Apple IIs with 512K): fantasy/role-playing game;

**Street Sports Football** (Epyx, Apple II series with 128K, double hi res graphics, \$19.95 list): play 3 on 3 tackle football in the streets;

**TechnoCop** (Epyx & U.S. Gold, Apple II series with 128K, \$39.95 list): arcade-type racing and crime-busting game;

**The Usurper: The Mines of Qyntárr** (Sir-Tech, Apple II series, \$29.95 list): all-text adventure;

**Wizardry V: The Heart of the Maelstrom** (Sir-Tech, Apple II series with 64 K, \$49.95 list): a return to the classic "Wizardry" style.

Charles announced that Pool of Radiance (SSI) is now available for the Apple II, though the "Advanced Dungeons and Dragons" combat system takes too long on the computer. He also noted that New World Computing (publishers of Might and

Magic) have bought up several pencil-and-paper gaming outfits. No one had much information on Magic Candle (Mindcraft, Apple II series, \$49.95 list), mentioned in last month's issue, though there have been several complaints on the WAP TCS about War in Middle Earth (Melbourne House, Apple IIs, \$49.95 list), particularly because of some problems with the mouse requirements.

Jamie Kowalski won the monthly "Robot Wars" tournament against Jeff Stetekluh and David Romerstein.

David Porter brought in a beautiful scan of a photograph of the Washington Cathedral to use as an opening screen for Thomas Johnston's and Beryl Schwartztrauber's "Cathedral Adventure," which is still under construction. 🍎

# Mac Meeting Plans

April 22, 1989

by Eric Rall

For those members that may be unable to attend D.C. MacWorld (or just want a preview), I have put together a special Pre-MacWorld session for April 22 at USUHS. From 1:00 PM to 3:00 PM, a number of speakers are scheduled.

## Guy Kawasaki - Acius

Our keynote speaker will be Guy Kawasaki, president of Acius. Guy will be showing 4th Dimension 2.0. If you have ever had the opportunity to hear Guy, you know he is truly a captivating speaker. Kawasaki joined the Mac team at Apple while the Macintosh was under development. He left Apple in 1987 to become president of Acius.

## Rick Barron - Affinity Microsystems

If you like the concept of Apple's MacroMaker, but felt it left a lot to be desired, then plan on seeing Rick Barron demonstrate Tempo II. I am an unabashed fan of Tempo II and

make no bones about it. The first time Rick showed me Tempo II, I was amazed. Barron is president of Affinity Microsystems and his abilities with Tempo II make me positively green with envy. Rick has been generous enough to donate a copy of Tempo II and AffiniFile to be given away as a prize in WAP's membership contest.

### Terry Kunysz - Casady and Greene

If you made it to last year's August GameSIG extravaganza, you already know Terry Kunysz, VP Sales and Marketing for Casady and Greene. Terry was the one showing Crystal Quest with CritterEditor on the Mac II. Well, Terry has even more for us this time. Access Control Environment (ACE) is Terry's latest gem. This program is a hard disk access manager with multi-level security. ACE allows you to restrict others' access to files, folders, volumes, printers and a whole lot more. If you do any work

for those un-named federal agencies, you have to see this program. By the way, not to be outdone, Kunysz will donate a copy of Fluent Lazer Fonts to the WAP's membership contest.

### CE Software

You have to know who CE Software is to own a Macintosh. These are the people that have brought us Disk-Top (a DA I can't live without), Mock-Package, Vaccine (freeware), QuickEys and QuickMail. I don't have a speaker's name yet, but I am hoping that they will be so impressed with the competition that they will put their best forward. CE will be showing, among other things, QuickMail.

### Radius

Radius, the well known makers of accelerator boards and video monitors, will be at this meeting also. I am hoping that either Burrell Smith or Mike Boitch will be the speaker. Boitch, president of Radius, was an

Apple Evangelist along with Kawasaki. Wouldn't it be great to have them both at WAP?

?????

As always, you can count on many of our generous speakers to bring giveaways. Plan on bringing business cards or index cards with your name and address so that we can hold drawings without a lot of delay. Bring a few since I expect more than one raffle to be held.

I want to invite a few vendors to set up demos in the USUHS cafeteria. The cafeteria demonstrations would run concurrently with the presentations in the auditorium. If you feel strongly about this, please let me know. I can be reached by modem on the Twilight Clone BBS (946-5032) in the WAP conference or on the TCS in "Eric's Room" on Conference 1. My home number is listed in the front of the Journal. ☛

## Board of Directors Meeting

This is a quick summary of the March 8 WAP Board Meeting as provided by Bob Platt. Due to the early deadline this month the full minutes were not available to us. Please let the editor know if you find such headlines preferable to the two page summary we published last month.

1. Ray Settle has completed an Apple II version of the WAP Stack in TutorTech.
2. Minutes of the January meeting were approved with corrections that were posted on the TCS.
3. Ray Hobbs gave a brief membership report. We now have 6,070 members.
4. Lee Raesly gave a TCS report. Tom Warrick suggested that instead of taking up the Board's time, that the report be posted on the Pi DOV Board. This was agreed to. The Board approved two purchases for the TCS from Satellite Scientific.
5. Ed Myerson distributed financial reports through Jan. 31, 1989. Nancy Pochevko and Bob Platt will have authority to sign on all accounts for up to \$1000 individually, without cosignatures.
6. WAP will host/cohost a recep-

- tion at MacWorld Expo for other User Groups and various Apple dignitaries. We will place a \$500 refundable deposit on the reception site. Outside funding is being arranged.
7. We will rent our mailing list to the MacMasters Seminar Series.
8. WAP will underwrite the USUHS cafeteria to be open for lunch on Sat. April 22.
9. The Board selected a new telephone system for the Office. It will pay cash instead of a lease/purchase.
10. A personnel discussion followed on the occasion of the end of the new staff's three month probationary period.
11. Nancy Pochevko had drafted a new set of office procedures. They were distributed for comment.
12. The Section 501(c)(3) application will be filed by the end of March, using January data. (The data is not

allowed to be over 60 days old.)

13. The Audit Committee was encouraged to do as much work as their resources permitted. As agents of the Corporation, they will be held harmless for their activities.
  14. A committee was appointed to investigate some questions about the membership database.
  15. The Bylaws Committee report was presented a second time. The Board amended Article IV and tabled the other proposals. The Hare System will be discussed at the April 8 public hearing.
  16. The Board received a suggested handout from the Second Decade Committee to be used at the April 8 hearing. Tom Warrick raised some topics which he had posted on the Twilight Clone, and the Board asked him to meet with members of the Committee to develop an integrated list for further refinement by the Second Decade Committee.
  17. The Board adopted a policy on election logistics.
- Robert Platt, President



## Letters to the Editor

Dear Editor,

The Journal continues to grow and metamorphose in a positive way each month. In the March edition, computer-specific articles are more clearly labeled. Also, many articles were included relating to the Pi organization: the BOD minutes excerpts, the bylaws report, the WCC proposal, the Second Decade committee report, even an editorial or two on non-technical matters, and others. Let's continue to see more membership and user-group issues like this presented in future Journals! (Maybe condensed a bit!) I also have some particular requests and critiques:

1) The Marty Milrod WCC proposal continually referred to "we," but credit was only given to Marty. Notwithstanding your editorial disclaimer, the "we" should have been identified. The same is true of the Second Decade report. Who are these people? The names should have been included.

2) At the end of "Journal Business", you encourage members to express their opinions on the future of the Pi. Great, but by including the bylaw statement that 51 members could feasibly abolish WAP in the same paragraph, you strongly imply that this could happen at the April 8 meeting. As reported in the President's Corner, the Board of Directors excerpts, and the Second Decade committee report, the meeting is, of course, a public hearing at which no official decisions or action can be taken. Let's make sure this is clarified again in the next issue, especially since the public hearing is taking place at the same time and place as stated in the "Special Meeting" petition, which did intend to take drastic actions.

3) Consider resurrecting the "Volunteer Profiles" that adorned former issues (last one was May, '88). Let's recognize, and re-recognize, those who keep us going!

4) For some time now, the Journal has had a larger percentage of Mac-related articles than Apple II ones, and yet our membership is approxi-

mately 50/50. A couple of Apple II writers submitted more than one article for the March Journal. If there is a shortage of Apple II articles, the Journal should not limit authors to one article. Please strive towards keeping us Apple IIers fairly represented!

— Bill Wydro

Dear Bill,

Thanks for your comments. I appreciate your good words and am grateful that you raise some important points that I should address.

1) Who are these people? While it has been alleged that Marty's WCC proposal was ghost written by others who would prefer to remain in the background, Marty has personally stated to me that the proposal is his own. Who am I to say it wasn't?

The Second Decade Committee report was submitted to the Board of Directors meeting that I attended. It was unsigned. I did not want to drop it because it was related to the WCC proposal. I suppose we should be running a list of currently active committees and their members in each issue. Does anyone want to compile a list for me to run?

2) Can 51 members abolish the Pi at the April 8th meeting? Some say yes, some say no. Again, not for me to say. But I will say that if we do not have a full house on April 8th the answer should be yes.

3) Volunteer profiles. I like the idea very much. I will gladly run some every month. Please get them to me by the April 3rd deadline to run in the next issue.

4) Where is the Apple II stuff? As I have written in recent months I am working to build the Journal to serve the members better. But those who get served best will be those who serve themselves. Each month you can expect that we will reserve a few articles for the following issue. Some will be Apple, some will be Mac. By holding some copy in the "bank" we get a head start on the next month's issue and assure that we will not have a drought. How would you feel if we ran an issue with no Apple II material because we did not discover until it was too late that no Apple II material was submitted?

We try to hold over about the same

amount of Apple II and Mac material. We start each issue with the intention of running everything we have. As pages are composed some articles get squeezed out for a number of reasons: too long, too short, needs editorial help, ran other stuff by same author, trouble converting file format, disk got trashed, plum forgot, got lost on my desk, or whatever. Near the end of the production process we do consider the "ethnicity" of articles before we decide what to cut. The goal is to strike a balance in what is held over. If in a particular month you see more articles about a particular kind of Apple computer it is because more articles were submitted about that kind of computer. The best way for you to assure good Apple II representation in the Journal is to write Apple II articles for the Journal.

The Journal has both Apple II and Mac editors. It is they who control what I have available to publish. I want to publish as much as I can. It is the editors who write and solicit articles. If you want more Apple II material, work with the editors or volunteer to be one. —ed.

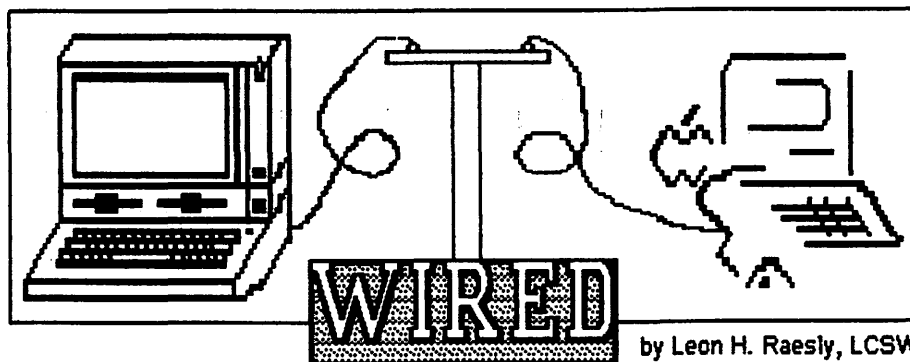
## UPDATE

### AppleWorks/Microsoft Works Tax Template Update by Paul Koskos

These templates have been corrected and updated to add the 1988 form 6251 (alternative minimum tax) which had not been released by the IRS at the original issue date. The author will supply the latest update to those registering as shareware users.

The following corrections can be made by those knowledgeable in spreadsheets: a) AppleWorks template IRS 88.b1 - formula in cell G441 should be + G391. b) AppleWorks template IRS 88.b1 and IRS 88 form 6 and Microsoft Works template - percentages in Tax Table Z should be 15, 28 and 33. c) AppleWorks template IRS 88.b1 and IRS 88 form 6 and Microsoft Works template - if taxable income on line 37 of form 1040 is under \$5 computed taxable income on the next line should be 0. If it isn't see the IRS tax table and insert 0.

My thanks to Dave Harris and George Sall for error checking.



by Leon H. Raesly, LCSW

## In the Beginning

...there was CP/M (Control Program for Microprocessors). At the start of the Bulletin Board movement, a gentleman in Chicago (Ward Christiansen) wrote the protocols for being able to send computer programs over telephone wires. He then placed it in the public domain, and encouraged others to use his "formulas" on other machines. These protocols became very widespread, and are known as the Ward Christiansen protocols, or, more familiarly, as Xmodem.

Later, with the development of even more sophisticated protocols with better error checking, they are known today as Xmodem Checksum, for that is the method used to detect errors of transmission. Your program computes a checksum on the 128 Byte block of data, and transmits this to the other computer, who also computes a checksum. If they match, then the transmission is assumed to be accurate.

Today, most modem programs have the ability to compute a CRC (Cyclical Redundancy Check) as the transmission error checking routine, and that method is called Xmodem CRC. For the purpose of our discussion here, it is not necessary to actually list the protocols, but if you wish to pursue that further, they are listed in one of the download areas.

So let's get back to the beginning. At first, BBS's (Bulletin Board Systems) were used solely as a method of exchanging programs, usually utilities that performed some type of "house-keeping" chore. Soon people wanted to leave messages about the programs, and that ability was incorporated. So if you can leave a message about a download program, why not just leave messages on any subject? Hence the earliest BBS's got their start.

## Bunnying Files

However, those days were before large floppies, and hard-drives on any microcomputer. So it was thought desirable to be able to compress these files somehow. A man named Huffman (I can't locate his first name) developed what is called the Huffman Compression Algorithm. Basically, if it saw repetitive data, it would record that as a single byte. Thus, ten spaces at the left margin of this article would be stored as info in a single byte, not in ten.

Under CP/M these programs were developed to squeeze and unsqueeze the files. They were known as libraries, since CP/M denoted its utilities as libraries of programs. Some very useful utilities were developed for the CP/M machines. And with some wild names, such as Nulu and Nsweep.201.

With the proliferation of many types of machines, a further difficulty developed. If you stored the file information of ProDOS, for example, on an IBM PC, you would lose the file structure info. What was needed was a way to encrypt a file, so that you could decrypt it when you downloaded it, and still have the proper ProDOS file info.

In late 1987 Gary Little developed an encryption algorithm which he called Binary II. It was widely received, and became the file encryption scheme for the Apple II. The identification that you had encrypted the file structure information was appended to the end of the name, as .BNY short for Binary II. This began to be called bunny, or bunnying a file. About this same time, Don Elton, in South Carolina, began to develop Squeeze and un-Squeeze for ProDOS. He based his work on the CP/M routines, and used the Huffman Compression Algorithm. These squeezed files were indicated with a suffix of .QQ.

## BLU

Another fellow on the west coast (Floyd Zink) was making a compact little program of the Binary II routines, which he called Binary Library Utility (BLU, for short, pronounced BLEW).

So all files would be first Squeezed, to make them smaller, and then Bunnied to protect the file information. Hence the phrase "squeeze before bunnying"! Such files were usually indicated with a BQY.

Floyd carried his Binary Library Utility a step further, so that he incorporated the Huffman Compression Algorithm into them and then would automatically bunny them after compression.

While Genie and Compuserve tend to still indicate a compressed, bunnied file as .BQY and a simple bunny file as .BNY, on the TCS we tend to indicate both with .BNY, since BLU (version 2.28) automatically both un-squeezes and un-bunnies it at the same pass. Thus, there is no need to know whether it is just bunnied, or squeezed and bunnied.

BLU has another nice feature. When you tell it to squeeze a file, it checks the length afterwards, and if it is longer than the original, it bunnies it without the squeeze! A particularly nice feature of BLU is that it will bunny two or more files into one final file. Even a complete sub-directory, if you wish! When you "Extract" from a bunny file with multiple files inside, it is wild to see them appear on your screen!

Needless to say, all Apple II files (or at least most of them) on the TCS (Tele-Communications system) are squeezed and bunnied files!

O.K., now how do you get the program BLU (Version 2.28)? There are two ways. One, it is on the disketeria disk, complete with a text file of documentation. This you load into a word processor and read it. It is rather complete. So you can purchase the Apple II telecom disk, and there you are.

And, it is on the TCS under Apple II Utilities. But, it is a .BNY file! So you will really need to download three files. You will need the squeezed, bunnied file BLU.228.BNY. You will also need to download the rather user-unfriendly program called BINARY.DWN.EXEC. You will also need the un-squeezing

program called UNSQU.BNY.

The procedure then goes like this. Download all three files. Place them on a disk. Exec the file BINARY.DWN.EXEC by entering BASIC, and typing EXEC BINARY.DWN.EXEC. You will see a lot of ] flowing up your screen. The file is automatically saved to your disk as BINARY.II.

Then you run this new program, which will ask you for the name of the file to un-bunny. It says:

Enter Pathname

If you have placed the original files on your disk, you need only type the filename: UNSQU.BNY. It will un-bunny it, and give you a file called UNSQU (for un-squeeze). You now have the two programs that will let you un-squeeze and un-bunny any file on any machine II+, IIe, IIc, or IIgs.

If you have a IIe, IIc or IIgs, then you will want to also un-Bunny the file BLU.228.BNY. When you do, you get a file called BLU.228.QQ. (Ah, you remember from above, that means a squeezed file, right?) Now run UNSQU and give it the file name to un-squeeze BLU.228.QQ. The program will un-squeeze it and save it to disk for you.

Well, you have finally made it. If you are on a II+, you will probably want to get the file BINARY.II.UP, which allows you to bunny a file. If you are using a IIe, IIc, or IIgs, then you don't need it.

### What's New on the Horizon?

Well, there is something new "coming down the Pike"! Andy Nicholas (somewhere in Pennsylvania!) is working a program to replace BLU. It will use the Huffman Compression Algorithm to un-squeeze and un-bunny a bunny file, and will also use the Dynamic LZW Compression Algorithm to make a tighter compression. Generally about 80% of the size of a bunny file. Except that for graphics, BLU is better. So it looks like we will eventually have both types to contend with.

But let's not get into that today. I suspect it will be several months before it is out of the beta test phase. Let's wait, shall we? But always remember, "squeeze before bunnying!"

Take Care, Now! ! Lee... 🍀

## GS Review

# AppleWorks

Not loved by all

by Dick Grosbier

Well, I am so tired of reading reviews of what a great program this is that I decided to sit down and write a short report of my views on it. I say if it looks like a dog, walks like a dog, and barks like a dog, it must be a dog, and this is definitely a dog. I am using a Ramkeeper card and 3 megabytes of memory to get Appleworks GS (configured for WP, DB, & Spreadsheet only) up and running in less than one minute instead of the 2.5 minutes it normally takes to load from my Hard Disk. This is because the program file is over 750K in size. That is one full 3.5 disk with no accessories such as a system or dictionary. Once the program is running it gives new meaning to the word slow. It takes forever to import standard Appleworks files and is not much faster at other functions. For instance, while trying to import an 80K tax spreadsheet, I watched the spinning ball for 3 1/2 minutes, only to be told "not enough memory" since the program takes a minimum (yes, I said minimum!) of 1.25 megabytes to run. I added another 512K and tried again. Guess what? 1.75 megabytes is still not enough memory to load an 80K spreadsheet. But what really caused me to abandon Appleworks GS in favor of its predecessor is printing. It is painfully slow and continually bombs the system, causing you to lose any data you have changed since your last save. When it does print, the page spacing is very unpredictable. As the printing is so slow, it has a draft mode to check layout. However, if you use this function you will quickly discover it to be a total waste as it occasionally spits out whole extra pages.

Granted, one big problem with the program is the GS itself, which sorely needs a faster processor speed and, if you are to use the new Appleworks, a lot more memory. It totally escapes me how Apple could come out with software that takes 100% of the memory available on their own memory card to even run in a limited mode. 🍀

## Apple Telecomm

# The Best of the TCS

by Paul Schlosser

## AppleWorks Classic versus AppleWorks GS

FROM DAVID HAWKINS, ON 02/20

Well, I'm an IIGS owner for the past year (no prior Apples) and I have neither AppleWorks Classic nor AppleWorks GS. I've been using Wordperfect and MULTISCRIBE GS for word processing and doing minor spreadsheet work with the Easy Working Planner. Now I'm wondering which, if any, Appleworks to get. I deliberately held off buying AppleWorks Classic while a GS version was rumored under development. Given all the negative reviews of AppleWorks GS from real users the program does not look very attractive even at the upgrade price of \$149 for MULTISCRIBE GS owners. The principal reason I am interested in Appleworks is to be able to use the numerous templates that are available, for example, the tax and home budget templates. (Last year and this too, I'll be using TaxView for the former task.) Am I right that the only way to use AW templates for spreadsheet applications is to have Appleworks? My options seem to be: 1) wait for a revised AppleWorks GS; 2) spring for AppleWorks Classic in the meantime (a steep price for an "old" program). 3) Find another integrated package (Are there any? Are they AppleWorks Classic compatible?). 4) Swallow hard and buy AppleWorks GS (and the extra drive to make it bearable). 5) Stay with what I have and forget the templates. Have I covered the options? I'm sure there are others like me for whom some advice on this would be useful. Any suggestions?

FROM LEE RAESLY, ON 02/20

Buy the "Real" AppleWorks, and get the TimeOut accessories. Speed and utility make it an unbeatable combination.

➔ 29

# The TimeOut Series

...And Other Good Things for writers

by Bob Oringel

## "But first, bit about pain..."

This is a review of TimeOut Thesaurus, published by Beagle Bros. Inc., and a look at some of the other new TimeOut programs; but first, a digression to talk a bit about pain. There is nothing quite like the pain experienced by a writer in the throes of doing his thing. Women who write have described it as being akin to childbirth. The pain is partially caused by fear. Fear of exposure, through one's thoughts on paper, as a fool, a charlatan, or perhaps both. This fear can be assuaged by a solid knowledge of context, a good dictionary and a thesaurus.

## TimeOut Accessories

If the writer uses his or her Apple II as a writing tool, then TimeOut Quick-Spell is his or her spelling checker of choice, in my opinion, and the new TimeOut Thesaurus, written by Alan Bird, should be there to check *parts of speech* and perhaps to replace some of the writer's words with more apt synonyms for those words. While there are many spell checkers available, TimeOut Thesaurus is the first and only thesaurus program available on-line specifically to AppleWorks users.

I presume that most of us who use AppleWorks know of and use TimeOut accessories which pop up on-line in AppleWorks as needed, so no description is included here. Calling up TimeOut Thesaurus, with a text file on screen and cursor on a word in question provides the user with a screen showing lists of possible replacement words. At the bottom of the screen the word in question is seen in two or three lines of context, and if the user chooses a replacement, then the original word is automatically replaced with its chosen synonym, and in the same case (upper/lower) as well. Even neater, one can choose a synonym of a synonym and see more lists of possible choices. If you need a synonym for a word that you haven't used in text yet,

you can get that, too. TimeOut Thesaurus is furnished in both 3.5 and 5.25 inch disks, no copy protection, with a synonym dictionary of 5,000 words, and 46,000 synonyms on the 3.5" disk, 43,000 synonyms on the smaller 5.25" disk. The documentation is a clearly written 40-page pamphlet. TimeOut Thesaurus became one of my permanent writing tools as soon as I copied the original to disk.

Simultaneously released by Beagle Bros. are TimeOut DeskTools II, PowerPack, MacroTools and MacroTools II, and SuperFonts Font Disk. These, unlike Thesaurus, are compilations or groups of small independent programs, but which like Thesaurus can be called up within AppleWorks. Some of these applications will seem like godsend to *some* users, and others will be merely of moderate interest. If you find one program that you have been wishing for, then the moderate cost of the group will have been worth the expenditure.

DeskTools II has eleven parts: Area Code Finder does just that, by city or state; Calculator Plus is a financial and scientific calculator; Clipboard Viewer reveals the contents of the clipboard; Measurements is a converter of metric, decimal, length, weight and time; Directree indicates where files are located on disk, and permits loading to memory without prefix or pathname; Disk Tester verifies disk content; File Search finds a phrase in a file; Print Manager sends control codes to a printer; Screen Blanker does just that; Screen Printer prints a portion of a screen; and Stop Watches time five events simultaneously.

TimeOut Power Pack, written by Randy Brandt, has ten applications: Triple Desk Top provides 36 files on the AppleWorks desktop instead of 12; Triple Clipboard creates three independent clipboards; Program Selector allows the user to jump in and out of AppleWorks, to and from other pro-

grams also on line; Line Sorter alphabetizes lists in the Word Processor; Help Screens - you make your own; File Librarian reads disk directories into a data base file which can be searched and sorted; Desktop Sorter sorts the desktop index; Category Search permits single category search; AWP to TXT creates ProDOS files from AWP files, *without* adding carriage returns; and ASCII Values is a numbers converter.

MacroTools and MacroTools II provide many new macros for the TimeOut UltraMacro user; SuperFonts now includes a Paint program, and there is a new SuperFonts Font Disk.

Beagle Bros., Inc., and I suppose all Apple II users, are blessed with the work of programmers like Alan Bird and Randy Brandt. May they continue to make our Apple IIs useful to us. Now if we could see a TimeOut Telecommunications application. ☘

## Apple IIe & IIc Tutorials Offered

Three tutorials are offered by WAP to Apple II owners on the first three Tuesday evenings of the month. These tutorials are designed for "beginners" and not experienced users.

Tutorials run from 7:15 to 10:15 PM and are held at the office. (Please arrive by 7:00 to allow time to set up your computer.)

We are currently alternating months between the Apple IIe,c and the IIgs. April sessions will be for the IIgs; May for IIe & IIc.

The fee for each session is \$20 for WAP members.

Bring your Apple, monitor and disk drive. WAP does not have equipment for you to use. If you do not bring your own, you will have to look over someone's shoulder.

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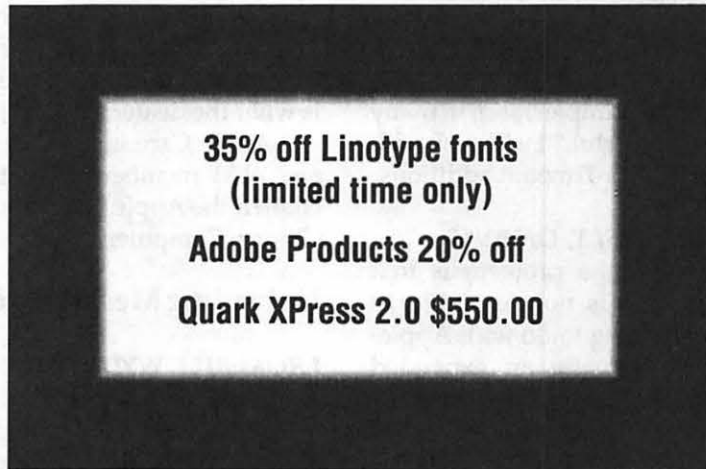
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### ➔ 27 Apple TCS Best

*FROM HARRY BACAS, ON 02/20*

AppleWorks and AppleWorks GS are totally different programs. AppleWorks is not an OLD program. It has many more users and far more functionality than AppleWorks GS, which is an ambitious but half-baked expansion of Multiscribe.

*FROM DANIEL SLAVEN, ON 02/16*

Gripe, Gripe, Gripe! Well, I LIKE AppleWorks GS. I wasn't spoiled by the Classic and have found many things to like about the new one. It definitely IS NOT Appleworks - nothing will replace that. I still use AW-Classic and like it, too. But for many of my needs, AppleWorks GS is a good, integrated package. I like being able to scan in graphics of my slides and photo in the database I'm building. The spreadsheet works fine and shows negs in red. I like that too. The word processor allows my wife to type her Greek lessons in Greek and see it as she types it. Ditto when I'm practicing Russian, Bulgarian, etc. (yeah, I know - who cares?) But it is

nice. Page layout and graphics haven't proved to be real useful yet, but I hope to start using this "turkey" to do a small newsletter at work. Printing? Well, graphics are slow. I can live with that, and if I need speed, I just select "draft" or use the Classic. For a first-up effort, I think its a powerful program and is a start on what the GS is really capable of.

*FROM DANIEL HANLON, ON 02/18*

My biggest problem with AppleWorks GS is that I feel I can't trust it. After a few sessions working for a few hours and then getting a screen saying "A fatal system error has occurred" or just seeing the screen freeze up you find yourself going back to Classic Appleworks real fast for serious work. To play around with AppleWorksGS is fine, for real productivity.....not yet.

*FROM JOHN CZAHOR, ON 02/10*

I just got AppleWorks GS in the mail and I started playing with it and ran into a problem. I was trying to print a spreadsheet out on my ImageWriter LQ, but was getting garbage on the

printer. And then I got the message "A serious system error occurred while printing out database" and I dumped into the monitor. I can't figure out what caused it. Anyone else have this problem or know how to solve it?

*FROM LEE RAESLY, ON 02/15*

Yes, switch back to AppleWorks Classic. I have!

*FROM RICHARD ZEMAN, ON 02/10*

Welcome to the wacky wonderful error of AppleWorks GS. First, AppleWorks GS is bug ridden and until the bug fix comes out, there's nothing we can do. Secondly, did you have the correct printer driver set up?

*FROM GARY HAYMAN, ON 02/15*

The major Apple magazines are changing their tune and are starting to really DOWN AppleWorks GS. See this months A+ and InCider. Commentssuch as: "For now AppleWorks GS fatal problem isn't Claris' fault. It's the thousands of people happily using AppleWorks, some TimeOut add-ons, and

Publish It!. They don't need AppleWorks GS, and they won't wait for it." 1000 cell recalculation 41 sec vs 14.5 seconds with AppleWorks. 1 minute 45 seconds with 2 swaps to launch AppleWorks GS, several minutes more if you want some other applications. Two page letter with AW printed on ImageWriter II took 30 seconds - with AppleWorks GS 8 minutes. "Many Apple IIGS owners will find that the three-module AppleWorks 'Classic' remains a faster, simpler, and, in many ways, more powerful." I will stick with the "Classic" with Timeout additions.

**FROM LEE RAESLY, ON 02/15**

Well, Gary, the problem is that AppleWorks GS is not AppleWorks GS!!! It has nothing to do with AppleWorks! It is actually an expanded Multiscribe GS, being palmed off as if it was AppleWorks! It is a sham!

## Computer Repair Problems

**FROM BILL LOGAN, ON 02/13**

A friend mentioned a ghastly valentine: a \$500 repair bill on her computer one week after the warranty expired. Tough pill for any to swallow, but tougher still for one on a student budget. With this in mind, would others comment (for benefit of all) on (1) typical annual repair experiences with their home or office computers, (2) typical costs associated with repairs and, (3) tips to prevent those malfunctions. Which computers are most/least prone to breakdown, most/least expensive to have repaired? Any good/bad comment on repair insurance?

**FROM BILL WYDRO, ON 02/14**

I've had my IIe system (w/IWI) for close to 4 years now. Once about 1 1/2 years ago Drive 1 (5.25) malfunctioned, and I took it in to be realigned and cleaned. Don't remember how much - probably about \$30. Signed up for a WAP tutorial on drive maintenance and can now do basic stuff like that myself. No other problems. Well, until recently. The only cards I have added are a RamWorks card, and internal modem. Since adding the RamWorks card, the modem sometimes overheats and won't work. Put a small "personal" fan next to the vents—had no problems since.

**FROM HARVEY KAYE, ON 02/14**

In the Apple category, I would recommend Apple Care. Since I use my computers for my work, I have always carried Apple Care for them, and I have never regretted it. As a small example, after using my Apple //c for two years without a problem, during the third year, I needed to have the logic board (motherboard) replaced three times. This would have cost over \$200 each time if I did not have Apple Care. [this is what the dealer told me.]

Apple Care is not that expensive, and WAP members can get a 25% discount if the Apple Care is purchased at Clinton Computer.

## Uploading Messages to the TCS

**FROM BILL WYDRO, ON 02/04**

Could someone remind me, please, how to turn off "word wrapping" when entering a message from a pre-written file? I sometimes use the ProTERM editor to compose messages, and make revisions, and lose track of where I need to insert returns, etc. and they occasionally look rather strange the way they end up on the TCS.

**FROM PAUL SCHLOSSER, 02/04**

Bill, I upload pre-written files often, and never turn word wrap off. Just be sure that your file contains lines no longer than 78 characters, that each line ends with a c/r, and that blank lines are 'space-c/r'. Also it is necessary to slow down your tele-comm program during the actual send. I set ProTERM for 30ms inter-character delay, and 300ms inter-line delay.

**FROM LOU PASTURA, ON 02/04**

Well, Bill, I see everyone answered your question about how to turn word wrap off by telling you that it's easier not to do it, and they're right. But in case you still prefer the way you're most comfortable with, the editor command on the TCS is <U>pload Mode. It works like a toggle — the first <U> turns upload mode on (word wrap off); the next <U> turns upload mode off (word wrap on); etc.. Remember, a <?> at any prompt will get you a list of commands available at that prompt. A <?> when you're in the editor will get you a list of all of the editor commands.

## Internal Hard Drives for II's

**FROM CORY MCNUTT, ON 02/05**

Could anybody here offer me any information on the company, Applied Ingenuity, and their internal hard drives for the Apple GS? The prices are certainly right, but I'm more concerned with getting a quality product.

I would really like an internal hard drive and this is the only company that I have seen advertise one for the GS (they have been in the InCider mag the past few months). Any thoughts would be greatly appreciated. Thanks.

**FROM RICHARD ZEMAN, ON 02/05**

Someone did a review of the Applied Ingenuity 40 meg internal. I thought it had been copied to the library, but I just checked and it hadn't been. The conclusion was that it was a well-built, quiet, fairly fast drive with a nice heavy duty power supply (as it replaces the GS's). The biggest drawback is that it is a non-SCSI type drive. After three months of use, we all could use an update on it.

**FROM HARRY BACAS, ON 02/06**

I saw a demonstration of the Applied Ingenuity drive at the Nov Apple meeting Saturday. They just opened the GS case, took out the power supply and put in the new power supply containing the drive. I couldn't even hear a fan sound from six feet away. I could hear a faint noise during disk access. He ran some programs and the speed was impressive. He said he had no troubling installing or using it and he liked it a lot.

## Turning off Call Waiting

**FROM BILL HARK, ON 02/22**

I discovered today that if a program, e.g. AppleLink Personal Edition, does not support the \* for disabling Call Waiting, you should use 1170 with pulse dialing. It works!

**FROM HARVEY KAYE, ON 02/23**

Thanks for the info on disabling Call Waiting by using "1170" instead of ""\*70". I have not been able to disable Call Waiting since it was announced, but I just tried "1170" and it works fine.

## The New ProSel-16

FROM HARRY BACAS, ON 02/03

Glen Bredon's new product arrived in the mail a few minutes ago. I'll give a report as soon as I can. I heard the mail truck go by while my computer was downloading Richard Zeman's latest upload (Jumpstart 2.1, 115 K, a 10-minute download at 2400 baud). So I went out and found a 3.5 disk called "ProSel-16 & 8." I still had plenty of time to unpack the box, pet the dog, sniff the dinner preparations and get back to the computer to wait for the download to finish. I'll report shortly.

FROM HARRY BACAS, ON 02/04

ProSel-16 is a load! You get both the old program and the new program and 45 pages of new documentation. Either program will call the other. And there is a multitude of additions and changes. Little things like Cat.Doctor is now Utilities and contains some of the earlier stand-alone utilities like File Finder. Much bigger, however, are structural changes. In addition to the

familiar Applications screen, there is a Main Menu and a Command Shell. You can zip back and forth between them. The Command Shell is for people who like a blank screen and the ability to just type in all kinds of commands (if you remember them; actually, you can call up a menu of commands if you forget.) I still don't understand the difference between the Screen and the Menu. And ProSel-16 is head-over-heels into GS/OS. For example, it no longer uses Slot and Drive. Instead there are Devices and Prefixes. You can get places faster once you know what you're doing, but until then it's mysterious. You use keys you never used before, like the top number keys to specify the Device and the key pad numbers to specify prefixes. And terrific flexibility. You can alter all kinds of parameters to make the program function the way you want. There are new file types too, as well as the ability to display file types in different ways and to change file types. The updating procedure has changed. If you get updates from Glen Bredon, you have to send \$10 and your original

disk. If you get updates from Genie, AppleLink PE (and WAP?) they are free, but you still have to have your original disk at hand to decode them. So the decoding or decrypting procedure has been changed (you can't just type in the password.) And there are no graphics and the program has not slowed up.

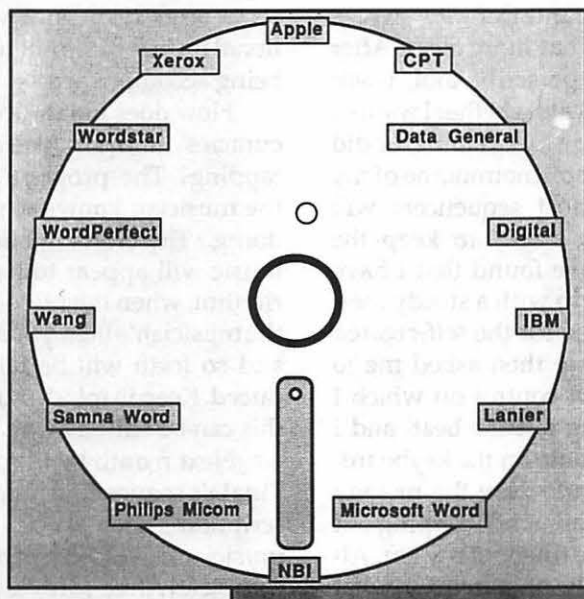
FROM BILLY THOMAS, ON 02/06

The new ProSel sounds good but how much is the upgrade from the 8 bit version to the 16? Also is the documentation on the disk or in book form. I really like the present version, what are the major difference between the two?

