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Washington Apple Pi



Volume 10

November 1988

Number 11

Highlights

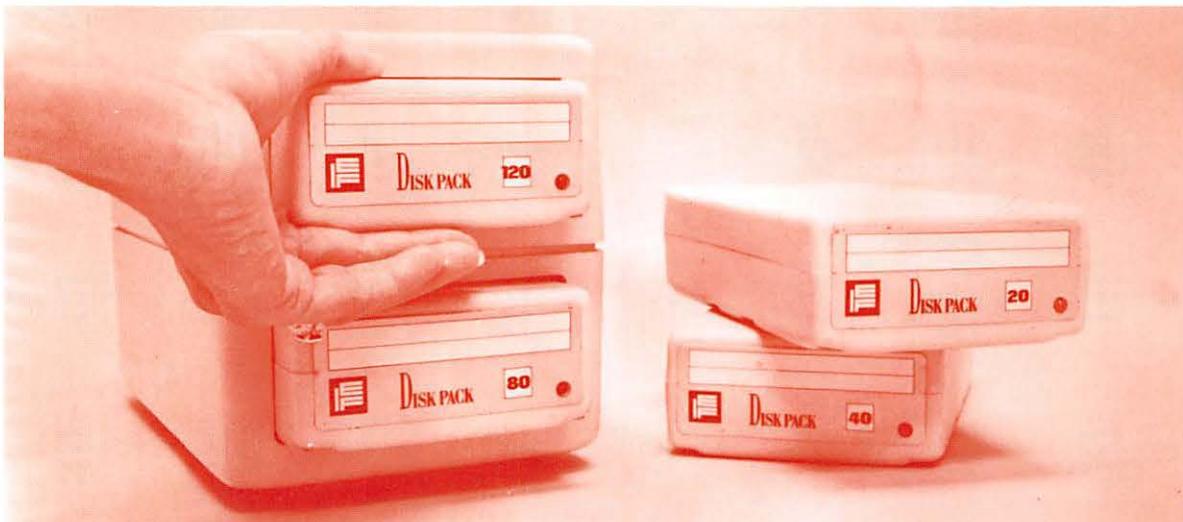
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- Using the Computer as an Instructional Tool
- Automatic Ram Disk Rebuild for IIGS
- 📖 MacNovice: 1988 Gift Givers Guide
- 📖 Illustrator 88 version 1.6
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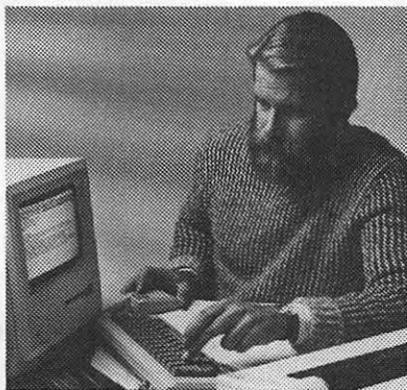
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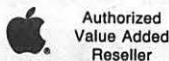
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EDITORIAL

Have
a
Spooky
Halloween

and
a
Feasty
Thanksgiving





PRESIDENT'S CORNER

by Robert C. Platt



WAP's Tenth Anniversary Celebration is only a month away. Mark Dec. 16 and 17 in your calendar for the one WAP meeting you can't afford to miss.

Our keynote speaker will be *Larry Tessler*, Apple's Vice President for Advanced Technology. Larry heads Apple's R&D efforts and is a very entertaining speaker. *Andy Herzfeld*, who was instrumental in the design of the Mac and various Radius products, will also speak and will be at the banquet. The theme of the celebration is a look at how far we have come and at directions for the future.

We will hold a banquet on Friday evening, December 16. Attendance at the banquet will be by advanced reservation only, so please make your plans now before the seats are gone. (See the adjoining box for details on reserving a spot.) The banquet will feature a cash bar from 7:00 to 8:00 PM, dinner, an awards ceremony and Steve Wozniak (The Woz) as our speaker.

Saturday will feature a special meeting. In addition to picking up your copy of the special Tenth Anniversary Issue of the Journal, the lobby will feature a gigantic time line of WAP's history. Members are invited to autograph the time line at the month where they first joined.

An array of industry leaders will give short talks, and *Walt Mossberg* is organizing a panel of computer journalists. (Perhaps some gossip columnists from the newsweeklies will show up with paper bags on their heads.) We invited pioneers from the development of the Apple II, Apple III and Mac.

Various SIGs are also planning reunions around this event. For example, the founder of the Pascal Interest Group, *Tom Woteki* has promised to come. If you ever wanted to see your old WAP friends, this is the event. Plan now to attend.

Many thanks to *Ellen Leanse* and *Terry Mock* of Apple's User Group Connection for assisting in this event.

Garage Sale. WAP's semi-annual garage sale will be held on Saturday, Dec. 3 at Charles Woodward High School in North Bethesda. This date allows our members to do their pre-Christmas and pre-Hanukkah shopping, as well as allows us to hold the 10th Anniversary on our regular Dec. (3rd Sat.) meeting date.

Membership. The Membership Committee chaired by *Ray Hobbs* has been working hard at recruiting new members and improving membership services. For example, the Committee designed a new membership brochure and reached out to local schools with informational mailings. The Committee has set a goal of 7,000 members, and Ray will describe the details of WAP's new membership contest in a future article. The Committee is mailing a questionnaire to a scientific sample of our members to gain your input.

WAP's next computer show is the *Federal Computer Conference* on October 26-28. Stop by WAP's booth when you are there. (If you can volunteer to work our booth, please call Nancy Seferian, 202-333-5817.) WAP is already planning to be active

at *FOSE* and next April's Washington DC *MacWorld Expo*.

Personnel. Congratulations to long-time staff member *Kevin Nealon* on his marriage. We are very sorry to announce that HyperCard Expert *Bill Baldrige* is leaving our staff to join a dealer in Virginia. (A search committee has been appointed to find a successor. Anyone interested in applying for his position should contact the office.) Many thanks to *Paul Koskos* for filling in at the office.

Credit Cards. Last month I reported that WAP can now accept MasterCard and Visa. The WAP Board has voted to accept these cards for all transactions, including group purchase. No special surcharge applies for using your credit card.

Thanks. WAP wishes to thank *John Sanders* at Snyder Printing for donating the printing of some membership flyers.

Volunteers. The most important item I can convey in this column is that WAP's volunteers are the driving force which keeps WAP moving forward. The volunteers have built this club over the past decade, and I am looking forward to our Tenth Anniversary in large part because it is an excellent time to pay thanks to these many talented people. I hope that you will join me in acknowledging their efforts. And the best way of doing so is by becoming a volunteer yourself. ☺

TENTH ANNIVERSARY BANQUET

You're invited to attend a special banquet to celebrate WAP's tenth anniversary. Steve Wozniak will be our after-dinner speaker. Don't miss this opportunity to talk with him and the many speakers from our December program.

The banquet will be at the Marriott—Crystal City Gateway, on Friday December 16. The hotel is located at 1700 Jeff. Davis Hwy. and is connected by tunnel to the Crystal City Metro Station. Cocktails (cash bar) will be served from 7:00-8:00 PM. After dinner, we will have an awards presentation and speaker.

We must limit this special event to the first 500 members and guests who send in their reservation. To reserve your place, send a check payable to WAP for \$25.00 per person to the WAP office. Please write "Banquet" on your envelope. Reservations must be received by November 28.

We look forward to seeing you there! ☺

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

Current office hours are:

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| Saturday * | - 10 AM to 2:30 PM |

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

* Please note that beginning October 1, Saturday hours are the same as M-F day hours. The office is not currently open on Thursday evenings.

EVENT QUEUE

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

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

Following are dates and topics for upcoming months:

November 26 - Telecommunications, Apple II & Mac*

December 3 - Garage Sale, Woodward High School

December 17 - 10th Anniversary Special, USUHS

The Executive Board of Washington Apple Pi meets on the second Wednesday of each month at 7:30 PM at the office. Sometimes an alternate date is selected. If you are not a regular attendee, please call the office to confirm date of meeting. ☎

DECEMBER GARAGE SALE

The December 3 garage sale will be in the cafeteria of the Charles Woodward High School, 12111 Old Georgetown Road in North Bethesda (or South Rockville). From the Beltway, take the Old Georgetown Road exit and go north past Democracy Blvd. and Tuckerman Lane. The school (which is currently closed to regular school use) is on your right.

The admission fee is \$1 for members and \$2 for non-members. Those who have items to sell may rent a table for \$5 (if you have only one item, we will have a general table which you can use free of charge). Commercial dealers may rent a table for \$50. Sellers may arrive at 8:30 AM (please, no earlier!), and the sale will begin at 9:00.

This event is a supplement to our regular December meeting, which will be held on December 17. See the President's Corner for details of that meeting. ☎

VOLUNTEERS NEEDED

WAP needs volunteers to serve in the following roles:

NewSIG. NewSIG volunteers help orient new users to their machines and to the WAP. Both Mac and Apple users are needed. Please call Bernie Benson if you can help. 301-951-5294

Apple II Disk Copiers. Volunteers are needed to duplicate Apple II disks for sale in the disk library. Please call Jim Little. 703-762-3215.

Apple Tea Hosts. Apple Teas are informal gatherings at a host's home. If you are interested in hosting a tea, call Amy Billingsley, 301-622-2203. ☎

* Note: We hope to have some significant door prizes at the November main meeting sponsored by the Telecommunications Special Interest Group.

APPLE II MEETING PROGRAMS

by Ray Hakim

Having participated last month in the program on Desktop publishing, I am struck by the central role the Apple plays in Communication. Since I took over the VP position, general meetings of the Apple Pi have highlighted the role of our Apples in writing and desktop publishing. In celebration of computer learning month the general meeting this month is a combined Mac and Apple II show on the role of computers in education. Next month the Telecom Sig will have a communications extravaganza! (I hear there will be giveaways.)

Some roles of computers in communications just slip by however. Recently, at a GameSIG meeting I was asked to review a program from EPYX called the Home Video Producer. I had not thought of it before but you can record any images on a VCR that you can put on your screen with a computer. Why you would do so is a different question... The Home Video Producer turns out to be a program for making Title and Ending sequences to dress up your home movies. It allows you to make a short sequence of images that you can record onto the videotape to give such effects as colorful moving titles, screen wipes that clear a title or ending screen up, down, left to right, right to left, or diagonally. If you want canned cleverness, there are pre-programmed screens for birthdays, parties etc. This program is a neat little item. As to why you may want it—well I, for one, hate to write letters. My parents just got their own VCR so just maybe I will tape my thoughts. ...Hi, mom... ☎

JOB MART

Help Wanted

Washington Apple Pi has a parttime position open for a resource person to answer phones and assist members and prospective members. Duties also include serving walk-in members and acting as general assistant to office managers. Approximately 23 - 28 hours per week (negotiable), including Saturdays. Some computer experience necessary. Salary commensurate with experience. Informal non-smoking office. Call Gena at 654-8060 M-F, 10-2:30 to arrange an interview.

Fulltime Assistant to busy Office Manager needed immediately. Salary negotiable. Mac experience preferred but not mandatory—will train. Benefits include vacation, sick leave, health insurance and life insurance. We're a growing aviation association located at the Silver Spring Metro stop. Call Noel at 588-0587 for an interview.

Qualified keyboard instructors experienced in Apple equipment and software, to teach elementary and intermediate students in the After-School Program at various Montgomery County Schools. Instructors can earn \$15/hr. on a part-time basis. Those interested should contact Helen Chaset at (301) 217-2706. ☎

*** November 1988 ***

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--|--|---|--|---|--|--|
| | | 1 Apple II+,e,c Beginning Tutorial #1 7:30-9PM Office | 2 Mac Progrms. 7:30 PM Office; dPub SIG 7:30 PM PEPCO | 3 GameSIG 7:30 PM Office; Columbia Slice 7:00 PM | <-- Thursday November 3 No. VA Mac Intro. Tutorial | 5 Advanced HyperTalk Tut. 9-12 AM Office |
| Deadline for Journal articles is Wednesday November 9 | 7 PI-SIG 7:30 PM Office | 8 Apple II+,e,c Beginning Tutorial #2 7:30-9PM Office | 9 Executive Board 7:30 PM Office | 10 Stock SIG 8:00 PM Office | <-- Thursday November 10 No. VA Mac Intermed. Tutr. | 12 AppleWorks (Basics) Tutr. 9-12 AM Office |
| 13 | 14 Introduction to Macintosh Tutorial - Office 7:15 - 10 PM | 15 Apple II+,e,c Beginning Tutorial #3 7:30-9PM Office | 16 Excel SIG 7:30 PM Office; AvSIG 7:30 BCC (contd.below) | 17 Pascal SIG 8:00 PM Office | <-- Thursday November 17 No. VA Mac Productivity Tut. | 19 AppleWorks (Macros) Tutr. 9-12 AM Office |
| 20 | 21 Intermediate Mac Skills Tutorial - Office 7:15 - 10 PM | 22 Mutual Fund Sub Group (Stock SIG) 8:00 PM Office | 23 Apple /// SIG 7:30 PM Office | 24 Happy Thanksgiving! | 25 | 26 WAP Meeting 9:00 AM USUHS Telecomm. |
| 27 | 28 Productivity on Your Mac Tutorial - Office 7:15 - 10 PM | 29 Telecom SIG 7:30 PM Office | Nov. 16 contd.: HyperTalk 7:30 Arl.; FedSIG - Call Chairman | | | |

*** December 1988 ***

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|-------------------------|---|---|---|---|--|--|
| | | | | 1 GameSIG 7:30 PM Office; Columbia Slice 7:00 PM | 2 | 3 Garage Sale 9:00 AM Woodward HS |
| 4 Happy Hanukkah! | 5 Introduction to Macintosh Tutorial - Office 7:15 - 10 PM | 6 Apple II gs Beginning Tutorial #1 7:30-9PM Office | 7 Mac Progrms. 7:30 PM Office; dPub SIG 7:30 PM PEPCO | 8 Stock SIG 8:00 PM Office | 9 | 10 Telecom Tutr. Office - Mac - 9-12 AM Apple II 1-4 PM |
| 11 | 12 Intermediate Mac Skills Tutorial - Office 7:15 - 10 PM | 13 Apple II gs Beginning Tutorial #2 7:30-9PM Office | 14 Executive Board 7:30 PM Office | 15 Pascal SIG 8:00 PM Office | 16 10th Anniv. Banquet 7:00PM Marriott-Crystal City Gateway | 17 10th Anniv. WAP Meeting 9 AM USUHS |
| 18 | 19 Productivity on Your Mac Tutorial - Office 7:15 - 10 PM | 20 Apple II gs Beginning Tutorial #3 7:30-9PM Office | 21 7:30 PM: ExcelSIG Office; AVSIG BCC; HyperTalk Arl. | 22 Telecom SIG 7:30 PM Office | 23 | 24 |
| 25 Merry Christmas! | 26 Holiday - Office Closed | 27 Mutual Fund 8:00 PM Office | 28 Apple /// 7:30 PM Office | 29 | 30 | 31 Have a good New Year's Eve |

SIGNEWS

Apple IIGS SIG meets on Monday after the regular WAP meeting. See IIGS SIG Meeting Report elsewhere in this issue.

Apple /// SIG meets on the 4th Wednesday at 7:30 PM in the WAP office. The next meeting will be November 23.

AV-SIG (arts and video) will meet on Nov. 16 at 6:30 PM, Beth. Ch. High School. Call Nancy Seferian at 333-5817.

Columbia Slice meets on the 1st Thursday, 7PM, at the Miller Branch Library, 9421 Frederick Rd., Ellicott City MD.

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

Excel SIG meets on the 3rd Wednesday of the month at 7:00 PM at the office. The next meeting is November 16.

Fed(eral) SIG - will meet on Nov. 16 to discuss Program Development. Call John Nelson at 425-1832.

GameSIG meets on the 1st Thursday of the month at the office, 7:30

PM. The next meeting will be on November 3.

HyperCard SIG meets after the WAP monthly meeting. HyperTalk Subgroup meets on the 3rd Wednesday at 7:30 at the Fairlington Comm. Center, Arlington—next meeting Nov. 16.

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

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

PIG, the Pascal Interest Group, meets on the 3rd Thursday at 8:00 PM at the office. The next meeting is November 17.

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

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

Telecom SIG will meet on Tuesday, Nov. 29 at 7:30 PM at the Office (regular meeting date falls on Thanksgiving). ☺