FROM HARRY BACAS, ON 02/06

The upgrade is \$20 from ProSel. Thereafter, upgrades are \$10 by mail or free if you download them. The documentation is all on disk. You boot the disk into a menu which will print the documentation out for you. The program includes the latest version of the 8bit version so you can run either or both from the same menu. 🍏

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# Finale Sequencing

Play it in, read it out!

by Raymond Hobbs

Last month I concluded a discussion of the music notation capabilities of Finale, Coda Software's \$1000 breakthrough music notation/sequencing package for the Macintosh. I am still discovering features of Finale's notation options, however, so I reserve the right to recall the witness next month to add a few comments, if necessary. This month, though, I would like to share my observations on Finale's sequencing operations, since most music software stands or falls on its capabilities as a sequencer. (For new initiates to computer music, sequencing refers to input, editing, storage and retrieval of musical events in real time - like a digital tape recorder with editing.)

Finale allows several modes of sequencing. I will discuss only two of these modes here, and defer the last one to next month.

The first method is used in conjunction with its "Speedy Note Entry" tool, and bridges the gap between sequencing and plain note entry onto a score. You may recall that last month I indicated that you could enter notes onto a staff either by the "click a note and paste it in" method or by using the computer keyboard (actually, the numeric keypad) shortcuts.

However, if you wish, Finale will allow you to play each note on your keyboard, and will identify the pitch and place that note at the cursor location on the score. Chords may be entered in this manner as well, saving a few mouse clicks. This type of note entry is used in several sequencer packages, and is known as "step-entry". Of course, Finale puts the notes into the score as music notation rather than the usual cryptic MIDI information used by other sequencers. Step entry can be pretty handy, especially when it is combined with all the other editing features that Finale offers at the same

time, but overall this method is not all that exciting.

The second method involves playing a single line of music at the keyboard. This time, Finale requires you to select another tool, the "Hyperscribe" tool, and so you cannot simultaneously use Finale's other editing features (although you can, of course, go back later and edit to your heart's content by se-

*“ you play in the musical line and Finale will record what you play and display it in proper musical notation ”*

lecting any of the numerous editing tools offered in the Finale menu). Using Hyperscribe, you play in the musical line that you wish to enter, and Finale will record what you play and display it in proper musical notation.

The Finale tutorial calls for the user to play in a C major scale, but I chose to enter the melody line for Ravel's "Pavane Pour Une Infante Defunte", which I felt had somewhat more class. After choosing the Hyperscribe tool, I was prompted to indicate whether I wanted Finale to provide a metronome, or did I wish to use a "tap" metronome of my own creation. Most sequencers will provide a "click track" to keep the rhythm, but I have found that I have trouble keeping up with a steady metronome, so I opted for the self-created "tap" track. Finale then asked me to identify the MIDI control on which I would be tapping out the beat, and I selected a lower note on the keyboard.

Then I began to play the melody with my right hand, while tapping out 4/4 time with one finger of my left. Although I was fully prepared for what took place, I must admit that it was rather breathtaking to see all the notes I played appear suddenly in a musical

score. What was even more amazing, however, was that Finale assigned proper note values, stem directions, beams and phrasing to the melody. Only one note was notated differently from the original score (yes, I played from printed music!) in my ten test measures, for which I must rate Finale a solid ten out of ten. I also tried using the sostenuto pedal (not the sustain pedal) for the "tap" track, but apparently Finale didn't like that as well, since it recorded only half the notes I played. I really don't know the reason for this, since Coda indicates that any valid MIDI controller, from key to pedal to wheel, can be used for this purpose. However, I'm still impressed enough by the beautiful scoring of my melody to be little troubled

by this (at least, for now).

Once the desired line has been recorded into the score, it may be edited using Finale's many tools. Also, additional lines may be recorded onto different staves while listening to the previously recorded lines. In this way, a complete composition may be pieced together, in the same way that other sequencers do it, but with the additional feature of simultaneous notation being accomplished.

How does Finale account for inaccuracies in the musician's rhythmic tapping? The program assumes that the musician knows what he or she is doing. Therefore, while the notated music will appear to have a constant rhythm, when the piece is played back the musician's lags, pauses, hesitations and so forth will be faithfully reproduced. Keep in mind, though, that all of this can be edited away.

Next month I will cover the last of Finale's sequencing modes, the "Transcription" tool mode, wherein the musician can play with both hands in a completely free-form style. I will also try to go into one or two of Finale's power tools for the advanced user and try to tie the loose ends together. 🍏



# AppleFest, Education, etc.

by Ted Meyer

I'm going to cover a variety of subjects this month. I want to fill you in on WAP's plans for the upcoming AppleFest in Boston and how you can get involved. I also visited Thomas Jefferson High School in Fairfax County, and I'd like to tell you a little about this hi-tech high school. Finally, there are some news and rumor items that might interest you. Read on.

## AppleFest

AppleFest will be held May 5th through 7th in the World Trade Center in Boston. Although few announcements have been made about the schedule and events that will take place there, I can tell you a little about last year's AppleFest and make some guesses as to what is likely to happen this year.

First, Apple is likely to make some new product announcements. Last year, **AppleLink Personal Edition**, an Apple-specific telecommunication system, was presented.

This year I suspect Apple may announce several Apple II line hardware and software products. John Sculley, Apple's head honcho, stated that we could expect a new Apple II sometime this year. AppleFest may be the first public group to get a peek at it.

It has also been suggested that a Iigs version of **HyperCard**, a multimedia relational presentation and programming system popular on the Mac, may be announced.

AppleFest abounds with product presentations, tutorials, seminars, and the like. Every major Apple II software and hardware manufacturer is likely to be there with its latest products. For example, The Byte Works will be presenting the **ORCA/C** programming language. This is your chance to get information and technical support direct from developers.

Seminars on **AppleWorks**, **AppleWorks GS**, **Education**, **Home Productivity** and dozens of other subjects will be available. An opportunity for multiple user groups from across the country to get together and share ideas will be offered.

After hours, parties will take place around town, allowing some attendees to rub elbows with the likes of Steve Wozniak. Last year, I was able to get Woz to personally sign the case of WAP's Iigs, making our computer a very special collector's item.

We'd like to get a large attendance of Pi members at AppleFest this year. If you think you might like to attend, and would like to know more about the Pi's involvement, give me a call in the evening between 7 and 8 p.m. My number is (703) 893-6845. We are trying to organize things like sharing lodging and travel expenses and manning the Pi's booth.

## Education

Bill Johnson is a teacher at Thomas Jefferson High School, the special science and technology magnet school in Fairfax County. I met him a couple of weeks ago, and he gave me a tour of this very impressive learning center in the Washington area. This is the school that won a nationwide competition in computer science. The prize was an **ETA10P** supercomputer, and Thomas Jefferson's ownership of that machine makes it the envy of many large colleges. After listening to Bill discuss the school's curriculum, I suspect the education a student receives at Thomas Jefferson is also the envy of many reputable schools.

All students are required to learn how to type and program. All are required to build a circuit board. Students can specialize in computer science or various other fields. There are labs in various technologies. The Telecommunications Lab has its own satellite dishes and a computer bulletin board. (Phone: (703) 941-3572, 300-19200 baud.) They're planning on downloading information from weather satellites. A Microelectronics Lab allows students to etch their own circuit boards. They have a Computer Aided Design (CAD) Lab, an Energy Lab, a Bio-technology Lab, a Robotics Lab, and more. Many of these labs have multiple micros in them and quite a

few Iigs's.

The Computer Science Lab has dozens and dozens of micros. There are courses and projects in Artificial Intelligence and Computer Architecture, as well as multiple programming languages. Thomas Jefferson seems like a wonderful place to learn. I hope I can get my son Teddy to go there in a few years. (14 to be exact!)

Bill's reason for getting in touch with me dealt with tutoring. We hope to arrange some tutorials for the Iigs at Thomas Jefferson, making them available for the teachers there as well as Pi members in Northern Virginia. If you've been wanting to get to a tutorial but have found Bethesda too far away, watch the tutorial page in the back of the journal for some possible sessions at Thomas Jefferson.

## AppleWorks

I talked to one of Claris's technical support people the other night. Although it took some waiting, once I got Megan Thomas on the line, she was very helpful. It looks like we can expect an upgrade in **AppleWorks GS (AWGS)** sometime in April. (Maybe by AppleFest?) **GS/OS** memory management problems have been the primary source of those "SERIOUS SYSTEM ERRORS" and lockouts that we've been getting.

Megan suggested a few "work-arounds" to avoid these problems. The source of the problem is free memory getting overly segmented. The suggestions are to limit file opening and closing, save frequently when doing lots of cutting and pasting, configure your system to initially load a limited number of functions (if you mostly use the word processor, don't load the database and the rest), and set the desk accessory disk cache to zero. The new version of **AWGS** is supposed to fix the full justification problem in high-quality text mode and speed printing by 30%. If you are a registered user of **AWGS**, expect a letter in the mail from Claris describing some of these problems, their work-arounds, and the upgrade due in April.

Next month in *Iigs Stuff* I plan on discussing **DOS 3.3** and how to use it on the Iigs. What is it? And why do you want it? Til then, be sure to keep on playing with those Iigs's... ☛

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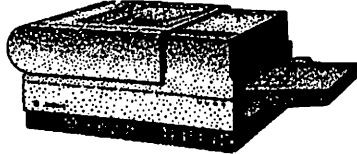


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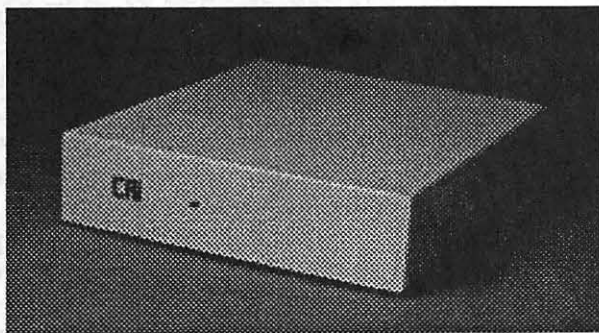
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by Bud Stolker

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# Adjusting 816/Paint for Publish It! Compatibility

by Gary Hayman

I have recently been scanning graphics with my Thunderscan—for Apple II (Thunderware) optical viewer - hooked up to my ImageWriter II, saving the scan in double hi-res format and importing the graphics into Publish It! 2 (TimeWorks).

As you know, from reading my recent series of desktop publishing (DTP) articles in the WAP Journal, Publish It! 2 can now import and manipulate such graphics by capturing pieces of it and adjusting their size while in the program. This technique opens up a new dimension for graphic presentation in your DTP projects originating on an Apple II c, c+, e, or GS. You should take advantage of it.

What I generally like to do is to place several such scans on one graphic file. This requires the use of a paint program. Since I am working in double hi-res (DHR) and not super hi-res (SHR), I use 816/Paint (Baudville) to do the necessary graphic "clean-up" and page placements. The problem is that when 816/Paint saves the DHR graphic to disk it is saved with a file length of \$3FF8 bytes (Decimal 16377) rather than the more normal file length of \$4000 bytes (Decimal 16384). Publish It!, upon seeing a DHR graphic file on disk not having a length of \$4000, will not recognize it as a usable graphic available for importing. Well, don't worry! Be happy! You knew that I was going to tell you how to solve the problem so that you can use 816/Paint adjusted graphics in Publish It!

## Brute Force Method

Get into Basic System and PREFIX the drive that contains your shorted length graphic. (Ex: Prefix,S5). If you must, PREFIX again to enter the proper sub-directory. (Ex:PrefixGraphics). Do a CATALOG and see your graphic listed. Note the short file length. Now carefully type the following, substituting your graphic's name.

```
BLOAD MYGRAPHIC,A$2000
BSAVE
MYGRAPHIC,A$2000,L$4000
```

Do this for each of your shortened graphics. When you CATALOG again you will see that the graphics now have the correct file length and can be easily used in Publish It! Now this takes time so wouldn't it be nicer if the graphics were saved with the correct file length by 816/Paint itself?

## Auto Method

To effect this you must change one of the files on the 816/Paint disk so that each time it saves a graphic it will save it with a length of \$4000 (vice \$3FF8). *Warning 1:* Always work with a copy of your original disk. *Warning 2:* Don't think that just because you were able to make a "back up" copy of the disk using a normal copy program such as Copy II+, that the file is really intact. Some versions of 816/Paint contain a subtle copy protection and although you think you have copied the files correctly, when it comes time to RUN the DHR program—it won't run correctly!

I got around the copy protection problem by using Copy II+'s (my version is 8.3—but others may work too) 3.5" Bit Copy capability. From the main menu select COPY, then 3.5" BIT COPY, then AUTO COPY. You will be asked to ENTER PARM ENTRY NAME, type "816" (no quotes) and [RETURN]. Select the highlighted file 816/Paint. Answer the drive questions and away you go. You have created a personal back up copy of the disk — and that is the one you will work with. *Put the other away.*

## Changing the Bytes

The file that you want to work with is called PAINT.DBL.HIRES. That is where the code exists that needs to be changed. I have found that the sector editor which works the best for me is

Block Warden (contained in the PROSEL (Glen Bredon)) series. Block Warden allows you to look at an individual file on a disk and change bytes. RUN Block.Warden (I will assume that you are in the correct directory in order to do this). Type [F]ollow and when a pathname is asked for, type, "/PAINT.816/PAINT.DBL.HIRES" (without the quotes). The file name will appear at the top of the screen. Now type [E]dit to get to the edit menu. Type [Control-S] to do a global search and when requested to input a search string type "\$F83F" (no quotes). In my copy I will be taken to: BLOCK \$037C (892) at Byte \$00D56 on Track \$27, Sector \$06, Side \$02 (your's may be slightly different). What you are looking for is F8 3F resting at the end of the following partial string:

```
04 01 00 60 F8 3F
```

If it does, you are in the right place. Your cursor should be resting on the F8. If all is OK, type "0040" (those are zeros), and the two bytes in question will be altered. Now you have to write the file back to disk. Hit [ESC] to get back to the R/W mode. Type [W]rite to write it to disk answering the questions in the affirmative and the corrections will be made to your disk file. Now whenever you save a DHR graphic file with 816/Paint, it will contain the correct file length that Publish It! likes to see.

## Byte Change II

For those of you who don't have Block Warden or insist on using Copy II+'s Sector Editor to change the bytes, let me give you some help. If you try a disk scan for the bytes the copy protection will hang the scan around Block \$17. Also, there is another file on the disk that contains the same combination which, at this time, you don't want to change. Copy II+ will not let you change a particular file called by file name as will Block Warden. Briefly, here is my work around. Make a copy of the 816/PAINT disk as I described above in the section called "AUTO METHOD". Keep the new disk in the drive with Copy II+ still running. Select COPY, BIT COPY 3.5, SECTOR EDITOR in that order. Select 1 as your original drive. Select [R]ead and enter 300 (return). This will skip over the



offending disk area. Type [S]can, [H]ex and enter the string of hex codes "04 01 00 60 F8 3F" as before. Wait until the scan is finished and press left-arrow. Your cursor should be resting over the F8. Type [H]ex again to permit you to change the bytes and then type:

00 (Return) 40 (Return) (Esc)

Now type [W]rite (to write the sector to disk) and a return. The disk is then updated and you are finished. You can Esc and Quit at this point. You will have the same results as the previous method.

If you are using some other graphics program that saves the DHR graphic with a file length of \$4000, you are already in business and can ignore the above.

I would like to start a project, like I did with the WAP Print Shop Disk in the Apple II Disk Library. I will serve as a central collection point and merge your collected graphics (no copyright collections please) and put them on a WAP library disk for all to use. Please contact me if you have graphics to contribute or have any questions. 🍏

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# Apple II Answers

## Q & A

by Robert C. Platt

For Apple II programmers who want to go beyond the manuals into the technical guts of the hardware and software, Apple Technotes are an invaluable reference. Fortunately, Apple's Developer Technical Support has completely rewritten them. You can obtain a set from Apple Link, several bulletin boards, or from APDA, the Apple Programmers and Developers Association. These are now available on ProDOS disks. (Previously, they were only available on Mac disks.)

**I've been struggling with some documentation and have seen two new acronyms. What do TFF and FST mean?**

TFF stands for Text File Format. This is the standard ProDOS 16 text file, just a sequence of ASCII characters. For example, APW source code files are stored as TFF. FST stands for File System Translators. FSTs hold information about how a particular operating system organizes data physically on a disk. When you add a particular FST to your GS/OS startup disk, your computer will be able to access a disk written for a different operating system while running under GS/OS.

**I have downloaded a program file from a bulletin board with a name ending with ".EXE". How do I use this program?**

The EXE suffix means that the file is a text file which can be EXECuted into memory. Run BASIC.SYSTEM and type NEW. At the ] prompt, type "EXEC \_\_.EXE" and hit return, where \_\_.EXE is your downloaded file. Many EXE files will include DOS or ProDOS commands to automatically save the file. If not, you can then save this program as an Applesoft file by typing "SAVE MYPROG" or whatever name you want to give your new program. Save before you test the program.

**I have downloaded a program file with a name ending in ".BNY". How do I use it?**

This suffix means that the file or files have been combined and com-

pressed into Binary II format. To convert these files into usable ProDOS files, run a program called Binary II Library Utility or BLU. The latest version is 2.28. This is a public domain program by Floyd Zink. To select a file for processing, choose E)extract. A disk directory will then be displayed and press the space bar when the name of your file is highlighted.

**My communications software, Point to Point, supports "unBNYing on the fly." What does that mean and what is the advantage of it?**

Point to Point will convert a BNY file into one or more ProDOS files as it receives the file over the phone line. The advantage of this approach is that you can control how full your directory becomes during an online session. Some people prefer to unBNY their files later because if they transfer and convert more than one BNY file during a session, it may be difficult to tell which ProDOS files from the same application belong together. This is because the individual ProDOS file names are revealed only after the file is unBNYed.

### AppleWorks

**I have been using the Applied Engineering Expander on my copy of AppleWorks 1.3 to allow AppleWorks to take advantage of my extra memory. It will not work with my copy of AppleWorks 2.0 or 2.1. What's wrong?**

You need to upgrade the AE Expander to version 2.54, which works with AppleWorks 2.0 or 2.1. In general, many of the add ons and patches will not work with upgraded versions of AppleWorks. In some cases, the vendor charges for these upgrades to allow your third party add on to continue to work with your new version of AppleWorks. For example, the AE upgrade has a \$15 list price, but many AE dealers provide it for free.

**I own several AppleWorks enhancements. Is it worth the effort and expense to upgrade from AppleWorks 2.0 to 2.1?**

It depends on whether you need the new features. Probably the most impressive improvement in 2.1 is the "intelligent recalculation" of spreadsheets. In older versions of Apple-

works, every cell's value would be recalculated whenever you changed any cell value (with recalculate frequency set to AUTO) or when you typed Open Apple-K. Version 2.1 avoids recalculating cells unnecessarily, resulting in faster program operations.

**How can I customize my copy of AppleWorks 2.0 to avoid pressing the space bar and return when it boots up? It seems capable of getting the date from my IIGs clock without my help.**

You can customize your version of AppleWorks by adding a "patch". A patch is an alteration to the copy of the program on your disk. When you read in this altered copy, it will behave in the customized way. Because not all patches work in all contexts, you should never patch the original copy of your AppleWorks programs, only patch a copy. The best shareware source of AppleWorks 2.x patches is SuperPatch 3.1 by John Link. In addition to the patches you requested, SuperPatch will perform 24 others, including: eliminating the need to type return after selecting a menu item by number, increasing the number of files in a subdirectory from 65 to 119, and retaining the cursor location in a word processor document at the location at the time that the document was saved. (AppleWorks automatically places it at the start of the document when the file is reopened.)

There are innumerable patches to AppleWorks, which is probably one of the most dissected programs in Apple history. However, a program such as SuperPatch has the advantage of verifying that the patch is installed in the correct location. Without such a program, a disk editor program must be used to alter the disk.

### IIGS Programming

**What is a "programming environment?"**

A programming environment is a comprehensive set of applications to assist in program development and execution. A *shell program* acts as the host which ushers in the other programs. Source code is entered by a *text editor* program. Once the code is completed, a *compiler* will translate source code from a high level language, such

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as Pascal or BASIC into machine language. An assembler will convert assembly source code (which is a one-for-one representation of machine instructions) into machine language.

A key element of a programming environment is a consistent format for representing machine language files. A linker program will take different machine language segments and combine them into completed programs. Librarian programs also allow program segments to be stored in a systematic way for inclusion in later programs.

Although each of these programs were once separate, many programming systems now allow the different elements to remain resident in memory at the same time, resulting in quicker turnaround.

**I want to program the IIGs in Assembly and Pascal. I'm confused about the differences between TML, ORCA and APW.**

The confusion stems from ByteWorks being the developer of both ORCA/M and APW. ORCA/M 1.0 is a shell environment which includes a macro assembler. Version 1.0 runs on the IIGs and supports calls to the IIGs ROMs. ORCA/M 4.1 is also a complete

programming environment for the IIe and IIc. It is not compatible with the other ORCA products.

APW's environment and utilities are virtually identical to ORCA/M. APW and ORCA/M both include the assembler, but ORCA/M is less expensive. ByteWorks and TML both supply compilers which run under APW. TML APW Pascal does not produce "debug" code. TML also sells a stand-alone Pascal compiler environment for the IIGs. But its code cannot be linked to other APW object modules.

**I have been Linking ORCA/Pascal files, but my IIGs froze in the process. What happened?**

A bug has been found in the Linker. Version 1.1b of the shell fixes this problem. ByteWorks is offering a free upgrade. Call them at 505-898-8183.

**Where can I get technical documentation for GS/OS?**

From APDA, in draft form.

**On the control panel, under Display, there is a choice for monochromatic and color monitors. What difference does this make?**

According to Fischer's *Apple IIGs Technical Reference*, p. 80, selecting

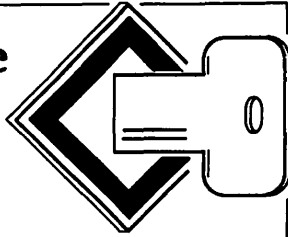
monochrome displays graphics and text through the NTSC (composite video) port by means of a grey scale. This has the effect of drawing sharper character images on your monitor screen. On a color monitor, the screen has red, green, and blue phosphors. Characters have to be drawn "fatter" in order to prevent "bleeding" of colors at the edges of the characters. If all phosphors are a single color, the video signal does not have to take this into account, and crisper characters can be generated without them appearing to be funny colors.

## Finder Icon Colors

**I colored my icons in the Finder desktop, but the color disappears after I leave the Finder. How can I make the changes permanent?**

Several problems can cause this. First, is your disk unlocked? Second, select Preferences under the Special menu of the Finder. Make sure that you have specified the option for saving Finder files to the disk. Third, you cannot change the color of disk icons permanently with the Finder. Instead, you must edit the FINDER.ICONs files in the ICONS folder in the root directory of your boot disk. 🍏

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## Mac News

# The Mac IIcx Rollout

by Robert C. Platt

Apple's Spring Product Rollout brought exciting news to a crowd of 300 gathered at the DC Convention Center on March 7.

The new products include the long-awaited Mac IIcx, single and double page monochrome displays, and a new series of internal and external hard disks.

### The Mac IIcx

The Mac IIcx features a 16 MHz 68030 microprocessor and a 68883 math coprocessor. It offers a unique design which allow it to sit either under its monitor or vertically, on its side. The IIcx offers all of the features of the Mac IIx except that it has three NuBus slots instead of six. A IIcx with 1 MByte of RAM will retail for \$4,669; with an additional 40-MByte internal hard disk the price is \$5,369. At the

high end, 4 MByte of RAM and an 80 Meg internal hard disk configuration will retail for \$7069.

*“What the Apple IIe was for us in the 1980's, I believe that the Mac IIcx will be for us in the late 1980's and the 1990's.”*

— John Scully

### A Great Show via Satellite

The Rollout was broadcast from San Francisco via satellite. Jean Louis Gasee began the show by walking onto the stage with a laptop carrying case, and announced that the case held a new product he wanted to announce. It turned out to be a \$199 monitor interface card instead of a Mac Laptop.

Gasee then demonstrated how easy the Mac IIcx was to assemble or

repair by constructing one from scratch on stage. He observed that it had a larger speaker than the earlier Macs and a much quieter “air movement device” (ie., fan).

The introductory demo was very slick, featuring a new theme song for the product line, snazzy promotional videos, and computer generated music and animation. One impressive test

was a Mac SE and IIcx performing the same tasks on stage, such as graphing a complex function, running a HyperCard stack animation and recalculating a spreadsheet macro. Because of the math chip, the IIcx was much faster than the SE.

Apple President John Scully then explained how the new products fit into the Apple product line. He said, “What the Apple IIe was for us in the

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1980's, I believe that the Mac IICx will be for us in the late 1980's and the 1990's." He emphasized the importance of this product to the company's future and claimed that from a marketing stand-point this will be a hit "out of the ball park."

Sculley noted that "The individual as its focus makes the Macintosh unique." He claimed that consistency across the product line will give Macintosh a marketing advantage over IBM which competes against the low-end Macs with MS-DOS machines and against the high-end Macs with incompatible OS/2 systems. Sculley noted that there was only a \$1100 price difference between a comparably equipped SE/30 and a IICx.

### Other Announcements

Apple will also introduce a 160-MByte internal hard drive for the Mac II and IICx, approximately priced at \$2,600 to be available in April.

Two new monitors will also be introduced. A 15-inch monochrome portrait monitor will provide a full page display. With Apple's new low-end

video board the retail price is expected to be \$1,600. With a four-bit (16 gray level) board the price will be \$1,900.

The new 21-inch monitor will provide a two page display. With the low-end card it will retail for \$2,600 and with the 4-bit card for \$2,900.

Apple will also be selling the monitors separately so that they may be used with video boards purchased from third parties.

Sculley promised other announcements before the year was over, including a new operating system for the Mac. He noted that "The name of the game is market share."

### The Scene in Washington

The Washington session was hosted by Lloyd McHaffey, Director of the Federal Systems Group. He quipped that the rumor followers could now "strike Cobra, Avanti, and King Kong off your list."

Bill Coldrick, Senior Vice President for U.S. Sales then addressed the crowd. He predicted that Apple would succeed in the Federal marketplace due to: compatibility, connectivity, innovation,

and personal productivity. He then showed a promotional video on Macintosh-based training at the U.S. Coast Guard, which featured the work of several WAP members.

After the Rollout, the crowd returned to the main FOSE exhibit floor where two pseudo-Secret Service agents (complete with sunglasses) guarded the IICx until its official unveiling at 3 p.m.

Among the Apple staff hosting the booth was Craig Elliott, the new coordinator for high end (read Federal) user groups.

The Rollout was broadcast to Toronto, Sydney, Hamburg, Atlanta, Chicago, New York, Dallas, and Los Angeles. 🍏

### The New Mac Price Line Up

Mac Plus	\$1799
Mac SE	\$3169
Mac SE/30	\$4369
Mac IICx	\$4669
Mac II	\$4869
Mac IIX	\$6969

## III Programming

# A Little Wallpaper for the Apple III

By David Ottalini, Apple III SIG Co-Chairman

To get your programming juices in swing for the new year, here's a Business Basic program by Pair Software's Frank Moore that will produce excellent Mandelbrot graphs. You will need the Bgraf.Inv invokable module for it to work (it's on some of our PD offerings if you don't already have it). You GS Basic users may also enjoy adapting this for use on the GS. The program will be offered on a III SIG PD disk sometime in the future.

```
10 REM PROGRAM ** WALLPAPER **
20 ON ERR GOSUB 1000:END
30 INVOKE"bgraf.inv"
40 GOSUB 500
45 HOME:PRINT CHR$(4);
50 PRINT"This program is an adaption of A.K. Dewdney's article on"
51 PRINT"'Wallpaper for the Mind' in the Computer Recreations section"
52 PRINT"of the September 1986 issue of Scientific American."
60 PRINT
61 PRINT"If you love Mandelbrot graphs, you'll love these graphs."
62 PRINT" Use CONTROL-C RETURN to end the program."
70 PRINT
80 PRINT"We suggest you start with values of"
80 PRINT"15, 20 and 87 for Corner A, Corner B and Side."
86 PRINT
90 PRINT"Frank W. Moore, 74666,3660";CHR$(15)
100 VPOS=14:INPUT"Input Corner A: ";cornas$
105 IF cornas$="" THEN PRINT CHR$(7);:GOTO 100
110 corna=VAL(cornas$)*-1
112 IF corna>1 OR corna<-100 THEN PRINT CHR$(7);:GOTO 100
115 VPOS=15:INPUT"Input Corner B: ";cornbs$
120 IF cornbs$="" THEN PRINT CHR$(7);:GOTO 120
125 cornb=VAL(cornbs$)*-1
130 IF cornb>1 OR cornb<-100 THEN PRINT CHR$(7);:GOTO 120
140 VPOS=16:INPUT"Input Side: ";side$
142 IF side$="" THEN PRINT CHR$(7);:GOTO 140
145 side=VAL(side$)
150 VPOS=17:INPUT"input graphic Mode (0,1,2 or 3): ";mode$
151 IF mode$="" THEN PRINT CHR$(7);:GOTO 150
153 mode%=VAL(mode$)
155 IF mode%<0 OR mode%>3 THEN PRINT CHR$(7);:GOTO 150
160 IF mode%<>1 THEN 180
170 VPOS=18:INPUT"Pen Color: ";pen$
171 IF pen$="" THEN PRINT CHR$(7);:GOTO 170
172 pen%=VAL(pen$):IF pen%<0 OR pen%>15 THEN PRINT CHR$(7);:GOTO 170
175 VPOS=19:INPUT"Fill Color: ";fill$
176 IF fill$="" THEN PRINT CHR$(7);:GOTO 175
177 fill%=VAL(fill$):IF fill%<0 OR fill%>15 THEN PRINT CHR$(7);:GOTO 175
178 IF fill%=pen% THEN PRINT CHR$(7);:GOTO 175
180 IF mode%=0 THEN pen%=15:fill%=0:ver%=279
185 IF mode%=1 THEN ver%=279
190 IF mode%=2 THEN pen%=15:fill%=0:ver%=559
200 IF mode%=3 THEN fill%=0:ver%=139
210 VPOS=21:HPOS=1:PRINT"Do design in the ";modes$(mode%);
215 PRINT" x 192 grafix mode with pen and fill colors"
220 IF mode%=3 THEN PRINT"of various pen colors and black.":GOTO 240
230 PRINT"of ";pens$(pen%);" and ";fill$(fill%);"."
240 PRINT:PRINT"Press RETURN to begin, ESCAPE to start again...";
250 GET char$
252 IF char$=CHR$(27) THEN 45
255 IF char$<>CHR$(13) THEN 250
257 IF mode%<>3 THEN GOSUB 400
259 REM **** SET UP GRAPHICS MODE AND SCREEN ****
260 PERFORM grafixmode(%mode%,%1)
270 PERFORM grafixon
280 PERFORM fillcolor(%fill%)
290 PERFORM fillport
294 REM **** ON KEYPRESS RETURN TO MAIN MENU ****
295 ON KBD POP:GOSUB 1000:GOTO 50
298 REM **** FIND AND PRINT SCREEN PIXELS ****
299 REM **** THIS IS MAIN PART OF PROGRAM ****
300 FOR x%=zero% TO ver%:REM **** SET PIXEL COLUMN ****
310 FOR y%=zero% TO hor%:REM **** SET PIXEL ROW ****
320 i=corna+(side*x%/ver%)
330 j=cornb+(side*y%/hor%)
340 z=(i*1)+(j*j)
350 c%=INT(z)
359 REM **** IF MODE 3 THEN CALCULATE PEN COLOR AND SET ****
360 IF mode%=3 THEN pen%=(c%-(INT(c%/16)*16)):GOSUB 00:GOTO 380
368 REM **** OTHER MODES PRINT DOT IN CURRENT PEN COLOR ****
369 REM **** IF c% IS AN EVEN NUMBER ****
370 IF c%/two%<>INT(c%/two%) THEN 390
379 REM **** PRINT SCREEN DOT IN CURRENT PEN COLOR ****
380 PERFORM dotat(%x%,%y%)
390 NEXT
395 NEXT
396 REM **** IF GRAPH COMPLETE, SAVE AND RETURN TO MAIN MENU ****
397 PERFORM gsave."w.graph":GOSUB 1000:GOTO 45
399 REM **** SET PEN COLOR ****
400 PERFORM pencolor(%pen%)
410 RETURN
499 REM **** INITIALIZE VARIABLES ****
500 hor%=191:zero%=0:two%=2:DIM modes$(3),pens$(15),fill$(15)
510 modes$(0)="280":modes$(1)="280":modes$(2)="560":modes$(3)="1 40"
520 pens$(0)="Black":fill$(0)="Black"
530 pens$(1)="Magenta":fill$(1)="Magenta"
540 pens$(2)="Dark Blue":fill$(2)="Dark Blue"
550 pens$(3)="Purple":fill$(3)="Purple"
560 pens$(4)="Dark Green":fill$(4)="Dark Green"
570 pens$(5)="Gray 1":fill$(5)="Gray 1"
580 pens$(6)="Medium Blue":fill$(6)="Medium Blue"
590 pens$(7)="Light Blue":fill$(7)="Light Blue"
600 pens$(8)="Brown":fill$(8)="Brown"
610 pens$(9)="Orange":fill$(9)="Orange"
620 pens$(10)="Grey 2":fill$(10)="Grey 2"
630 pens$(11)="Pink":fill$(11)="Pink"
640 pens$(12)="Green":fill$(12)="Green"
650 pens$(13)="Yellow":fill$(13)="Yellow"
660 pens$(14)="Aqua":fill$(14)="Aqua"
670 pens$(15)="White":fill$(15)="White"
700 RETURN
999 REM **** HOME, RETURN TO TEXT SCREEN AND RELEASE GRAPHICS MEMORY ****
1000 OFF KBD:HOME:TEXT:PERFORM release:PERFORM release:PERFORM release
1010 RETURN
```



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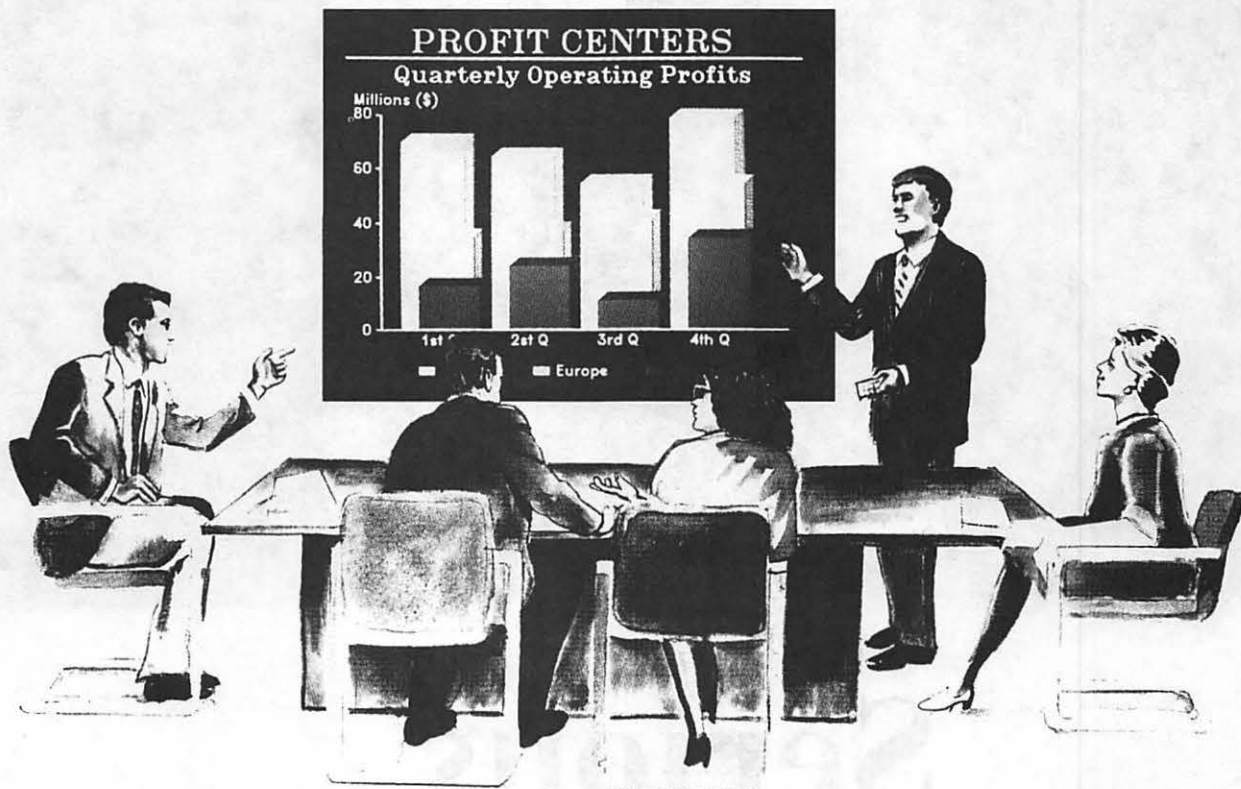


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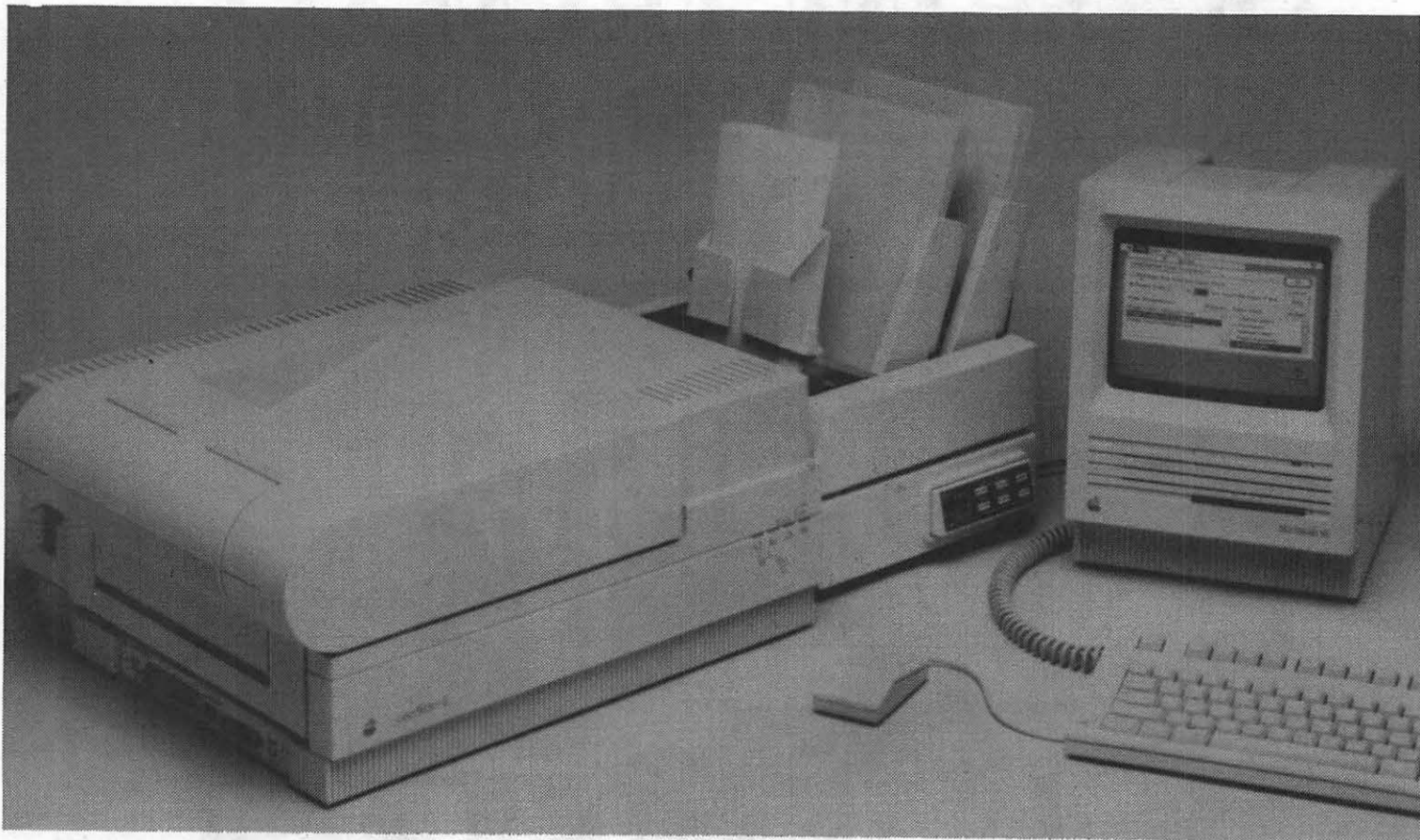
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# Spring Maintenance

And other good ideas

By David Ottalini, Apple III SIG Co-Chairman

## Preventive Maintenance

Happy March, III SIGers! Even as we prepare our gardens for the first peas of the season, it's time to prepare our IIIs for another year of useful service. First of all, it's time to reseat your chips on the motherboard and RAM card. The reason is simple. If you turn your III on and off, the chips will expand and contract over time (it gets warm inside the case). That can cause some of those chips to become unseated. And if a pin is not making contact, you're in for trouble. It may sound scary, but is actually easy. Here's how:

1) First of all, prepare a surface where you can work that is open and wide enough to accept your III.