WAP HOTLINE

For Use by WAP Members Only

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

Apple II

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

Apple IIGs

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

Macintosh

| | | |
|---------------------------|---------------------|----------------------|
| General | Jeff Alpher | * (301) 630-2036 |
| | Bob Wilbur | (703) 379-2960 |
| | Donald Schmitt | (717) 334-3265 |
| | Jay Williams | (202) 728-5932 |
| | Doug Ferris | (day) (800) 826-4768 |
| Art and Video | | |
| Borland Products | | |
| Data Bases | | |
| 4th Dimension | Bob Pulgino | (202) 474-0634 |
| FileMaker Plus | Tom Parrish | (301) 654-8784 |
| Helix | Jim Berry | * (703) 662-0640 |
| | Harvey Levine | (301) 299-9380 |
| MS-File | John Love | (703) 569-2294 |
| | John Spencer | (301) 730-1084 |
| Omnis 3 and 3+ | Paul Tabler | (703) 278-8657 |
| | Jeff Alpher | * (301) 630-2036 |
| OverVue | J.T.(Tom) DeMay Jr. | (301) 461-1798 |
| | Tom Parrish | (301) 654-8784 |
| Desktop Publishing | Jay Rohr | (301) 655-0875 |
| PageMaker | Kate Burton | (301) 621-6351 |
| | Eleanor Sontag | (301) 251-0695 |
| ReadySetGo | Jim Graham | (703) 370-5737 |
| | Marty Milrod | (301) 464-5981 |
| Graphics - General | Bill Baldrige | (301) 779-8271 |
| | Jay Rohr | (301) 655-0875 |
| Adobe Illustrator | Ling Wong | (703) 378-5102 |
| Canvas | Bill Baldrige | (301) 779-8271 |
| | Tom Parrish | (301) 654-8784 |
| HyperCard | John Love | (703) 569-2294 |
| | Holger Sommer | (301) 474-3467 |
| | Rick Chapman | (301) 989-9708 |
| Inside Mac | Jon Hardis | (301) 330-1422 |
| | John Love | (703) 569-2294 |
| Languages | | |
| Pascal | Michael Hartman | (301) 445-1583 |
| Machine | Ray Hobbs (BBS) | (301) 490-7484 |
| MacDraft | Bob Wilbur | (703) 379-2960 |
| MacDraw | Tom Berilla | (301) 434-3256 |
| | Tom Parrish | (301) 654-8784 |
| | John Spencer | (301) 730-1084 |
| | Chuck Sicard | (301) 963-2879 |
| MacMoney | Jay Lucas | (703) 751-3332 |
| MacProject | John Love | (703) 569-2294 |
| Programming, MS-BASIC | Mark Mullin 7-10 PM | (703) 893-6679 |
| Object Progm. & UNIX | David Morganstein | (301) 972-4263 |
| Spreadsheets | Bob Pulgino | (202) 797-0879 |
| & Graphics | David Morganstein | (301) 972-4263 |
| Excel | Mark Pankin | (703) 524-0937 |
| | Jim Graham | (703) 370-5737 |
| | Dick & Nancy Byrd | (703) 978-3440 |
| Multiplan | John Boblitz | (301) 356-9384 |
| | John Love | (703) 569-2294 |
| Sidekick | Ray Hobbs (BBS) | (301) 490-7484 |
| Telecommunications | Allan Levy | (301) 340-7839 |
| ThinkTank/More | Jim Graham | (703) 370-5737 |
| | Tom Parrish | (301) 654-8784 |
| Word Processors | | |
| Word | Marty Milrod | (301) 464-5981 |
| | Harris Silverstone | (301) 435-3582 |
| | Bill Baldrige | (301) 779-8271 |
| WriteNow | | |
| General | | |
| Franklin & Laser 128 | Bob Martz | (301) 795-5689 |
| Games - Apple II | Charles Don Hall | (301) 864-2715 |
| (2:15 on) | John Wiegley | (703) 437-1808 |
| Games - Mac | Perri Mongan | (301) 572-5459 |
| IBM | Ray Hobbs (BBS) | (301) 490-7484 |
| | Leon Raesly | (301) 431-0853 |
| Math/OR Applns. | Mark Pankin | (703) 524-0937 |
| Modems - General | Allan Levy | (301) 340-7839 |
| Hayes Smartmodem | Bernie Benson | (301) 951-5294 |
| Practical Peripherals | Allan Levy | (301) 340-7839 |
| Music Systems | Ray Hobbs (BBS) | (301) 490-7484 |
| Printers - General | Walt Francis | (202) 966-5742 |
| | Leon Raesly | (301) 431-0853 |
| MX-80 | Jeff Dillon | (301) 662-2070 |
| Stat. Packages | David Morganstein | (301) 972-4263 |
| Stock Market | Robert Wood | (703) 893-9591 |

* Calls until midnight are ok.

Operant Systems

]]-series Hardware

Mac Hardware

•DOT-MATRIX & LASER PRINTERS

| | |
|---|---------|
| Panasonic 1080i (144 cps, 9-pin, Epson-compatible) | 199 |
| 1091i (182 cps, 9-pin) | 225 |
| 1092i (240 cps, 9-pin) | 359 |
| Okidata 320/321 (300 cps, 9-pin, NLQ mode, std/wide carriage) | 369/519 |
| 292e/293e (240 cps, 18-pin, std/wide carriage, color) | 399/549 |
| 390/391 (270 cps, 24-pin, std/wide carriage) | 509/689 |
| NEC 2200 (170 cps, 24-pin quality at a bargain price) | 369 |
| 5200/5300 (265 cps, 24-pin, std/wide carriage) | 569/745 |
| Toshiba 321SL (216 cps, 24-pin) | 519 |
| Citizen 120D/180D (120/180 cps, 9-pin, Epson-compatible) | 165/189 |
| HP LaserJet II (8 ppm, 512k) | 1795 |
| DeskJet (240 cps inkjet, 300 dpi, LaserJet-compatible) | 739 |
| Panasonic 4450 (11 ppm, 512k, dual input bins, LaserJet-compatible) | 1749 |
| Okidata Laserline 6 (6 ppm, 128k, HP compatible) | 1595 |

•MODEMS

| | |
|--|---------|
| Applied Engineering DataLink 1200/2400 (1200/2400 card w/soft) | 149/195 |
| Anchor 1200E/2400E (1200/2400 external, Hayes-compatible) | 125/189 |
| Prometheus Promodem 1200A/2400A (1200/2400 card w/software) | 159/195 |
| Promodem 1200G/2400G (1200/2400 external) | 139/179 |

•MEMORY EXPANSION & VIDEO BOARDS & CPU'S

| | |
|--|---------|
| Applied Engineering RamWorks III (256k, for][e) | 199 |
| RamFactor (256k, for][+ or][gs) | 239 |
| gaRam (256k, for][gs) | 199 |
| Viewmaster 80 (80-column card for][+) | 139 |
| Transwarp (3.6 mhz 6502c accelerator) | 185 |
| PC Transporter (IBM-on-a-card, 768k) | 575 |
| Z-Ram Ultra 1 (256k, for][c) | 199 |
| Laser 128/128EX (][c compatible computer) | 399/459 |
| AMR 80-column card (84k, for][e) | 59 |
| Orange Micro RamPak 4GS (512k, for][gs) | 255 |

•HARD & FLOPPY DISKS

| | |
|---|---------|
| Sider II (20/40-meg for][+,][e,][gs or Mac) | 465/649 |
| CMS 60-meg (for][e or][gs) | 869 |
| Video Technology floppy drive (143k half-hi, for][+,][e,][c) | 115 |
| AMR floppy drive (143k, datsychat port, for][gs) | 149 |
| Floppy controller (for][+,][e) | 49 |

•INTERFACES & BUFFERS & CLOCKS

| | |
|--|-----|
| ProGrappler (parallel printer interface w/graphics) | 89 |
| Grappler c/mac/ga (use most parallel printers from your serial port) | 89 |
| Practical Peripherals Graphicard (parallel interface w/graphics) | 65 |
| SerAll (serial interface for modems or printers) | 95 |
| Quadram MicroFazer (8k-128k parallel buffer) | 139 |
| SMT No-Slot-Clock (for][+ or][e) | 45 |

]]-series Software

•WORD & PAGE PROCESSING

| | |
|---|-------|
| Word Perfect (for][e,][c,][gs) | 89 |
| Multiscribe 3.0 (][e,][c version/][gs version) | 55/69 |
| pfs:Write (w/speller) | 69 |
| MouseWrite | 95 |
| Bank Street Writer (64k and 128k versions) | 49/55 |
| Springboard Publisher | 89 |
| Newsroom | 42 |
| Publish It! | 79 |
| Sensible Speller/Grammar | 75/85 |

•SPREADSHEETS

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

•DATABASE

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

•HOME & BUSINESS ACCOUNTING

| | |
|-------------------------------------|-----|
| Managing Your Money 3.0 | 99 |
| Dollars & Sense | 79 |
| DAC-Easy Accounting | 69 |
| Peachtree Back-To-Basics Accounting | 139 |

•COMMUNICATIONS

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

•MISCELLANEOUS SOFTWARE

| | |
|--|-------|
| Beagle Timecut SideSpread/FileMaster/DeskTools | 32 |
| UltraMacros | 39 |
| QuickSpell/SuperFonts | 42 |
| Graph | 55 |
| Print Shop/Print Shop Companion | 35/29 |
| Typing Tutor IV | 36 |
| Copy][+ | 29 |
| Avery List & Mail | 39 |

•LASER PRINTERS

| | |
|---|------|
| General Computer Personal LaserPrinter | 1495 |
| Personal LaserPrinter Plus | 1595 |
| NEC LC-890 (8 ppm, Postscript/HP emulation, 3-meg, dual-bins) | 3495 |
| QMS 810 (8 ppm, Postscript/HP emulation, 3-meg) | 3995 |

•HARD & FLOPPY DRIVES

| | |
|--|---------|
| Peripheral Land FL 30VL (30 meg, 3:1 interleave SCSI for Plus, SE) | 675 |
| PL 50VL | 849 |
| PL 20 Turbo (20 meg, 1:1 interleave SCSI for Plus, SE) | 599 |
| PL 30 Turbo/50 Turbo | 779/949 |
| PL 30i VL (30 meg, 3:1 interleave, internal for SE only) | 649 |
| PL 50i VL | 799 |
| PL 30i Turbo (30 meg, 1:1 interleave, internal for SE only) | 725 |
| PL 50i Turbo/70i Turbo | 899/999 |
| PL 100i II Turbo (100 meg, 1:1 interleave, internal for Mac II only) | 1149 |
| PL 144i II Turbo | 1450 |
| Infinity (10 meg removable disk, reads IBM floppy disks) | 949 |
| CMS 20-meg SCSI | 549 |
| 60-meg SCSI | 809 |
| 102-meg SCSI | 1199 |
| 30-meg internal (SE only) | 509 |
| Rodime 100-meg (internal, Mac II only) | 1085 |
| Video Technology 800k floppy | 199 |
| Daynafile (360k floppy, reads and writes IBM disks) | 529 |

•68020 ACCELERATORS

| | |
|--|--------|
| General Computer Hypercharger SE | 749 |
| Hypercharger SE (1 meg, 68881 math chip) | 1175 |
| Novy 68020 | (call) |

•MISCELLANEOUS HARDWARE

| | |
|--|--------|
| Dove MacSnap & SIMM memory upgrades | (call) |
| Kenstington System Saver Mac (for 512, Plus) | 75 |
| System Saver SE | 65 |

Mac Software

•WORD & PAGE PROCESSING

| | |
|------------------------|-----|
| Microsoft Word | 249 |
| Write | 119 |
| Word Perfect Mac | 189 |
| FullWrite Professional | 259 |
| PageMaker 3.0 | 379 |
| ReadySetGo 4.0 | 299 |

•SPREADSHEET

| | |
|---------|-----|
| Excel | 255 |
| MacCalc | 95 |

•DATABASE

| | |
|---------------------|--------|
| FoxBase/Mac | 225 |
| McMax | 185 |
| dBASE Mac | 309 |
| Filemaker 4 | (call) |
| Business Filevision | 225 |
| 4th Dimension | 459 |
| Reflex Plus | 189 |

•GRAPHICS

| | |
|----------------------|-----|
| Adobe Illustrator 88 | 299 |
| Cricet Draw | 179 |
| Graph | 119 |
| SuperPaint | 85 |
| FullPaint | 85 |

•HOME & BUSINESS ACCOUNTING

| | |
|---------------------------------------|-----|
| Managing Your Money | 139 |
| Dollars & Sense 4.0 | 99 |
| Mac Money 3.0 | 85 |
| BPI General Accounting | 85 |
| Peachtree Back-To-Basics Professional | 169 |

•MISCELLANEOUS SOFTWARE

| | |
|--|-----|
| Microsoft Works (word proc, calc, database, commun, speller) | 189 |
| Hayes Smartcom II | 95 |
| TOPS 2.0 | 125 |
| More II (graphics-based idea processor) | 185 |

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Q & A

by Robert C. Platt

Correction. Last month, I included an Applesoft program to read a DIF file and then rewrite it without any optional headings. That program works fine until you use character strings with commas or special characters. To generate a DIF file with the same use of quotation marks as are found in the original, the following changes should be made:

```
255 IF (C$="EOD") OR (C$="BOT")OR(C$="V")
    OR(C$="NA") THEN PRINT C$: GOTO 270
260 PRINT CHR$(34);C$;CHR$(34)
920 PRINT T$: PRINT A$," "; PRINT B$:
    PRINT CHR$(34);C$;CHR$(34)
```

Note that CHR\$(34) writes a double quote mark (") into the output file.

Q. What is a "system?"

A. It is a set of special programs which help your programs work more efficiently and perform input/output. If every programmer had to create his/her own user interface and disk access routines from scratch, there would be little available software and great difficulties in exchanging data between different programs. As a result, operating systems were developed to perform input/output, standardize the manner in which files are organized on the disk, and even control how RAM memory is allocated.

The Apple II supports a number of different *operating systems* including DOS 3.3, CP/M, the UCSD Pascal p-System, ProDOS and most recently GS/OS. Each program is written to use one of these. Because your program uses the operating system when it executes, a copy of the appropriate operating system must be read into RAM memory if your previous program used a different system. This can result in 1 or 2 minute delays for big systems such as GS/OS.

Although many important system routines are permanently stored in the Apple's Read Only Memory (ROM,) a system can occupy a significant portion of a disk. For this reason, Apple no longer requires a copy of the newer systems such as ProDOS, p-System or GS/OS to be stored on every disk, instead, copies are present on only special "startup" disks.

Q. What are the advantages to upgrading to IIgs System Disk 4.0 from version 3.1 or 3.2?

A. The new system for the IIgs now features a two disk set. It marks the debut of "GS/OS," which is the new version of ProDOS 16. The "new" disk operating system is a complete rewrite that is allegedly based upon the Mac's operating system. Unlike the earlier versions of ProDOS 16, GS/OS operates in 16 bit mode.

Q. What is the "Installer?"

A. Unfortunately, the new system is now much more complicated and can be tailored to meet a variety of needs. If the entire system were to be installed on your startup disks, it would occupy more than 442K out of a total of 800K. To

avoid wasting disk space, users typically want to customize their system by removing unnecessary routines. The Installer program which is distributed on the version 4.0 System Disk makes this easy. It will modify your startup disks according to predefined sets of instructions which are called "scripts."

To use it, double click on the Installer Icon on the System.Tools disk. A series of options appear in the scrolling window on the left. You can select a script or activity by clicking on the left window. You can select the disk to be acted upon by using the controls on the right. You probably do not want to select "Install everything." For example, unless you are tied to other Apple IIs or to a LaserPrinter, you will not need to install AppleTalk. You will probably want to select "Install System Files," and if you have a UniDisk 3.5 (rather than an Apple 3.5) disk drive you will want to install "UniDisk 3.5" as well.

Once the script and disk are selected, the installer automatically replaces the old system files with the new versions, even if the old files were locked.

Q. What is "shut down" from the IIs Finder?

A. It is the equivalent of quitting the Finder. The new system needs the opportunity to clean up after itself before turning off the power. Therefore, when you are through using GS/OS, you should select shut down from the Finder. When the system is through, it will display a message telling you to turn off the power.

Q. What is the "Apple II System Disk, Ver. 3.1" which is dated April 14, 1988?

A. Unlike the other recent System Disks which are intended for the Apple IIs, this disk is addressed to the //e and //c. It includes version 1.5 of ProDOS 8.

Q. Daniel Liskiewicz of Redford MI reports a problem encountered while exploring the hex to decimal conversion routine in the IIs monitor. For example, the numbers EFFFFFFF and F000000A will convert correctly, but F0000000 and F0000009 will not. A correct negative decimal value is reported but the positive values are wrong. What is wrong?

A. The IIs monitor routine was not coded to convert numbers greater than 2⁶³ (2,147,483,648) into positive integers. Although both positive and negative values are presented, only the negative ones are reliable. The incorrect positive values result from an overflow during the monitor's conversion routine.

Q. I have an Apple II and an Imagewriter II printer. I have now purchased an IBM clone and want to share the printer between the two computers. I thought that I could purchase a simple A-B switch, but my clone dealer said that it would not be that simple and that I would have to constantly change the settings on my DIP-switches whenever I switched between the two machines. Is there any way for the computers to share the ImageWriter II?

A. First, let's review some terminology. The ImageWriter II is a serial printer and must be connected to a serial port on both machines, using a "serial cable." An "A-B" switch is a device



which will connect to several serial cables and link one computer at a time to the printer. When the knob is set to A, all the wires in the cable are connected to the Apple and when the knob is set to B, all of the wires are connected to the clone. "DIP switches" are small switches hidden away inside the Imagewriter to prevent accidental changes. They control the protocol used to communicate to the computer, the default character set, and other settings.

Although I would never touch a IBM compatible myself, my IBM-literate friends tell me that the Imagewriter II can be successfully driven by most popular serial cards on your clone. These cards come with "serial port driver" programs which configure the serial port. At most, you need to study the documentation for the driver, and if necessary add commands to your AUTOEXEC.BAT file to reconfigure your serial port to obey the same conventions as your Apple and Imagewriter. In this manner, no adjustment to the DIP-switches should be necessary.

Q. I am translating an AC Basic program into Pascal. AC Basic allows direct calls to machine language routines. How can I call a machine language routine in Pascal?

A. You must declare your Pascal routine as an EXTERNAL. For example,

Procedure MyRoutine; External;

You must then link your machine language object module (which is named MyRoutine) to your program before you can execute it.

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Seeking a PC?

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by Bud Stolker

Have you shopped for an IBM-compatible computer lately? Then you may have noticed how difficult it has become to select a PC these days.