2) Now, turn off your III and unplug everything. If you have any cards in the built-in slots, it's time to pull them out carefully as well. It would be a good idea, by the way, to carefully press in the chips of those cards, to make sure they are seated properly.

3) Turn your III over, with the back facing you. You will need a small Phillips head screwdriver to unscrew all eleven screws on the large pan to your right. Have a jar or other container handy to keep all the screws in.

4) Take a flat head screwdriver and insert it gently under the pan. Pull up slowly, and you'll see some cables hooked to the motherboard (that is, the main circuit board) of your III. Carefully unplug them, with a gentle rocking motion from one side to the other. There should be cables connecting the keyboard and the internal disk drive (.D1). In addition, you'll have a small two-wire speaker cable to disconnect and possibly a two-wire cable for the battery back-up if you have one.

5) On the other is the power cable connector. Gently pull up the pan and grab the connector and wiggle it off.

6) You should note where each cable goes. But don't worry too much, all the cables only fit in one specific connector and in one proper direction.

7) You are now ready to pick up the baseplate, with the mother board and Memory card. Using both hands, pick it up and turn it over, so that the baseplate rests on the Apple III case. You are now ready to get down to work!

8) The first thing you do is do a little housecleaning. Get rid of all the dust (blow it away or you can use a vacuum). Now, wiggle your thumbs to get them in shape. They'll be used to press down the chips! Start from one end of the motherboard and work your way toward the other. The memory board will be in the way of some chips (they're underneath), so try your best to push down those as well. You'll understand why you need to do this now. Hear all that popping and creaking? It's the chips being resealed. Do this firmly but gently. Remember the mother board may be big, but it is still fragile and a crack can be the mark of death.

9) Now you can do the same thing to the memory card. By the way, this would be a good time to add a clock chip (position B3), a battery back-up or interlace kit (all available from On Three or Sun Remarketing). Or how about a 256 or 512K upgrade? All are easy to do. Just be sure you read the instructions carefully.

10) Once you're finished, repeat the above steps in the opposite direction to hook everything back up again and you're all set.

Going through this procedure yearly is good practice. Also, at the first sign of trouble, reseating the chips (after running the confidence program-PD disk 1013) could solve your problem.

## On Three News

I'm happy to report that new WAP members who plan to join the III SIG will now be getting a 10% discount on a subscription to On Three Magazine! That's a \$4.00 savings over the \$40.00 regular subscription price. On Three needs the III community's support to continue publishing, and we hope this

will be one way to introduce new members to the magazine.

President Bob Consorti, by the way, reports that there was only one entry to a recent contest to create a Business Basic program that provides pull-down menus and other Mac/GS-like functions. It was done by the same person who wrote On Three's Sideprint utility program. Unfortunately, the entry apparently needed some additional work, so we'll have to wait and see if it gets published.

You should also look for a newly upgraded GS version of the Desktop Manager soon. Unlike the TimeOut and other background utilities, DTM works from within any program on the GS (much like the III). Pricing should be very competitive as well.

## Disks, Upgrades, etc.

First of all, many thanks to Robert Howe for sending us some interesting programs that we'll soon be passing along to you. Almost immediately, you'll be able to get an upgrade to Daryl Anderson's Disk Window III+ program (Disk 1025) that Howe has adapted to include a working clock and taken out many of the "beeps" that created some frustrations. That disk should be available now and includes some notes about the upgrade from Mr. Howe.

Perhaps of even more interest is a modification to Apple Speller III so that it can spell check III EZ Pieces files! The first of two installments on how to do that is available in a separate article. We'll also make it available on disk for you at some future date.

As for our PD offerings, I am happy to say that due to the exuberance of John Ruffatto, we're adding a number of new disks this month. They include:

- Disk 1047 : The Phase III Conference transcription disk.
- Disk 1048 : Dr. Blooms Mail List Manager Utilities Disk 1
- Disk 1049 : MLM Utils Disk 2
- Disk 1050 : MLM Utils Disk 3

Disks 1049 and 50 require 1048 to operate. A fuller explanation is available in the Disketeria article in this month's Journal. Next month: Daryl Anderson's Basic GTO partial assembler for Business Basic.

## The PD Disk Handbook

Some of you might wonder exactly what's involved in putting together a disk for our PD library. It's really quite simple, but like everything else, can be time consuming.

My philosophy about PD disks is that they should be unique and useful, self-booting whenever possible, as well as fun and easy to use. They should also provide the user with value, which is why you will always get a disk filled with material on both sides.

Since most of our disks are self-booting under Business Basic (the rest are Pascal based if self-booting), we use our own special Menu.Maker utility that can run Basic programs and will print text files to the screen. The user can also make hard copies if desired.

That said, there are a number of components to a PD disk. Along with the SOS.Interp and SOS.Kernel files, the SOS.Driver file is adjusted for each disk to include the drivers necessary for proper operation. For some, depending on the material on the disk, that may mean only .Console. For others, we may include a number of drivers. This particular SOS.Driver has a special III SIG font file developed with the CustomFont program. It is loaded at boot-up and is used to enhance the look of our Menu.Maker program.

Upon boot-up, Basic runs a Hello (beginning) program. It prints the Hello.Text "message" to your screen which explains what is on the disk and other information. Obviously, this has to be adjusted with each disk. Menu.Maker actually comes in two forms. One, Version 4.52 reads a special Flashname.Dat file to send a message to the screen before the Menu comes up. Version 4.53 does not include this provision and is normally placed on the back side of the disk. Both programs read a Diskname.Dat file that has the name of the disk, so it can be printed at the bottom of the Menu. Having the disk and flash files separate from the Menu.Maker program speeds up development time for each new disk.

I should also mention that Menu.Maker can display FOTO files and load font files. We are looking into programming changes so it can read and display 3E2P text files. The user will always be returned to the Menu

after a text, FOTO, or font file has been "run". If a Basic program has been adapted, it will return the user to the Menu as well. If not, a simple "Run .D1/Menu.Maker" from the Basic prompt will get things going again.

Menu.Maker will also read subdirectories. To return to the main level, simply hit the <ESCAPE> key. It really is an excellent program that we've gotten a lot of good use out of.

That said, what makes our disks really unique? For one thing, we have gone out and gotten formerly commercial programs placed into the PD, and which are available only to our members. Secondly, we try to enhance programs that are already in the PD with such things as information files, data bases of articles, etc. We also try to update information, add to it, make it easier to read, etc. In some cases (like CustomFont) we transcribed the entire manual so it would be available on disk. It was at your SIG's request that Taylor Pohlman put his excellent series of articles into the PD too.

There's still a lot to do be done. I have tons of material for a number of WPL (Word Processing Language) disks. Members have started to donate programs we need to put together and we have more back issues of other group's newsletters that could be made into more "Best Of" disks. Your help would be greatly appreciated. Give me a call if you'd be interested in working on some of these projects.

## The III Hardcopy Library

I'm happy to report that member Jim Jutzin has agreed to coordinate our hardcopy library in the WAP office. With the upcoming move, there's a real need to review what we have and what we need so that the material can be better used by all. Jim will be working with WAP's Hardcopy Librarian Walt Francis on this project.

## Meeting Queue

I'd once again like to invite all members to come to our SIG meetings the 4th Wednesday of (almost) every month. Please be advised that our first meeting in the new office will be this month (April). You may wish to call the WAP office or myself to double-check on how to get into the new building

and into the new tutorial room. In any case, we always have lively discussions about a range of Apple III questions. We've been trying our hand at some tutorials of late and you're welcome to suggest topics.

## Finally

The big news this month on the TCS, III SIGers, is that we're going to get our own Apple III "For Sale" Board on System 4. We got it after I accidentally posted some items for sale in our own SIG Board 5 and Lee Raesley reminded me sale items were to go in the Buy and Sell area. He was kind enough to ask if we'd like our own board and I, of course, said yes. It should be available by the time you read this. ☘

## Games Games Games!

# The Play...

By Steven Payne

It's too soon to expect any reaction to last month's initial column, so I guess I shouldn't be surprised by the resounding silence. We are eager to learn, however, if there is any interest among the members in a regular gaming column beyond the meeting reports and the reviews.

This month the news is scarce, since most of my regular sources are unavailable. We've learned, at least, that Sierra is now offering color conversions of all their 3-D animated adventure games for the Mac II, to be included from now on in the same package with versions for other Macintoshes. Those who want to upgrade their copies should call (209) 683-6858.

Recently I had the opportunity to speak to Paul Snively of ICOM Simulations about their newest release, *Deja Vu II* (you'll find him in the game's "About..." box). He talked about some of the special touches the company likes to include in all their products, even when they're not directly related to winning the game (try harassing the seeing-eye dog in *Deja Vu II*, for example, or operating a lit match on the bum) Despite the lukewarm reviews in this Journal, Snively said that the Apple IIGs conversions of the "MacVentures"

## Mac Games

# GrailQuest

By Steven Payne

"Good morning, Perceval. Joseph of Arimathea, the notorious Christian saint, has hidden the Holy Grail somewhere in the British Isles. For years, many have sought to discover its whereabouts, but none have succeeded. Your mission, should you accept it, is to recover the Grail and live happily ever after. As always, should you or any of your WAP force be caught or killed, the secretary will disavow any knowledge of your actions. This disk will self destruct in five seconds. Good luck, Percy...."

GrailQuest (Artworx, Mac with 800K drive or better) is a text and graphic adventure based on the Arthurian legends found in Geoffrey of Monmouth's *History of the Kings of Britain* and Sir Thomas Malory's *LeMorteD'Arthur*. This time around you play Perceval, and begin in Arthur's throne room as he sends you out on your quest for the Holy Grail. After finding the necessary armor, supplies and horse in the castle, you set out from Camelot into a computerized Britain which includes over 100 locations, as well as interactions with wizards, hags, evil knights and, of course, Merlin, Guenever and Lancelot.

No, there are no killer rabbits here. Still, this kingdom is passing strange! The historical Arthur was supposed to have lived in the 5th or 6th centuries, yet

here Perceval visits Guenever in the Tower of London and rescues the relics of St. Thomas Becket (who died in 1170) for Canterbury Cathedral. While in London he chats with Geoffrey (Chaucer?) and Bede (the Venerable?). The author claims that such anachronisms come straight from Malory, and I'll take his word for it, though the Gothic architecture of the churches in the graphics window and the Tudor style of the inns strike me as a tad suspicious!

Basically, you will spend most of your time in this game on a series of mini-quests, battling enemies, finding objects and solving puzzles, before you can reach Chapel Perilous (and the Grail beyond it). To win, you will have to be on your best behavior throughout. The game awards certain credits for chivalry, but (annoyingly) these are invisible to the player, and errors of judgment cannot always be undone. The result is that you can reach the endgame without realizing that you lost spiritual credit somewhere along the way and cannot finish. My advice is to save early and often.

In its promotional material, Artworx claims that GrailQuest "offers hours of quality entertainment for those

→ 56

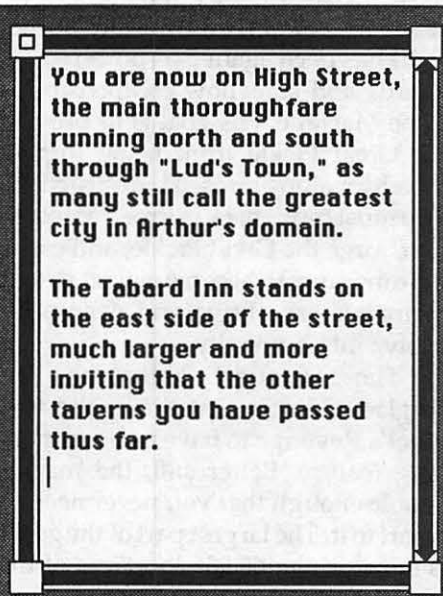
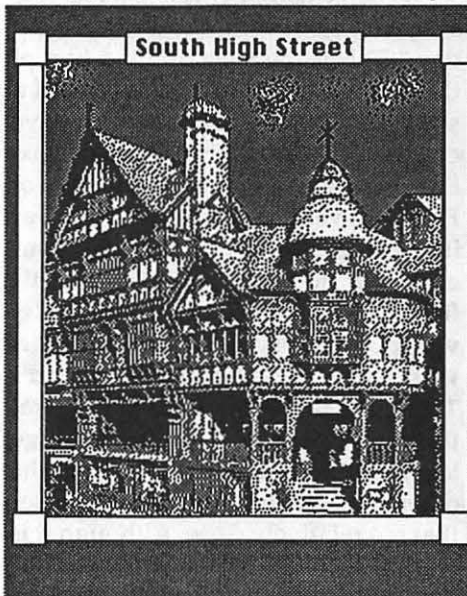
⌘ File Edit Commands Weapons



## Games Games Games ...Room

have become their all-time best-sellers. Current projects in the same series include a werewolf story tentatively entitled *Red Shadow Over London*, and a follow-up to *ShadowGate* which will contain some role-playing elements. Apparently *Gossip*, the game by John Dvorak which Todd Zipnick demonstrated several Augusts ago at the WAP main meeting, has been dropped indefinitely, due to the limitations of the "MacVenture" interface for character interactions.

On the Apple II conference of the WAPTCS, there have been several items about games that allow female role-playing, as well as the problems folks have had with *War in Middle Earth* (Melbourne House), which doesn't seem to run without an ADB mouse. Adam Briggs discovered where saved games are stored by Interplay's *Neuromancer* (Game #1 at track 5, sector 5, for example), which may be of interest to those of you with disk tools who want to tip the odds in your favor. One the Mac side, there are avid discussions of flight simulators and golfing games; in the latter category, *MacGolf* (PCAI), *Mean 18* (Accolade), and *World Class Leader Board Golf* (Access) all appear to have their partisans. 🍏



# Pixel's Revenge IV

by Charles Don Hall

**Pixel's Revenge-IV: Ecce Homo** (all computers) is Parser St., Inc.'s long-awaited prequel to **Pixel's Revenge-III: Beyond Good and Evil**. As you'll recall, in **Pixel's Revenge -III** you recovered the Great Pickle from the center of the Mystifying Mystical Mammoth Maze of Monstrous Person-Eating Monsters (sic) so that it could be used in the climactic battle against the Dark Lord. However, it was never made clear how the Great Pickle came to be in the Maze. The question is answered in this game, which also gives the true story behind the forging of the Great Pickle, and the reason that all of the "Pixel's Revenge (negative integer)" games are named after the philosophical writings of Friedrich Nietzsche.

As usual, you can generate new characters, or transfer characters from any other game in the series. In addition, three new character classes have been added—Philosopher, Anti-Anti-Paladin, and Programmer/Analyst—and you'll need at least one of each to complete the game. Also, there are now 29 character attributes instead of 28. The new one is hair color. The documentation is a little vague on its effect, but it seems that blond characters do better in combat than characters with other colors of hair.

As the game opens, the Dark Lord (now revealed to be Emmanuel Goldstein, the founder of the Empire Kosher Deli) has once again overpowered his guards and somehow escaped to his Time Machine. His goal is to prevent the Great Pickle from being forged, thereby making himself indestructible. You must travel back in time, recapture him, forge the Great Pickle, and cause the dinosaurs to become extinct so that mammals can thrive and eventually evolve into humanity.

Those of you who hate to map will be glad to know that this is the first **Pixel's Revenge** to have an auto-mapping feature. Better still, the map is simple enough that you never need to resort to it. The largest part of the game is spent in the 65,536 locations of the

Cold, Colossal Chaotic Cul-de-Sac of Chaos (sic). As the name implies, this dungeon is a single corridor, one square wide, one level deep, and 65,536 squares long. I never had to use the auto-map; I found that I could get by just fine with the LOCATION spell, which told me how many squares north of the entrance I was.

After recovering the Great Cucumber and forging the Great Pickle from it, you must put it somewhere where it will be safe but still accessible to your (younger) selves in the future. Obviously, you must put it in the Maze of **Pixel's Revenge -III**. Your Genetic

*“this game requires almost no knowledge of Latin”*

Engineer must design monsters to guard it, of course, and your Programmer/Analyst must write overlay codes to support the various riddles and special locations in the game. While this is going on, of course, your Philosopher must convince the party that they are ethically justified in killing off the dinosaurs, and your Anti-Anti-Paladin must keep any Anti-Anti-Paladins or Paladins in the party from killing the Philosopher.

When you think the Great Pickle is safe, you can travel back to the “present day.” This is the most exciting part of the game, since if you have left out a single monster or trap, you will have created an irreconcilable paradox, thereby destroying the universe of **Pixel's Revenge** and all universes near it. A clever piece of code causes your computer to emit special magnetic fields, which will erase all **Pixel's Revenge**, **Wizardry**, **Ultima**, **Phantasie**, **Wasteland**, **Stickybear Bop** and **Bard's Tale** disks in your possession. The rationale is that since **Pixel's Revenge** lets you transfer characters in from the other games, they must be in universes that are relatively close. Although it is really contrary to the spirit of the game,

Parser St., Inc. will replace any damaged disks for \$40 each.

I must confess that I triggered the “erase” feature once, so I can vouch for its effectiveness. I was pleased to see that it did not erase any disks except for those associated with the games listed above, and my **AppleWorks** disk. I was surprised to see **AppleWorks** deleted, but a call to Parser St., Inc.'s help line (1-800-REV-ENGE) quickly established that the problem was that I had once written a review of **Bard's Tale III** using **AppleWorks**. So that disk therefore was eligible for deletion.

I found this to be one of the more difficult games in the series. However, there is only one puzzle that I found really unfair: the answer to Odin's riddle is “Aryan.” This is not at all obvious. In fact, I'm not sure that it's biologically correct, but that's the expected answer, and all your characters will be killed if you don't give it.

When you finish, you'll find references to not one but two additional games in the series: **Pixel's Revenge -V: Man and Superman**, which revolves around the origin of the Great Cucumber and the evolution of amphibians into true land-dwellers, and **Pixel's Revenge-III.V: Mein Kampf** (“My Struggle”) in which the party must intervene in the war for survival between Cro-Magnon Man and Neanderthal Man. The next release in the series will probably be **Pixel's Revenge XIV: The Return of Stickybear**, in which the Great Pickle is once again stolen by Emmanuel Goldstein and hidden in another universe. This game will come bundled with two of **Weekly Reader Software's** most recent educational programs: **Stickybear SAT** and **Stickybear Bar Exam**.

**BOTTOM LINE:** My only complaint is the fact that Parser St., Inc. seems to be getting more and more political with every game (this has been especially true since they were taken over by **Empire Software, Ltd.**), and I'm not sure that I agree with some of their opinions. Still, it is refreshing to look at life from a fascist-type standpoint every once in a while, particularly after wrestling with some of the difficult think-for-yourself type questions in **Ultima V**. ☛

# Orbital Mech

by David L. Harris

Is it a game, a simulation, or ... ? According to the introduction in the 64-page manual that comes with *Orbital Mech 1.11*, "a playground is a place for the enjoyment of motion. *Orbital Mech* is designed to simulate a celestial playground, where you may play with the motions of objects in orbit. *Orbital Mech* gives you complete control over the motions of a spacecraft, as well as some control over the environment in which you pilot it."

*Orbital Mech* (Studio Zero, Macintosh 512K or better, \$49.95 list) does not attempt to simulate the appearance of a spacecraft from the pilot's perspective. Although the spacecraft you control is nominally a "shuttle" orbiter, the program tries rather to demonstrate various types of orbital motion, in the gravitational field of a single body, or of two attracting bodies, with or without a space station for you to rendezvous and dock with. The masses of the attracting bodies, as well as their separation (in the case of two) are set by the user, as are several display and operational options.

For orbit around a single body, the main task is to try to rendezvous with an already orbiting space station, from your position in a lower orbit. I found this at first not so easy; it was only on the third session with *Orbital Mech* that I was able to rendezvous with the station. (It is not too difficult to match orbits with the station, but getting to the same point at the same time is harder.) I found it useful to use the "disable docking" menu selection while attempting rendezvous, until I had matched position and velocity with the station quite well. When docking is enabled you lose the overview of the whole orbit, and only see the local situation, so corrections in attempting to close with the station too soon can really mess up your orbit! (See docking screen, figure 1.) Position and velocity dials aid (sometimes) in docking, but

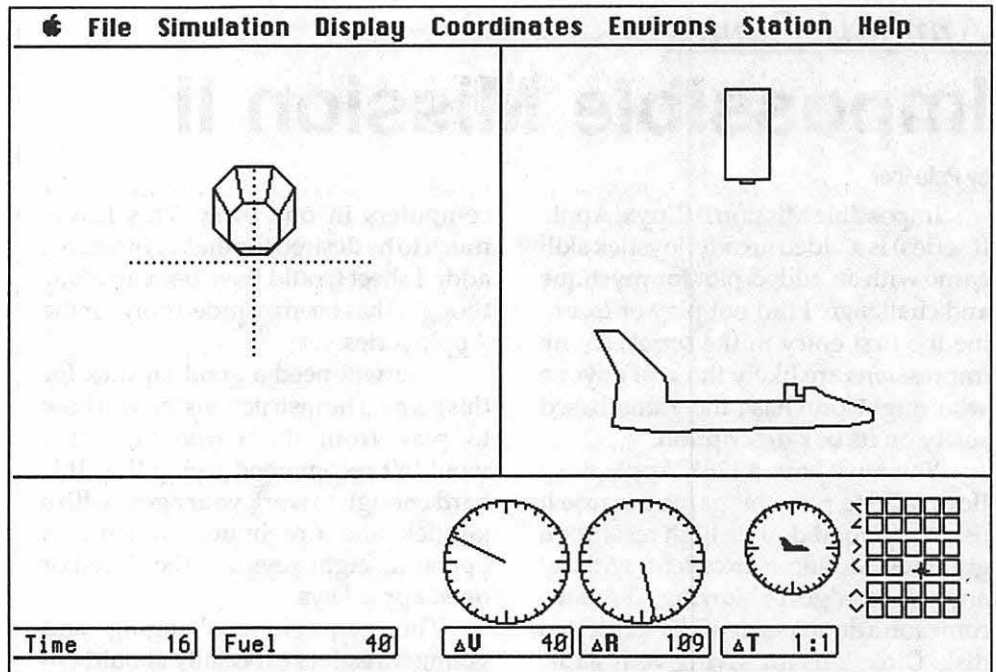


Figure 1: Docking Screen

are less useful for rendezvous. Changing the mass of the primary (from .02 to 5 times normal) alters the manner of both rendezvous and docking; I found attempting to dock at 5 times normal took so many thruster firing corrections that the program actually bombed before I could succeed. I didn't try again!

Space station rendezvous is harder when you are in the environs of two attracting bodies. Since the station and your spacecraft are in different positions, they are attracted by the two masses differently, and their orbits are usually changing. The changes are quite

different until the station and craft are almost together. I haven't yet succeeded with rendezvous in this environment. However, it is also possible to simulate other things, such as moving your craft from near "earth" orbit around the "moon," or even into lunar orbit (see figure 2, where the ship has gone around the "moon" and is returning towards "earth," while the "moon" has moved on). In the two-body environment, more options are available, including change of coordinate system (the point in space from which you view the orbits).

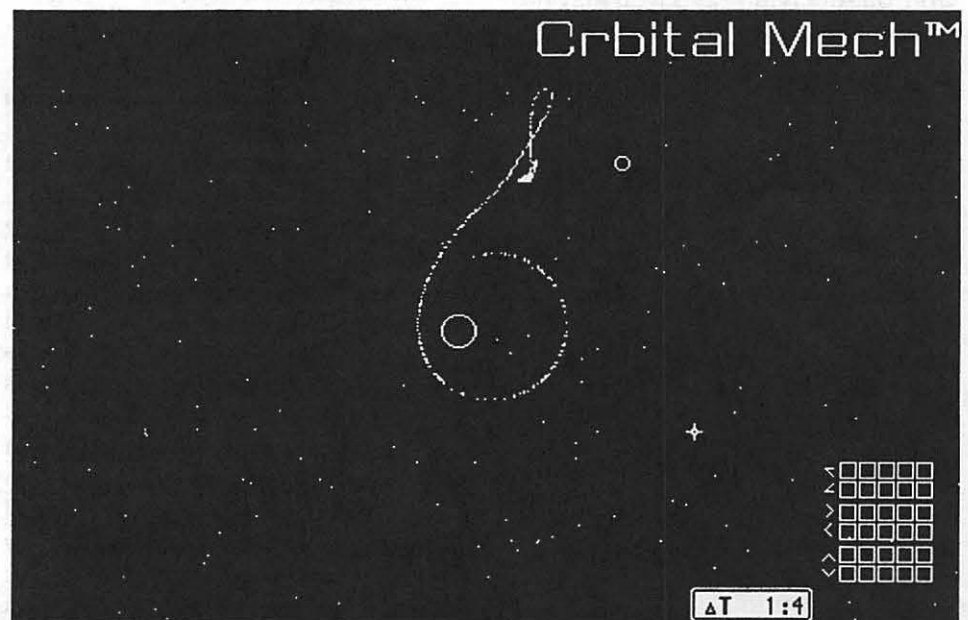


Figure 2: Around the Moon and Back!

# Impossible Mission II

by Pete Iber

Impossible Mission II (Epyx, Apple II series) is a video arcade, joystick skill game with an added plot for mystique and challenge. I did not play or examine the first entry in the series, so my impressions are likely those of anyone who might purchase the game based solely on its box description.

You must have a 128K Apple IIe or IIc or a GS to play this game because it uses very good double high resolution graphics. Motion is excellent, without any ragged edges or blurring. The game comes on a double-sided 5.25" protected disk. Directions for saving your game are unclear. An extra sheet tells you to have a pre-formatted DOS 3.3 disk available to save onto, unless you wish to save onto the game disk. How to save onto the game disk is not well explained and for the beginner will present problems. As you load the game, you will be told to flip the disk and then continue the load. That puts you on the flipside, which of course is not punched for a save. You must reverse the disk before saving.

The objectives are to collect code numbers and music segments for use in your pocket computer. When you have the right code and a piece of music from one of Elvin's safes, you may proceed to the next of 7 towers to be explored. As someone without a great amount of hand-eye coordination when using a joystick, I found it took about 4-5 hours to get proficient enough to complete one tower in the time allotted for the game. Eight game hours (actual time is about one hour) are given to solve 7 towers and get to Elvin. If you don't make it, you will be shown a score sheet to fill in your name and get your score based on the number of towers solved, codes broken and music collected. If you finish all 7 towers within the time limit (I didn't even finish 3), you must then enter Elvin's tower and find the correct computer to deactivate the missiles he has set to destroy the world.

The manual for this game is very loosely written, addressing all types of

computers in one book. This leaves much to be desired for the beginner. An added sheet (could have been an afterthought) has been included only for the Apple series.

You will need a good joystick for this game. The instructions tell you how to play from the keyboard, but I wouldn't recommend trying this. It is hard enough to work your agent with a joystick and fire button, much less operating eight keys and the closed or open apple keys.

The game is challenging and younger readers especially should enjoy it. The challenges are varied and even an adult can find some serious spatial problems to overcome within the game. Impossible Mission II is a typical Epyx game, and follows their general challenge game format. If you want a fun evening without a lot of mental strain, this game is for you. ♣

## Impossible Mission II Rating

Look: 10/10 (The graphics are good.)

Feel: 9/10 (The joystick is calibrated at the beginning of the game, but it will still take you some time to make your agent work the way you want. The sound is somewhat irritating, but can be shut off.)

Play: 8/10 (Some may find the game next to impossible to win and not experience some of the specials I'm sure are there. I didn't make it myself.)

## 53 Grail Quest

who enjoy adventure games with adult situations and sensibilities." Well, there is one adult scene on your wedding night (a bit of a shock until I realized that this is the same company which produces Strip Poker and Centerfold Squares) which deserves at least a PG-13. But otherwise, this adventure is pretty familiar fare. GrailQuest is actually a "World Builder" game, and if you've ever played Enchanted Scepters (Silicon Beach) or even Radical Castle (shareware), you already know what to expect. The format, the combat system, the special effects, and even most of the sounds, are the same. What is *not* the same are the superior graph-

ics Those of you with copies of World Builder (Silicon Beach) might want to buy the game just to take GrailQuest apart and use the pictures in constructing adventures of your own. The game comes on two disks (800K and 400K) and is not copy-protected. The packaging includes a card with play instructions. A hintbook is available from Artworx for \$2.

Bottom Line: Though I doubt GrailQuest will excite many seasoned adventurers, those who like "World Builder" games or the Arthurian legends should find it enjoyable. The play is smooth and the pictures are good. If it were a shareware program, like Zoney or Deep Angst, I'd probably feel enthusiastic about it. But one expects something more from a game which lists for \$29.95. As it is, I'd give it, roughly, a 6 out of 10. ♣

## 55 Orbital Mech

To summarize Orbital Mech: if you are intrigued by the physics of orbital motion at all, you will probably like this program. The graphics are not mind-boggling, nor are the limited sounds, but that isn't the point of the program. You will find your abilities to rendezvous challenged! In addition to explaining the operation of the program, the manual describes the elements of orbits, although it uses terminology that can be unnecessarily technical. It is not without errors, too; on page 2, for instance, it says that thruster power control increases from left to right, while on the next page it states (correctly) just the opposite. (Both rotational and translational thruster control is from either keyboard or mouse; the mouse controls are on the lower right of figures 1 and 2.)

The Orbital Mech 1.11 disk also came with two version 0.9 "physics" freeware programs on it: Gas and Trees. In the first you can see "ideal gas" molecules dance while you change several parameters, such as velocity, gravity, enclosure size, collisional cross-section, etc. The second grows "trees," again under the influence of several user-changeable parameters. I found both to be quite entertaining. (Orbital Mech comes from Studio Zero, 6212 Samuell Blvd., Suite 153, Dallas, TX 75227.) ♣



## On HyperCard

# Introduction to HyperCard

## Part 2: Creating an index stack

by Robert C. Platt

*This is the second in a four part series which is based upon WAP's Introduction to HyperCard Tutorial. This is a "hands-on" article, so please follow along using your Mac.*

Last month we began by creating a new "Carpool" stack. This stack had two backgrounds. We left off by storing data on the five members of our car pool. We mysteriously skipped over the second card in the stack. We're now going to go back to finish this card, which will be an index to the other cards in the stack.

To open our Carpool stack, just double-click on the Carpool icon. This will automatically launch HyperCard and take you to the first card of the Carpool stack. Select Next from the Go

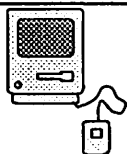
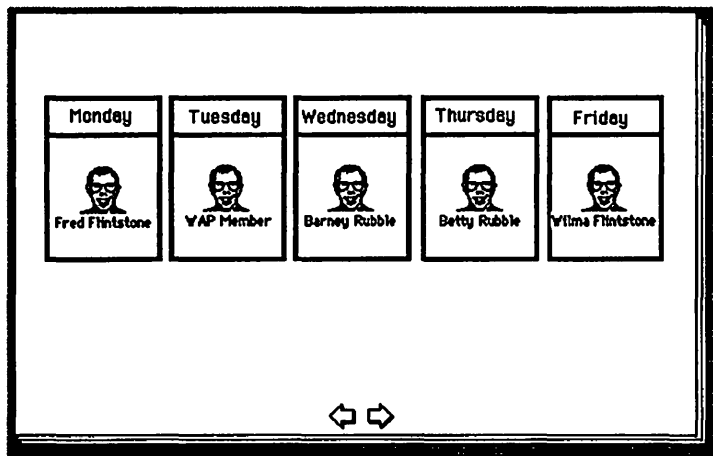
menu (or press Command-3). This will take you to the second card.

We are going to make frames in which to display our carpool assignments for the week. To draw the first frame, select the Rectangle Tool in the middle of the fourth row of the Tools Window. Now select Line Size... from the Options menu. (You can also reach this dialog

box by double-clicking on the Straight Line Tool in the Tools window.) Select the second or third line thickness by clicking on it.

Now you can form a rectangle by positioning your cursor over by the left edge of the screen and dragging down about two inches and over about a fifth of the screen. Ultimately, the card will look like the figure below.

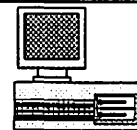
Next, Select the Line Tool from the right side of the third row of the Tools Window. (Although you are switching tools, your choice of line thickness is



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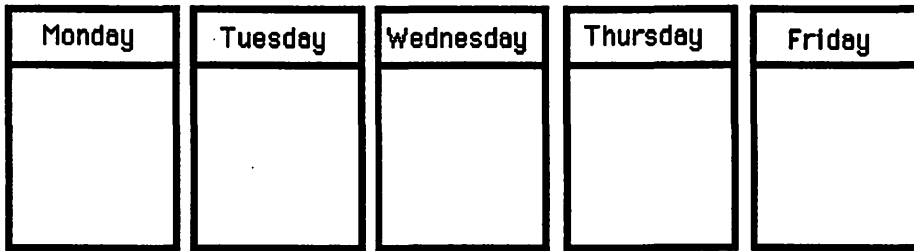
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not affected.) Ordinarily, the line tool will draw a straight line between any two points you designate by dragging. However, we want a horizontal line which is parallel to the top and bottom of your rectangle. To get a line which is constrained to horizontal (or any 15 degree angle from it), hold down on the *Shift* key as you drag from one side of the rectangle to the other. Your line should be about 1/4 " from the top of the rectangle.

### Copying the Rectangle

This rectangle is great for a one day carpool, but what about the rest of the week? Choose the Selection Rectangle Tool from the left of the second row of the Tools Window. Your cursor will turn into a cross. Now position the cursor a little above and to the left of the upper left corner of the rectangle. Drag down to outside the lower right of the rectangle so that the entire rectangle is enclosed in a shimmering rectangle. Release the mouse button and select **Copy Picture** from the edit menu (or press **Command-C**). Now select **Paste Picture** from the edit menu (or press **Command-V**). Although it appears that nothing has happened, you have dropped a second rectangle on top of the first. Move the cursor to the inside of the rectangle. Hold down the mouse button and drag it just to the right of the first rectangle, but at the same height.

To get a third rectangle which is a duplicate of the other two, just select **Paste Picture** (or **Command-V**) again. Another duplicate will be dropped on top of the left rectangle. Drag it into place to the right of the other two rectangles. Paste Picture two more times and drag rectangles for Thursday and Friday. If you find that there is not enough room for all five rectangles, use the selection rectangle to surround the first four and then drag them to the left to make room for the fifth.

### Those Were the Days

Each rectangle represents a day of the week, and should be labeled. Because these days do not need to be retrieved, we will use the Text Tool rather than creating fields to label them.

Select the Text Tool (represented by the letter "A") in the lower left of the Tools Window. The **Text Styles...** option on the Edit menu becomes active. Choose **Text Styles** (or press **Command-T**). Select 12 point Geneva. Click on the **Centered** alignment button in the lower left corner of the dialog box. When you have finished selecting a type, click the **OK** button. The cursor will look like an I-beam. Click in the center of the small box which was formed above the line which you just drew across the leftmost rectangle. Type "Monday". Type in the other days of the week in the other boxes. Your card should look like the picture at the top of this page.

### Big Buttons

Now we must add buttons to link the carpool assignments of the drivers to the cards containing data on those drivers. Choose the Button tool from the middle of the top row of the Tools Window. Select **New Button** from the Objects menu. We have created a card button. Drag this button into the Monday rectangle, so that the upper left corner of the button matches the top left corner of the box beneath the word "Monday." Now lift up the mouse and move it to the bottom right corner of the new button. (The button's outline should still be shimmering. If it stopped, click once in the middle of the button to select it again.) Now drag the lower right corner of the button until the button stretches to match the size of the box. Choose **Button Info...** from the Objects menu (or double click on the button.) The name dialog box is highlighted. Type in "Fred Flintstone." The Show name box should have an X mark.

This will cause the words "Fred Flintstone" in your rectangle. Also click on the **Auto hilite** to cause the button to darken temporarily when it is clicked.

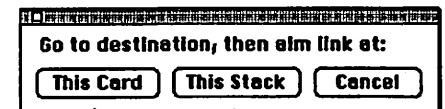
For **Style** click on the transparent option. This will make the edges of the button invisible. Now, click on the **Icon...** button in the **Button Info** dialog box. This will take you to a second dialog box. This dialog gives you a scrolling field of all the icons stored in your stack, your home stack and your HyperCard application. Click on the picture of Bill (Icon #2002) in the upper left corner of the box. When you have selected Bill, his head will be white on a black background. Now click on the **OK** button to to your card.

### Cloning Buttons

Bill's head will now appear centered in the Monday rectangle. Click on it, so that the border of the button shimmers. Now select **Copy Button** from the Edit menu (**Command-C**). Now select **Paste Button** from the Edit menu. As with copying the rectangles, you have now created a second card button on top of the first. Put your mouse on this new button and drag it to the Tuesday rectangle. It should be an exact fit, because the Monday one was an exact fit. Repeat the process for Wednesday, Thursday and Friday: **Paste Button** and drag to the next rectangle.

### Linking Cards

You now have five buttons, all labeled "Fred Flintstone." We will fix this. But first, double click on the Monday Fred. Again, you have the **Button Info** dialog box. Click in the **LinkTo** button. A windoid will float above your card with the message: "Go to destination, then aim link at: This Card, This Stack, Cancel."



Now go to the next card by clicking on the right arrow at the bottom of the card. It should be Fred's card. Click on the **This Card** button, and the windoid disappears. You will jump back to our second card. You have established a link between the carpool card and the card with information about Fred.

# Musements™

by Fred Seelig

## Since Last Time...

Whew! A lot has happened since last summer. For starters, the trusty Mac Plus gave up the ghost. It was replaced with a fast, new SE.

There's the usual griping about buggy software and bogus pricing structures. There's the usual grouching about magazines. There's a plug for some good engineering software. Some newsy tips on Mac II power supplies and their effect on your modem. And, why every SE owner should immedi-

---

If you click on the Monday button when in the Browse Tool, you will jump immediately to Fred's card. Links between cards are one of the most powerful features of HyperCard.

Now you should still have the Button Tool selected. Click on the button for Tuesday. Enter the name "Wilma Flintstone" and click in the LinkTo button. A quick way to move to Wilma's card to establish the link is to select Find from the Go menu. A floating windoid will appear near the bottom of your screen.

Type in "Wilma" between the quote marks and press return. You will jump to Wilma's card. Click on the This Card button which is visible in the LinkTo windoid. You will jump back to the carpool card.

Now select in turn the buttons for Wednesday, Thursday and Friday, enter the new names and establish the link to each driver.

## Ready to Use

Your stack should be ready to use. To change the carpool assignments for a given week, select the button tool. Move one driver out of his rectangle, move the new driver's button into that rectangle and place the first driver's button into his new assigned date. After moving these buttons between rectangles to reflect the new driving assignments, just click on the Browse tool to return the stack into use. 🍏

ately rush out and buy a Radius 16 accelerator. Informix Software's Thomas McCamon demoed Wingz at February's WAP meeting. Impressive. You'll be reading a review pretty soon.

## Keith Krokyn's Komplaints

Keith Krokyn comes up with the most unusual problems. For example, his experience with Comment 2.0. He experienced problems with Comment when he used it with MORE, the outliner. The Deneba support group in Miami was "quite surly," a condition he felt was exacerbated by Columbian drug lords running amok shooting everything that moved.

Then, trouble with Dollars and Sense version 4.1c. He was running System version 5.0. His SE has 2 1/2 megs of RAM. RAM cache on. He was closing Dollars and Sense when a dialog box appeared that said, "An error occurred in FlushVol. Error-35: No such volume found." One button: OK. He clicked it.

The dialog box went away. Another one appeared. This one said, "An error occurred while reverting the account file. Error-35: No such volume found." Once again he clicked OK, the only button available.

The second dialog box went away. A third appeared. By this time he was getting pretty panicky. The box read, "An error occurred while closing the account file. Error-35: No such volume found." He clicked OK. The machine promptly crashed.

After the machine rebooted he launched Dollars and Sense (brave man! Get right back up on that horse!) and did something called Rebuild the Balances.

Punishment was swift. System bomb. ID=02.

The Monogram tech support group told him to turn off his RAM cache when he was using Dollars and Sense, since the program was using its own version of caching that conflicted with Apple's.

## Upgrade Cabal

Has anyone noticed that all software, no matter how trivial it is, costs \$50 to upgrade? Word 3 to Word 4: \$50. Smethers-Barnes' Prototyper: \$49. Silicon Beach Software's SuperPaint 2.0 upgrade: \$50. The Great ACTA Amnesty Program (slogan: "fifty bucks and a screen dump") costs \$50 for Acta Advantage and a guilt free conscience. Expressionist 1 to Expressionist 2: \$50.

Tell you what. You save your money, keep using Word 3.02, a perfectly fabulous program as is, buy yourself FullPaint 1.0, Everything MacPaint Should Have Been, from MacCorner for \$30, and keep a twenty in your wallet.

Speaking of Word 4...

## The Great Word Version 4 Unveiling

Maybe Bill Gates is peeved at Apple for the lawsuit, I dunno. But it sure is taking the Microsoft developers a long time to release Word 4. Perhaps they are having trouble deciding exactly which programs they are going to bundle with it.

Time was when Microsoft said that SuperPaint 2 was going to be bundled with Word 4. Word 4 was not going to have the capability to create graphics inside the application, like FullWrite Pro could do. Microsoft was feeling the heat from competing packages, and so it decided to bundle a standalone graphics program with Word 4.

There was precedent for this. Word 3 was upgraded from version 1.05 about the time that WordPerfect came to the Mac. WordPerfect allowed creation of macros. It also had a thesaurus. Word 3 had neither. So Microsoft bundled two packages with Word 3 to make up for the shortage. It sent along Microlytics' Word Finder, a better-than-adequate thesaurus DA. It also bundled AutoMac III, an INIT that allowed the creation of rudimentary macros. AutoMac III caused so many system bombs so quickly it never saw much usage among the general Word populace.

Now to Word 4 and its bundled software. SuperPaint 2.0, first yes, then no. Then, in November 1988, it's Docu-comp, a document-comparison program that helps users track text revi-

sions. Maybe, by the time Word 4 sees the light of day, it'll be something else.

## New Formats

Have you been getting dizzy keeping up with magazine formatting changes? The *WAP Journal* isn't the only one that underwent a radical reformatsectomy.

*MacUser*, which used to be a pretty good magazine, changed its font face and font size. It now must be read with a scanning electron microscope. Average letters, like "a" or "i," are about 2 gnats' behinds high. *MacUser* also has roughly thirty thousand cards that fall out when you flip through the pages. Average weight is creeping up on a *New York City Yellow Pages* phone book.

*MacWeek*, a great weekly, was getting obese too. Its editor, too, went to ultrasmall font size. Its old font face used to be quite readable on shiny paper. The new font face seems to be one of these electronic ones, Adobe PostScript scalable, rotatable, stretchable, and eminently unreadable.

## Matlab Kudos

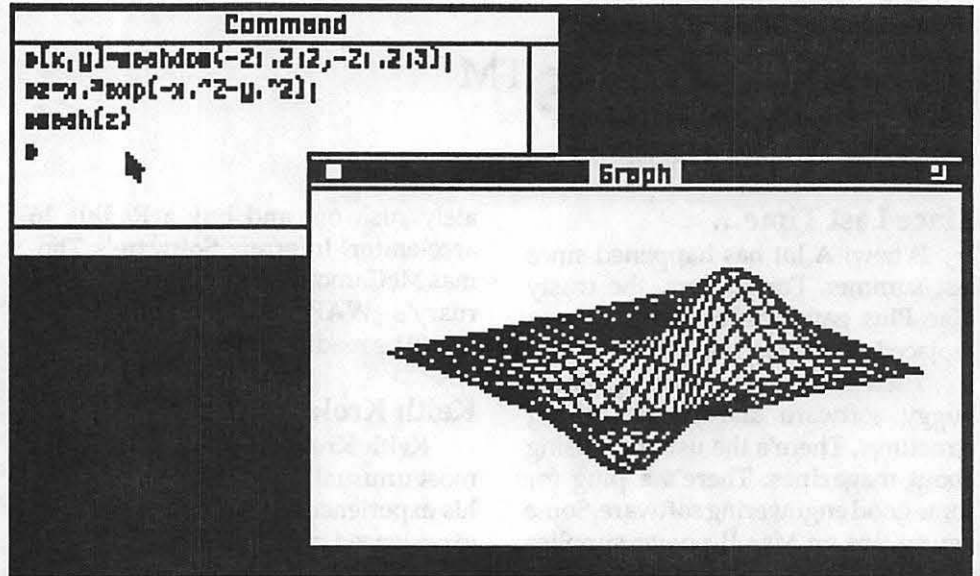
Matlab is the best engineering mathematics application for the engineering grunt available on the market today. If your job involves mathematical computations today, and you don't have *Mathematica*, you should consider *Matlab*.

Matlab can perform signal processing and vector and matrix computations, operate on real and complex quantities, perform statistical analysis and create 2-D and 3-D graphics. It can import and export text files quickly and easily. You can create data points in a Pascal, BASIC, or C program, move them into *Matlab* and perform statistical analysis there.

Matlab provides an interactive environment for performing scratchpad calculations in a Command window. You can direct line charts, histograms, parametric plots or 3-D surface mesh plots into the Graph Window.

User-defined functions can be created and stored as "M-files." You can even create movies of your actions in a Command window and then store and edit these movie "scripts" in M-files.

M-files are used for nearly everything. Such things as gamma functions



and Butterworth and Chebyshev filter programs are M-files.

Collections of M-files are called Toolboxes. Included with *Matlab* is the Signal Processing Toolbox. Optional Toolboxes include the Robust-Control Toolbox, the MMLE3 State-Space Identification Toolbox (originally developed by NASA), the Chemometrics Toolbox (used by analytic chemists), and the System Identification Toolbox used to build models of dynamic systems.

I have been using *Matlab* for about six months, and the more it's used, the more impressive it becomes. The authors are ex-academic types, well-known to Society for Industrial and Applied Mathematics and Association of Computing Machinery members. *Matlab* is perhaps not as Mac-like as other programs, but is as dependable as *Excel*.

Gordon Bell, key developer of the VAX minicomputer architecture, left DEC to form a supermini computer company called Ardent. Which mathematics/graphics package did he choose to be bundled with his Ardent supermini? *Matlab*.

The Mathworks has offered the best after sales service of any software company this past year. Shortly after The MathWorks had sent out version 1.1 they notified all owners of a minor bug. They sent me a bug-free version (1.1d) upon request.

If you are an engineer or physicist using mathematics on a daily basis, you should consider *Matlab* as your computation environment.

*The MathWorks, Inc.*

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South Natick, MA 01760

## Mac II Power Supply Interferes with Modem

One Nova Consulting client is an investor. This client set up operations the right way. He got himself a Mac II, with an Apple color monitor, 2 megs of RAM, a Hayes 2400 baud modem, and *Word*, *Excel*, *More*, *MicroPhone* and *Wall Street Investor*.

To get stock quotes he used *Wall Street Investor's* built-in telecomm package. Reception was terrible sometimes. Most stock quote pricing information was garbled. At first we thought his modem settings were incorrect, or did not match settings of the information providing service. We tried every terminal setting conceivable: different parity bits, different word lengths, even/odd parity bits, VT100 vs. TTY modes. The information came over garbled even at 300 bits per second, where errors should have dropped drastically. They did, but the errors didn't go away. More importantly, he wasn't making use of his modem's 2400 baud capabilities.

It wasn't the modem settings. How about electrical line noise? He was using a surge protector. For good measure he even had grounding installed into his electrical line servicing his computer equipment. Nothing worked.

As a last ditch effort, I moved his Hayes 2400 baud modem from the left side of the Mac II to the other side. The

effect was immediate: *He could log into all his services and receive clean information.* The noisy characters were instantly gone, just by moving the modem!

What would cause the noise? A switching mode power supply, such as is in the Mac II, is a notorious noise emitter. A "switcher" chops 120V 60 Hz AC power tens to hundreds of thousands of times per second before switching it to clean steady DC power required by the Mac II computer. This chopping action allows the power supply to be lightweight, run cool and efficiently. Unfortunately this comes at the cost of noise within the vicinity of the switching power supply.

Its noise will leak into a modem's receive lines and garble incoming signals. The more distance you place between the modem and the Mac II power supply, the better off you are.

My client had, for neatness' sake kept his modem flush against the Mac II. When he moved it over to the other side, a distance of about 1 1/2 feet, it immediately cleaned up his telephone line's garbage.

Motto of the story: if you are having troubles with your modem, and it's lying on the left side (as you face the Mac II) try switching it over to the other side of the Mac.

## The New Mac SE

The 2 Meg Plus, that served faithfully for three years, has finally given up the ghost. I now stare at the newer, less personable Mac SE, crippled with only one megabyte of RAM.

The Mac Plus was a great machine. It was totally self contained. The front cord to the keyboard was lovely. The color blended with wood furniture much better than does this bleached out gray that Apple calls 'platinum.'

The Mac Plus memory went to 2 megs with a MacMemory upgrade about 1 1/2 years ago. It was great while it lasted. However, the added stress on the power supply of driving all of the extra memory chips led the Plus into an early grave. The power supply fried about 6 months ago. The first time an Apple dealer fixed it: \$175. The power supply/video board failed again about a month ago.

This time I opened the Mac up myself, took out the power supply/video

board myself, and sent it to Computer Quick, a Macintosh repair shop in California. (They've been around a while—Loy Spurlock, the company president, wrote probably the definitive article that pointed to early Mac failures in the March, 1987 issue of *MacTutor*.)

About a week and \$95 later it came back. About 2 weeks after that it failed again. Computer Quick advises that when this happens, it's probably an aging CRT that's loading the power supply. This meant that the Mac Plus was deadlier than a bill to raise Congressional salaries.

The old Seelig hard disk was an ancient Apple HD20, manufactured way back in the days before SCSI. This communicated with the Plus via a 'fast' serial port used to talk to outboard floppy disk drives. The HD20 was pokey. Many was the day that, with 17 or 18 megs of stuff on it, startup times were well over a minute. Many was the day that massive amounts of data had to be offloaded to floppies because there was simply no more room on the hard disk. Speed was agonizingly slow. It got so bad that I purchased, for \$295, a conversion kit for the HD20 that converts it into a SCSI hard disk drive. While this boosted average disk access time, it didn't help much. I would not recommend this upgrade to anyone. The hard disk improvement in performance is minimal, especially if you're running with a fully loaded hard disk, like most of us are.

Then the Plus died again, and we were in search of another Macintosh.

It just so happened that *Computer Age* had a Mac SE for sale at pre-hike prices. It came with a Quantum 40 megabyte internal hard disk with a breathtaking average 12 msec access time. I tried it, bought it, boxed it, and burned around the Beltway to take it home.

The Quantum hard disk is nice.

If you decide to buy an SE with a 40 meg HD, then do yourself a favor. Buy the Extended Keyboard with the SE. After that buy QuicKeys from CE Software. QuicKeys is so good and so useful that it ought to be incorporated into Apple system software.

## Built to Last

The SE is built to last. I have snooped around the SE's interior. Yes,

this means that Apple's 90-day warranty, which still had about 88 days left on it, has become null and void. There's a lot more shielding up both sides of the inside of the Mac case, to comply with FCC electromagnetic emissions regulations. The power supply/video board looks sturdier. There's a fan blowing over the hot components to keep them cool. New SEs have a quieter fan.

There's also no battery. This is a good thing. You don't lose your clock/calendar and your Control Panel settings because your battery has run down. The battery is a built-in long-life battery.

Only complaint is that the SE motherboard is quite a bit harder to get out of the Mac than it was in the Plus. The power cables and the cables coming off the disk drives make the inside back end of the SE a real tangle. The rear of the CRT, the one charged to those really high voltages that could light Uncle Fester's light bulbs, the one point in the computer that is easy—but dangerous—to touch when you reach in and try to unplug the cabling, is now covered with a board that doubles as both a printed circuit board and as a shield against gawky arms. The motherboard and video/power supply board are both cleanly laid out.

This computer is built to handle the slings and arrows of outrageous fortune. If you want reliability, get an SE. It may have a garish looking grill out front, but inside it has the sturdy build of those old indestructible big-block Chevys.

## Mama, I Think I Has Die and Gone to Heaven

As if the Quantum 12 msec access time wasn't enough, a Radius 16 MHz accelerator board was installed into the SE. It cost about \$850 at Clinton without the MC68881 math coprocessor chip. After driving home very sanely and normally and forcing myself to mow the lawn first, I then tore into the box, cracked open the SE for the umpteenth time, and installed it myself.

Installation was pretty easy, and, although it's not for the faint of heart, any reasonably adept electronics guy can do it himself. After reading some horror stories about having to bend the bottom brackets out a little bit to fit the

motherboard back into the SE brackets, I was steeling myself for an all-night ordeal. The accelerator board sits atop plastic standoffs you screw to four holes that Apple has courteously provided on the motherboard. The fit is good. The lock washers that hold the screws in place are not dangerously close to any electrical traces on either the accelerator card or the motherboard. This means that you don't have to worry about the sharp little teeth of lock washers cutting through the board insulation and nicking signal carrying traces.

With the accelerator board mounted atop the motherboard, it is not possible to slide the motherboard through the card slots in the side brackets. Instead, you have to bend the brackets out ever so slightly and pop the board into place. Then you have to connect the power and ribbon cables back into the motherboard and close the box.

You should know that, for that price, you can get Clinton to install the board yourself at no additional charge. However, if you can't stand the thought of a gorilla bending metal inside your favorite toy, you might wish to do it yourself. The usual proviso kicks in: if you do it yourself, Radius will not honor any warranty, etc. You are much more likely to do a careful job yourself than an overworked tech sitting in a crowded lab with a wall full of Macs to fix and test by lunchtime.

There is no direct electrical connection to any component on the motherboard. You don't have to remove the 68000 microprocessor or anything exotic like that. The Radius 16 accelerator board plugs into the three row connector on the side of the motherboard, which apparently is the motherboard bus. This is good enough for the 16-MHz 68020 residing on the accelerator card, since this allows it to have access to the memory and peripheral chips just as if it were the processor sitting right on the Mac SE motherboard.

*You do not give up the SE card slot when you install this board!* You can use this accelerator card in conjunction with a Radius large screen display board.

Problems? Yes, with a conflict between Easy Access, Quick Access and Accelerator INITs. If you're a QuickKeys junkie, you have Quick Access in your System folder and have

removed the Apple-provided Easy Access INIT. (Taking Easy Access anywhere outside of your System folder, or burying it in a folder within the System folder is enough to cause the INIT not to be activated during startup.) However, if you upgrade to System 6.0.2, and select the Minimum System configuration upgrade in the Installer program, you'll find that Easy Access was reinstalled into the System folder. If you don't take it out after installing the new system, then you'll have problems with QuickKeys.

The problem's symptom was that, after startup, the accelerator INIT was activated, but QuickKeys was not. None of the QuickKeys-redefined keystrokes were working. I turned off the Accelerator, rebooted, then turned it back on and rebooted again, and things were working fine. However, this process had to be repeated every time I turned on the Mac in the morning. Removing the Easy Access INIT from the System folder cured my sick system.

The big question, of course, is: is it fast? The answer is, yes, it's about 3-4 times faster than without the accelerator card, which brings it into the performance category of a Mac II. Applications open and close in about 1-2 seconds. You can scroll through heavily formatted documents with a lot of graphics at roughly 2-3 times faster than without an accelerator card.

If you're a 4th Dimension database user, you'll be pleased to know that the Radius board improves performance quite a bit. You can move through Word documents with lots of graphics fearlessly.

### More on the Quantum

After having used this Quantum hard drive for a month, I must say that it's not for everyone. It's a bit like owning a Ferrari. It sure is fast, but only the car lover could stand its idiosyncrasies.

For example, the Mac has refused to boot off the Quantum on several occasions already. I have had to boot off a floppy startup disk first. This allows the hard disk to be displayed on the Desktop. If the hard disk icon is visible on the desktop, nine times out of ten the hard disk will then act appropriately as a boot disk after issuing a Restart command.

Such occurrences have happened before and after addition of the accelerator card, so I know that the Radius is not contributing to the problem.

Another little gotcha is that the Quantum seems to be susceptible to INITs placed into the System folder. It has an uneasy relationship with Font/DA Juggler Plus. Sometimes FDJ+ installs itself, and sometimes it does not. When FDJ+ is not installed, QuickKeys is not installed. I can live without FDJ+ for a few hours, but life on a Mac without QuickKeys is not worth living. So I restart the Mac several times until FDJ+ and QuickKeys and all the other INITs install properly.

### WAP and WAPU

John Broderick, maverick free thinker of the Mac world, suggested the creation of a SIG within the Washington Apple Pi. This SIG would be a very exclusive club, by invitation only. The Washington Association of Power Users. More exclusive than American Express Gold.

### Wingz

I was one of four lucky winners of Informix's Wingz giveaway during February's 25 WAP meeting. The audience was treated to quite a display of the new spreadsheet.

Mike McCamon, Informix Software's Wingz evangelist, put on a superb demo. Excel users were squirming in their seats when he threw up a random set of numbers on a blank spreadsheet and then created a graph by clicking a graph icon and defining a working graph area.

It got better. Nested menus. (Organized much better than Excel's.) Rotating 3D bar charts. Full-color line charts zooming out at the viewer. The Wingz scripting language. Wingz is actually an interpreted application run atop the Wingz scripting language interpreter. Mike showed us the Wingz menu handling portion of the script. He deleted an entire menu on the fly! And created one called *Washington*. just by typing a script into the formula bar!

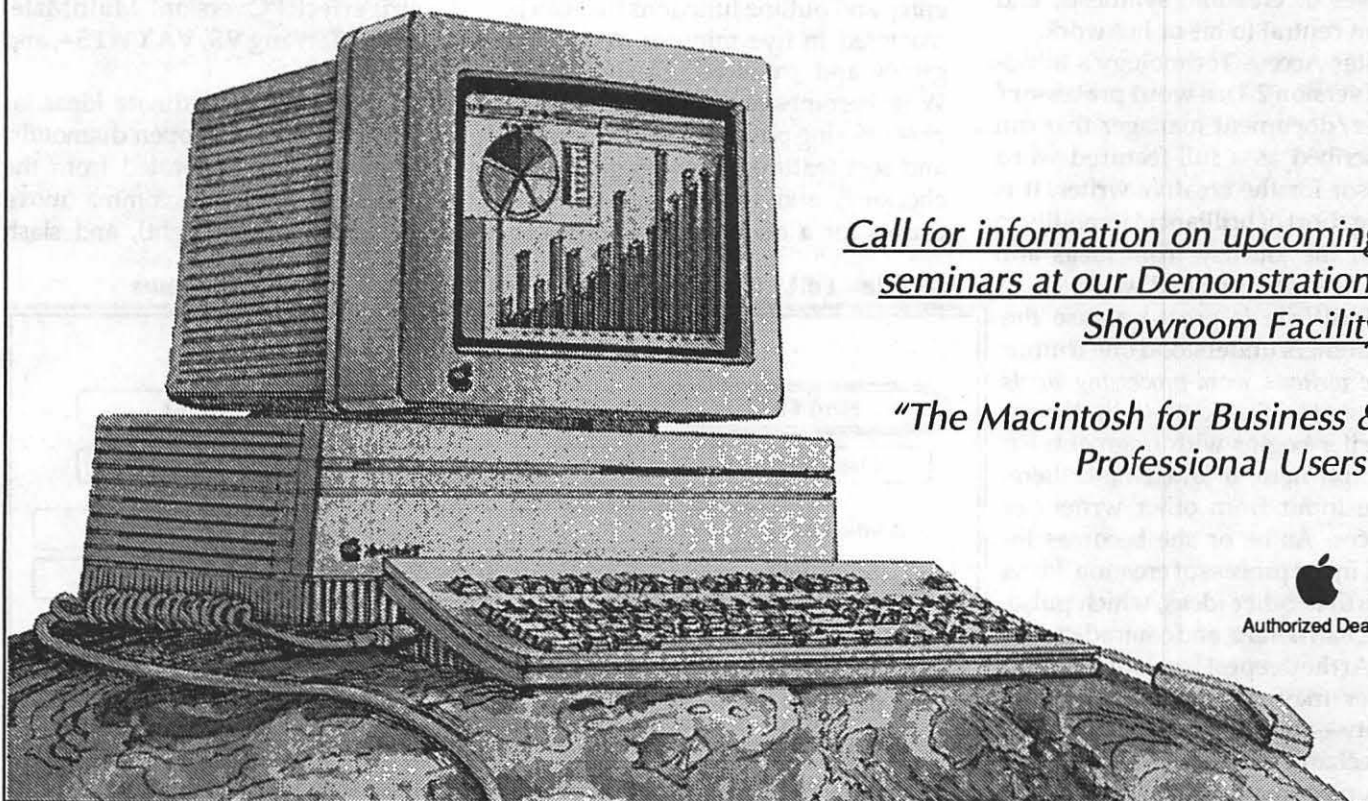
It is pretty impressive. Review soon...

*Fred Seelig is an electrical engineer and the president of The Nova Consulting Group. 🍏*

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# MindWrite 2.1

Writers! Your Ship Has Just Come In!


by Lindsay E. Edmunds

There are two types of people who work with words professionally: document processors and creative writers. Several word processors, such as **Word**, **WordPerfect**, and **FullWrite**, offer heavy-duty document-processing capabilities. These programs are useful and even liberating for individuals whose principal goal is producing complex documents and printing them ready-for-publication.

Creative writers in any discipline, however, are a different breed of cat from document processors, although software developers seem to have been slow to recognize that fact. A writer attempting to create a proposal, report, article, or work of fiction with a typical full-featured word processor finds a shopping mall full of sophisticated and often quite splendid formatting features, but little direct support for the processes of creation, synthesis, and revision central to his or her work.

Enter Access Technology's MindWrite (version 2.1), a word processor/outliner/document manager that can be described as a full-featured word processor for the creative writer. It is nothing short of brilliant in its ability to support the journey from ideas and information to a finished work.

MindWrite is great because the programmers understood one truth: *a creative writer's word-processing needs are not simple*. Think about it. A creative writer begins with fragments—a paragraph here, a jotted note there, outside input from other writers or resources. As he or she becomes involved in the process of creation, ideas give birth to other ideas, which pulse, misfire, harmonize, and contradict each other. At the deepest levels of thought, a writer may develop a trance-like intensity—and also be impatient with any mechanical obstacles in his or her way. A piece may seem to be polished and done; then new information and ideas present themselves. Other people



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**Vers. 2.1 by Cary Wyman, Frank Raab, Linda Moncrief, and Bill Pryor**

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A C C E S S T E C H N O L O G Y I N C .

may edit a writer's work well or badly. Revisions mount up, and it may become harder to keep track of what was done when and by whom. All this is apart from the mechanical tasks associated with writing, such as proofreading, counting words, and formatting.

MindWrite explicitly supports this strange brew of creativity and slog work. For the creative tasks—idea generation and just getting the words down—it plays the role of a simple-minded, obedient servant, with text-entry and outline functions that can be mastered in five minutes. As a piece grows and gains complexity, MindWrite becomes very sophisticated business offering powerful search, replace, and sort features; proofreading, spell checking, and total or partial word counts for a document; table of con-

tents generation; and a system of revision tracking.

MindWrite reads documents created in MacWrite, Word, and the outliners Acta and ThinkTank; documents also can be saved in MacWrite, Word, and Acta formats. A separately installed filter lets MindWrite documents be read by PageMaker. MindWrite Express, a more powerful version of MindWrite, even offers filters that allow for transparent access to documents created in WordStar, WordPerfect (PC version), MultiMate, DCA-RFT, Wang VS, VAX WPS+, and OfficeWriter.

Parent and subordinate ideas labeled with filled and open diamonds, respectively, are generated from the keyboard by using the comma (move left), period (move right), and slash

⌘ File Edit Search Arrange Format Font Style Windows

**Search Criteria**

Find First	Find All	Cancel
Change First	Change All	Change, Then Find

Look For:

Replace With:

**Search Options**

<p>Search <input checked="" type="radio"/> Forward <input type="radio"/> Backward</p> <p>Stop At End? <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>Ignore Case? <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>Match Whole Words? <input type="radio"/> Yes <input checked="" type="radio"/> No</p>	<p>Open Items Only? <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>Headings Only? <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>Selected Items Only? <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p style="text-align: center;"><input type="button" value="Restore Default Values"/></p>
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MindWrite's search and replace dialog has powerful options



(convert to body text) keys. All that's required is a slight movement of the fingers—no reaching for the mouse. At this stage, when it may be important to get ideas down as fast as possible, the speed and ease of use of MindWrite is a boon.

Moving the cursor toward the left margin transforms it to a grasping hand, used to select and reposition items or groups of items. Parent and subordinate items can be selected together or separately, in any order. Disjoint items can be selected and repositioned in the order of their selection. If an outline is "flattened," with subordinates hidden under a parent, selecting and moving the parent will also move the hidden subordinate items.

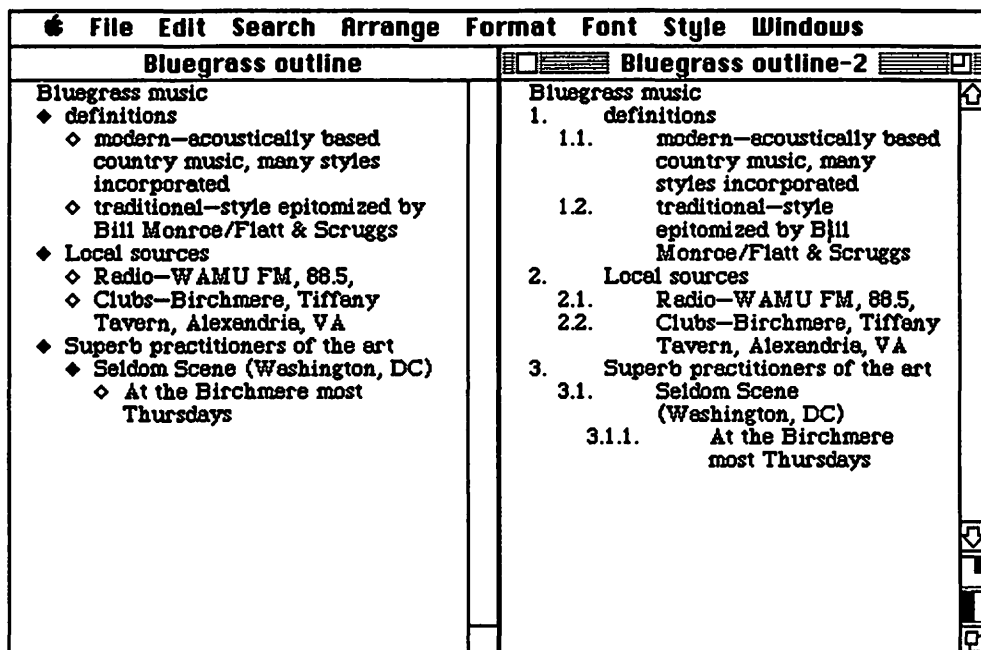
Text and headings can be unlabeled or labeled with diamonds, bullets, section numbers, or ellipses (for hidden text). If numbers are used as labels and the order of the items is changed, MindWrite will automatically renumber the items. There is a downloadable laser font, ZDiamonds, that allows for printing of the diamonds and bullets on a LaserWriter.

The search-and-replace features of this program allow for upper- and lowercase recognition and searches for nonprinting characters such as tabs or returns.

When the Find-All option is checked, MindWrite will gather all the text and headings that contain the searched-for material and copy them into a separate window, creating a document that can be edited and saved like any other. This allows for easy classifying of information according to specific themes or other individual criteria.

The Sort functions let you organize items alphabetically or numerically, from low to high or high to low. If these options seem too reasonable and boring, MindWrite will do a Shuffle, arranging selected items in random order. This goofy-sounding option is actually smart—a nudge of irrationality may be just the spark to light up a tired mind, showing the connections between apparently unrelated items.

MindWrite has an accumulating clipboard, with the number of saved cuts/copies determined by the user.



Multiple views of the same outline can be displayed simultaneously

That means that new cuts or copies do not clear the clipboard of past ones. Items in the clipboard can also be individually selected and edited. The advantages of the accumulating clipboard do not need to be explained to any creative writer.

The concept of revision is built into MindWrite on every level. It allows multiple tiled windows (with text wrapped to fit each window). Thus a writer can create a clean first draft from an outline, with both documents visible side by side. An outline can be flattened to show only its overall structure in one window, while being selectively expanded in another window to show detail.

MindWrite tracks revisions by marking changed paragraphs with black lines (various drafts can also be automatically dated and labeled even down to the hour and minute).

Under the Preferences Menu there is an automatic backup option (Keep Previous Version When Saving) that lets you make a backup copy of a document before you begin revising. Thus, you will have two documents, revised and unrevised, both saved to disk.

Formatting is done by a system of MacWrite-like rulers that, like the text, can be shown or hidden, moved, copied, or cut. A document can have multiple rulers, each formatting a single

section; rulers can also be designated to apply to either headings or body text.

Graphics can be imported, moved, and resized within MindWrite (they can also be labeled and movable members of an outline).

If you use MindWrite regularly, you will learn to benefit from its last generous gift: freedom from the mouse. (The mouse is good for many things, but word processing is not one of them.) With an extended keyboard and MindWrite's list of Command-key equivalents and other shortcuts close at hand, you will find yourself moving back and forth through a document, while opening, closing, cutting, copying, and pasting, without ever lifting your hands from the keyboard.

MindWrite comes with a well-written 288-page manual, including a good tutorial that occupies the whole of the first five chapters. An extensive online Help menu is also provided.

If your principal business involves writing (as opposed to processing) documents, MindWrite will go a long way towards setting you free.

*MindWrite 2.1 from Access Technology, Inc., 200G Heritage Harbor, Monterey, CA 93940-2483, (408) 648-4000, \$95 mailorder, \$145 mailorder for MindWrite Express. 🍏*

# More HyperCard Hacking

by Robb Wolov

Well, it's been over a year now since HyperCard has been in general distribution. We have all seen good, bad and ugly examples of stack writing. And, I'm sure that like me, you have watched the reinvention of yet another address stack. (For those new to HyperCard, a "stack" is the file that HyperCard creates.) But, there have been some imaginative uses as well. Some of the advertising media stacks to promote *MacWeek* or the artwork stacks of *Verbum* magazine have been downright gorgeous to look at, with imaginative use of stack animation. In credit to their designers, they've been distributed unlocked so that they can be picked apart to study their workings. Also, more and more commercial non-HyperCard programs have been distributed with HyperCard instruction stacks.

I confess that I have been bitten by the stack writing bug. After having put down my Basic and Pascal awhile back to merely use computers, I've come back to the fold with Hypertalk.

You may find that at least modifying other people's stacks to make them uniquely your own is a relatively painless introduction. Unlike compiled commercial programs, HyperCard stacks were intended to be cut, pasted, spliced, prodded and modified anyway you wish. If you don't like where the author placed the buttons...move the @%^&\*\$ things! It may not be the best functional placement. So? It's for your use isn't it? HyperCard is one of the best weapons to counter what Jerry Pournelle has referred to as "Programmer's Tyranny." In a perfect world, users would be allowed to handle their data in the manner of their own choosing rather than in the format that the programmer has selected. After all, you know your work habits better than anyone else.

I won't even attempt to tell you how to program in Hypertalk. Others far more capable than I are doing that already. Many in these very pages. What

I will do is plead for imagination and variety in your stacks.

There almost seems to be a rebound from the original "Macintosh Syndrome." You remember when folks got their first Imagewriters—with ten typefaces. Every letter sent out used all ten and looked like a ransom note! Well, the pendulum has swung back. The samples supplied by Apple with HyperCard were pretty sedate. Most were standard black on white designs using the standard list of suspect typefaces—Geneva, Monaco and Chicago. Most of the stacks I've seen stick to this formula. It's safe...but dull. HyperCard is where we can have a little fun!

Some of the most striking impressions I've seen have been white lettering on black or tightly patterned backgrounds. Remember all those display typefaces you have tucked away for the Imagewriter? Well, use them. They work just great in HyperCard.

Tip 1: If you exchange stacks with others and you wish for the typeface you select for a *field* to always appear to your users, that font has to reside in either the System of the user (or a Font/DA "suitcase" file if using Suitcase or Font/DA Juggler) or must be installed directly into your stack or the user's home card (otherwise the field will default to Geneva).

You can use either ResEdit or ResCopy to copy font resources into a stack. (Hold down the <option> key when opening a window in Font/DA Mover to display all files—including stacks.)

But there is a size penalty for placing an entire font into a stack just to get a display headline or two. Better to write your headline in graphics mode on the card (the graphic "A" selected in HyperCard's tool menu) and then select and move the wording around as a graphic element. Since the words are "drawn" on the card rather than printed in a field, you will always be sure that whoever views your stack will see your layout as you intended, regardless of

what fonts they have installed in their system. In addition, you can get some great effects.