Buying decisions used to be a breeze: color or monochrome, hard disk or floppy, AT or XT. Now you must choose from among four different microprocessors. There are two operating systems with several branches and "environments." Three system busses with a fourth just announced. Four kinds of floppy disk drives. Four graphics standards running on six kinds of monitors. A bewildering array of hard disk options. And dozens of tape backup systems, none of them standard.

The multiple paths of personal computing, which for a time appeared to be converging around IBM and Apple, are beginning to branch and twist once more.

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COMPUTER PROGRAMS AND COGNITIVE LEARNING STYLES: Part 1

by Linda Van Zee

Research in learning styles has been going on for the past 40 or more years, but only in the past 10 years has this knowledge been applied to education and training. Little information is available on the application of learning styles to computer programs. This is the first of two articles on relating computer programs and cognitive learning styles. Besides theoretical information, I will be giving you practical considerations on how computer programs can address a diversity of learning styles.

The information in these articles will be of use to persons who design, review, or buy computer programs with instructional or training purposes. The recognition that any student population will contain diverse learning styles will help in the assessment of educational and training software according to how well the software provides an equal learning opportunity for all students.

What Is Learning Style?

Learning style is the manner in which a person perceives and processes information, together with preferences within the learning environment. People have characteristically different traits associated with the learning process. As research on cognitive and learning styles has progressed through the 1970's and 1980's, the conclusion has been drawn that when learning style is taken into consideration in instruction, learning can be improved. Unfortunately, the traditional classroom format, teacher materials, lessons, and tests have tended to reward students possessing one learning style while penalizing those possessing another learning style.

As the microcomputer comes into more prominent use as an educational and training tool, various ways a computer can address different learning styles need to be taken into consideration. For example, it is known that a person who perceives information globally performs poorly under a time constraint, even if the student knows the material well. Many computer-aided instruction (CAI) programs, especially those containing an arcade game format, have a time constraint. If the time constraint cannot be eliminated, and there is not an alternate program available, there are some students who will have a distinct disadvantage in this learning situation.

One learning style is not "better" than another. It may be helpful for students to be encouraged to use alternate styles to introduce them to methods of perceiving and processing information that may be different from their own preferred style. However, if a group of students are exposed to formats that address only one cognitive style, there will be some learners who have a constant disadvantage in the learning situation.

The terms "learning style" and "cognitive style" have sometimes been used synonymously. However, "learning style" is a broader term and includes affective and physiological factors such as time of day, lighting, temperature, noise level, mobility, and design of environment as well as factors that may be more cognitive. Because these environmental and social preferences are outside the scope of control by a computer program, these

articles will deal exclusively with cognitive learning styles.

Cognitive styles are "non-academic" learner differences. The influences on learning of general ability and prior knowledge are "academic" learner differences and do not pertain to cognitive learning styles. However, Pat Kirby (our local expert on learning style) holds that there is a definite relationship between ability and preference. A person tends to prefer what he is good at, and be good at what he prefers.

Cognitive learning styles, then, are non-academic learner differences in perception and information processing.

Applicable Software

The types of software referred to in these two articles will be instructional in nature, where the cognitive styles are reflected within the program. The software tools of word processing, data bases, and spreadsheets relate to cognitive styles that are not reflected in the program itself, but are dependent on the manner in which they are used as learning tools. Their relationship to cognitive learning styles is determined more by the circumstances, environment, objectives, and style of the teacher (if a teacher is present), than by the program itself. The use of application software in regards to cognitive learning styles is an intriguing and useful area of study, but these articles will deal with educational programs where the relationship to cognitive learning styles is determined by the characteristics of the program itself, rather than by how the program is used.

Cognitive Learning Style Models

Since the conception of cognitive styles and learning styles in the early 1960's, the terms have been used to designate a myriad of traits associated with the learning process. Further research and investigations have gleaned several learning style models that have demonstrated the reliability and validity necessary to be useful. The two models that will be applied to computer programs are left-brain/right-brain (Torrance), and experiential learning (Kolb). These two models were chosen because they deal exclusively with cognitive learning styles and have an established validity. Other learning style models that could be applied to computer programs are field-dependence/field-independence (Witkin), modality (Barbe and Swassing), and parts of the learning style model of Dunn and Dunn. Bernice McCarthy's 4Mat system combines experiential learning and left-/right-brain modes and is an excellent model for applying cognitive learning style concepts to classroom teaching.

Right-brain/Left-brain

The idea of hemisphericity is based largely on the work of Bogen. Speech and lineal processing reside in the left half of the brain, while spatial capability and global processing reside in the right half of the brain. Individuals generally rely upon one or the other modes of processing information. The left mode processes information in a more serial, analytical, and rational way, detect-



ing differences and discrete parts. The right mode processing is more global and holistic, seeing connections and similarities.

The brain dominance researchers have indicated that not only are both modes equally valid but that also learning is likely to be enhanced if both methods are used. The differences in the right-brain and left-brain modes can be characterized as follows:

| <u>Right-brain</u> | <u>Left-brain</u> |
|--------------------|---------------------|
| visual-spatial | verbal |
| holistic | logical |
| unifies | analytic |
| global processing | lineal processing |
| inductive | deductive |
| creative | constructive |
| discovery learning | expository learning |

The accommodation of different cognitive learning styles often means presenting the same material in two or more ways. For example, the visual-spatial/verbal difference in right-/left-brain can be accommodated by presenting information in both graphics and text. Graphics also tend to display information in a more holistic manner, while text tends to give sequential information. The right-brain dominant student will more easily pick up information from the graphics. The left-brain dominant student will more easily pick up information from the text. By accommodating both modes, all students are given the opportunity to initially pick up the information through their preferred mode, and have the information reinforced through their non-dominant mode.

Supplying both text and graphics is one of the easier and more obvious ways a computer program can balance cognitive learning styles.

A right-brain dominant student prefers to create unique situations or objects. A left-brain dominant student just wants to be told the facts. Both these components could be presented in the same program.

A right-brain dominant student prefers to be given the material as a whole, with subsequent extraction of features. A left-brain dominant student prefers a step-by-step presentation of material. This was touched upon in the graphic/text discussion above, but both a holistic and sequential presentation can be done graphically and within text.

A right-brain dominant student prefers to discover principles and rules, and to try out different ways of solving problems or situations. A left-brain dominant student prefers to be given the principles and rules and guided in their application. This would apply more to learning situations where new material is presented rather than where old material is reinforced.

Computer programs tend to use either the discovery method or the expository method. Simulations are more discovery oriented, and tutorials more expository oriented. However, there are some programs that give basic rules and principles which are used in trying out different ways to solve problems or situations. A balance needs to be achieved here though, so that there is fairly equal time spent in learning rules and principles and in discovering solutions. Otherwise, the program will still be predominantly right- or left-brain dominant. Besides accommodating different cognitive learning styles within a computer program, another method is to present the material in different formats in separate programs on the same disk.

Right-brain/left-brain modes and computer programs can be summarized as follows:

| <u>Right-brain</u> | <u>Integrated</u> text/graphics | <u>Left-brain</u> all text |
|--|---|--|
| 1. <u>all graphics</u> equal | | |
| 2. <u>creative</u> student has opportunity to create unique situations or objects | learns facts and creates unique situations or objects | <u>constructive</u> student learns predetermined facts |
| 3. <u>holistic</u> presentation of material random or configurational (as a whole with subsequent extraction of features) | holistic & logical contains both configurational and sequential presentation of material | <u>logical</u> sequential presentation of material (step-by-step only) |
| 4. <u>discovery</u> <u>learning</u> principles & rules discovered or inferred by student trying out different ways to solve problems or situations | integration of discovery and expository learning | <u>expository</u> <u>learning</u> principles & rules given to student on how to solve problems and guided in their application |

You can add your own items to the list, but this will give you a good idea of how to view software in terms of right-brain/left-brain modes.

In the next article, we will take a look at a model called "experiential learning" which uses the concepts of perception (concrete/abstract) and process (active/reflective) to describe four different cognitive learning styles and apply them to computer programs. In the meantime, take a look at how your own left-brain or right-brain dominance influences your preferences in software, including the games you play. ☺

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USING THE COMPUTER AS AN INSTRUCTIONAL TOOL

by Ray Settle, Annapolis Slice

Teachers and students have a fantastic tool available to them in the personal computer in general and in the Apple II in particular. Why then does a Wall Street Journal article lament that computers are failing as teaching aids? Why are teachers not using computers to teach their classes. The answers are rather obvious to anyone involved in the daily classroom routine—there is not enough time to incorporate the computer into lesson plans on a regular basis, there are not enough 'good' programs (despite the thousands of promising titles), teachers are not sufficiently trained to use them in their lessons, and there are not enough computers in the right places at the right times.

These problems preventing the computer from becoming a truly useful and widely used instructional tool need answers and I will suggest a few. The first problem of time is the perennial lament of school teachers, and the only solution there is creative scheduling and reduced non-teaching duties. The major time restraints to using the computer are more transitional; the time needed to prepare a good computer lesson will decrease as the expertise increases, to the point where it will eventually be faster to do a computer based lesson than most other types.