Tip 2: If you want to get white lettering on black or patterned backgrounds, write your text in graphics mode and then select it with either the "lasso" tool or the dotted selection box. Try the selection box while holding down the <option> key. It will "cinch down" around your text. Then, under the Paint menu, try "Invert" and drag your text to its final location. Depending on the style of the typeface, you want to try clicking "Outline" mode under font attributes before typing the original. It will add just a bit of weight to your letters for thin typefaces that may be lost in white on black designs.

Tip 3: You say you don't have a PostScript laser printer? You say you have no need of all those bitmapped screen fonts that Adobe has made available on Compuserve or our own WAP disk library? Why not use them for your HyperCard stacks? There is a tremendous variety of very stylish typefaces that can be selected for different effects. The British have a saying that "a change is as good as a rest...." There is a place for variety in our stack designs.

But remember, some of the rules of good text layout in printed material still hold for hypermedia. You should try to avoid more than two typefaces per page or card. If you are writing text to be read for content (versus a title line) "serif" typefaces (the ones with the little flares on the letters) like Palatino or Times are easier for the eye to follow across the written line. Avoid writing in all capitals if you are writing for content. Save the "sans serif," flareless styles like Helvetica for headlines. Remember, you are trying to make things as pleasant and as easy for the reader as possible.

## Virus Redux—Part...

*Important Warning About A New, Vicious Virus!!*

From France, Thierry Delette has notified the American Mac community of a new virus. Until now, all known Macintosh viruses could be easily detected by the additional resources they created. That's now over! There is at least one virus that creates no additional resources. This new virus (called

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ANTI) infects only applications (and other files with resource ID=1). It inserts a "JSR" at the beginning of the resource and all the virus code at the end. It has only been discovered recently, but infected Macintoshes have shown up in Paris and Marseilles. According to Thierry, this virus is not detected by VirusDetective or other utilities. It installs itself even when Vaccine is on. Vaccine beeps only if the "Always compile MPW Inits" is not checked. Virus Rx does not detect ANTI's presence in other files, but, when infected itself, changes its name to "Throw me in the trash." It doesn't seem to infect all applications, only the ones with a CODE 1 resource called "Main." Early word is that the contagion is spread by the Finder. To see if an application is infected, you have to open its CODE ID=1 resource with ResEdit and search for the ASCII string "ANTI." You can also use the advanced features (resource fork search) of GOfar. The only way to deactivate it is by changing the first words of the virus code to "RTS," but better still just purge the System and Finder.

According to Thierry, there is a story behind this virus. Two years ago, Apple France's Developer Support manager, Alain Andrieux, wrote a utility for his own use called "Stamp," with which he marked the programs he gave to developers. If a confidential program was leaked, he could easily know where it came from. His program added a CODE resource to the marked files, but it did not change anything in the CODE 1 resource. In January '89, a "new" version of this program (Stamp 1.0b5) began to spread in the French Mac community. When run, this program installs the "ANTI" virus into the checked applications or into the Finder. These infected applications and Finders then become contagious themselves.

It seems the virus author stole the source code of this program, changed it into a virus installer, then gave it away. Inserting a virus installer in an Apple program, needless to say, damages Apple France's reputation.

I'm sure you are sick of hearing about virus prevention measures ... again. All I will say for now is, read and heed!

Until next time... 🍏

## Mac Review

# Acknowledge

by Eric Rall

When this review was started, Acknowledge was owned by SuperMac Software. Just prior to the completion of this review, SuperMac announced the formation of a new company, LAMIR Software Corporation. The following is an excerpt of SuperMac Technology's press release:

SAN FRANCISCO, January 19, 1989 — SuperMac™ Technology today announced the formation of a new company, LAMIR Software Corporation, to focus entirely on developing and marketing software for the personal computer communications market. SuperMac will spin off Acknowledge™, a communications software tool kit for the Apple Macintosh, as the first product for the new company which will be headed by Raymond T. Vizzone, one of the original developers of Acknowledge. SuperMac Technology will continue to provide all customer support and technical assistance for the product until the final agreement has been signed. SuperMac will retain a minority equity position in the new venture. Additional financial details were not disclosed.

Acknowledge by LAMIR Software is a telecommunications development system. This powerful package presents the future of things to come in Macintosh telecommunications.

The main component of Acknowledge is TAL, the Telecommunications Access Language. TAL enables programmers to create customized telecommunication applications. Pull down menus and interactive dialog boxes can be created using TAL. This gives programmers the ability to develop highly sophisticated, yet simple to operate, communications packages.

This has been a

very difficult product to review. It is a highly specialized product. The original SuperMac advertisements don't really say exactly who they feel would use this product and why. The ads in MacTutor highlight Acknowledge as a "Macintosh Front End" that allows you to take the "cryptic command line interface of the host ... [and] ... turn that confusion into the easily understood environment of the Macintosh." SuperMac also cited the "Business Opportunity" claiming that MIS departments can help employees to easily get the information they need without the disruption of host programming.

In response to my questions, Brian McDonnell (SuperMac Software's Acknowledge Product Manager) replied, "Our primary target market is a business with more than 5 Macintoshes communicating with other systems—either local mainframes, information services, or remote sites. Secondary markets include the Mac power user, Information Services themselves, service bureaus, etc." Acknowledge therefore is a programmer's tool.

After spending a few intensive months with Acknowledge, I believe that computer consulting firms would be the most likely purchasers. Most consultants have a need to present their clients with a less intimidating way in

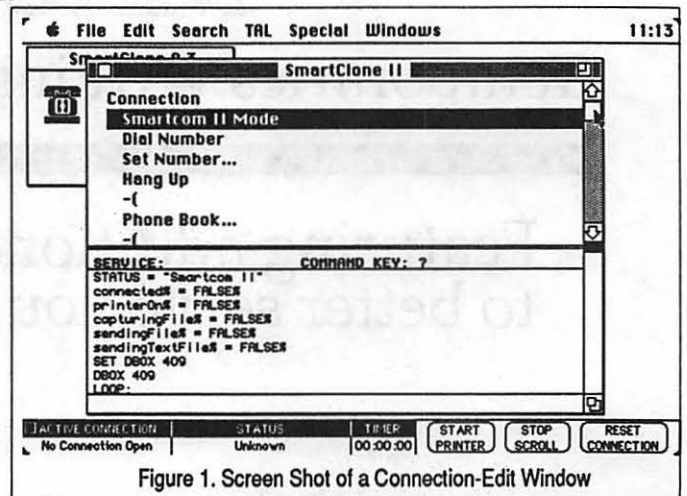


Figure 1. Screen Shot of a Connection-Edit Window

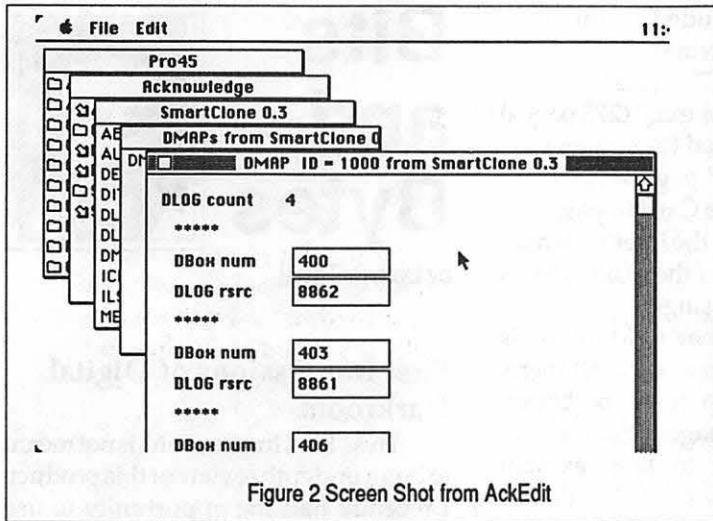


Figure 2 Screen Shot from AckEdit

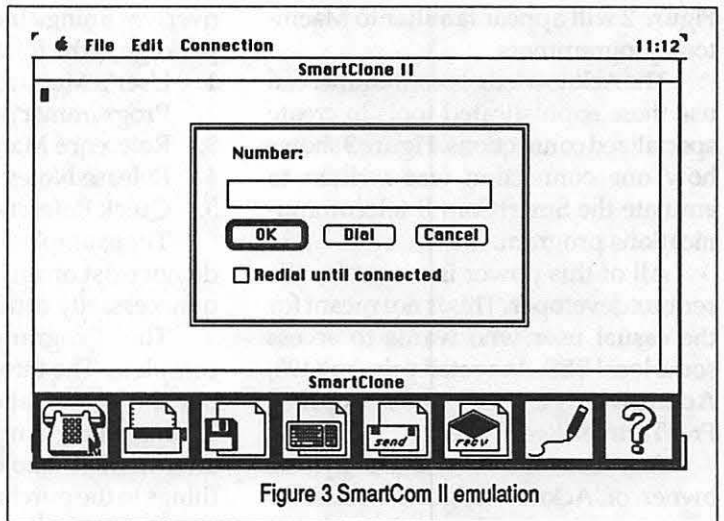


Figure 3 SmartCom II emulation

which to deal with computer systems. For example, a well written Acknowledge front end could greatly ease the problems of dealing with a centralized sales order computer system.

I envision Acknowledge as being ideal for the creation of a BBS. The ability to customize telecommunications applications is not limited to a front end. A multi-user Macintosh BBS could be written using Acknowledge. The system could evolve and grow as specialized needs dictated. Brian McDonnell suggested building a Macintosh front end for the real estate business to navigate the Multiple Listing Service as another possible application.

Acknowledge is a young product looking to develop a market around itself. Rather than risk restricting any development areas in this early point of Acknowledge's product life, SuperMach had chosen to plant both feet firmly in mid air and leave the market definition to their customers. I expect that now that Acknowledge is back under the control of its developers, the target market will be more clearly defined.

To develop applications with TAL, you need to have a working knowledge of a high level language such as BASIC or Pascal. TAL is structured more along the lines of BASIC with some Pascal thrown in for additional power. This is not a package for beginners. It is also expected that you are cognizant of the telecommunications process and the terminology of telecommunications. If terms like baud, parity, and Xon/Xoff mean nothing to you, then Acknowledge is not for you. Conversely, if you

are comfortable with a high-level language and have a vision of a Macintosh front end for a particular remote system, Acknowledge deserves serious consideration.

The programmer creates "Connections." Connections are defined as "a group of TAL programs, including a Connection icon, a set of menus associated with the icon, program modules for each menu item, and one or more service files." Service files are Acknowledge documents that handle things like logging on and off, navigating around the host system, dealing with a particular modem or network.

A connection-edit window is shown in Figure 1. You can see in the upper half of the window details what items will appear on and under the menu bar. The lower half shows actual TAL code for the item that is highlighted in the window's upper half.

A service file is nothing more than a subroutine or collection of subroutines to handle a specific task or series of tasks. Connections are the "programs" that are used by the end user.

Acknowledge handles baud rate ranging from 300 to 57,600. Terminal emulations TTY, VT100, VT52, Minitel, and Prestel are available. File transfer protocols Xmodem, CRC Xmodem, MacTerminal 1.1, Text, MacBinary, and 1K blocks are all supported. Acknowledge is Multi-Finder compatible and supports background file transfer.

On-line sessions can be recorded. In the record mode, keyboard actions are automatically converted into TAL code. Simple TAL code such as "WAIT

FOR" and "SEND" is generated. With this basic code as a starting point, the programmer can modify and enhance the connection.

Commands such as IF ... THEN ... ELSE, GOTO, GOSUB, WAIT FOR, and LOOK FOR are just a few of those available within TAL. TAL also supports string manipulation, integer calculations and TRUE-FALSE decisions. Any of the fonts available in the system file, plus a "TELECOM" font are available under TAL command. Integer arithmetic operators include addition, subtraction, multiplication, division and modulo. Bit operators such as AND, NOT, OR, SHL (Shift Left), SHR (Shift Right), and XOR. TAL even provides system functions for direct detection of a mouse double or triple click. TAL is the most powerful telecommunications language that I have ever seen. It's also one of the easiest to learn.

The development environment offered by Acknowledge also includes a dynamic debugger, a syntax checker, and both trace and single step program execution.

A special resource editor, AckEdit, is part of the package. AckEdit is not Multi-Finder compatible. In order to produce custom dialog boxes for Acknowledge, AckEdit must be used. AckEdit is a modified version of ResEdit. The main difference is that special resource templates for Acknowledge are included. Templates for DMAP, DESC, and other "special" resources are contained in AckEdit.

Since AckEdit is a modified version of ResEdit, the screen capture in

Figure 2 will appear familiar to Macintosh programmers.

The Acknowledge programmer can use these sophisticated tools to create specialized connections. Figure 3 shows how one connection was written to emulate the SmartCom II telecommunications program.

All of this power is meant for the serious developer. This is not meant for the casual user who wants to access some local BBS. At a retail price of \$495, Acknowledge will not replace FreeTerm or Red Ryder.

Any connection created by the owner of Acknowledge is useless to anyone without either Acknowledge or a Run-Time copy of Acknowledge. The Run-Time supplied with the package is for the developers use only and is not for distribution. In order to distribute Acknowledge Run-Times, the programmer must become a Registered Acknowledge Developer. This costs an additional \$195 and is not available at a discount from MacConnection. I didn't have the opportunity to review the Registered Acknowledge Developer's Program. This program involves a one-time fee of \$195. For that fee you receive the following:

1. A flexible Acknowledge Run-Time™ policy and Multi-Use License.
2. A serialized Acknowledge Run-Time.
3. Acknowledge Builder™, a utility for combining Acknowledge files into single, double-clickable applications.

I believe Acknowledge represents the future direction of Macintosh telecommunications. As such, it is a first step towards providing a Macintosh feel to the classic text-oriented area of telecommunications. Dialog boxes, icons, pull down menus, and "intelligent" interaction between the user's telecommunication program and the host are some of the exciting possibilities that Acknowledge offers. Future releases of Acknowledge and competition in this market will make the user the ultimate winner.

The manuals provided with Acknowledge leave much to be desired. The information is all there. It is just a major struggle to get started. The amount of documentation is often

overwhelming. Included in this base package is the following:

1. User's Manual (72 pages)
2. Programmer's Manual (278 pages)
3. Reference Manual (213 pages)
4. Release Notes (8 pages)
5. Quick Reference Card (6 pages)

The examples in the User's Manual do not exist on any of the disks. This is unnecessarily confusing.

The Programmer's Manual is complete. The information is all there, but the presentation could be better. TAL is a new language. There are no after-market books to help explain things to the purchaser. LAMIR should consider including a tutorial with this package. A step by step explanation of one of the connections included in the Acknowledge package would go a long way towards getting past the initial hurdle of getting started.

To minimize the startup shock of learning TAL and Acknowledge, I suggest reading the User's Manual first. Then read the Programmer's Manual, but don't try to understand all of it. Instead, just try to develop a feel for Acknowledge and TAL.

Once you have gotten through those 350 or so pages, print out a few of the sample connections and service files. Now get out the 213 page TAL Reference Manual and plenty of paper and pencils. Trace the logic and the code of the sample connections. TAL is really a very straight-forward language. You should be able to understand the sample connections without too much effort.

Make small modifications to the sample connections. As you build your understanding and confidence, go back to the Programmer's Manual and re-read it with a hi-lighter pen. Things should become obvious by this time. Now all you need to do is be creative about how you think a Macintosh telecommunications front end should look.

Acknowledge \$495

Acknowledge Registered Developer Program \$195

LAMIR Software Corporation  
336 Cernon Street  
Vacaville, CA 95688  
Phone number 707-448-5901



# Bits and Bytes



by Lynn R. Trusal

## First Impressions of Digital Darkroom

This "First Impression" is not meant to be an in-depth review of this product. I recently had the opportunity to use the new gray-scale imaging software by Silicon Beach, called Digital Darkroom (San Diego, CA; 619-695-6956), which now retails for \$395. This software package is for users with a scanner and a need to touch up gray-scale images.

Although Digital Darkroom can be run on a Macintosh Plus with a hard disk, a more realistic hardware configuration is a Macintosh II, 2 MB of RAM, a 8-bit gray-scale monitor, and a gray-scale scanner.

Editing and saving digitized gray-scale images is a memory-hungry operation, and 1 MB Macs without gray-scale capabilities just aren't satisfactory. Therefore, both hard disk space and available RAM are two major considerations for use of such software.

The documentation is first rate and well laid out. The application provides ample tutorial examples, and sample gray-scale images on disk permit the user to follow tutorial examples illustrated in the manual.

What Digital Darkroom lacks in conventional tools, compared to ImageStudio, for example it makes up for with special effects. Such features permit scaling, rotation by degrees, distortion, slant, perspective, and stretch changes to be made to scanned images. It was possible to straighten the Leaning Tower of Pisa in a snap!

Digital Darkroom also shines in its ability to combine separate gray-scale images into a collage which does not appear collage-like. Another special feature is "auto-trace," which is now incorporated in many software packages, including Illustrator 88, FreeHand

vector oriented graphics. Although this feature functions with gray-scale images, it works best with high contrast graphics containing fewer grays. Obtaining satisfactory results only comes with practice and trial and error.

Digital Darkroom fills an important niche in the growing graphics software market and adequately completes a missing software gap which often lags behind the release of new hardware.

The existence of two similar packages (Digital Darkroom and ImageStudio) will only serve to make subsequent revisions of each program better. I would not be surprised to see an auto-tracing feature added to ImageStudio and more special tools and virtual memory to Digital Darkroom in the next release.

If you are in need of gray-scale image processing software, Digital Darkroom is worthy of consideration, and the ultimate results will be based on the imagination of the user.

## Tidbits from the Apple Annual Report

1. A. C. Markkula is the only person who owns more than 5% of all Apple stock shares. He owns 5.8%, or 7,153, 231 shares, for an estimated net value of over \$29 million (at \$41/share).
2. John Sculley owns 805,762 shares of stock, or less than 1% of total shares.
3. Apple compensated certain officers for geographic relocation at the request of Apple. Such payments ranged from \$822,000 to \$130,000.
4. Apple advanced a number of loans to senior officers for buying houses and charged from 0% to 9.63% interest.
5. Had John Sculley been terminated involuntarily during his first 5 years with Apple, he would have received a \$1 million severance payment.
6. In March 1988, Apple invested \$233,000 in EcheLON Systems, which does R&D of local operating networks. Apple will be investing another \$450,000 in the company, for which it will own 2.5% of the stock. A.C. Markkula is a founder of EcheLON and owns a majority

of its stock.

7. Between 1986 and 1988, John Sculley received \$3,917,000 in bonuses, while Jean-Louis Gasse received \$731,000.
8. For FY 1988, Apple had \$4.7 billion in net sales, had \$4 billion in net income, had its first \$ billion quarter (1st and 4th), earned \$3.08 per share, had \$1 billion in shareholders' equity, had 43.5% return on equity, spent \$272.5 million on R&D, had a 33% increase in international revenue, and had gross margins as a percentage of net sales of 51.1%.

## A HyperCard Stack I'd Like to See

I was intrigued with *Business Class* and *City to City* by Activision and would like to suggest that the concept of these HyperCard-based applications be taken further.

If you travel on airlines extensively, you may have made a mental or written note of what seats you like or if the overhead bins on a particular make of plane can accommodate your carry-on bag (or even a Macintosh). I would like to suggest that Activision extend the capabilities of both their "travel stacks" to include complete layouts of the interior of all U.S. and foreign (e.g., Airbus) airplane makes, numbers of seats in each class, individual seat numbers, size of storage bins above the seats, size of room under the seat, availability of on-board storage for carry-on bags, rules for carry-on bags, rules on use of computers, luggage liability, and liability for valuables such as computers, etc. It would also be good to include what particular airplane make and model each domestic or foreign airline uses and generally which routes use which make and model of airplane.

There could also be more specific information on domestic and foreign air terminals, including restaurants, banking, shops, layouts of terminals and concourses, including which airlines used which terminals, etc. You get the idea by now. The information could be added to the existing stacks in a major revision or sold as, say, "Air to Air," "Air to Ground" or pick a name! Then again, those two names sound like types of missiles, and airplanes don't like missiles.

## Apple Bags Another IBM Veteran But Loses Two VP's!

Morris Taradalsky, who was in charge of IBM's System Application Architecture (SSA) software, has just joined Apple as Vice President of Customer Services and Information Technology. He was with IBM for 18 years and joins Donald Casey and Charles Bosenberg, who previously defected after 21 and 10 years, respectively, with "Big Blue." (Source: *PC Week*, December 19, 1988.)

Not so fast! Charles Bosenberg (former IBM executive) is leaving Apple after two years to become executive vice president of marketing at MIPS Computer Systems. He will be replaced at Apple by William Coldrick, who has been at Apple for 7 years.

Charles Berger, who was vice president of integrated systems, is the 8th top executive to leave Apple during its recent reorganizations. He will join Sun Microsystems, Inc., as vice president of product marketing in the entry systems group.

## Developer Services Extended

Apple Computer has extended developer services to include Mac programmers who do internal development for their corporations but who are not in the business of commercial software development. Previously, Apple included only those developers in the support program who did commercial development. The new program began in January 1989 as the Apple Associates program and also includes developer status to Macintosh consultants working for the same companies. (Source: *InfoWorld*, December 19, 1988.)

## Real Bits

1. SPSS Inc. has announced a fully functional version of its mainframe statistical package for the Macintosh to be released in mid-1989.
2. The Mac IIx FDHD floppy disk drive will not recognize MS-DOS formatted 3.5" disks unless it is done through Apple File Exchange software. This will be rectified in a later release of system software so that it may be recognized at the Finder level.
3. Former members of the House of Representatives who were recently

elected to the Senate have found that the Senate is not as open to choosing which make of microcomputer to order as was the House. The House has no restrictions on make, but the Senate restricts members to Prime, Data General and Honeywell. Sounds like "dumb terminal city" to me. Some new Senate members complained that they could not use the latest technology. I wonder if the Macintosh was one of the makes to which they were referring?

- Apple Computer has the highest profit margin in the computer business at about 50%. It also has the highest level of sales per employee at \$339,600. Commodore was 2nd at \$296,400 and Compaq was third with \$284,200 per employee. Interestingly, IBM ranked 7th at \$127,000 for each worker. (Source: *MacWeek*, January 24, 1989.)
- Apple has signed a huge contract with Mentor Graphics Corp. — the largest such contract it has ever placed. Its for electronic design automation. (Source: *Investors Daily*, February 2, 1989.)

### Apple Programmers/ Developers Association

Apple Computer has taken over the Apple Programmers and Developers Association in an effort to improve its operation and image in the development community. The APDA is the major conduit for programming and development tools, software, and information within the Apple community. They recently sent to present and past members a new "terms and conditions" statement describing the new policies of the Association. The cost to join is still \$20 for U.S. citizens.

If you are interested in finding out more, the new address is APDA, Apple Computer Inc., 20525 Mariani Avenue, Mail Stop 33G, Cupertino, CA 95014-6299. You may call (800) 282-2732 for additional information.

### Tunnel Carpel Syndrome! Does it Affect You?

Tunnel Carpel Syndrome affect workers who do repetitive tasks with their hands and arms. Frequent bend-

ing of the wrist can cause tendons to swell, which pinches the median nerve running through the tunnel formed by the carpal bones and ligaments of the hand and wrist. The syndrome can cause numbness and severe pain in the wrist and result in a disability that may require surgery for relief.

Some microcomputer users whose professions cause them to use a computer keyboard for as little as two hours a day have been affected, but it is usually associated with longer use. Some companies are making an effort to address this problem and improve the ergonomics of the workplace. If you have a tingling sensation or numbness in the hands and wrist and are a daily user of a computer keyboard, you should be aware of this syndrome and get an evaluation from a physician trained to address it. (Source: *Business Week*, January 30, 1989.)

### Now its Apple's Turn

Now, the shoe is on the other foot. Apple is being sued by Apple Corp. for violating a 1981 trademark agreement to not have Apple Computer associated with music, or something to that effect. Apple Corp. is owned by the Beatles, and they want Apple to either remove the Apple logo and name from all its computers or remove the special sound chips installed in the newer Macs. They also want royalties of 1% to 5% on each computer. That would amount to \$28 million to \$150 million just for 1987 sales alone.

Although the Microsoft suit may seem petty to some, it is an issue that needs to be tested in court to resolve the look and feel issue once and for all. The Apple Corp. suit sounds pretty frivolous to me and may be another attempt at a quick buck. I wonder if they have the same attorney as Rock Hudson's former lover? No one is about to confuse Apple Computer with Apple Corp. just because a music chip is part of each computer. Cut me a break, Beatles! Have you just had a "hard day's night," or are you just singing "help"? Personally, I hope they "can't get no satisfaction." (Source: *USA Today*, February 23, 1989.)

Lynn R. Trusal, Ph.D., may be reached at 301-845-2651. The opinions expressed in this column are solely his. 🍎

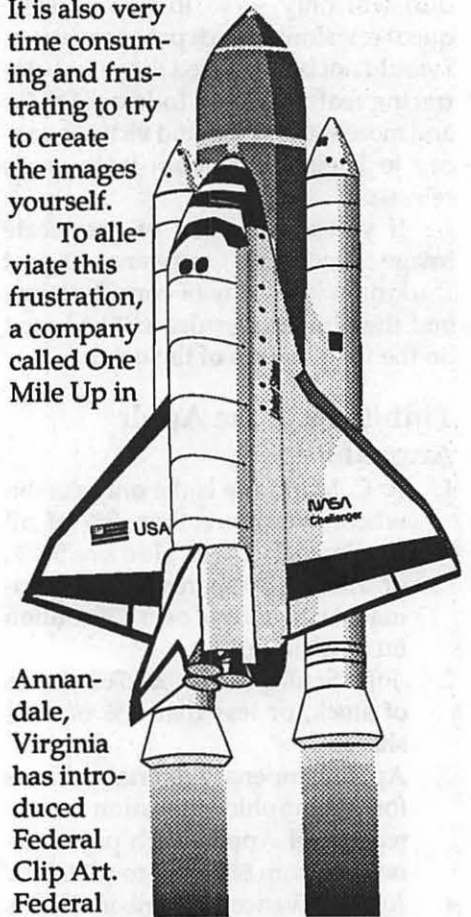
# Finally— Federal Clip Art!!

by Jane Altshuler

If you work for the government and have had to put reports together, you know how frustrating it is to find the right clip art for your reports and presentations.

It is also very time consuming and frustrating to try to create the images yourself.

To alleviate this frustration, a company called One Mile Up in



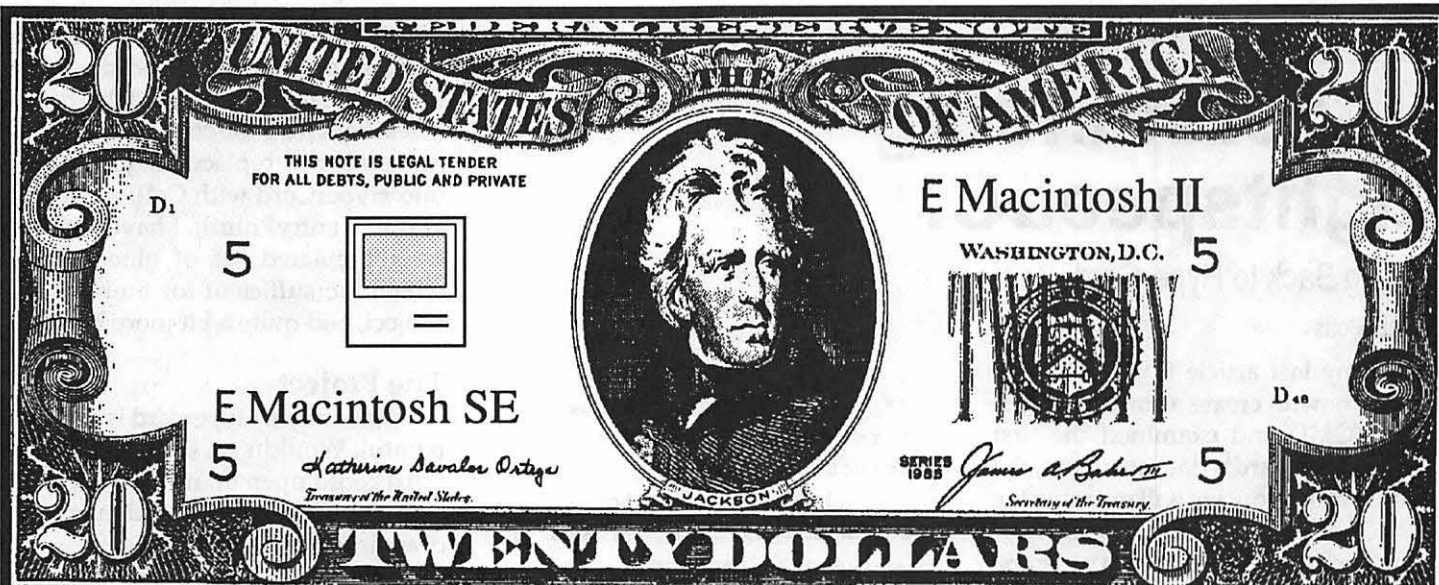
Annandale, Virginia has introduced Federal Clip Art. Federal Clip Art

includes images such as the Capital building, Agency insignia, the space shuttle (shown here) political figures, classroom scenes, maps and regions, memorials, museums, and numerous Department of Defense images. All images are in EPS and PICT format and many are in color. They can be used in reports, newsletters, and slide presentations and are easily edited.

For more information call One Mile Up at (703) 642-1177.

Jane Altshuler is a freelance desktop publisher and graphic artist and is happy to answer any questions at 564-1123. 🍎





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# Understanding LightspeedC:

## Talking Back to HyperCard

by Paul Potts

In my last article (Dec. '88) I described how to create a simple HyperCard XCMD and examined the first half of HyperCard's data structure, the XCmdBlock. Now we will examine the second half of the XCmdBlock and how to call back into HyperCard to use some of its powerful utility routines.

### Background

HyperCard stores all variables, even numbers, as strings. Pascal expects that this string will consist of a length byte followed by up to 255 characters. C treats strings slightly differently: in C, a string consists of an arbitrary number of data bytes terminated by a zero byte.

Here is how that a Lightspeed C defines the Str255 data type:

```
typedef unsigned char
Str255[256];
typedef unsigned char *
StringPtr,** StringHandle;
```

The HyperCard XCMD interface code defines a shorter internal format to hold strings:

```
typedef struct Str31
{ char guts[32];
} Str31, *Str31Ptr,
**Str31Handle;
```

Writing XCMDs will be much simpler if you keep in mind that any array can hold either a C-type or Pascal-type string. When calling back into HyperCard it is important to pass it arguments in the proper format. XCMD callbacks necessitate converting back and forth between string types quite often. Your code must remember which type of string lurks in each array: if you pass a string of the wrong type, the results will not be what you expect.

Let us now discuss the second half of the XCmdBlock and how it can be used to call back into HyperCard. Here is the definition:

```
typedef struct XCmdBlock
```

```
{
/* ...we will ignore the
first half of the data
structure... */
char *entryPoint; /*
to call back to HyperCard */
short request;
short result;
long inArgs[8];
long
outArgs[4];
} XCmdBlock, *XCmdBlockPtr;
```

In order to call back into HyperCard, your XCMD must jump to the address contained in entryPoint. The interfaces written in MPW C suggest this can be done with the following:

```
((ProcPtr)(paramPtr->
entryPoint))();
```

However, this doesn't work in Lightspeed C. I tried a large number of possible calls in C and assembly language, to no avail. Symantec told me over the phone that they would send me their own interface routines on a disk for ten dollars. By pleading poverty I convinced the representative to tell me how to call back into HyperCard, but I was unable to get his method to work either. In desperation I read the manual, and found a built-in function to call Pascal routines:

```
CallPascal(paramPtr->
entryPoint);
```

This may not be the best way, but it works and it is simple to read.

The next field in the XCmdBlock, request, tells HyperCard just which internal routine you wish to execute (there are twenty-nine of them in the current release of HyperCard). inArgs and outArgs contain handles to the arguments sent back and forth to HyperCard. Fortunately, you don't need to remember which inArgs and outArgs go where: Dan Winkler kindly wrote a set of glue routines for MPW C. To use them in Lightspeed™ C, change every

reference from the MPW extended type to double. (I haven't used these routines to see if they work, but this fix will at least get it by the compiler for now). Remember to replace the jumps back into HyperCard with CallPascal (paramPtr-> entryPoint); I have included an abbreviated set of glue routines which are sufficient for building this project, and quite a bit more besides.

### The Project

Drawing in HyperCard is slow and painful. Wouldn't it be nice if HyperCard could open up its own windows and use Quickdraw to dynamically draw into them, even using color on a Macintosh II if desired? In my last article the XCMD opened a PICT resource and displayed it on the screen, then went into an event loop and waited for a mouse click or keypress before continuing. I wanted to create a window that was a bit more permanent.

To build my XCMD project, create a folder with the four source code files in it: working.xcmd.h, working.glue.c, graphPack.c, and XCMD.shell.c. Compile graphPack and the XCMD.shell in a project with MacTraps. (Do not add the other two source code files to the project: they are linked in using the #include directive). Build the code resource (make sure you assign it a unique ID number) and paste it into a HyperCard stack. Define a global container in the stack script, with a line like global myWindowPtr, and create a new STR (string) resource in your stack with an ID number of 100. You will also need to add a PICT resource to define the size and content of the initial window.

Since the XCMD's window does not belong to HyperCard, HyperCard doesn't even know it exists. Your stacks and scripts will run behind it, even flipping from card to card, and it will stay there until you explicitly dispose of it. Unfortunately, if you drag the message box window or a desk accessory window in front of it, you will erase part of the content region; an XCMD cannot accept update events, since it does not run in the background like a desk accessory. It is up to the calling stack to make sure the user does not drag the foreign windows around.

Although HyperCard doesn't know about my window, my XCMD

## Mac Review

# MacInker

## Ribbons for 5 Cents

By Lee Cabana

I love the results that a brand new ribbon produces in my ImageWriter II - dark and sharp, especially in the Near Letter Quality mode. Unfortunately, that quality starts to fade after the ribbon has made a few cycles through the cartridge. In the past, I've made do, buying new ribbons when quality was foremost, and setting the once or twice used cartridges aside (wrapped in plastic, and stored in the refrigerator) for future use. I've also used a technique I learned at my first meeting of the Erie Apple Cruncher Users Group—open the cartridge, spray WD-40 over the ribbon, and let the reassembled cartridge sit for a couple days while the ink in the unused portions permeates the entire ribbon. Not a bad technique (the price is certainly right!), but there is only so much ink in the cartridge, and

the second spraying doesn't rejuvenate the ribbon as well as the first application.

Some time ago, I noticed advertisements in the Apple user magazines for a product called MacInker, a system that claimed to re-ink ribbons to like new quality. The headline claimed, "Re-ink ribbons for 5 cents!" When I asked other Apple users their opinion on the Mac Inker and re-inking in general, the feedback was lukewarm at best - comments such as "too messy," "doesn't work," were typical. Since the MacInker cost \$42.00 plus \$3.00 for a bottle of ink, I didn't want to take a chance, and continued with the above techniques.

In mid October, my folks wanted to know what I wanted for Christmas - so why not, I asked for a MacInker.

Christmas day arrived, and a box about 3/4 the size of a shoe box was under the tree. It contained the MacInker, a squeeze bottle of ink, two re-inking spindles, and three sheets of instructions.

The system is fairly simple. Mac Inker is a plastic platform with several holes the size of quarters in it. There is

an electric motor mounted under the platform, with a spindle extending from the motor through the platform. The ribbon snaps onto the platform and spindle, which pulls the ribbon. The heart of the system is the ink spool, which is a hollow cylinder with two O-rings. In between the O-rings are two pin holes. This spool is mounted on the far end of the platform with a wing nut. To my surprise, the spool was fixed, and did not turn.

The set up is simple. First, draw about six inches of ribbon from the cartridge; mount the cartridge on the spindle, and pull the ribbon over the re-inking spool so it fits between the two O-rings. Fill the spool to, 3/4 full of ink from the squeeze ink bottle, and turn on the switch. The ribbon is drawn slowly over the pin holes in the spool, and two parallel lines of ink 1/8" wide are placed on the ribbon as it rolls past at a speed of about three feet per minute.

The instructions emphasize that most new users tend to over ink. To avoid this, they recommend filling the ink reservoir 1/2 to 3/4 full one time, and letting the system run for 3-4 hours

uses HyperCard to store a pointer to the window. When the window is created, my XCMD will call back into HyperCard to put a pointer to the window into the global container. Each time the XCMD is called after that, it asks HyperCard for the contents of the container and uses it to access the window. When the window is to be destroyed, my XCMD disposes of the window and sets the container to NIL.

How can one XCMD do all that? Simple. I use an approach similar to that of Hypercard's designers, and modularize everything. Here are the commands I have defined so far:

graphPack 1, PICT number  
—open a new window

graphPack 2, x1, y1, x2, y2  
—draw a line between the coordinate pairs (local coordinates)

graphPack 3, PICT number  
—reinitialize the window and redraw the PICT

graphPack 9  
—destroy the window

Using this modular approach, it should be easy for you to add routines

to draw boxes, circles, etc. If you use my core routines please give me credit in your code. Note that in this project I have not put in extensive error-trapping code: my point was instead to illustrate the use of Callbacks. The only error-checking I do is to beep if an improper number of arguments is passed. It is possible, for example, to crash your system by using a graphPack 9 call without having opened a window using graphPack 1,1. Another common source of system crashes is out-of-memory conditions: if your system crashes upon entry to my XCMD, I suggest removing as many INITs and other memory-grabbing things from your system folder. If your routines are crashing, examine them very carefully for minor errors: even a missing asterisk (dereference) can cause a system crash. This leads us directly into a brief discussion on...