There are thousands of promising software titles available, but only about 5 percent are truly useful. Finding these few will take some time, but once found they will form a useful nucleus.

Teacher training and computer availability can be answered only if there is sufficient desire to use the computer as an instructional tool in much the same way as a VCR, filmstrip, record, or overhead are used. Teacher training is almost non-existent and so is left to the resources of the teacher to teach himself in the best Apple II tradition. The availability of a computer is simplified once it is understood that one computer can teach more than one or two students at the same time and that a computer lab is not a prerequisite for using the computer as an instructional tool.

In addition to using the computer to teach computing, the computer can be effectively used to teach English, math, science, social studies, foreign language, and just about any other academic or vocational subject in the school house. Many teachers use the computer as a super typewriter to prepare instructional materials and/or as a super calculator to maintain and compute complex grading procedures. Such uses are valid, but leave untapped the greatest potential of the computer in education—helping the student learn.

Although it would be ideal in some ways, it is not necessary to have a computer lab for each subject area for the computer to be an effective instructional tool. It is quite possible for the teacher to use one computer effectively with a class of thirty students. The computer in this instance would serve as a referee or consultant that could respond to the students' input. The computer would also serve as an attention getter (its similarity to a television screen may be helpful here). In this capacity the computer can go beyond the familiar and all too often used 'drill and practice' device to challenge students to use critical thinking

skills. Some such uses of the computer could be:

1. Real time composition revision by the group.
2. Instant responses and consequences to group decisions.
3. Answering reading guide, review, quiz, or objective questions by having students type in answers.
4. Displaying lesson objectives and adding comments or notes later in the lesson.
5. Presenting a lecture outline by scrolling the screen.

Of course the one glitch in all this is that the normal Apple II screen is too small for the whole class to see it so other equipment will be necessary. There are several options available to enlarge the computer screen so the whole classroom can view it. The most expedient would be to connect the computer to a large television monitor such as those used with a VCR. Many of the newer ones (last 10 years) are already setup to accept an Apple's output with no conversion; some may need an RF converter which can be obtained from a local Radio Shack. But usually about \$5 worth of cable and adapters can make a VCR monitor into a computer monitor. The only proviso is that the large monitor can be used only for 40-column display (no AppleWorks) due to the limitations of the TV screen.

Another alternative is an overhead projection device such as the Apollo Presenter 9100 and the Telex Magna-Byte 5020, both of which can be used with an Apple II or IBM PC just by connecting to the video output with no need to insert a card into the guts of the computer. Such devices allow 80-column display (AppleWorks) and can be arranged to project a much larger representation of the screen. With an Apollo or a Magna-Byte the teacher has a dynamic overhead transparency which can be modified, expanded, rearranged, reused and erased easily and neatly. The cost of such device is very high (\$800 - \$900) but worth the expense because they really make large group use of one computer feasible.

Personally, I prefer and use an Apple IIc with an Apollo Presenter in my 11th and 12th grade English classes because I float from one room to another. I have the assembly and disassembly procedure using a IIc carrying case down now to about three or four minutes while my students take a quiz. An AV cart cuts that time down to about 10 seconds if all the floating is on one floor. The only other requirements are that there be an overhead projector and some good projection surface already in the classroom.

Along with the equipment, for straightforward electronic chalkboard uses, the computer needs a relatively easy word processor that has a 40 column display capability. The most useful are FrEdWriter (which is free) and Bank Street Writer plus the old standby Magic Window. I have found FrEdWriter to be the easiest to use.

After preparing some lessons with FrEdWriter, I will attach a thirty foot extension on to the video output connection and locate the power supply near the center of the room so I can place the IIc on any student's desk for his or her input. This technique

is quite effective for maintaining student interest by involving many members of the class directly in the presentation. My students seem to like this technique. One advantage of the computer projection device is that I can locate myself in any part of the room and still control the output to the overhead—I am not chained to the overhead.

As for instructional software suitable to a large group lesson, just about anything can be used. Drill and practice programs can be presented by dividing the class into teams and having at it a "It's Academic", or answers can be entered via class consensus after some discussion with the whole class sharing the reward of a correct answer or the remediation of a wrong one. The MECC (Minnesota Educational Computing Corporation) library has many such programs that are ideal drill and practice. Appropriate programs would be ones that stress figuring out correct answers rather than challenging reflexes. For example, Number Munchers would not be a good program for such an activity while many of the Return to Reading literature study guides would be excellent when used with a whole class.

The most effective instructional materials can be those that the teacher himself prepares for the class, for only he can tailor the material to the class experiences, learning level, and learning style. Several programs provide a convenient way for a teacher to develop such a class presentation, e.g. Tutor-Tech (see my review in the September Journal) and MECC's Study Guide. Both programs enable the teacher to create an interactive lesson with no programming or technical knowledge. Both programs allow representation of missed questions and both provide some grading capability. Of course, HyperCard for the Mac (and hopefully soon for the IIGs) offers a tremendous potential for interactive instructional lessons. No matter which program a teacher uses, the time required for constructing such lessons will limit their availability.

A leader in using one computer with an entire class is Tom Snyder, and in his book *In Search of the Most Amazing Thing*

(which, by the way, is an educated child) outlines a philosophy for using the computer for developing critical thinking skills. His company's software (*The Other Side* being a notable example) encourages group discussion and decision making with the computer giving responses and consequences to those decisions. In such experiences the computer creates a situation in which the students must come to some decision then the computer interacts with them in real time based on their decision. Such lessons, however, require careful preparation by the teacher and students before the computer becomes involved.

For the computer not to fail as a teaching aid, the following changes must occur:

Teachers and administrators must move them out of offices and labs and into the English, math, social studies, and science classrooms.

Teachers must be trained to use this new instructional aid so their natural creativeness can use it for maximum effectiveness.

The computer must become another teaching tool in the minds of teachers and administrators and be accessible to each teacher at least part of the time.

The teachers must utilize the computer in the most effective ways to present creative and interactive lessons.

School systems must designate at least some of their computer assets for classroom use.

The new IIC+ offers an ideal machine for classroom use. It is more portable (discounting the monitor), faster, capable, and cheaper than the traditional IIE and with its 3.5 inch drive, will be more convenient for storing and retrieving lessons. It is possible to have AppleWorks and FrEdWriter plus several disks worth of data for each on one 3.5 inch disk.

In conclusion, the computer will remain a tool looking for a job until teachers and school system leaders come to realize that computers can help teachers teach but not replace them and that one computer can be effective as an instructional tool in a classroom. ☞

COMMAND.COM: A Review

by Jim Pendarvis

This is an article about COMMAND.COM from HyperDyne Software and Pinpoint Publishing. I hope to provide a few insights into what this program can do, as well as an example of how I use it.

What is it?

COMMAND.COM is a collection of utilities, programs, or commands designed to emulate the MS-DOS operating system on Apple II's. While COMMAND.COM looks like MS-DOS it does run under ProDOS. COMMAND.COM allows you to create 'environments' that act like ProDOS or even Unix.

Many of the commands are internal; the rest are external, to be loaded from disk as needed. The external commands may be renamed to suit your tastes and users may write their own as desired. It is also compatible with Pinpoint's Desktop Accessories. The flexibility is such that one can 'mix and match' to achieve almost any objective.

What does it do?

You can use its command line interface to perform most disk

utilities, including: copying files, formatting disks, comparing files, and so on. "Big deal", you say. After all, all of us have some form of disk utilities, even if it is only ProDOS Filer. And most of them try to shield us from having to type subdirectory and file names. What sets this program apart is its combination of simplicity and flexibility.

Suppose you have AppleWorks stored in a subdirectory of that name. To copy it to a Ramdisk, all you need do is type: Copy Appleworks R:. What could be easier? In addition, wildcards are permitted. And you may use optional 'switches'. Examples include: -D to prevent overwriting an existing file, -P for a prompt for confirmation, and -Q to turn off the display while copying. Many commands may be redirected. For example, a disk catalog may be sent to a text file.

More importantly, at least for me, is the batch file capability. You can use their text editor, TED, AppleWorks, or most other word processors to create text files of a list of commands. When the file is invoked, COMMAND.COM will execute them as



though they were typed in from the keyboard.

The batch file commands are somewhat like a programming language. These include: For/Next, If/Then (with a wide variety of conditionals), Getkey for specific responses, Goto, windowing and error checking. What you can do with these is limited only by your ingenuity.

The batch file example, in the manual, shows a method for doing client billing for AppleWorks. It asks you for a client's name, creates a text file of that name, writes the time and date to the file, runs AppleWorks, returns to the batch file and writes the new time to the file. The time difference would be the amount of time spent on that client.

How I use it

Generally, I use COMMAND.COM to control loading and deleting files from a Ramdisk, and to start up certain applications. One in particular is Quicken, a check-writing program from Intuit. A bad habit of Quicken is that it insists on trashing slot 3 Ramdisks. It does inform you that it wants to do this and asks you if it is OK. I cannot imagine it ever being okay, so if the program goes to the trouble of providing a warning message, then it should do something to prevent the problem in the first place, but then that is another story.

To cope with this, COMMAND.COM to the rescue. My Quicken batch file is started from my program selector. (The system file is IO.System and the program file is the batch file.) The first thing it does is to look to see if the checking account data exists on /Ram. If not, then it makes sure that the data disk is on line and will provide a prompt if necessary. Once the data file has been copied to /Ram, the next step is to verify that the Program disk is on line. Then Applied Engineering's Slotchanger is run to redirect /Ram. This prevents /Ram from being destroyed and makes it available to Quicken. (Slotchanger has been modified to act like a switch. Each time it runs, it alternates between slots, without intervention.) Quicken is then started up. On exit, you are returned to the batch file and the /Ram slot is restored by Slotchanger. Finally, is a prompt for backing up the check data. Very straightforward and fully automatic.

Recommendations

Obviously, I like it. I find it useful, even though I am sure that I do not even begin to exploit its full capabilities. This is one of those programs that you do not hear that much about, but should. The fact that anyone can use it to easily customize their operating environment is reason enough to buy it. ☺

CHANGE IN TUTORIAL FEES

Effective in January 1989, the WAP tutorial fees will increase slightly. The regular monthly Beginning Tutorials will increase from \$10 to \$15 per session for members, and from \$15 to \$20 for non-members. Special (non-regular) tutorials will increase from \$15 to \$20 for members, and from \$20 to \$25 for non-members. ☺

PROGRAM INTERFACE SIG (PI-SIG) NEWS by Robert Golden

Our September 5 meeting date fell on Labor Day and therefore it was cancelled until the next regular meeting which was held on October 3.

In the October meeting in the WAP tutorial room, we started out with a review of TML Pascal, utilizing the Apple IIGS, and threaded our way through the various steps and missteps of an elementary "First Program". It became glaringly clear to me that good documentation comprises not only spelling out what the user should do, but indicating what the pitfalls are and how to get back on track after making errors. As we become more proficient, we plan to move on to more useful and interesting programs.

After further discussion of TML Pascal, we turned to the subject of possibly utilizing a bar code system with the Apple IIGS for retrieval of inventory data. The continuing addition of diskettes and their back-up copies has certainly given one reason to look twice at this method, or to move on to hard disks!

Members of the Washington Apple Pi who are interested in this special interest of computing or who have interesting ideas involving program interfacing are welcome to meet with us. We look forward to having members willing to share their problems and methods, and to possibly benefit others with their accomplishments. We meet the first Monday of each month in the WAP conference room. ☺

LETTER TO THE EDITOR

Dear WAP Editor,

Nancy Dunn et al will, no doubt, come up with some great ideas to prettify the *WAP Journal*. But, if removing the Highlights listing and Table of Contents from the front cover is one of them, DON'T DO IT! They are most useful right there on the front cover and less useful inside where you have to hunt for them. Also, substance is what is primarily in the *WAP Journal*. The margins don't need to be wider; we don't need expensive color on glossy paper. Please don't go glossy! Content, substance—first and foremost.

Stephen E. Bach

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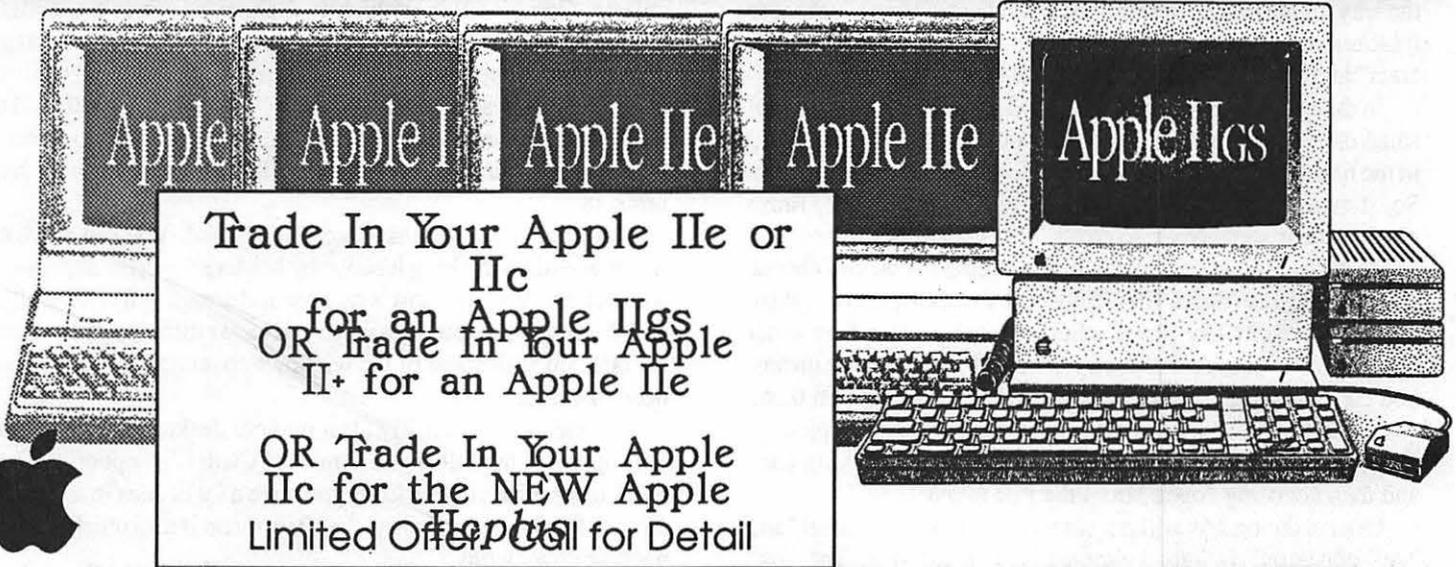
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IIGS STUFF: FINDER AND DESKTOP HINTS

by Ted Meyer

The Finder is becoming more popular on the IIGS as time goes by. I find that I'm receiving more and more calls from people who are using (sometimes coerced into using) the Finder for program selection and file and disk management chores. Users are often needlessly frustrated by different aspects of the Finder's environment. Sometimes it seems slow, windows are in the way, or the mouse seems to be a handicap. Often times these frustrations can be ended by knowing some not-so-secret "secrets" and shortcuts for improving the Finder's functionality.

In defense of the Finder's seeming lack of documentation of some of these features, I should point out that they are discussed in the new system disk manuals. The Finder is fairly easy to use. So, after getting the "hang" of it, very few people actually finish reading the manual cover to cover.

The first hint is the use of "shift-clicking." You can choose multiple objects (disks, files, folders) by clicking on one, then, holding the shift key down, clicking one at a time on other objects. Once you have chosen a group of items by any means, you can "unselect" individual items by shift-clicking on them.

Double-clicking is one of the first tricks most people pick up. Clicking twice quickly on an item is the same as clicking once and then choosing "open" from the File menu.

Often a dialog box will appear with the options "cancel" and "ok" appearing as buttons somewhere in the box. The "ok" button will have a double outline. In this case the return key will act the same as clicking the "ok" button and the escape key will act the same as clicking on the cancel button. Next time you're using the Finder, take a look at all of the keyboard equivalents on

the menu bars. Sometimes it's much quicker to use the open-apple key than to move the mouse around.

Another early trick that users pick up is the "selecting box." By clicking on an area of the desktop or a window where there are no icons and pulling the mouse without releasing the button, you can create a box which can be used to select a group of objects. Combine this with shift-clicking to select a specific group of objects. The "Select All" option is useful for grouping objects also. Suppose you want to delete all but two file from a disk. Open the disk's window, choose "Select All" from the Edit menu, and then shift-click the files that you don't want to delete. You can then drag the rest of the files to the trash with no problem.

Here's a handy one that I recently learned. You can move a window without making it active by holding the open-apple key while clicking the window's title bar and dragging it. This really speeds up desktop activities when you have multiple windows on the desktop with some of the windows covering icons that you need to get to.

Another way to quickly clear up your desktop is the "Close All" option in the File menu. And the "Clean Up" option can be used to organize your disks. If you have a lot of files in a folder, the "By File Name" option in the View menu is a lot quicker than hunting down icons.

That's it for this month. Let me know if you have any tricks or hints you like to use in the desktop environment, I'll pass them on in this column. (I also get to use them myself, so my motivations are suspect.) ☺

SEPTEMBER IIGS SIG MEETING REPORT

by Paul Tarantino

In what is becoming a bimonthly tradition, our September meeting at Thomas Pyle Intermediate School in Bethesda began with a spirited game of "Find The School Custodian And Get Him To Open The Cafeteria", a multiple-player adventure game which requires no mouse and very little memory, but will probably never be reviewed in these pages by the GameSIG gnomes. We are, however, working on a version for the Commodore PET.