## Debugging

Debugging XCMDs can be very difficult. It is not possible to use THINK's debugger, since the XCMD

will operate only in tandem with Hypercard. It is possible, however, to examine the contents of handles using MacsBug, if you have it installed in your system folder. I use the following code:

```
asm {MOVE.L the_handle, D3}
Debugger();
```

Suppose you want to examine a string in memory while your XCMD is executing. If, for example, D3 contains 26C72, type dm 26C72. The address of data object will be stored there (ignore the highest bytes.) dm (the address) and you will see the string displayed in ASCII with either a length byte before it (for a Pascal-type string) or a zero byte terminating it (for a C-type string). If the string is not there, your handle is wrong!

If all is well, you can continue execution of the XCMD by typing g (for go). If your object is improperly referenced, you will probably have to type rb (reboot) to avoid a system crash.

Next time: improving HyperCard's math performance with XFCNs, and using graphPack to graph functions. 🍏

or overnight. I intended to follow the instructions, but after the inker had run for about two hours, the ribbon still looked a bit dry, so I added another application of ink. That was a mistake! I ended up with an over inked ribbon, which produced a wet, heavy printing. Fortunately, the instructions provide several methods for fixing the over inking problem. When I re-inked my second ribbon, I followed the instructions, and let the MacInker run overnight, with only one application of ink. The result was a ribbon whose print quality had returned to new ribbon quality. As for mess, there was almost none. The unused ink went back into the bottle, and the re-inked spool was cleaned with a couple facial tissues and a squirt of WD-40.

MacInker performed as advertised and I look forward to great quality printing for 5 cents! 🍎

## Macintosh Tutorials Offered

Three tutorials are offered by WAP to Mac owners. They are given regularly on the 2nd, 3rd and 4th Monday evening of each month at the office, from 7:15 to 10:15 PM. Tutorials are for "beginners," not experienced users

Bring your Macintosh, external disk drive, startup disk, and several blank disks. WAP does not have equipment for you to use. (Please come at 7:00 to have time to set up your equipment.)

The fee for each session is \$20 for WAP members.

April 10, May 9  
Introduction to Macintosh

April 17, May 16  
Intermediate Mac Skills

April 24, May 23  
Personalizing your Mac for  
Productivity

Macintosh tutorials in Northern Virginia every other month. For details and a map see page 86.

## Softviews



# Full Impact

Squaring off against Excel in the spreadsheet wars

by David Morganstein

This month we look at the opening shot in the recently begun spreadsheet wars, Full Impact. This should be followed in the not too distant future by WINGZ, but that is another story.

Full Impact. Funny thing about a good product, it can discourage competition. Take Excel from Microsoft. Originally released almost three years ago, it was a truly revolutionary spreadsheet and graphing program for the Mac. It's been estimated that almost half of all Mac owners have the Excel program. The result? No really good competition for quite a while, at least not until recently. Full Impact from Ashton-Tate has stepped into the ring to square off against an Excel that has been too slow in improving for too long. FI does a pretty good job of delivering where Excel is weak. Microsoft has strong competition from Ashton-Tate on this one.

One of FI's strengths is its smooth integration of graphics with data. A graph is an element of the spreadsheet, not a separate window as in some competing spreadsheets. As with Excel, there is a dynamic linkage between the data in the spreadsheet and the chart. Change the data and the chart changes immediately reflecting the current values. Among some of the graphical tools offered by FI are: lines, rectangles, circles, and text paragraphs which can be shaped, filled or colored to further embellish your spreadsheets. On the same page with the data, you can mix any num-

ber of graphs (see Figure 1). You can compose a visually stimulating page containing tables and charts highlighted by text and fancy graphics. A text paragraph is simply a rectangle with text in it, similar to the rectangle tool found in most drawing programs. It is like a sticky label you can attach anywhere in the spreadsheet (see figure 2). This feature allows you to easily construct a block of text by wrapping the text onto subsequent lines as you enter it. In most spreadsheets where every cell is the same size, text can only be entered into one cell of the sheet. With FI (and Trapeze) the text block can be resized to any dimension. This is particularly handy for multi-line column titles as you see in the following table about cars. One problem I found with FI's text paragraphs (not shared by Trapeze) is that the text blocks remain stationary as the column widths and heights beneath them are changed, necessitating some re-positioning. This is no more than a minor annoyance.

While Excel is still hung up on a one font, one font size restriction, FI allows multiple fonts and font sizes in the same sheet. Just as column widths

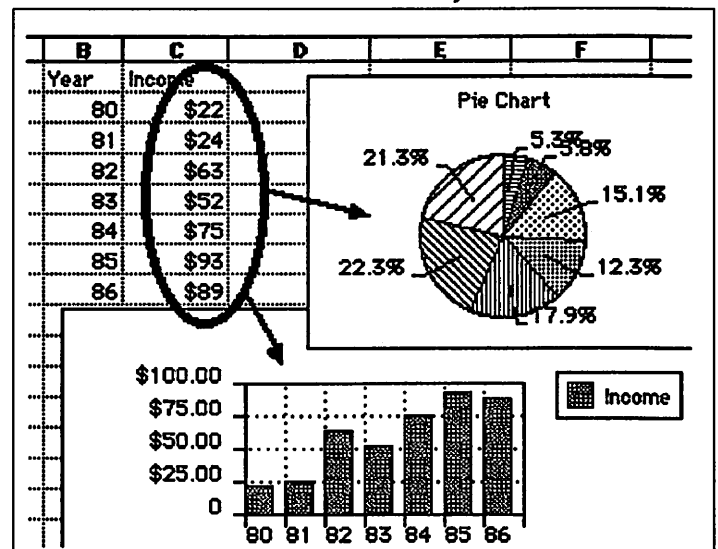


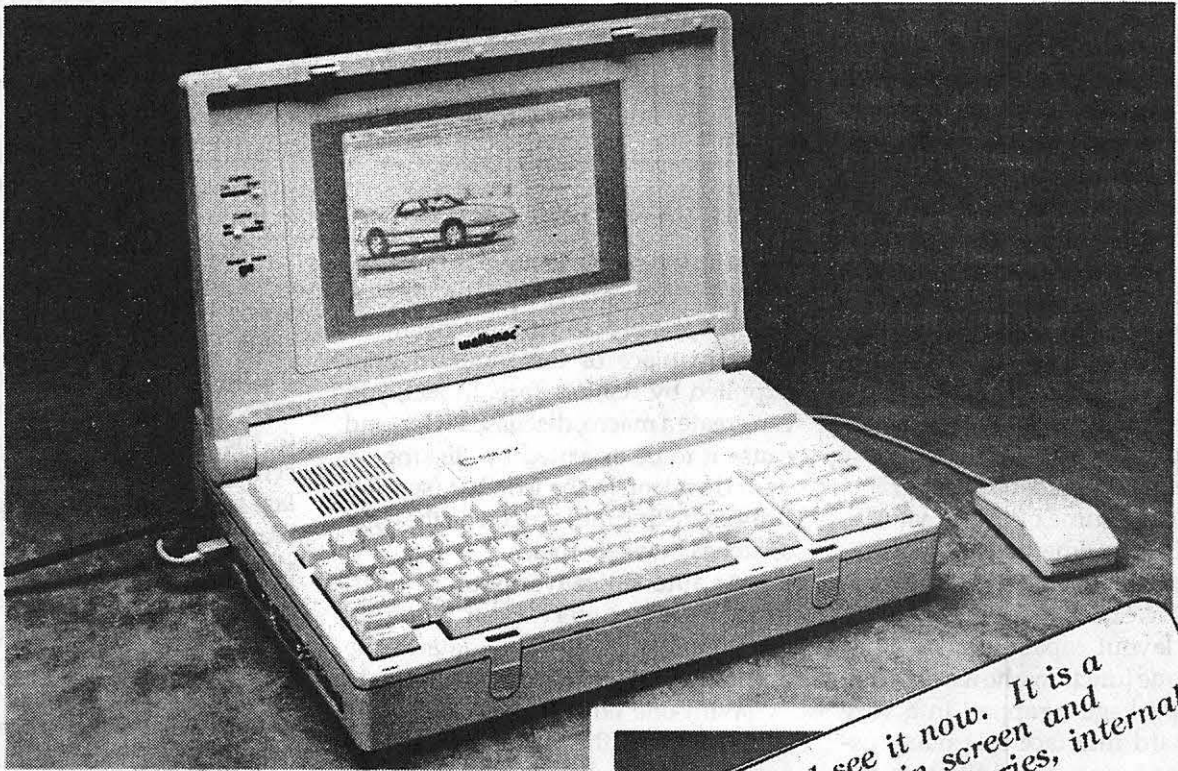
Figure 1. Example of page layout

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5	Carlotta	75	6	3725	12.60	19
6	Dancer	100	6	3060	13.80	15

Figure 2. Text Paragraph

can be changed, so can row heights, permitting a flexible and interesting display. (see Figure 3)

Page layout margins can be manipulated while viewing a page-like layout; unfortunately, only the margins are visible, not the data or graphs. FI sports a nice reduce/enlarge function, found in many drawing programs, which allows quick viewing of large areas of the sheet. The page setup dialog has fields for specifying columns or rows which can be used to request titles on every page.

There are spreadsheet programs which provide some of these features, but none has yet emerged as real competition to the front-running Excel. Trapeze, for example, offers much of this page layout capability as well as many unique functions; however, it is a software package wrapped in a very non-standard interface that many users find confusing. In addition to the standard pull-down menus at the top of the screen, Trapeze has a menu bar placed within the screen that contains only icons, no text describing the function of the icons. Substantial effort is required to become familiar with the meaning and use of all these icons. Like Trapeze, MacCalc also permits the use of mixed fonts and font sizes within the spreadsheet; however, it features neither macros, database functions nor graphics. Full Impact is the first package to offer most of Excel's power and a measure more.

When you run FI, you are struck by its easy to access icon bar offering many of the most common menu choices in a single click form. Some readers may recall that this approach was used effectively by the now defunct Crunch spreadsheet. A single click replaces the action of pulling down a menu and making a selection. What is more, the

5	Full Impact
6	Allows a mixture of
7	Fonts and font sizes

Figure 3. Mixed fonts and font sizes

icons in the menu bar are completely editable. You can change the appearance of the icon or substitute other menu items in place of the standard ones supplied by Ashton-Tate. In fact, you can create a macro, discussed later, and cause it to be executed by clicking on your own icon in the icon bar (see Figure 4). Clicking the last icon on the right switches between them.

An automatic save option at a user-definable time interval can help prevent the loss of valuable data in the event of a power loss or system crash.

With one notable exception, FI is very strong in the file import/export arena. It can exchange data in a very wide range of standard formats, including dBase. For more general text transfers such as downloading data from a main-frame, FI permits user-definable field and record delimiters allowing exchange with virtually any ascii file. Fields or records can be separated by tabs, carriage returns, line feeds, periods, commas or nulls. Con-

spicuous by its absence is the Excel file format. FI cannot read or write Excel files directly! To work between these two spreadsheet powerhouses, you must use some other format such as SYLK. For a product which is clearly aimed at competing with Excel, this is an almost unforgivable oversight, one which will dissuade many an Excel user from switching to FI. Just as with Excel, you can create several windows which view different areas in the spreadsheet. Going Excel one better, FI allows you to give meaningful names to these views, not restricting them to File:1, File:2, etc., as Excel does. On the negative side, FI does not offer horizontal or vertical pane splitting, a significant shortcoming. This feature allows Excel users to have two or four synchronized views into the spreadsheet. (As an aside, I use this capability in the following way: split the Excel screen horizontally; scroll the top pane to the uppermost row of data while scrolling the bottommost pane to the last row. With this configuration, it is easy to click in a cell in the top pane and shift click on a cell in the bottom pane that is hundreds of rows below in preparation for a fill down operation...but that is another story!)

FI makes good use of context sensitive menus which change according to use. When you are entering a formula, a number of new menus replace those that are no longer appropriate. In particular, you are offered a series of hierarchical menus which allow pasting any of FI's many functions. These menus are displayed in meaningful groups (see Figure 5) so you can find and paste the function you want quickly and painlessly with fewer typographical errors! FI is fully equipped with a

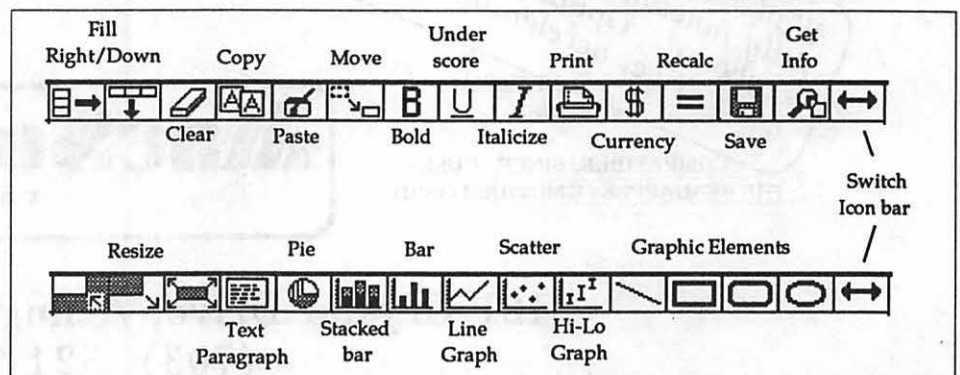


Figure 4. Menu Bars

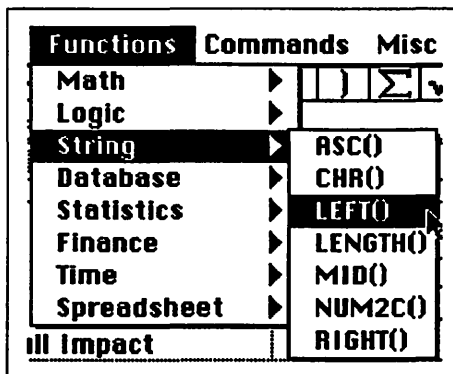


Figure 5. Hierarchical menus providing function names

fairly complete set of functions although not as extensive as Excel 1.5. There are no matrix functions, nor are there any regression functions. Excel provides more depth than FI in its text handling functions as well.

Ashton-Tate has done a nice job with the Format menu. It is a model of organization and ease of use. Among features not offered by the competition are: displaying the formula for selected cells (rather than just globally for all cells), repeating cells and logical fields.

However, Excel allows you to create and store new formats of your own making, a feature not found in FI.

While FI only offers 2048 rows, it seems to use whatever memory your computer may have (unlike the one meg limitation that is still present in even the most recent version of Excel, 1.5). FI works under Multi-Finder but does not continue running in the background. Excel has a somewhat finicky requirement to be loaded into the lowest one Meg of RAM (i.e. it should be the first program loaded after running Multi-Finder) but does continue operating when you switch to another program. To its credit, FI is very fast with its re-calculation. I was able to fill 64,000 cells with data, half of which were formulae, and have FI do a recalculation in five seconds on a Mac II. On a multi-meg Mac, Excel ran out of memory at around 24,000 cells and recalculation with only a few thousand rows could take more than a minute on a stock Plus.

FI supports recorder style macros in a fashion similar to that of Excel.

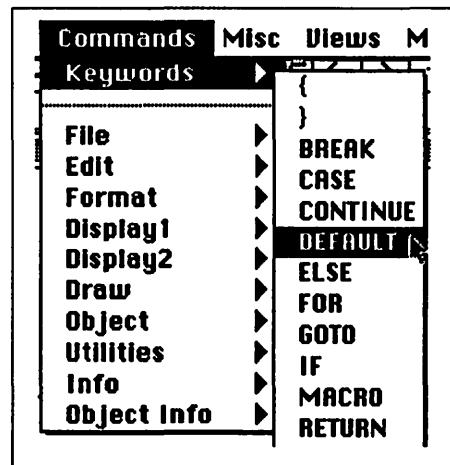


Figure 6. Hierarchical menus provide macro commands

However, for those who need to modify automatically recorded macros, FI provides an easier to use approach to macro programming. FI macros are typed in a full screen editor, not entered cell by cell, thereby improving readability. The FI macro language is closer to a higher level language than Excel's machine language style routines. It is far less cryptic and much easier to learn and to use. All macro

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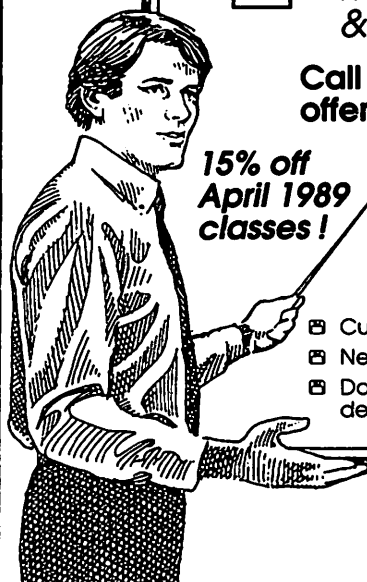
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commands can be pasted from a series of hierarchical menus (see Figure 6), simplifying typing and preventing spelling errors. Most common programming control structures are found in the FI macro language, Full Talk. These include, FOR loops, WHILE loops, and IF statements. In addition, there is a SWITCH structure which many will recognize as a CASE statement. Full Talk allows you to create subroutines, macros called from other macros. While FI provides a syntax check to aid in debugging, it does not have STEP or TRACE functions. The absence of this feature is unfortunate since STEP and TRACE are very helpful in the elimination of logic errors.

FI macros can be used to construct virtually any function, including those included as standard operators in other spreadsheets. Each macro begins with the term "Macro" and the code which follows must be placed between a pair of brackets, a format followed by several higher level languages. Comments are denoted by a leading semi-colon. Although not required, it is helpful to start variables with lower case letters and FI functions with uppercase to distinguish the two. The macro language differentiates between an assignment operator, ":", and an equality test, "=", a useful distinction which clarifies two distinctly different operations. FI allows long function names which facilitate understanding of the function's purpose (e.g. "Get\_user\_select" and "Get\_last\_cell")

Unlike Excel where macros are entered into a separate macro-type file and referenced from the worksheet, FI provides both global macros in a library-like format and local macros which are an integral part of a worksheet. Those macros which are part of the sheet are listed under the macro menu item. (see Figure 7) After selecting the desired worksheet, a hierarchical menu appears, listing global macros and those local macros present in any opened sheet. Moving the cursor down to a particular macro opens that macro for review and editing. This process is much easier to work with than Excel's method of having to scan an entire worksheet looking for the starting point of a macro. I must confess to being somewhat unclear about

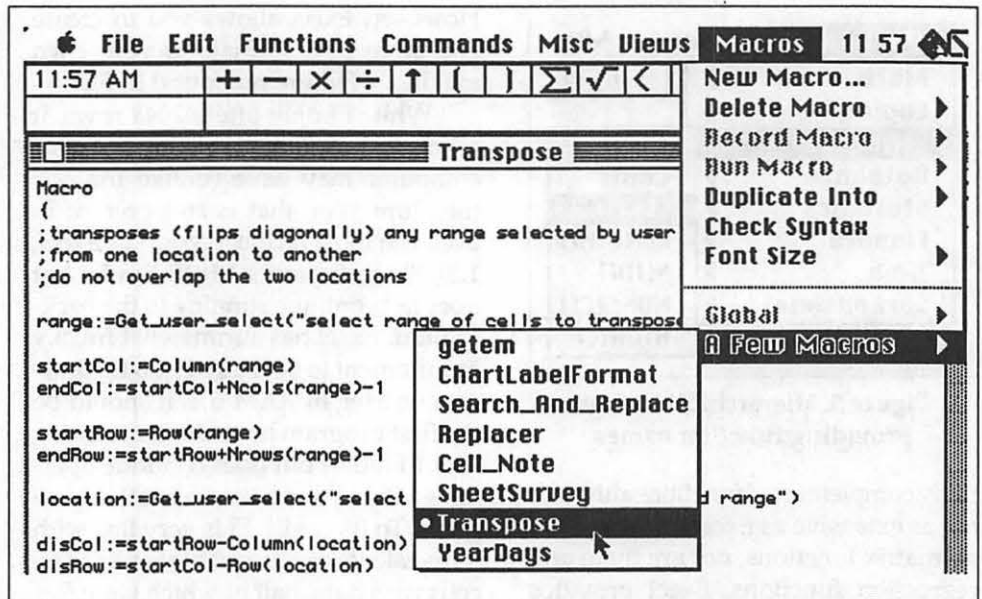


Figure 7. Macro Menu

what causes the ordering of the macro list. It is not alphabetical.

As with any program, all is not a bed of roses. Besides the 2048 rows limitation, FI does not support an easy page preview such as that offered by several Microsoft programs. It does provide for a WYSIWYG view but only through the use of a special "output driver", like the Imagewriter or Laserwriter drivers used for printing, activated via the Chooser DA. To see the page as it will print, you must first go to the Chooser DA and select Preview. When you are ready to print, you must again use the Chooser to switch back to a printer driver to obtain your hard copy. This is all very awkward, not nearly as simple as Excel's straightforward "Preview on Screen" check box offered in the Print Dialog.

I was somewhat dismayed to find that the requested Multifinder memory partition is a RAM-busting 1024K. I like to use Multifinder when preparing product reviews, switching between my word processor and the program under review. On a MacII with 2 megs of memory, I discovered that there wasn't enough memory for Microsoft Word and FI. I used the Get Info box to reduce the amount of memory requested by FI to 900K. It seemed to work alright, but it left me feeling a little uncomfortable.

As mentioned earlier, FI can not read Excel files directly (they must be saved as text or SYLK while in Excel be-

fore FI can access them).

FI has an excellent Help menu which can be accessed in one of two ways. You can locate help via the Help dialog box by making a selection under the Apple menu or you can press command-? and click on any part of the spreadsheet to access help for that item directly. The FI manuals are more complete than Microsoft's Excel manuals and provide more advice and assistance to both the novice and advanced spreadsheet user. Ashton-Tate provides one manual for learning FI, another for using FI and a third reference volume for functions and macros. Unlike the Excel documentation, the manual on macros actually shows you how to write macros for FI! It puts the terse Microsoft manual to shame. (I had to buy several additional texts to really learn about Excel's macro capability.) In addition, there are two slim volumes covering the topics of "Getting Started" and "Exchanging Files" with other programs. Frankly, I would like to have seen the latter two and the "Learning Full Impact" integrated into the "Using" manual. As it is, things can get separated. All in all, the FI documentation is well organized, helpful and readable.

Ashton-Tate offers a telephone service to provide answers to FI questions. Unfortunately, it is not an 800 number. More unfortunately, you are only allowed to ask questions for the first 90 days after registering. After this



# Fixing Sick Text, Sick Mice, and More

by Jeff Alpher

My Microsoft Word documents look fine on the screen, but when I print out the files on the LaserWriter, the text doesn't quite line up on the left. What's going on?

The first part of this answer deals directly with your question. But I'll take this opportunity to discuss a related topic. Both items apply to most, if not all, applications on the Mac.

## Using Tabs vs. Spaces

Don't use spaces to line up text on the screen. Squinting is bad for your eyes. Just use one space between words, one or two spaces after ":" and ".", depending on output device and taste. Always use tabs if you need tables, indents, hanging indents, or more than one or two spaces. Apply the centering and ragged left options when they are needed. Avoid the spacebar. The width of a space varies with font, style, and

size. If you don't know how to center text or how to get hanging indents to work, consult your manual. Hanging indents can be tricky but almost all word processors support them, even the original MacWrite. Just don't use that spacebar.

## The Right Page Setup

If you proof your documents on an ImageWriter, then print later to a LaserWriter, you may find some documents are missing information near the margins. This is a common problem for those that work on an ImageWriter at home, then bring their diskette (or hard disk) to a local service bureau for laser output. This problem arises because an ImageWriter can print a wider page than a LaserWriter.

A quick fix is to use the "Chooser" to select a LaserWriter, then bring up the "Page Setup" dialog box and click

"OK." The page margins should automatically adjust for the LaserWriter. In a word processor, this is OK because all the text will wrap (although this may not be desirable in all cases). In a graphics program, you may find that some graphics now sit on top of a page break and will require some readjusting. In a spreadsheet, the column widths may need to be narrowed a bit.

The better way is to start out with the proper page margins. Even if you don't have a LaserWriter, you will need to have the LaserWriter driver (the LaserWriter icon on your System Tools disk) in your System Folder. Also, AppleTalk will need to be switched on. If you have any devices (other than an AppleTalk device) attached to your printer port, they will need to be turned off. Otherwise, when AppleTalk is turned on it will send AppleTalk stuff

program lapses, your only options are: \$50 for fifteen calls in a one year's period; \$450 for one year access to a toll free unlimited calls line; \$925 for one year of the toll free line plus a monthly *Technical Update* bulletin. In addition, Ashton-Tate participates in a Compu-Serve board and runs its own Bulletin Board. By comparison, Microsoft answers question for free.

In as much as FI is aimed at Excel, a look at what Excel offers but FI does not seems warranted. Excel provides a wider range of functions. Excel has very powerful array operations, which can simplify into a single entry many mathematical steps. One use for array functions is to link multiple sheets, thus allowing you to analyze problems of a very large size. This speeds up processing and makes for a more understandable solution.

While spreadsheets can be linked with FI, there are several critical aspects that greatly limit its usefulness. To transfer data from source sheets to an aggregate sheet which references them, all the linked sheets must be

opened simultaneously. Once they are all opened, you must issue a recalculate command. If you open a sheet that has references to sheets currently closed, FI will not notify you of this dependency. You must manually issue an Open Links command to determine if there are any sheets referenced by the open one. For example, if you open a "1040" sheet, FI will not automatically update it with all the cells referenced to sheets representing other forms. You must open all the referenced sheets with the Open Links command, bearing in mind that FI only allows seven other sheets to be opened at once, and do a manual recalculation. Unfortunately, linked sheets are not covered in any of the manuals.

As mentioned earlier, Excel offers a very easy to use page preview function for examining the sheet as it will appear on paper before printing. You can go from the page preview to the hard copy with the click of a button, while FI requires a trip back to the Chooser to change the output device before printing. Excel allows for 16,000 rows, (with the caveat that version 1.5

still can not use all available RAM memory so in practice, much smaller data sets are the limit).

FI is a strong contender for your one and only spreadsheet. It offers excellent page layout features for mixing graphs with your data and arranging it attractively on a page using graphics to emphasize various points. It allows you to mix various font families and point sizes. For the power user, its macro facility is about the strongest in the spreadsheet market and it uses whatever memory you can afford.

On the negative side, it does have a limitation of 2,000 rows, lacks array operations and can't directly import Excel files.

I would guess that many Excel owners may decide to wait for Excel's version 2.0 before making a switch to FI. Newcomers needing a powerful, yet easy to use spreadsheet may toss in their lot with FI.

Ashton-Tate, 20101 Hamilton Ave., Torrance, CA. 90502-1319. Phone (213) 329-8000. Price \$395. 🍏

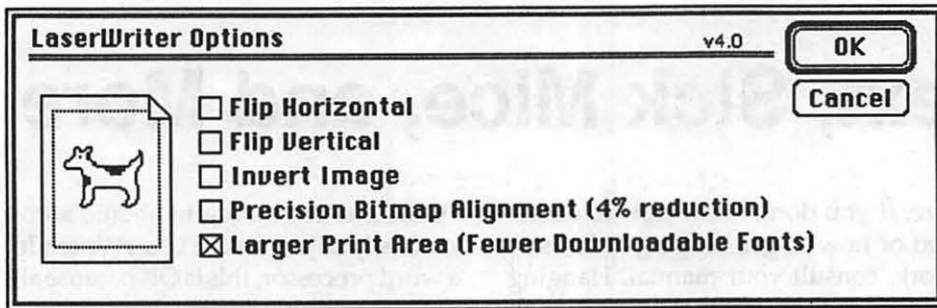


Figure 1: Special LaserWriter Options

to the attached device, which will make it behave strangely. To turn on AppleTalk, click the "AppleTalk Active" radio button in the "Chooser" desk accessory. After AppleTalk is on, click on the LaserWriter icon.

Now open your application. Choose "New" if your application doesn't supply you with a fresh document. Choose "Page Setup..." You should get a dialog box that looks like you are printing to a LaserWriter. Click "OK." Select "Save" from the "File" menu to save your blank document. Now it is set up properly for the page size of the LaserWriter. Return to the "Chooser", set "AppleTalk Inactive", and click on the ImageWriter icon. Select the proper serial port (modem or printer) as well. Now your document is set up for the width of a LaserWriter, but will print on an ImageWriter. One pitfall—if you use "Page Setup..." while the ImageWriter is chosen for printing, then click "OK", all the margins will be readjusted. Also, a couple of programs may actually complain before printing, giving you a message like, "This document is set up for a printer different from the one selected in the Chooser. Some items may be cut off when printing." Just click "OK" to continue. The ImageWriter has plenty of space.

And still another way to skin this cat. The newer LaserWriter drivers support a wider page than the original drivers. You can access this new power through the "Page Setup..." dialog box. Click on the "Options" button, then click on "Larger Print Area (Fewer Downloadable Fonts)", then "OK." This will do exactly what it says. (For Microsoft Word users, hold down the shift key when selecting "Page Setup..." to get the standard dialog box.) (See Figure 1)

The mouse pointer sometimes freezes on the screen. If I jiggle the mouse, it seems to work OK for a while. Is it time to get a new mouse?

Probably not. Intermittent hardware problems with mice appear to be rare. It's either completely dead or just dirty. There are at least a couple of mouse cleaning kits available, check with your dealer. I cannot vouch for them, having never used one.

Another way of cleaning a mouse is the do-it-yourself approach. The "donut" wheel on the bottom of the mouse comes off by twisting it counter-clockwise. Be careful when removing the bottom that you don't drop the ball. You will see three rollers that respond to the rolling ball. One roller moves the pointer on the screen vertically, one roller moves the pointer horizontally, and the other roller is spring loaded to keep pressure on the first two rollers. Use a toothpick or other appropriate object (no metal, please) to remove the accumulated hair and lint around the rollers.

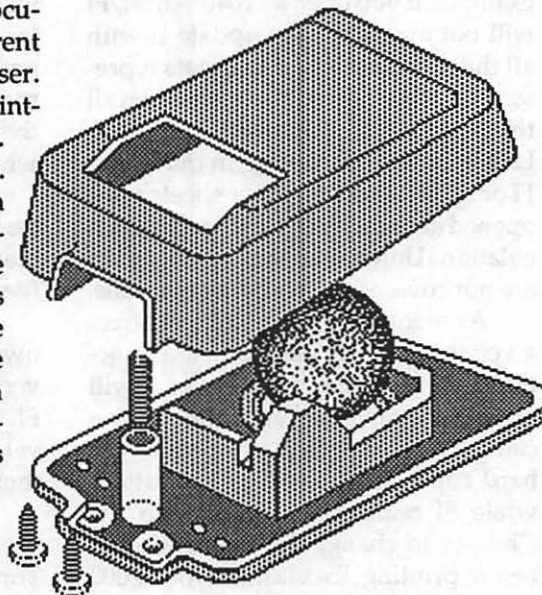
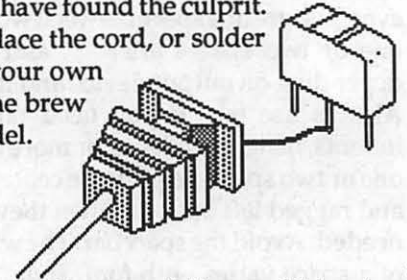


Figure 2: Mouse anatomy

If this does not improve your mouse's condition, spin each of the wheels one at a time with a toothpick while the Mac is on. If the mouse does not respond smoothly in both directions, the optics inside the mouse may be blocked and will require complete disassembly and more extensive cleaning. See page 8 of "MacUser's 1001 Hints and Tips for the Macintosh" for a more complete discussion of mouse cleaning.

If your mouse sparkles with cleanliness, and you still have intermittent problems, you may have a broken mouse cable. While using your mouse, wiggle the cable where it comes out of the base of the mouse. If you can make the mouse freeze and unfreeze at will, you have found the culprit. Replace the cord, or solder on your own home brew model.



Another possibility could be that the Mac was busy doing something else and couldn't respond to your mouse movements in a timely matter. This is only likely to happen while running background tasks like TOPS, print spoolers, or background applications in MultiFinder.

**When Pyro! comes on my Microsoft Word documents stop printing (or crashes). I have background tasks "enabled" in the control panel. What's going on?**

This is an acknowledged bug in Pyro! v3.0. Get your v3.1 upgrade from Fifth Generation Systems.

**How can I create a PostScript file from a Microsoft Word document?**

Use the "Chooser" desk accessory to select a PostScript printer (LaserWriter, QMS PS Jet, etc.) Select "Print" under the "File" menu as usual. Immediately after clicking the OK button, press and hold down the "I" key until the message appears, "Creating PostScript File." When the document is done "printing," you will have a PostScript text file on your disk. You can open it in any word processor to look at or en-

hance it. You can print the PostScript file by using any of the PostScript download utilities, such as "Laser-Status" (CE Software). This can come in handy when taking disks to service bureaus that only have floppy disk systems. The PostScript file will be named "PostScriptx" where "x" is a serialized number. Look for the PostScript file in the same folder that Microsoft Word resides. (Thanks to Ron Moore at Unicorn Graphics for the answer to this one.)

Sometimes when I restart after a system error on my Mac II, I get a blinking question mark. I always end up replacing the system or reinstalling the hard disk. This never happened with my Mac Plus.

Apparently, this was a bug in the ROM chips of the early Mac II's. The Mac doesn't see your drive. There is an easier solution than replacing your system files or reinstalling the hard disk. Next time your Mac II comes up with the blinking question mark, insert your system backup disk. After the Mac II boots up, the hard disk may or may not show up, it doesn't matter. Here's the tricky part. While holding down the option, shift, and command (sometimes known as the clover leaf or apple) keys, use the mouse to select the "Control Panel" from under the "Apple" menu. You should get a dialog box that asks if you want to "Zap the P Ram."



**You are about to zap the P Ram.**

Most parameters such as the default boot device will be changed when the system is re-started. Do you want to do this?

Yes

No

Click "OK". When the "Control Panel" appears, the "P Ram" is "zapped." Select "Restart" in the "Special" menu. You may need to restore some "Control Panel" settings.

Jeff Alpher, formerly an Apple system developer, now runs his own firm, Double Click Systems, Inc., specializing in database and system design. Call him at (301) 630-2036 OR MacNet: ALPHER. 🍏

## Mac Graphics

# "Help, I can't even draw a straight line!"

Climbing the Illustrator '88 learning curve

by Jane Altshuler

After four years of art school, and three years of mousing around the Macintosh in MacDraw and MacPaint, I was thrilled to rise to the occasion of my first Illustrator '88 assignment. I had read such wonderful reviews of the program that I could not wait to merge my talents with its features. I never expected that I would have such a difficult time making the transition to this feature laden program.

I purchased Illustrator '88 and was very impressed that it was packaged with a videotape. I never realized that I would return to the videotape repeatedly for the first week to bolster my confidence and to renew my excitement.

I turned on the videotape and watched the first few minutes of it. The kind, gentle voice of the graphic artist describing the software got me so excited about getting started that I did not want to waste any time in front of my TV—I wanted to begin right away!!

I figured that I would learn Illustrator '88 the same way that I learned all Macintosh software; by poking my way around its toolbox and menus and consulting the manual whenever I got stuck. Unfortunately, when I launched the program I could not decipher the toolbox. I wanted to begin drawing, so I guessed that the tool that looked like the nib of a pen would be the best choice. Alas, the straight line that I thought I had drawn turned into a wiggly curve! I tested a number of the other tools and realized it was time to return to the videotape. After several more hours making repeated trips between my Mac and my VCR, I began to feel comfortable with Illustrator '88.

For others who are beginning with the program, I would like to offer the following suggestions.

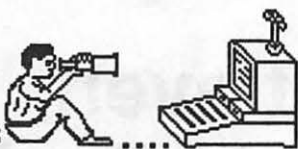
- Give yourself plenty of time. This is not to imply that it will take a long time to learn the program. It is

simply easier to work with something as unique as Illustrator if you are not under pressure to produce in an unrealistic time frame.

- Watch the videotape. Even if it only serves to renew your enthusiasm, it is worthwhile to take the time to watch the video and see what artists (probably no more talented than you) have done with the program.
- Make sure you have enough memory (2 Megabytes is desirable). What a disappointment to get a memory shortage message when you are finally ready to print, or when you want to explore the "autotrace" feature.
- Think of your drawing in terms of layers. As a painter, I never saw my subject in layers because I did not want to muddle wet oil paint. Imagine your drawing as if it were a sculpture, i.e., you must build the underlying structure before you can work on the surface.
- Use the freehand tool. You will find that it is much easier to control with a steady hand than the MacDraw freehand tool.
- Zoom all the way in and out. The zoom tool is a luxury—especially when you are using the freehand tool or adjusting a path.

Again, take your time. Remember that Illustrator is a tool and not an obstacle. It may be easier to use a program that you are familiar with, but with time and patience you will find Illustrator to be an incredibly powerful and flexible graphics tool. Now I don't want to use anything else!

Jane Altshuler is a freelance graphic artist and desktop publisher who will be happy to answer any questions at 564-1123. 🍏



# WARP Reviewed

## WARP/8 Accelerator Card and 100mb WARP /PLUS Hard Drive

by Raymond Hobbs

NonStop Engineering seems to be destined to be for the Mac what Applied Engineering is for the Apple II. I first began to hear rumors of a new 180 mhz accelerator board for the Mac Plus and 512e during Christmas week of '88, and when NonStop announced the WARP/8 Accelerator on January 27 at \$949, along with the 100mb WARP/PLUS hard drive for \$1799, I knew that I would have to try them out.

Although NonStop's packaging is not among the slickest on the market, my tests with the WARP/8 and WARP/PLUS suggest that they're every bit as fast as the claims made for them. Coupled together, they make total time from cold start to desktop on my Mac Plus a mere 3.8 seconds, including installation of 14 INITs and a half-dozen CDEVs. As another test of the speed of this powerhouse duo, I asked GoFer to find the phrase "Mac Plus" on the entire hard disk, and a total elapsed time from start to finish was a mind-numbing 12 seconds, with a resulting "found" list of 716 entries.

NonStop's secret for this stunning speed improvement is the powering of its CPU with an enriched Uranium isotope. The Motorola 68U235 chip, which is housed in a lead-coated case, also benefits from its lengthy half-life, as indicated by NonStop's warranty period of 144 years. The WARP/8 package itself gives the purchaser a clear indication of the power that's locked up inside with its standard CD warning logo printed on the side. The 100mb WARP/PLUS drive is similarly U235-powered. According to techies at NonStop, the kind of speed exhibited by the

WARP/PLUS has been possible for several years, but was held from production because of tracking problems caused by excessive air pressure generated by the spinning drive medium. According to NonStop tech support, this air pressure forced the drive head too far off the surface of the media, a problem solved by NonStop's installation of a miniature turbine atop the mechanism. The turbine, once activated, produces a counterbalancing down-pressure designed to keep the 64-head reading mechanism to within .00001 inch tolerance of specifications. Although I'm not technically inclined myself, I can attest to the WARP/PLUS drive's speed and accuracy.

The speed of the WARP/8 and WARP/PLUS combine to provide the user with some exciting possibilities. For example, I now perform extensive virus-checking as part of my startup procedure. This adds only 1.3 seconds to the total startup time. If any problems are encountered, they may be fixed within another two seconds. At worst, a complete hard disk restore is no longer a major operation—WARP/PLUS can be reformatted (all 100mb of it) in under two minutes. A selective restore, involving 20mb or less can be accomplished in 22 seconds or less.

Installation of the WARP/8 was fairly straightforward, and took under 40 minutes, most of which was consumed in getting into and out of the radioactivity shielding and static electricity grounding gear. This is included in the package, along with instructions for proper disposal. The manual is clear and complete, and includes ample

photographs to assist in installation. This is important, because there is some danger of injury if the WARP/8 is improperly installed. Of particular importance is the yellow lead, which must be connected from pin 8 of the second star to the right on the Mac main board to Marvin Gardens on the WARP/8. If this connection is faulty, the Mac screen will light up without power, and if not disconnected within several seconds, the user will also begin to glow. This latter is a clear indication of an improper connection. NONSTOP CLEARLY STATES THAT IT IS NOT RESPONSIBLE FOR MALFUNCTIONS CAUSED BY IMPROPER INSTALLATION. Although I felt that my installation was done well, I nonetheless took the precaution of asking for an NRA "spot check" of the site, and I keep a geiger counter under my worktable to warn of any leakage.

The WARP/PLUS drive installation, in contrast, requires no special installation procedures—just plug it into the SCSI port on the Mac, and you're ready to go. The same 144-year warranty applies to the primary drive mechanism in the WARP/PLUS, but the miniature turbine only carries an 18-month warranty, although extended service contracts are generally available through General Motors' Home Products Division.

**Summary:** The WARP/8 and WARP/PLUS products represent a breakthrough in Macintosh power.

**Pros:** If you own a Plus or a 512e and speed is what you crave, WARP/8 and WARP/PLUS can deliver. Although daunting, WARP/8 installation procedures can be accomplished quickly and safely, as long as the instructions are followed closely.

**Cons:** Opening up your Macintosh case will void your warranty. Also, you may wish to check with your insurance company to see if installation of these products will adversely impact your insurance rates.

*NonStop Engineering, 11260 Neutrino Place, Los Alamos, CA. 🍏*

## Share a Skill

The Desktop Publishing SIG is looking for instructors to share their skills by teaching in its seminar program. Pay is from \$100 to \$200 for a three hour class, depending on enrollment. Call the DTP SIG Chair, Tom Piwowar at 223-6813.

# Imagewriter Alternatives

Fool your Mac into giving you a \$200 discount!

by Larry Stedman

Sometimes I marvel; sometimes I'm frustrated beyond belief. The Imagewriter II is expensive (\$450+), has been plagued by paper handling problems, and has a short, 90-day warranty. There are two basic alternatives for your Mac: buy an Imagewriter clone such as the Seikosha 1000AP (the Mac will think it's hooked up to an IW) or buy some other dot matrix printer along with a hardware converter such as Orange Micro's Grappler C/Mac/GS or a special software printer driver such as GDT's PrintLink (these send codes so the Mac can talk to and direct the printer). The beauty of these alternatives is that they are cheaper and the printers have much better warranties, a year or longer.

But there is no free lunch and so these alternatives have their own problems. The clones are incredibly slow — best quality on Olympia's NP 30 APL, for example, apparently takes nearly twice as long as on the IW II (see Macazine, December 1988, pp. 658). The NP 30 also has problems printing in draft mode. The Grappler C/Mac/GS works poorly with most 9 pin dot matrix printers (any that lack reverse line feed). A warning stuck on the box lists most major brands, including Citizen 120d, Epson FX 86e and 286e, Epson LX, MX, and RX series, Okidata 19c series, Panasonic 1080 and 1090, and Star SD, SG, gemini, and delta series. Using the Grappler with such printers can produce serious glitches in linespacing, page breaks, and footnotes.

I'm reporting here on a software printer driver Soft Style's Printworks, combined with a Panasonic 1091 printer. The combination would cost around \$290 today. (Today's corresponding printer, the 1080i II, costs only \$150 and comes with an amazing two year warranty. Printworks costs around \$40. My Panasonic has a serial connector so it hooks directly to the Mac. The connector cost me \$40 at a clearance

sale, priced now around \$100 new.) (For parallel printers, you'd need to get a serial/parallel converter, cost around \$80. But don't buy one unless you get a guarantee you can return it some don't work with the Mac!)

I've been using this combination with my Mac 512KE for the past two years, sometimes marvelling at what can be produced, other times frustrated beyond belief. I set this up because I had the Panasonic left over from my IBM compatible days and couldn't see spending all that money on an IWNLQ.

Printworks allows me to use the Panasonic's builtin hardware near letter quality font which has an elegant typewritten look that rivals daisy wheels and 24 pin printers. PW comes with special pica, elite, and condensed fonts whose screen spacing matches that of the printer. The Printworks driver allows you to mix graphics with the printer's nlq. That is incredible the printer automatically switches from hardware printing for text to graphics printing for pictures and diagrams. NLQ printing with the Panasonic is faster than "Best" printing on the IW, plus PW comes with a software spooler so you can get back to your work even faster. You can chose to skip printing bitmaps or objects this allows you to quickly produce drafts of a text that has pictures. PW also previews your print out on screen. (Note that you can use PW with an IW II.)

The problems? There are memory problems on a 512K machine. PW requires a 16 K spooler and uses 2 DA slots; this can lead to mysterious printing failures and even system bombs, particularly in Word after using the dictionary. Super Paint is difficult to use on a 512 K machine unless you strip down the system.

Some printing features don't work properly. Using Write Now with PrintWorks, you do not get a space between italics and normal text. Super-

scripted footnote markers do not print properly on printers without reverse line feed (e.g. Panasonic 1081, 1091). Positioning graphics within nlq text can be tricky.

Printworks' drivers may not quite match the printer you're using. For example, there is no Panasonic driver, so I had to use the Epson driver which has a different code for bold text. To customize a driver, use ResEdit on PW's Table ID=1 (e.g., to get bold on Panasonic printers, change 1B48 and 1B47 on the Epson driver to 1B46 and 1B45).

*“ But there is no free lunch ... the alternatives have their own problems ”*

Turning off tall adjusted and turning on printer spacing is essential to get WYSIWYG results. Otherwise right adjusted, centered, and bold text won't print properly. The Printworks manual doesn't explain that, however, so several months passed before I discovered the solution.

My biggest frustration with Printworks, however, is that it doesn't employ fourpass graphics printing of fonts on nonApple printers. Consequently, you're stuck with standard printing and simply cannot get the high quality graphics printing of different fonts which is a hallmark of the Mac. Yes, I feel left out!

The bottom line? Unless you already have a non-Apple printer or are willing to tinker, I'd spend the extra money on an Imagewriter II. But don't let this be the last word on cheaper alternatives. I haven't tried a 9 pin printer with GDT's Print Link or a 24 pin printer with Printworks or the Grappler LQ (a different hardware converter). They may work fine.

Finally, there is a new IW II clone on the market the Laser 190A which, according to the editors at InCider, is as fast as the IW II, produces good output, and has few paper handling problems. The mail order cost is only \$239, but I have yet to see a review of it hooked up with a Macintosh. We can only hope that this is a real alternative. 🍏

# The Personal Ancestor File

Computerize your pedigree

by John N. Williams

The **Personal Ancestor File (PAF)** program of the Church of Jesus Christ of Latter-day Saints (Mormons) has finally arrived for the Macintosh. After being available for the MS-DOS and Apple II computers for about two years the Mormon Church has started shipping a Macintosh version. My copy arrived on two 800K disks (400K is also available) just before Christmas 1988 along with a 360 page illustrated manual in a padded three-ring binder. The manual is nearly superfluous as the Mac version is so user-friendly I was creating a pedigree chart and several family group sheets within 20 minutes. This is not a rewrite of an MS-DOS program, but rather a 100% Macintosh version written in fast C language that beautifully incorporates the Macintosh interface.

There are other Macintosh programs such as **MacGene** and **Family Roots**. There is also a Mac version of the first MS-DOS Personal Ancestor File program, but it was not adapted to the Mac interface and mouse. It is also a slower BASIC program. A shareware program called **MacRoots** worked fine on my Mac 512E and my Mac II until I made an entry error listing a woman as the daughter of herself. This type of error is possible after listing several generations of relatives with similar names. **MacRoots** was not sympathetic, and it crashed when I tried to print a pedigree chart. I had to delete every name linked to that woman before I could get any reports printed. Three of these programs were reviewed in the September 1988 **MACWORLD** magazine.

The new PAF program makes name entries faster than with **MacRoots** because I did not have to remember what I had just previously entered. PAF prompts well, and displays previously entered data. It supports color on the Mac II. Searches are intuitive and quick. Linking children to parents and

vice-versa is with an intuitive mouse click. Capacity of the PAF is limited only by the number of floppies or by the capacity of the hard disk. I loaded 72 names with accompanying data and it took only 15K. Pedigree charts, family group records, and other listings are designed for printing vertically on 8.5" by 11" paper. This is a change from the hand or typewritten Mormon entry record sheets that for over 100 years have been done horizontally on 8.5" by 14". LaserWriter printing at reduced font size allows up to nine generations on one chart, while the ImageWriter is limited to five.

The MS-DOS version produces the same reports, but is menu driven. Instead of pointing and clicking at a screen box of a mother or father or child on a family screen to obtain further links, a number must be selected from a menu. With the Mac edition such mental diversion is not necessary, and the families flow from one generation to the next without any mind-numbing interruptions as in the MS-DOS version. The Mac edition actually makes genealogy fun. My college-age children even found it fun to click back and forth between generations, and voluntarily entered a lot of data themselves.

PAF is likely to be the standard for all genealogy programs to follow as to data entry and report format. It includes a subprogram for optional modem transfer of genealogy records to the Mormon Church which already has the largest collection of genealogy records in the world with a network of branch libraries around the world. There are several branch libraries around the Washington DC beltway that are open to the public with some evening hours (see the phone book white pages under the Church of Jesus Christ of Latter-day Saints - Genealogy Libraries). More than 75% of the users of the branch libraries are not members of the Mormon Church. These free li-

braries have indexes and mail access to everything that is located in the Salt Lake City main library repository of most of the world's known genealogy records on microfilm records.

The church's Brigham Young University was one of the original 17 of the Apple university consortium, and many students and graduates with Macintoshes had been patiently waiting for the PAF. Non-members of the church can also now benefit from this fine program for genealogy record keeping.

The PAF is \$35.00 plus applicable State tax (VA yes, MD, PA and DC no). PAF is available by mailing a personal check for item number PBGS161A to Distribution Center, 1999 West 1700 South, Salt Lake City, UT 84104, or by calling 1 (800) 247-3892 and charging it to VISA or Mastercharge. 🍏

## Macintosh Tutorials in Northern Virginia

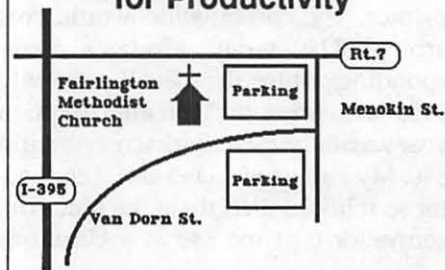
Macintosh tutorials, taught by Russ Bradley, at the Fairlington United Methodist Church, Rt. 7 and I-395 (King Street Exit), in Alexandria, VA from 7 to 10 PM.

The fee for each session is \$20 for WAP members.

June 9, Sept 8, Nov 10  
**Introduction to Macintosh**

June 16, Sept 15, Nov 17  
**Intermediate Mac Skills**

June 23, Sept 22, Nov 24  
**Personalizing your Mac  
for Productivity**



# WAP TUTORIAL REGISTRATION

**NOTE - The location of office-based tutorials beginning in April is our new office 7910 Woodmont Avenue, Suite 910, Bethesda.**

**Apple II:** The following three WAP tutorials are being offered to Apple II owners on the first three Tuesday evenings of the month from 7:15 to 10:15 PM, at the office. We are currently alternating months between the Apple IIe,c and the the IIgs. The tutorials are being extended to about three hours and will start promptly at 7:15 PM so arrive by 7:00 to set up your computer if you bring it. These tutorials are designed for "beginners" and not experienced users and you may sign up for one or more of these tutorials. The fee for each session is \$20 for WAP members. You are urged to bring an Apple, monitor and disk drive. 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. Tutorials without a minimum of two students will be cancelled.

- April 4 (Tuesday) (II gs specific) Welcome to the World of Apple .....next offered: May 2 for II e/c
- April 11 (Tuesday) (II gs specific) How to Use Your Apple Software .....next offered: May 9 for II e/c
- April 18 (Tuesday) (II gs specific) Popular Applications .....next offered: May 16 for II e/c

**Macintosh:** Tutorials are for "beginners" and not experienced users. They are given regularly on the 2nd, 3rd and 4th Monday evening of each month at the office, from 7:15 to 10:15 PM. Macintosh tutorials in Northern Virginia will begin again in March and every other month thereafter. The fee for each session is \$20 for WAP members. You may sign up for 1, 2 or all 3 sessions. You are strongly urged to bring your Macintosh, external disk drive, startup disk, and several blank disks. WAP does not have equipment for you to use. (Note to Mac II owners: You are not expected to bring a computer, but we do not have a Mac II for you to use). These tutorials fill up quickly so call the office to verify space before mailing your registration.

- April 10 (Monday) Introduction to Macintosh. Prerequisite: Guided Tour .....next offered: May 8
- April 17 (Monday) Intermediate Mac Skills. Prerequisite: Familiarity with Desktop .....next offered: May 15
- April 24 (Monday) Personalizing your Mac for Productivity: Prerequisite: 1st two sessions .....next offered: May 22

**Macintosh Tutorials in Northern Virginia:** Macintosh tutorials, taught by Russ Bradley, will begin again at the Fairlington United Methodist Church, Rt. 7 and I-395 (King Street Exit), in Alexandria, VA. They will be at *three month intervals* during the months of March, June, September and November, 1989. This time they will be on the 2nd, 3rd and 4th FRIDAY NIGHT each of these months. Note they are *not* on Thursday night as in the past. Call the WAP office for specific directions or Russ Bradley at 703-768-2529. The tutorials will be from 7:00 to 10:00 PM.

- June 9 (Friday) Introduction to Macintosh. Prerequisite: Guided Tour
- June 16 (Friday) Intermediate Mac Skills. Prerequisite: Familiarity with Desktop
- June 23 (Friday) Personalizing your Mac for Productivity: Prerequisite: 1st two sessions.

## Special Tutorials for Apple IIgs and Macintosh

**AppleWorks IIgs-** March 4 and 11, 9-12 PM, (Saturday), \$20/session for WAP members and \$25/session for nonmembers. Ted Meyer will teach this two part series on the new AppleWorks IIgs. This six hour block of instruction will include approximately 1 hr on each of the six parts of AppleWorks IIgs. These will include, database, spreadsheet, word processing, page layout, telecommunications and paint and drawing.

**Microsoft Word -** April 1, 1989, 9-12 PM, (Saturday), \$20/session for WAP members and \$25/session for nonmembers. Art Spitzer will teach a special tutorial on use of Microsoft Word. This tutorial will cover the basics and some of the more advanced capabilities of this application time permitting.

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# WAP Tutorials Registration

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**COSTS:** All seminars are \$20/session for WAP members and \$25/session for non-members unless otherwise indicated

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone (day) \_\_\_\_\_ (evening) \_\_\_\_\_

Number of classes \_\_\_\_\_ x fee \_\_\_\_\_ =

Total enclosed \$ \_\_\_\_\_

Member Number \_\_\_\_\_

Class name: \_\_\_\_\_

Class date: \_\_\_\_\_

Class name: \_\_\_\_\_

Class date: \_\_\_\_\_

Mail this form with your check to:  
WAP Tutorials  
Washington Apple Pi, Ltd.  
8227 Woodmont Avenue, Suite 201  
Bethesda, MD 20814





IMAGE WRITER FONTS (800K) 4 DISK @ 14.00  
 5.01-5.04  
 LASERWRITER FONTS (800K) 3 DISK @ 10.50  
 6.01-6.03

WAP DISKETTERIA

To order by mail use the form on page 94.

**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 i'Hots
- 49 i'Hots Story
- 50 i'Hots Quiz
- 51 French Poetry Tutorial
- 52 Apollinaire Biography
- 53 Albert Camus Interview
- 54 Tic-Tac-Toe in Spanish
- 55 Rafael-Boot
- 56 Rafael
- 57 Rafael Quiz
- 58 Mabuta
- 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 & VisiTrand
- 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
- 154 Investments B
- 155 IAC 33 Miscellaneous
- 156 IAC 35 Applesoft-AW//e
- 157 IAC 36 Arcade Games
- 158 Apple Logo Programs
- 159 Recipe Files
- 160 Utilities & Games
- 161 Wizard Worker
- 162 Games E
- 163 Graphs and Displays
- 164 Games F
- 165 Happy Holidays
- 166 Charts and Graphs
- 167 IAC 40 - Pilot Lang.
- 168 IAC 41&47 - AW Util.
- 169 Hayes Term. Prog.
- 170 Love's Follies (Utilities)
- 171 Cat-Graphix
- 172 Print Shop Graphics
- 173 Riley's Pers. Instrum.
- 174 Imageworks
- 175 No Name Yet
- 500 Master Catalog Listing
- 501 Util.-Beginner's Choice
- 502 Util.-Intermediate User
- 503 DComm

- 504 Database - LOGIC
- 505 Reading Fun
- 506 Astronomy Programs
- 507 Griffith Observatory
- 508 Educational Games G
- 509 Educational Games H
- 510 Education - Math
- 511 DOS 3.3 System Master
- 512 DOS 3.3 Tutorial

**Eamon Series Volumes**

- 180 Dungeon Designer
- 181 Beginners Cave
- 182 Lair of Minotaur
- 183 Cave of the Mind
- 184 Zephyr Riverventure
- 185 Castle of Doom
- 186 Death Star
- 187 Devil's Tomb
- 188 Caves of Treas. Isl.
- 189 Furtoso
- 190 The Magic Kingdom
- 191 The Tomb of Molinar
- 192 Lost Isl. of Apple
- 193 Abductor's Quarters
- 194 Quest for Trazora
- Requires disk #181

Eamon disks 195-229 are also available. See description in Member Reference Book.

**ProDOS Volumes**

- 802 Utilities (A)
- 803 Filecabinet
- 804 Shareware
- 806 ZAP
- 807 Imageworks
- 808 Comm-Term
- 810 Haunted House
- 811 Adventures Disk
- 812 Toddlers and Kids
- 813 TAWUG-1
- 814 TAWUG-2
- 815 TAWUG-3
- 816 TAWUG-4
- 817 Telecom
- 818 1987 AW Tax Template

**Pascal Volumes**

- (See also 133)
- 300 :ATTCH 1.1/BIOS
- 301 302 303 304 305 306 307 308
- 309 310 311 312 313 314

**CP/M Volumes**

- 401 Master Catalog
- 402 Utilities 1
- 403 Communications
- 404 Utilities 2
- 405 Utilities 3
- 406 ZCPR2 Install
- 407 ZCPR2 Documentation
- 408 ZCPR2 Utilities
- 409 Modem 730
- 410 Essential Utilities
- 411 Text Editor
- 412 Spreadsheet
- 413 MDM740(SSC&Com)
- 414 MDM740(7710&A-Cat)
- 415 Orig. 350 Pt.Adventure
- 416 Kermit Source Code
- 417 Kermit Documentation
- 418 Kermit Running Code
- 419 Util.-Z83,REZ,VDE
- 420 Small "C" Compiler

**Apple /// Volumes**

- 1000 /// SIG PD Catalog
- 1001 Games Volumes 1 & 2
- 1002 Basic Utility Vol.1&2
- 1003 Footnote ///
- 1004 Sys. Utis & 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&Sildashow
- 1013 A3 Diagnostics
- 1014 Basic Boot Disk
- 1015 Best of ///s Company
- 1016 AppleCon

Pohlman Disks:  
 1017=Disk 1 1018=Disk 2 1019=Disk 3  
 1020=Disk 4 1021=Disk 5

- 1029 Ink Well Manual
- 1030 Ink Well
- 1031 Basic Extension
- 1032 TERMINAL Manual
- 1033 TERMINALL
- 1034 PowerKeys DM+
- 1035 The Best of Bloom
- 1036 RAM+3/2NFRO
- 1037 CustomFONT Manual
- 1038 CustomFONT Program
- 1039 Fonts Disk 1
- 1040 Ottalini Articles 1
- 1041 Cap'n Magneto
- 1042 GUCSPAR by Bloom
- 1043 Em mode
- 1044 Em mode
- 1045 Disk maker
- 1047 Phase III conf.
- 1048-1050 Mail list manager

**Apple IIGS Volumes @ \$5**

- 2000 New member disk
- 2001 Utilities & Pictures A
- 2002 Demo Disk A
- 2003 Talk is Cheap
- 2004 Slide Show I
- 2005 Demo Source Code 1
- 2006 Demo Source Code 2
- 2007 M18 Courses
- 2008 Odd Bits I
- 2009 GS Fonts I
- 2010 GS Fonts II
- 2011 GS Fonts III
- 2012 AW Tax Template
- 2013 Odd Bits II
- 2014 Sounds I
- 2015 Sounds II Nostalgia
- 2016 Slide Show II
- 2017 Slide Show III
- IIGS Systems Disk

**Macintosh (400K) @\$5**

- 28.1 World Mapping (BASIC)
- 29 Fun & Games
- 30 Education
- 31.1 Dun.Doom/Eliza Talks
- 32 Fun & Games II
- 35 Fun & Games III
- 40 Mac-Videos
- 41 Cap'n Magneto
- 42 Studio Session (S12K)
- 44 Boston II Fonts
- 45 Games IV
- 46 Games V
- 47 Fonts IV
- 48.2 Fonts V
- 54 Games VI
- 55 Games VII
- 56 Games VIII
- 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
- 84 Fun & Games XVI
- 85 Fun & Games XVII
- 89 Fun & Games XVIII
- 91 Fun & Games XIX
- 92 Education II
- 93A & 93B Fonts VI
- 95 Fun & Games XX
- 96 Fun & Games XXI
- 97 Fonts VII
- 100 Fonts VIII
- 104 Fonts IX
- 104 Fun & Games XXII
- 105 Fun & Games XXIII
- 106 Fun & Games XXIV
- 108 Fun & Games XXV
- 110 Fonts XI
- 113 Fonts XII
- 120 Imts II
- 123 Graphics II
- 128 Fun & Games XXVI
- 134 Fun & Games XXV
- 143 Games XXVI
- 146 Fonts XIII
- 147 New Member's Sampler (800K)
- 150 Games XXVII-Arcade
- 151 Games XXVIII-Strategy
- 153 Games XXIX (800K)

**Das Series (800K)**

- 12-disk set \$42.00 - 35.00
- 2.01A 2.02A 2.03A 2.04A 2.05A
- 2.06A 2.07A 2.08A 2.09A 2.10A
- 2.11A-2.12A

**LaserWriter Fonts (800K)**

- 3-disk set \$10.50\*
- 6.01 6.02 6.03

**Keys Series (400K)**

- 4.1 4.2

**Paintings Series (800K)**

- 5-disk set \$17.50\*
- 11.01 11.02 11.03 11.04 11.05

**Sounds Series (800K)**

- 51 19-disk set \$60.00 - 108.50
- 7 Latest 6-disk set \$17.50 (12.20-12.24) 29.50
- Prior 5-disk set \$17.50 (12.16-12.40)
- Prior 5-disk set \$17.50 (12.10-12.14)
- 12.01 12.02 12.03 12.04 12.05
- 12.06 12.07 12.08 12.09 12.10
- 12.11 12.12 12.13 12.14 12.15
- 12.16 12.17 12.18 12.19 12.20
- 12.21 12.22 12.23 12.24 12.25 -3/1

**Telecom Series (800K)**

- 8-disk set \$28\*
- 13.01 13.02 13.03 13.04 13.05
- 13.06 13.07 13.08

**Programmer/Hacker (800K)**

- 14.01 Love's Labors Lost

**Misc. Util. Series (800K)**

- 13 7-disk set \$24.50\* 45.50
- 15.01 15.02 15.03 15.04 15.05
- 15.06 15.07 15.08 15.09 15.10
- 15.11 15.12 15.13

**System Util. Series (800K)**

- 8-disk set \$28.00\*
- 16.01A 16.02A 16.03A 16.04A
- 16.05A 16.06A 16.07A 16.08A
- 16.09A 16.10A - 1 Anti-Virus Utility

**Word Proc. Series (800K)**

- 3-disk set \$10.50\* 17.01 17.02 17.03

**Adobe Screen Fonts Series (800K)**

- 4-disk LW set \$14.00 (18.01-18.04)\*
- 14-disk set \$49.00\*
- 18.01 18.02 18.03 18.04 18.05
- 18.06 18.07 18.08 18.09 18.10
- 18.11 18.12 18.13 18.14

**HyperCard StackWare (800K)**

- 23-disk set @\$80.50
- 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 Appins.
- 19.08 The AIDS Stack
- 19.09 Music Generation Stacks
- 19.10 Music and Sound Stacks
- 19.11 HyperCard Test Team
- 19.12 Clip Art
- 19.13 Christmas Stacks
- 19.14 Neat Stacks
- 19.15 Miscellaneous Stackware
- 19.16 Games, Games, and More
- 19.17 DTP Utilities & Extra
- 19.18 Health & Christmas
- 19.19 Miscellaneous 2
- 19.20 Education
- 19.21 For Children 2
- 19.22 Education 2
- 19.23 Miscellaneous 3
- 19.24 Graphics
- 19.25 Education 3

**Mac II (800K)**

- 14-disk set @\$49.00\*
- 20.01 Graphics
- 20.02 GrayView & DAs
- 20.03 Miscellaneous
- 20.04 Graphics 2
- 20.05A Ray Trace Programs
- 20.05B Ray Trace Source
- 20.06 Color
- 20.07 Graphics 3
- 20.08 Utilities
- 20.09 Miscellaneous 2
- 20.10 Image .81
- 20.11 Pixel Paint Picture
- 20.12 Vision Lab
- 20.13 Miscellaneous 3

**HyperCard External (800K)**

- 4-disk set @\$14.00\*
- 21.01 21.02 21.03 21.04

**Apple System 6.0.3 (800K)**

- 4-disk set @\$20.00
- System Tools Utilities 1
- Printer Tools Utilities 2

**HyperCard Upgrade 1.2.2 (800K)**

- HyperCard & Stacks HyperCard Ideas
- Requires proof of purchase
- \* Regular price when purchased individually.

Anti-Virus Util (800K)

# III SIG DISKETTERIA NOTES

by David Ottalini  
/// SIG Co-Chairman

We add four new disks to the PD library this month and an update of an earlier offering. The update is to Disk 1025, Disk Window III+. One of our newest members, Robert Howe, did a little hacking and added a clock feature to this wonderful Daryl Anderson utility program. Howe also took out some of the more obnoxious beeps this program seemed to send back to its users on occasion.

Our new disk offerings include the long-awaited Disk 1047, Phase III Conference. With the help of John Lomartire of the Apple III Society of Southern Connecticut, we've tran-

scribed many of the seminars and speeches given during the conference, held in October of 1987. Among the offerings, you'll find Don Williams talking about the history of the III, Taylor Pohlman discussing GS Basic and its similarities to Business Basic, Dr. Mel Astrahan giving pointers on using his Draw On III program, and Weber Baker discussing Dr. Al Bloom's Mail List Manager Utilities.

Speaking of that, those same utility programs are themselves now in the PD and we offer them to you as Disks 1048, 49 and 50. You will need all three to get the most out of the

utilities and Disk 1048 is the required boot disk. I've discussed these utilities in previous Trail articles, but needless to say, they provide MLM users with a tremendous amount of flexibility over data developed with the program. We'll publish an additional article next month on how to get the most out of these utilities.

Our disk sales continue to do well and we thank you for your continued support. Hard to believe we'd ever reach the magic number 50 for the lowly Apple III! By the way, all new WAP members who join the III SIG get not only our New Member Disk 1005, but also Disk 1000, the listing of all the disks in our PD library. This is an excellent way for new members to find out what we offer and what each program can do. If you have a friend or know someone who is inheriting a III and needs some help, we'd love to have them join us! 🍏

## MAC Disketeria

By David Weikert

### Revised Disk Catalog Still Available

The Mac Disk Catalog is current through the disks released for February 1989 (January meeting). The catalog is available for \$4.00 at the office or general meetings or by mail for \$5.50 including postage and handling.

### The New Disks

We have ten new 800K disks this month: a six Miscellaneous Utilities series and the four-disk set of Apple System Software 6.0.3. This month's submissions are brought to you through the efforts of all the duplicators listed under the masthead, Marty Milrod, who handles the downloads, and the assemblers and annotators cited in the following paragraphs.

### Miscellaneous Utilities Series

Chuck Sicard has completed the testing and annotation of six disks of the Miscellaneous Utilities series, Mac Disks #15.08 through #15.13. The Miscellaneous Utilities series is the

potpourri of programs that remains from the System, Word Processing and Programmer/Hacker Utility series. Most of the utilities are new to the library; a few are revisions of programs on Mac Disks #15.01 through #15.07. This is Chuck's debut at disk annotation after helping out as a duplicator for the past year. I think you'll all agree he has done a fine job.

### Defective Anti-Virus Utilities Disk

Mac Disk #16.08A was issued with a defective System/Finder and will not boot. The Anti-Virus utility programs are all OK. You can either install a *very* abbreviated System folder from a known good System disk or return this disk to the office or the meeting sales table for a free replacement. My apologies for your inconvenience.

### Apple System Software V6.0.3

Version 6.0.3, Apple System Software, is available on four disks for \$5

per disk. System Software 6.0.3 is an Apple maintenance release and is needed only by users of an SE/30 and the Apple File Exchange utility. One disk includes an updated System, Finder, MultiFinder and associated System folder files. The next disk is dedicated to printer drivers. The remaining two disks contain the Apple utilities. This System Software package does not include any documentation. If you need documentation, you can get the full package from your local Apple dealer at a list price of \$49.00; ask about the WAP discount.

### Disk #15.08 — MU 8 Miscellaneous Utilities

**3D-Edit:** Using drawing tools, simple geometric objects can be drawn and viewed from top, front, right and 3-D positions simultaneously. Perspectives can be altered. A one-page help menu is available. *Shareware* — \$15.

**ADB Express:** Runs only with an Apple extended keyboard. Makes num lock, caps lock, and scroll lock lights blink in a pattern selected by the user. *Shareware* — one compact disk.

**AddressBook f:** Address Book: This is a phone list and dialer which permits viewing of 66 names in (length limited to 40 characters) in three columns per page. Select name and double click to open record and choose one of three telephone numbers to dial automatically. Several pages of help and MultiFinder compatible. Files can be exported. **Addr\_list Demo** is a sample address list. *Shareware* — \$10

**AY/Finance1.1:** Amortization calculator which can determine loan variables such as payments; interest on an annual, quarterly, monthly, weekly or a daily basis; the number of payment periods, depending on the given values. Complete print out capability of amortization schedule. Calculations can be saved to a spreadsheet. Will handle varying payment amounts which you may enter per period. It is difficult to imagine a loan calculation which this program can't handle.

**BiPlane 1.01 f:** **BiPlane 1.01:** This is a full-featured shareware spreadsheet program consisting of two components: a desk accessory and a regular application program. BiPlane worksheets are compatible with worksheets from other spreadsheet programs saved in SYLK format. Although BiPlane does not support the full functionality of other spreadsheets, it does support the most popular and commonly used features, including 32 of the most used functions. The application's spreadsheet size is 1000 rows by 1000 columns versus 255 rows by 255 columns for the desk accessory. Individual cells can be formatted by size, font and style. **BiPlane DA 1.02** is the Desk Accessory version of the spreadsheet and **1.02 Intro to BiPlane** is the documentation/introduction to the spreadsheet. **Shareware - \$40.**

**CK2.1 f:** **CK 2.1:** This super-handy gem of a home checkbook expense tracking utility keeps a record of **Categories** and **Entries** and excels in keeping your checkbook in balance. Category information includes the Name and Type (credit/debit) of the category as well as optional Auto-Payee and Auto-Amount information. Entry information includes Payee, Date and Amount and may also include optional Check Number and a Memo (text) field. Each Entry also has two attributes, posted and locked. CKhelp is an on-line help screen available under the Apple menu that describes the program and its main features. **SampleCheckBook** is a sample file for testing. The manual you receive when you send in your shareware fee looks professionally prepared in the style of the best Macintosh documentation. Compatible with all systems and runs on MultiFinder. **Shareware - \$15.**

**ClockSynch f:** **ClockSynch:** Permits all Mac clocks on a network to be synchronized from one Mac. Needs to be more widely tested. On a TOPS test run with five Macs we found ClockSynch would only set clocks remotely if ClockSynch was active. **ClockSynch.readme** is the program documentation.

**CrossMaster (0.3A) f:** **CrossMaster:** This is a sample version of CrossMaster 1.0, which is a full-fledged crossword processor for creating and solving crossword puzzles. In the building mode you can easily create puzzles with your words and clues. Numbering is automatic, and you choose the blank boxes. **Sample 1-3** is three sample puzzles provided for the solving mode. The solve mode provides an option to cheat a little by toggling on the beep if correct function. **CrossDocs** is the program documentation.

## Disk #15.09 — MU 9 Miscellaneous Utilities

**DesignerDraw 3.1 f:** **DesignerDraw 3.1:** Specialized drawing program for structure charts,

### How to Read MacDisketeria Descriptions

- The folder information, where appropriate, precedes the listing of program contents.
- Folder information is underlined
- **Program and file names are printed in bold type.**
- *Shareware information is printed in bold italic type.*

flow charts and dataflow charts. Program provides 30 preshaped boxes and assorted connectors, any of which can be selected, positioned and sized to suit. **DesignerDraw User's Guide** is the documentation for the program. Adding text as needed is simple. **Sample dataflow, sample org chart, and sample struct chart** are sample drawings. **Shareware - \$45.**

**DigiGraf f:** **DigiGraf (v1.1):** DigiGraf is an application for digitizing graphical information using a mouse or the Bit Pad Plus by Summagraphics. Data can be entered using either a signal from the device or by sampling a given number of times per second. **Digigraf docs.macwrite** is a 16-page document explaining more about the program. **Shareware - \$10.**

**DollarSort 1.1:** Sorts every word in an output file (may or may not ignore case) or will sort by groups of lines using the first word of the "block" as the keyword. Output can be set to columns. **Shareware - \$1.**

**Dynamo f:** **Dynamo:** This is a unique computer graphics program for animation because of its "between frame" interpolation, high speed vectors and low price, according to the author. Included are seven sample documents or animations. Most of the advance menu items are not functional unless you buy the product. If you have never used a program like this, you are sure to find it frustrating. **Shareware - \$10 for latest limited version or \$35 for fully functional version.**

**FixData f:** **FixData 1.0:** This utility allows you to change data files in such a way that the programs you use everyday can interchange data. Different programs delimit columnar data differently, some with spaces between columns of numbers some with tabs, others with commas, etc. **FixData** can transform one format to the other in seconds. Also, **FixData** allows you to prefix and postfix any column of data with any string entered; this comes in handy when trying to read data into Excel. Excel changes data into dates unless data is prefixed with "=" and postfixed with "." You also have the option to delete columns of data. **FixData doc** is the documentation.

**Flight Log 4.1 Demo:** This creates a preliminary flight planning aid document only. The demo version only uses cities from Aberdeen to Cut Bank as its sample.

**Form It! f: (v1.0):** **Form It!** Creates forms with data fields such as invoices, certificates, registrations, etc. This form and data managing software package will automate your tasks and assist you in the tedious job of managing forms. The program

will total columns or any fields you specify, add tax, give you subtotals and even put in the correct date. The **PICTKey FKEY** bundled with **FORM IT!** converts forms designs into a PICT file. **Form It! docs** is 14 pages of documentation. Included are four form samples files and respective data. **Shareware - \$40.**

**Household Shopper 1.35:** Generate and maintain "shopping lists" for up to 40 categories and up to 40 items per category. An item includes name, brand, quantity/size, need to buy and coupon availability. The list may be sorted and printed. **Free; \$10 for Pascal source code.**

## Disk #15.10 — MU 10 Miscellaneous Utilities

**INFOMaker v2.0 f:** **INFOMaker 2.0:** Format data from other computer systems (PCs, mainframes, etc.) or from other Macintosh applications. Places all fields of a record in order on one line, separates them with tabs, strips control characters and leading and trailing spaces, inserts information for missing data, removes any unwanted data, and sets the file **CREATOR** so that the data can be loaded directly into an application. Can also be used to split files on record boundaries and recombine or append files. **Shareware - \$14.50 each plus \$1.50 each for shipping and handling.**

**LaserLabel 1.0 f:** **LaserLabel 1.0:** Print 3-column labels on a laser printer. You can either print directly on sheets of 3-column labels, or you can print a "master" that can be photocopied onto 3-column label sheets. Allows you to select different "fields" of a record to print in different positions on the label. You may also choose which records to print by specifying a search field. **LaserLabel** reads lines of text (ASCII) from a **TEXT** file. **LaserLabel Manual** is 5 pages of documentation. **Shareware - \$5.**

**Lunar Exposure Calculator:** This program, written in Microsoft Basic, is for night photographers who would like an exposure guide based on the moonlight available on a specific night. One selects the f-stop, film ASA rating, kind of area being photographed, and the date. The program provides the moon phase, luminance in lumens per square meters and the recommended exposure time if there is enough moonlight.

**Mac's Bar v2 f:** **Mac's Bar:** Allows you to keep track of your favorite bar recipes (or any other recipes for that matter). **Mac's Bar** has with it over 100 drink recipes already entered, with room for about 300 more. You may also keep a very simple inventory of the drink ingredients that you have on your bar, and **Mac's Bar** will search out all the drinks that you can make. **Mac's Bar** is also capable of searching out all the drinks that contain a particular ingredient. **Mac's Bar Docs** is the documentation in great detail. **Bar1** and **Bar 2** are start-up bars, but you can create your own.

**MacAuto DEMO:** Auto in this case means automobile. This program keeps a detailed record of gas and maintenance/repairs; it reports out average miles per gallon and prompts for oil changes when due. The fully functional version which will save and print is sold as shareware. **Shareware - \$25.**

**MacGraph 5.2 f:** **MacGraph 5.2.** **MacGraph** is a graphic package constructed for Drexel

University's Physics Dept. that allows the user to demonstrate the graph of almost any function wished. This package is fairly easy to use and conforms to the standard Macintosh user interface. The quit menu is there under file even if you think it isn't. Example Graphs and 2D Paras are sample graphs. MacGraph Help is five pages of documentation.

**MacLoan 3.7C f:** MacLoan 3.7C: This program should help in situations where one is considering the options associated with borrowing money at various interest rates or figuring the amount of the interest deduction for the year for tax purposes. Many times, not all of the variables are known (interest rate, monthly payment, principal, etc.). This program comes in handy because it will solve for the unknown factor if the other two are known. It will compute the monthly payment amount, the number of months it will take to pay off a loan, and compute the interest rate. Needs ImageWriter driver. Read Me First is one-page documentation. *Shareware - \$25.*

## Disk #15.11 — MU 11

### Miscellaneous Utilities

**MacMailing 2.2S f:** Mac Mailing 2.2S: This limited capability version of the MacMailing program is fully functional except that it only saves 25 entries. The full version of this program permits one to create and maintain mailing lists and produces mailing labels with up to 2,500 entries. Convert is a utility to move data from MacMailing1.x to MacMailing 2.x, which allows for expanded ZIP codes and additional information in addition to the address. Welcome to Mac Mailing 2.2S(MW) is letter of greetings. Mac Mail Doc #1 is 12 pages of documentation and Mac Mail Doc #2 is another 10 pages of documentation on the label function. *Shareware - \$20.*

**MacMeasure f:** MacMeasure: In conjunction with a digitizing tablet, allows measurement of areas, perimeter lengths, lengths, relative distances, and coordinates of objects in photographs. Results can be listed on the screen, printed, or saved to disk for later analysis by other programs. MacMeasure.help and Measure Help (MacWrite) are the help files. MacMeasure.pas, measure.rsrc, and TextToHelp.pas are supporting files for the programmers out there.

**MacSat 1.1 f:** MacSat 1.1: A satellite tracking program that can store data for up to 200 satellites and 100 stations. Data for the stations and satellites are contained in a file called 'MacSat Data'. Default data are contained in a file called 'MacSat Defaults'. Both files must reside in the same directory as MacSat. Some knowledge of satellite orbits is required to make good use of this program. Updates appear every two weeks on CompuServe Astroforum in DL3. MACSAT.DOC v1.0 is the documentation you get until you pay your fee which includes the manual. Look 10/19/88 072323 is a sample file. *Shareware - \$10.*

**NewsClocks:** Eight clocks showing the time in eight major cities around the world (Honolulu, Los Angeles, Denver, Chicago, New York, London, Moscow, and Tokyo).

**OddsMaker 1.1 f:** OddsMaker 1.1: This program (football handicapping program) is designed to improve your odds in predicting NFL football scores based on past score performance. Each

week NFC and AFC scores are updated, and new projections become available. 1988 Season is a sample document with no scores entered. *Shareware - \$20.*

## Disk #15.12 — MU 12

### Miscellaneous Utilities

**PCToday f:** PCToday: By entering the month and day, you are provided birthdays of famous people and other historical events associated with that date. You can customize your own event file. Doesn't use Mac interface; no menus; only line feed prompts. TODAY.Doc is a MSWord document which lists the commands and gives the instructions needed to have fun with this program. There is a file for each month.

**PCXtc .8 f:** PCXtc .8: Love your Mac and its great graphics? Tired of being locked out of MS-DOS graphic files, while THEY have nifty utilities to view OUR Mac stuff? PCXtc ("PC Ecstasy") is a translator/viewer for files created in the PCX format. PCX was defined by Zsoft for their popular PC Paintbrush program, and is used by other MS-DOS graphic programs and scanners as well. PCXtc shareware version .8 is a viewer only. It can open MacPaint or PCX files and let you scroll them around the screen. A fuller version 1.0 has the "Save MacPaint," and also the Print, Delete File, and Transfer functions fully implemented. PCXtc Docs is 3 pages of MacWrite information. *Shareware - \$5*

**PictureViewer:** Here is another paint scroller. It's free!

**Programmable Slideshow:** This program will take a series of MacPaint pictures and present them according to your set order for a presentation. Using MacWrite (text file) one sets or changes the order according to the script written.

**Remember? f: (v1.22):** Remember? How often do you forget little things like birthdays, appointments and the occasional electro-shock therapy session? Some of us do it a lot. But wait! Do I hear hoofbeats in the distance? Is that the 7th cavalry banner waving in the distance? No, it's Remember?, a Desk Accessory and an INIT to simulate the brain cells you thought were gone forever due to the excesses of your youth. You enter descriptions of important occasions, both one-time only (such as appointments) and repeating (like birthdays.) Using the DA you can then browse through times past, present and future and see what is/has/will happen. The INIT will remind you of impending events when you power up or reset your Mac. General and Remember? are needed in the system folder; refer to the instructions. Remember?.da is the

DA., see instructions. Remember? docs: 16 pages of how to use this gem, have fun! *Shareware - \$10.*

**Resolution f:** Resolution: Resolution, written in Lightspeed C, is used to determine the amount of gray-scale information that can be obtained from a certain printer resolution and a certain number of screen lines when outputting continuous tone images as halftones. For example, it will show you that for a 300 spot-per-inch printer and using an 80-line output screen you will be able to represent 9 gray scales. Dropping to a 70-line screen will give you 16 gray scales. Resolution Text is the documentation and it says the above, plus the name and address of the author.

**Retouch f:** Retouch: Retouch is an affordable, simple tool for transforming scanned images and bitmap art. If you use: Paint programs like MacPaint or SuperPaint, Desktop publishing programs like PageMaker or Ready, Set, Go! HyperCard then Retouch can make your current job easier and give you a range of new capabilities. Retouch is similar to two well-known image-retouching programs (ImageStudio and Digital Darkroom). Introducing Retouch is a 20-page help document. ThunderScan Ad is a sample picture of a young woman. *Shareware - \$20.*

**Sample It!** Permits you to examine MacPaint and MacDraw PICT format files and to open Desk Accessories, FKeys and Fonts. Use option key to show all files when opening DA, FKey, PICT resource file. *Shareware - \$10.*

**ScreenTest f:** ScreenTest: A VERY simple program but effective. It prints five squares (four big ones and a smaller one in the center) inside a big rectangle which frames the whole Macintosh printable screen area. The big rectangle is supposed to be as centered as you can get it; each of the four big squares should be 2 by 2 inches, the smaller one should be 1 by 1 inch, and the big rectangle should measure 8.55 inches diagonally. Most probably there isn't a Mac that fits exactly into this, but it should be very close. If your screen is way off, take it to a repair service with a copy of ScreenTest and tell the service people to adjust the screen until it fits the requirements as closely as possible. Read Me! tells you the above plus more.

**SuperConvert f:** SuperConvert This is a utility application that converts SuperPaint files containing LaserBits objects to and from the following high-resolution bit-mapped file formats: ThunderScan, Tagged Image File Format (TIFF), and Encapsulated PostScript (EPS). Its main function is to convert scanned images from ThunderScan and TIFF to LaserBits format for editing and to convert LaserBits images to TIFF or EPS formats for importing into other programs, such as page layout applications. SCUser Manual is a 12-page help document.

## Disk #15.13 — MU 13

### Miscellaneous Utilities

**TapeMaker (Demo) f:** TapeMaker (Demo): This application lets you describe your tape and recording characteristics, then keeps track of what selections you want to record and how long they run, giving the elapsed time and time remaining on each side of your cassette tape. Warns you when you're running past the end of

### How to Read MacDisketeria Descriptions

- The folder information, where appropriate, precedes the listing of program contents.
- Folder information is underlined
- Program and file names are printed in bold type.
- Shareware information is printed in bold italic type.

# Recent Download Files on the TCS

by Paul Schlosser

The following list contains the files that have been added to the TCS during the past month. These files are available for downloading by TCS users. A longer, more detailed browse description is available for each of these files on the TCS, itself. Get your Modem and TCS password now, and join the fun! I will try to have a new list of downloads for both Mac and Apple II here each month.

## File area 1 - Apple II Games

010 MINI.GOLF.BNY 02/19/89 0036K Mini-golf game  
009 WORDSEARCH.BNY 02/13/89 0034K Word search generator, with docs  
008 WEEL.O.FORT.BNY 01/22/89 0080K Graphics based - runs best at IIe speed

## File area 2 - Apple II Misc.

016 VANILLA.BNY 02/20/89 0019K Build your own SCSI hard drive  
015 FINDSTRT.BNY 02/05/89 0002K Utility for EXECUTIONER type files  
014 STARLINK.CITYS 02/05/89 0005K Cities served by STARLINK  
013 STARLINK 02/03/89 0006K New PCP-like outdial service described

## File area 3 - Apple II Technotes

016 FTN.TECH.BNY 01/29/89 0037K Filetype Technotes (08,19,1A,1B,C0,C1)  
015 UDSK.TECH.BNY 01/26/89 0012K Unidisk Technotes 1 - 5  
014 SMPT.TECH.BNY 01/26/89 0012K Smartport Technotes 1 - 7  
013 PDOS.TECH.BNY 01/26/89 0057K Prodos Technotes 1 - 21  
012 PASC.TECH.BNY 01/26/89 0052K Pascal Technotes 4, 10, 12, and 14 - 16  
011 MOUS.TECH.BNY 01/25/89 0015K Mouse Technotes 1 - 7  
010 MEMX.TECH.BNY 01/24/89 0004K Memory Expansion Card Technote 1 - 1  
009 IMWR.TECH.BNY 01/24/89 0002K Imagewriter Technote 1 - 1  
008 GSOS.TECH.BNY 01/24/89 0017K GSOS Technotes 1 - 3  
007 ATLK.TECH.BNY 01/24/89 0004K Appletalk Technotes 1 - 2  
006 MISC.TECH.BNY 01/24/89 0040K Misc. Technotes 1 - 12  
005 IIGS.TECH.BNY 01/24/89 0187K Apple IIgs Technotes 1 - 49  
004 AIIE.TECH.BNY 01/22/89 0142K Apple IIe Technotes 1 - 9  
003 AIIC.TECH.BNY 01/22/89 0016K IIc Technotes 1 - 7  
002 A2.TECH0.BNY 01/22/89 0025K Technote 0 - INDEX - Final Technote

## File area 4 - Apple II Utils

117 COLUMNIST.BNY 02/21/89 0022K Format text files into two columns  
116 FONT.EDIT.BNY 02/20/89 0045K 8-bit Font Editor, shareware.  
115 TEXTER.BNY 02/20/89 0020K Display text or AppleWorks files  
114 FILE.MENU.BNY 02/13/89 0011K Menu program in BASIC  
113 DEARC2E1.1.BNY 02/12/89 0032K DeARC vers. 1.1 for IIe & IIc  
112 DOGPAW3.15.BNY 02/06/89 0016K DogPaw version 3.15  
111 ZIP.CHIP.BNY 02/05/89 0017K Info on IIc's and Zip Chips  
110 SHRINKIT.95.BNY 01/26/89 0032K "[Beta]" v0.95 of Shrinkit  
109 CHG.FILE.BNY 01/26/89 0015K Change file types, strip c/r's.  
107 LABEL35.BNY 01/17/89 0014K Label Maker for 3.5" Disks  
105 BASIC.PATCH.BNY 01/17/89 0020K Patches for BASIC.SYSTEM  
104 CMS.UTIL.BNY 01/14/89 77K CMS Enhancements Hard Disk utilities  
103 Z.LINK.BNY 01/12/89 0069K Communications program for Apple IIs  
102 HDFORMATER.BNY 01/10/89 0004K Another SCSI HD formatter  
101 IIC.GIF.BNY 01/01/89 0021K Apple IIc version of IIGIF  
100 GASMISER3.3.BNY 01/12/89 0009K A DOS 3.3 gas mileage program

## File area 5 - GS Desk Accs

043 ACC.NDA.BNY 02/21/89 0007K Load CDA,NDA at will.  
042 MEM.BAR.NDA.BNY 02/18/89 0013K NDA to show free memory.  
041 PRINTSCREEN.BNY 02/14/89 4K CDA to print 40 or 80 col screen  
040 LOADCD.BNY 02/01/89 2K INIT to turn on Mem Peek and Visit Mon  
039 TALK.MOUSE.BNY 01/08/89 12K Talking Mouse DA

## File area 6 - GS Fonts

044 MON.SM.CAPS.BNY 02/07/89 4K For AppleWorks GS Comm module

the tape. When your planning is finished, TapeMaker will print out a beautiful label for the cassette box, complete with the side titles, song titles, tape bias, noise reduction type, and personalization. If you have an ImageWriter II with a color ribbon, you can color-code your tapes by categories that you define. The demo version includes all of the features of TapeMaker, except that Save is disabled and the label will have the word "DEMO" printed across it. *Bach/Talking Heads Demo* is a sample file. *TapeMaker—Read Me* is the help file. *Cost for fully functional version is \$19.95.*

**tears.f:** tears This application will bring tears to your Mac screen; it's so sad to see your Mac cry. *readme* is the help file. The author will only take money if you insist.

**TestPatternGenerator.f:** TestPattern Generator: Run this program after installing screen and memory upgrades to test alignment grids to the screen. *TPatGen1.08.Help* is a help file. *Shareware - \$20.*

**TrackSheet 3.0d.f:** TrackSheet 3.0d: A Demo application written for use in multitrack recording studios intended to alleviate the bothersome paperwork involved when recording on 8, 12, 16, or 24-track recorders. This demo version of TrackSheet has certain features disabled which will not prevent you from seeing what this program can do. The disabled features are: all print functions; all file-saving functions and saving of

new menu configurations. *TrackSheet example file* is a sample file. The *trackd.mnu* and *TS Help* files are supporting files and must be in the same folder as the application. *Shareware - \$66.*

**TypingHelper.f:** TypingHelper: This is a practice typing program which offers you one word at a time. You must open a word file created in a word processor which was saved as a text file or you may use the existing file called *Words File*. At the end of the test (number of words in a test may be set by test taker) your score statistics are shown. *Shareware - Free*

**UNITize (demo) 1.0.f:** UNITize Demo 1.0: This is a demo version of a unit conversion for engineers or scientists. Do you want to convert light years into inches? Unit conversions range from diffusivity, electrical charge, energy irradiance to SI prefixes. The full version of the program works as an application or a DA and permits user-extendability, importing and exporting. The *Read Me* file or the *UN-BBMunge* file are both help files.

**ViewPaint1.7:** This program is a utility to manipulate Paint and StartUpScreen documents. It allows you to open, view, convert and print documents of either type. Also, you may view PICT files. *Shareware - \$5*

**Wine List.f:** Wine List: This program is a small yet full-featured data base for wine lovers and restaurants. There is no need to take up disk space with large commercial data base programs

or HyperCard. This program will save your data in separate files, sort, edit and print formatted reports with titles. It is MultiFinder compatible and takes full advantage of large screens and the Mac II. *Sample List #1* is a list of over forty wines. *Wine List Info* in a MacWrite information document. *Shareware - \$15*

**Works-Works Transporter.f:** Works-Works Transporter: An Apple File Exchange (AFE) program from Apple Computer, Inc. to convert Apple II ProDOS files on 3.5" diskettes to Mac files. AFE uses "transporter resources" to translate the formats. Apple provides several transporter resources on the AFE distribution disk. The transporter allows you to convert AppleWorks Spreadsheet, Word Processor, and Database files to Mac format Microsoft Works Spreadsheet, Word Processor, and Database files. *AFE for Works.Doc* tell you the above and much more. **YAPS:** "Yet Another Paint Scroller."

**Zippy.f:** Zippy: Similar to the infamous Talking Moose DA. Zippy hangs out in the background of your Mac, waiting to enlighten you with his random words of wisdom. Zippy is designed to run in the background with MultiFinder, you should be running MultiFinder to use Zippy (you can run Zippy without MultiFinder, but it's pretty boring). Zippy speaks using the MacinTalk speech synthesis driver. This file MUST be in your System Folder. *ZippyInstructions.txt* tell you the above and much more. NOT TESTED. 🍎

043 ASL.FINGERS.BNY 01/01/89 54K GS Font ASL.FINGERS

**File area 7 - GS Games**

- 043 CONCENTRATION.BN 02/21/89 0029K Concentration Game
- 042 SOLITAIRE.BNY 01/08/89 0037K GS Solitaire — Shareware
- 041 GS.BKGMN1.1.BNY 01/01/89 0055K GS Backgammon game - V1.1

**File area 8 - GS Graphics**

- 058 CAROSEL.GS.BNY 02/23/89 0042K GS Picture
- 057 FLOPPY.ICON.BNY 02/22/89 0003K Floppy Icon
- 056 LADY.GS.BNY 02/22/89 0049K BW Digitized Pic.
- 055 PSGS.CONV.BNY 02/22/89 0017K PS Picture Converter
- 054 MINIPAINT.BNY 01/27/89 0109K Shareware demo - graphics; 768K req'd
- 053 IMAGINE.BNY 01/10/89 0005K Imagine

**File area 9 - GS Misc.**

- 048 NU.ICON 02/20/89 0011K Reader Rabbit and friends
- 047 TRANSWARP.GS 02/19/89 0024K ALink session w/ AE on TransWarp GS
- 046 ACER.BNY 02/04/89 0054K A sound compression routine/util

**File area 10 - GS Utilities**

- 051 TS2PATCH.BNY 02/23/89 0003K Bug Patch GSOS
- 050 FONTDOC.BNY 02/20/89 0049K Edit GS fonts
- 049 ICONED.1.3.BNY 02/19/89 0062K A much improved Shareware IconEd
- 048 ECP16.V0.33.BNY 02/12/89 0081K ECP16 v0.33 [for GS/OS]
- 047 JUMPSTR2.1.BNY 02/02/89 115K Revised GS/OS prog. selector & utils
- 046 VACCN2.V1.1.BNY 02/02/89 0032K Vaccine ][ v1.1 - Virus detector
- 045 DICED1.1.1.BNY 01/18/89 0081K Desktop Icon Editor (DlcEd) v1.1.1
- 044 HACKER.BNY 01/11/89 0011K SCSI HD formatter for the GS
- 043 MACTOGS.BNY 01/10/89 0011K Convert MacPaint pics to GS
- 042 SLOTMAN.BNY 01/08/89 0008K Freeware Auto Slotchanger
- 041 PCT.CHIEF.BNY 01/08/89 0009K Freeware PCTransporter patch prog.
- 040 DISKTIMERGS.BNY 01/02/89 0011K Hard Disk benchmarking program

**File area 11 - AppleWorks**

- 037 MOUSETEXT.BNY 02/21/89 2K Put Mousertext in AppleWorks documents
- 036 MACROS.BNY 02/14/89 0006K Macros for loading text files
- 035 VICE.PRESIDENTS 02/04/89 0005K Vice Presidents in a database
- 034 TAX88.LG.BNY 02/04/89 0061K 88 Tax Template for expanded Desktops
- 033 TAX88.SM.BNY 02/04/89 0060K 88 Tax Template for 55K Desktops
- 032 SEG.PR.EDIT.BNY 01/30/89 0033K Make 3 custom printers: Edit SEG.PR
- 031 AWGS.BNY 01/10/89 0058K Message thread on AppleWorksGS
- 030 JAZZ101.BNY 01/10/89 0007K 101 best jazz recordings
- 029 NASA.AV 01/10/89 0036K NASA audio-visual materials
- 028 ULTRA.SS.BNY 01/10/89 0010K UltraMacros Spreadsheet
- 027 ALARM.BNY 01/10/89 0004K Add an alarm clock to AppleWorks
- 026 DSKTOP.REVU.BNY 01/10/89 0010K Reviews
- 025 BIT.ASC 01/10/89 0010K Super custom printer AWP
- 024 DSK.FNT.LST.BNY 01/10/89 0031K List of 3 FONTS disks
- 023 AW.AUTOBOOT.BNY 01/10/89 0010K AutoBoot for AW v2.0 with /RAM
- 022 AWDATABASE.WOE 01/10/89 0011K Figure out AW ADB files
- 021 SUPERPAT3.1.BNY 01/10/89 0046K SuperPatch v3.1

**File area 12 - ProSel Updates**

- 030 PROSL16.5.0.BNY 02/23/89 0081K ProSel-16 version 5.0
- 028 BUGS.16.BNY 02/05/89 0004K Bugs (and fixes) for ProSel 16
- 027 RAM.DRIVE.BNY 02/03/89 0012K RAM Drive update (12/24/88)

**File area 13 - Mac Fonts**

- 035 SWEROO.SIT 01/20/89 0036K Switcheroo—toggle btwn 2 & 256 colors

**File area 14 - Mac Games**

- 069 GAS 02/20/89 0054K Watch molecules dance. (Stuffed)
- 068 TREES 02/20/89 0049K Grow "trees" under varying conditions.
- 067 GUNSHY1.2 02/08/89 0097K Gunsh v1.2 - color on Mac II!!!
- 066 BRICKLES.PLUS 01/15/89 0037K Breakout-style game. Color on Mac II.
- 065 OIDSDEMO.SIT 01/04/89 0247K Color arcade demo game for Mac II.
- 064 MYSTERY. 01/01/89 0065K Solve many cases.
- 063 DRAGON.SIT 01/01/89 0056K Chase the dragons away, guard the king.

**File area 15 - Mac Graphs**

- 095 BITSOFYORE.SIT 02/07/89 0086K Special old fash graphix
- 094 SF171.ED.SIT 01/10/89 0076K SF171 - education supplement
- 093 SF171.SIT 01/10/89 0481K SF171 forms - fed empl applications

**File area 16 - Mac Hypercard**

- 096 VIRUSENCYC.SIT 02/18/89 0050K Encyclopedia of virus information
- 095 SHOWDIALOG.SIT 02/18/89 0213K show dialog xcmd for hypercard
- 093 WINDIOD8.SIT 01/22/89 0025K Lists the features of Hypercard 1.2.2
- 092NUMBEROFPATTERN 1/10/89 37K XFCN gives # of times string appears
- 091 GENESIS.SIT 01/09/89 0025K Converts stack to text file & vice vers

**File area 18 - Mac Utilities**

- 197 ZTERM075.SIT 02/25/89 0124K A very nice terminal program, v0.75
- 196 CICON.EDIT.SIT 02/24/89 0016K Colorize your B&W icons! For Mac II
- 195 DVORAK.FKEY 2/24/89 15K Changes keyboard to DVORAK- works on SE
- 194 COLOR.ARROW 02/16/89 0003K For Mac II: Gives color to arrow
- 193 CHECK.MAC.SIT 02/13/89 0078K Larry Pina's Test Pattern Generator.
- 192 HAMMAIL 02/12/89 0075K Amateur Radio Club Database Mgt
- 191 TAXES88.SIT 02/10/89 0049K Microsoft Works 1988 tax template.
- 190 FACADE.SIT 02/08/89 0007K Replace disk icons by name - neat INIT!
- 189 ICN.ICON.SIT 02/07/89 0015K Makes Finder icons HC compatible
- 188 MIDIEX.MAC.SIT 02/03/89 0024K Universal Midi librarian.Midi Exclusive
- 187 ADDSTRIP255.SIT 01/16/89 0062K Add/Strip 2.55. Shareware.

**File area 20 - GIF Graphics**

- 064 CLINT1.GIF 02/24/89 0055K Clint Eastwood - V. Good
- 063 PAULINA.GIF 02/15/89 0097K Scanned GIF from Paulina calendar
- 062 TEDDY.GIF 02/15/89 0049K Another GIF girl in a teddy
- 061 SPACWLK1.GIF 01/13/89 0020K SpaceWalk from NASA
- 060 PEACE350.GIF 01/13/89 0007K Timely - from NASA
- 059 CAPITOL.GIF 01/05/89 0012K The Capitol Building, DC.
- 058 MIC.MOUSE.GIF 01/02/89 0007K Mickey Mouse as Sorcerer's Apprentice
- 057 CRYSTL.CAVE.GIF 01/02/89 0033K Fantasy Adventure group entering cave
- 056 PINKFLOYD2.GIF 01/02/89 0004K Pink Floyd album cover #2
- 055 PINKFLOYD1.GIF 01/02/89 0006K Pink Floyd album cover #1
- 054 P38.GIF 01/01/89 0031K P-38 Lightning - the airplane.

**Disketeria  
Order Form**

Mail this form with your check to:  
 Disketeria  
 Washington Apple PI, Ltd.  
 8227 Woodmont Avenue, Suite 201  
 Bethesda, MD 20814

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone (day) \_\_\_\_\_ (evening) \_\_\_\_\_

Number of disks \_\_\_\_\_ x fee \$ \_\_\_\_\_ =

Total for disks \$ \_\_\_\_\_

Postage \$ \_\_\_\_\_

Total enclosed \$ \_\_\_\_\_

Disk name: \_\_\_\_\_ Number: \_\_\_\_\_

Disk name: \_\_\_\_\_ Number: \_\_\_\_\_

Disk name: \_\_\_\_\_ Number: \_\_\_\_\_

Disk name: \_\_\_\_\_ Number: \_\_\_\_\_

5 1/2" disk: \$3 members, \$6 nonmembers.  
 3 1/2" disk: \$5 members, \$8 nonmembers. For 5 or more: \$4 members, \$7 nonmembers.  
 Sets priced as marked.

# Classifieds

# Classifieds

# Classifieds

### For Sale

CMS TS-60 tape cartridge back-up system for the Mac. Mac SE20 with radius 020" board and 2.5 Megs of RAM. Call David (301) 972-4263 evenings and weekends.

### For Sale

Word Perfect 1.01 with original documentation — \$100; PowerPoint 2.0 — \$125 with original documentation, Call Lynn Trusal, 301-845-2651, evenings before 10:30 PM.

### For Sale

MacPlus, 2.5 Meg RAM, as is, \$1,000 obo. Apple HD20 Hard Disk, with SCSI interface, \$350, System Saver Mac, fan, surge protector, power switch, \$50, tangent tech keyboard for the Mac Plus, \$80. Total system \$1,400. Fred Seelig, 849-9408 (e), 759-1053 (d).

### For Sale

Epson FX80 printer, \$85. 534-5807 (h), 755-1696. Ask for Carol.

### Help Wanted

Looking for a full-time person to do production of a trade association newspaper. Macintosh, PageMaker and Word competency necessary. Job located in Montgomery County. Call Bob at 384-0012 or send resume in complete confidence to P.O. Box 171, Burtonsville, MD 20866.

### Help Wanted

Office Manager - small aviation association needs your Mac talent! Professional, well organized and efficient individual with excellent oral and written skills should apply. This job will keep you challenged with its great variety of tasks. Competitive salary and benefits. Send resume to: Mr. Robert T. Warner, EVP, NASAQ, Metro Plaza One - Suite 505, 8401 Colesville Road, Silver Spring, MD.

### Help Wanted

Research Associate - Management consulting firm specializing in aviation and telecommunications, located in No. Virginia & D.C., is looking for a college grad with Mac experience, good writing and financial/analytical skills. Please send resume to: Personnel; 1110 Vermont Ave., N.W.; Suite 620; Washington, D.C. 20005.

### Help Wanted

Aviation trade association seeking Macintosh enthusiast to assist with government affairs and be primary systems coordinator for 13 station Mac system. Must have good communication skills and be detail oriented. Responsibilities also include administrative duties, research and government affairs support. Salary commensurate with experience. Send resume to NATA, Attn.: Mr. Cebula, 4226 Kings Street, Alexandria, VA 22302.

### For Sale

Apple IIgs memory card w/1 megabyte \$450.00, AST RamStakPlus memory card for IIgs w/1 megabyte \$425.00, Microsoft Softcard II CP/M System new \$125.00, CCS 7710 serial card CARD \$25.00, Transwarp IIe speedup card \$140.00, Call Tom 464-8560 (evenings).

### For Sale

Apple II+ (64K) with Ramfactor (256K), and Viewmaster 80 col card, runs AW. 2 D/D, Z-80 card (for CPM), Epson printer (MX-80 w/GT, & interface card). Monitor III. Manual & 41 chip kit for rpr. Software: The Gen. Mgr., Appewriter II. \$750. Call Bob 839-2090.

### For Sale

Apple 2E with monitor, 2 disc drives, 80-column text card & 256 K memory expansion. Includes the following with documentation: Pro Dos, Apple Writer, Muse Supertext & BPI Gen'l Accounting. Call John, 333-1479.

### Help Wanted

Full-time Office Assistant. Rockville based investment firm. Cheerful, energetic person to help answer phones, file and monitor client accounts on Mac and PC. Must have previous computer experience. Must enjoy working with numbers. Please contact Laura Kamer (301)230-0921.

### Help Wanted

Entry-level administrative and sales assistant to work in a Macintosh products store in Arlington. Call Tony Taylor at MacSource at 521-9292.

### Help Wanted

Reporter/Assistant Editor wanted for Holography News. Opportunity for bright individual, good writer, familiar with Mac software. Reporting and assisting in editing and publication of emerging holography industry newsletter Holography News. Part time, should own Mac with modem. Send writing sample and resume to Holography News, P.O. Box 9796, Washington, D.C. 20016

### Commercial Classified

SE Accelerator Board - AOX Doubletime -16. Doubles the speed of your SE. 100% H/W and S/W compatible. Math coprocessor slot. SE slot. One year warranty. Free installation. \$275. Call 438-1934 (in VA).

### Commercial Classified

Hard Drives for Macs - Internal and external; 20 to 80 MB. Two year warranty. Over 12 MB of free software. Free installation. 60 MB external - \$634; 80 MB internal - \$654. Formatted, ready to boot. Other drives avail to 300 MB. Call 438-1934 (in VA) for add'l info and prices.

### Commercial Classified

Everex SCSI Hard Drives for sale! HD-20D, \$469. 40M and 92M also available. 2400 baud modem, \$219. Call Rusty at Sum Data Corp. (301)565-8007.

## Washington Apple Pi Journal

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Third Page	\$225	\$191	\$169	\$135
Sixth Page	\$125	\$106	\$93	\$75
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# Well Connected

An electronic crossword puzzle?

by Ray Hobbs

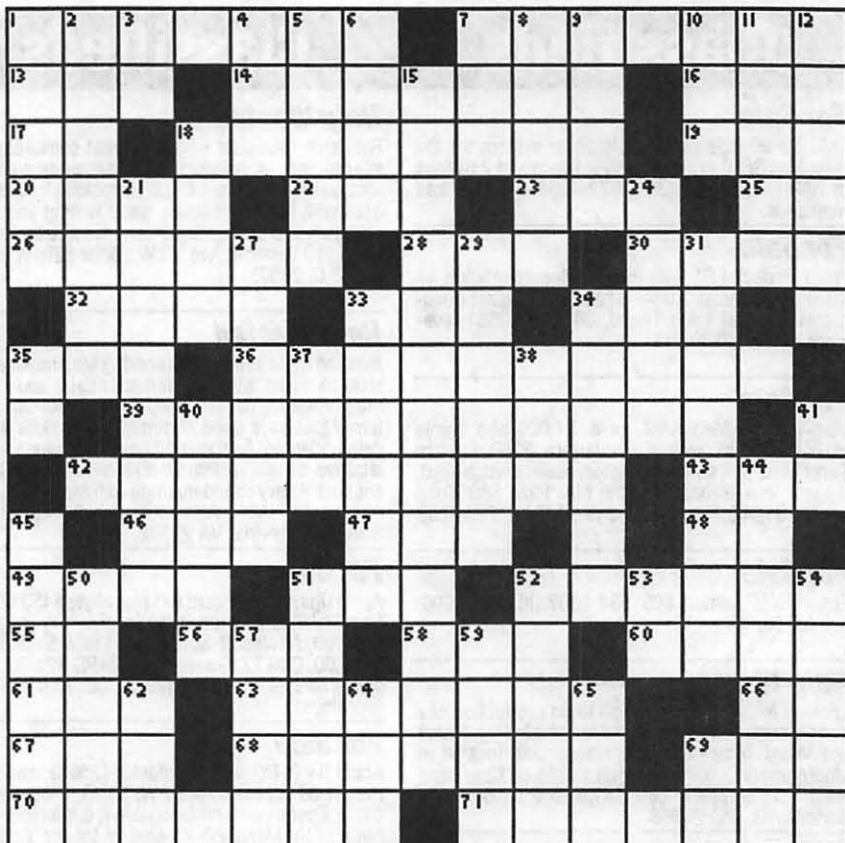
## ACROSS

1. Enabling telecomm wave.
7. ASCII \_\_\_\_\_.
13. Baseball Hall-of-Famer.
14. Shortage.
16. Kanga's offspring.
17. Form of address.
18. Apple's modem.
19. Oxlike antelope.
20. Oket enokee celebrity.
22. Twilight, poetically.
23. French article.
25. Timetable abbr.
26. Telecomm operation.
28. Kind of spark plug.
30. Graphic interface was developed here.
32. Nautical control center.
33. Of the earth (pref.)
34. Strategic Air Command (abbr.)
35. Farewell.
36. One who is a professional (arc.)
39. CTS (Telecomm.)
42. Superficial love affair.
43. Abate.
46. Arab state.
47. Received.
48. Greek letter.
49. Common notation on books (abbr.)
51. Council of Economic Advisors (abbr.)
52. Similarly rigid (2 words).
55. Area of Operation (abbr.)
56. Hardwood tree.
58. Bureau of Labor Standards (abbr.)
60. Shakespearean villain.
61. Law degree.
63. Philanthropic Eastertime animals.
66. Filled freight car (abbr.)
67. Arab state.
68. Bedroom furniture.
69. Wizop.
70. Telecomm package.
71. Telecomm package.

5. Having aural organs.
6. Trick.
7. German article.
8. Telecomm package.
9. Gomer.
10. Concerning the relationship between man and his working environment (abbr.)
11. Cousin of RADAR.
12. The \_\_\_\_\_.
15. Telecommunicator's concern.
18. Locale for a half-gainer.
21. Singing group (2 words).
24. European country.
27. Electrical unit.
29. "If you would have it, \_\_\_\_\_" (3 words).
31. University millieu.
33. Kind of sale.
34. Stage production divisions.
35. "10".
37. Rodent.
38. Equal (pref.)
40. Tropical vine.
41. Medical specialty (abbr.)
44. Thief.
45. Kind of telecomm access.
50. Pertaining to the sun.
51. Kind of bracelet.
52. Showy flower.
53. Partner of Fo and Fum.
54. Telecomm necessity.
57. Senior Duty Officer (abbr.)
59. Computer language.
62. Family member (abbr.)
64. British Empire Medal (abbr.)
65. Broadway sign (abbr.)
69. French article.

## DOWN

1. \_\_\_\_\_ Serve.
2. Wither.
3. Ticket abbr.
4. International Postal Exchange (abbr.)



## Answers to last month's puzzle



# Membership Drive Readout

August 88  
5,300 members

February 89  
6,000 members

March 89  
6,060 members

Goal  
7,000 members



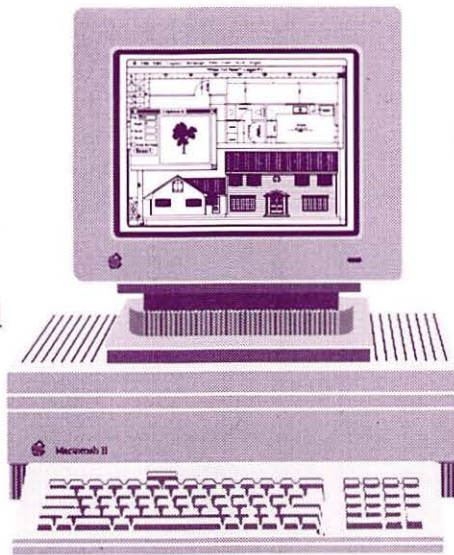
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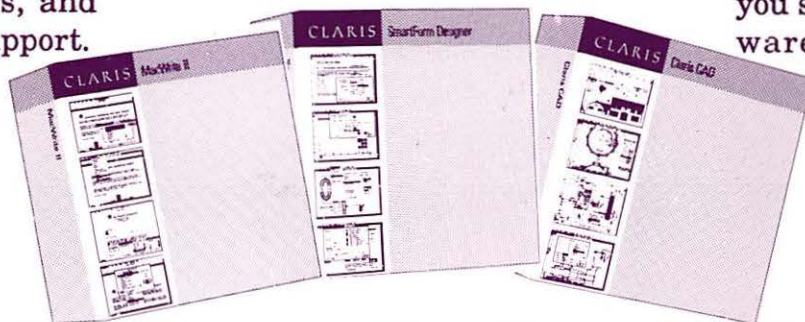
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