The unchallenged star of the meeting was Mike Goldsamt, who provided a comprehensive demo of Music Studio 2.0 from Activision. Using the Pi's IIGS augmented with a MIDI Supersonic Stereo card and external speakers, Mike produced a concert of selections that he had transcribed from sheet music to Music Studio format, an admittedly tedious process (the main theme from "The Phantom of the Opera" took upwards of 25 hours to transcribe!) which produced outstanding musical results. This latest version of Music Studio is a very versatile music program with lots of capabilities—easy key changes and transpositions, many instruments with redefinable acoustic qualities, user-friendly interface, great sound with multiple voices (and

stereo with a stereo card)) and a few drawbacks (color-coded on-screen scores which only print out in b&w, non-interchangeable instrument sets, awkward incorporation of lyrics into the score. Music Studio 2.0 lists for \$80 or thereabout, and is available as a \$10 upgrade for owners of earlier versions. This latest version of Music Studio appears to offer a lot of musical entertainment and educational value.

In keeping with our musical theme, Sam Knutson then demonstrated Bill Basham's Diversitune, a very different but also very captivating kind of music program. As with other Diversi-products, -Tune ignores Apple's standard interface methodologies, meaning no mouse or pull-down menus, but a FAST boot-up. Diversitune will only accept input from instruments or recordings through a Midi interface (no on-screen composition as with Music Studio or Music Construction Set), but has a more sophisticated playback setup, complete with follow-the-bouncing-ball lyrics (let's all gather 'round the Apple and sing some Christmas carols!). It should be noted here that Mr. Basham recommends the addition of a stereo card or a Midi-plus-stereo card for use with his software.



While cycling through the options in these two music programs, as well as a demo disk for the Futuresound digitizer/stereo card, we also investigated various combinations of amplified and unamplified speakers, played through the stereo card and through the IIGS headset jack. Ted fearlessly decided to use this occasion to check out his brand new Radio Shack amplified speakers (Minimus 0.6; which worked pretty well for the price). Suffice it to say that there are lots of ways out there to augment your IIGS's sound system, options for the most discerning ear and/or the most limited budget.

Sam also ran through some demo disks of new IIGS games, gleaned from AppleFest, including Tomahawk from Datasoft, Activision's The Last Ninja, and Mancala from California Dreaming Software, possibly the first GS-OS game.

Which provides a convenient lead-in to Ted's report that GS-OS is REALLY HERE. Our deadlines being what they are, I imagine that the glossy Apple II mags will have already distributed November issues with big cover stories on GS-OS by the time you get to read my deathless prose. ANYWAY..., confident that they will steal my thunder and probably have more information and color diagrams, etc., I will nevertheless report (info gleaned from Apple's news release on AppleLink of 19 September) that GS-OS is in your dealer's hands right now, available with manuals for \$39 (free to those who bought IIGS machines since 15 August). To quote, "Apple is also encouraging efforts to make the software available separately free of charge from authorized Apple dealers, user groups, and a variety of on-line services." Which means, I expect, that, as with previous system software releases, your dealer will copy the disks onto your disks

gratis, and that the two new system disks will also be available through the Pi Disketeria. If you want the full package with manuals, though, you will need to cough up some dough.

Officially designated System Software 4.0, GS-OS provides a much faster 16-bit operating system and Finder, improved desktop, and new disk and startup utilities, and will be able to access "other file systems" with File System Translators (a File System Translator for CD-ROM is apparently included; FST's for Mac and MS-DOS can be supported when somebody gets around to writing them). All else is rumor right now (30 September). Word is that some existing PRODOS 16 software will NOT run in GS-OS (like maybe most if not all Activision stuff?), which would force you to boot those programs up sans the GS-OS Finder until (inevitably, I expect) the software people revise their programs to follow Apple's software guidelines. Stay tuned to your friendly TCS for the latest word.

We should know lots more by our next meeting, which will be on Monday, 24 October, at the Dolley Madison Library in McLean, from 7:00 to 9:30 pm. From the Beltway, take Dolley Madison Boulevard (Rt. 123) east toward McLean. Go through the stoplight at Old Dominion Road (unless it's red) and make the next left onto Ingleside Road. The library is two blocks down the road, on the left, and we'll be in the downstairs meeting room.

On Monday, November 28, we will return to Thomas Pyle Intermediate School in Bethesda. Take the River Road exit (Rt. 190) east from the Beltway for about a mile, turn left on Wilson Lane (Rt. 188) and look for the school about half a mile ahead on the left. Park in the back lot and look for us in the cafeteria. Assuming, of course, that the custodian will let us in...☺

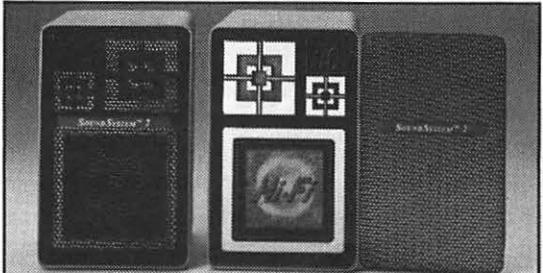
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NEW IIC-PLUS PREVIEWED, DTP PROGRAMS

REVIEWED: The September Apple II Meeting of Washington Apple Pi

by Joe Wagovich

An early preview of new Apple hardware has been a frequent treat for regular attendees of the WAP monthly meeting. September's Apple II session continued the tradition. Barely a week had passed since Apple's introduction of the newest II-series machine at Applefest-San Francisco than Pi members saw a full demonstration in the USUHS auditorium.

Thanks to the assistance of Clinton Computer and its representative, Chris Carlton, a prototype Apple IIC+ was made available to the club for this special showing. The scheduled WAP Apple II program on Desktop Publishing programs was held at bay for the first hour to permit the demonstration.

The new computer is similar in size and styling to the older IIC. There are, however, notable physical differences: It has a built-in Apple 3.5 drive, is made of sturdier plastic, appears slightly heavier, and best of all has a built-in power supply. (No more external white box.)

The IIC+ has a volume control in the place previously occupied by the 40/80-column switch, which most people seldom used. Backside, the new standard serial ports have been installed. Other ports are the same.

Most impressive is the machine's speed: There are two options, 1 and 4 MegaHertz, switchable by invoking a two-hands-and-an-elbow procedure involving the Control, Open Apple, Escape, and Reset keys. The speed at 4 MHz is something to behold, however—faster than any enhancements currently on the market can provide. Does that make it the fastest II? Not quite. Because the IIC+ is an 8-bit machine, it doesn't match the optimum speed of the 16-bit IIGS. In demonstration, the new machine booted Broderbund's Dazzle Draw quickly and with fine results.

Its 128K RAM is configured in a 64K x 4 chip arrangement on the motherboard. Expansion of the RAM is yet an unknown: The Apple memory board didn't work in a test involving the high-speed mode; but other third-party boards were not checked.

The computer can be rigged with another external 3.5 drive and a pair of 5.25s. Since the IIC+ depends primarily on its internal drive, however (it boots from it), owners may have difficulty finding much ProDOS 8 software on 3.5 disks. Most entertainment and educational programs continue to be sold on 5.25 floppies.

The new Apple will list at about \$600, and local distributors will discount. The system will be more favorably priced than that of the older IIC. Because of its appeal to the home computer market, Apple intends to put the IIC+ on the shelves well before Christmas, probably in October.

Desktop Publishing Programs for the Apple II. Long-awaited Desktop Publishing software has reached the Apple II series finally in both ProDOS 8 and 16 form. The WAP Apple II "main" program involved a demonstration by Ray Hakim and Ted Meyer, with an assist by Dave Harvey.

Two programs were demonstrated, one for 8-bit applications,

Timeworks' **Publish.It**, and one for the IIGS, Milliken Publishing's **Medley**. Three other programs were described: Springboard's **Springboard Publisher** (ProDOS 8), Softsync's **Personal Newsletter** (ProDOS 8), and DataPak Software's **GraphicWriter** (ProDOS 16).

Desktop publishing programs differ from ordinary word processing programs in several respects. They combine both text and graphics into a pleasing organization. They can import pictures from other sources. And they can place articles into multi-column formats; that is, separate articles can lie side by side on a page, or one article can extend across several pages. "What You See Is What You Get" (WYSIWYG, or Wissee-wig) is a capability highly desirable in publishing programs that lets you see on the screen exactly what you will be printing.

Among uses for publishing programs are creation of brochures; newsletters for churches, clubs, PTAs, etc. and advertisements. Many of the the 125 Apple II attendees already had experiences with DTP. Most owned **Publish.It**, and a few each had **Springboard Publisher**, **Personal Newsletter**, and **GraphicWriter** experience. Because it was so new, no one owned or had worked with **Medley**. A poll of the group revealed that about half used their programs for home applications.

Publish.It is an extraordinary program that uses many of the Mac conventions for moving things around on screen. It employs tools similar to those found in paint programs. It imports **AppleWorks**, **Bank Street Writer**, and ASCII files into empty boxes created for that purpose. One tool links text boxes in multi-column format. The program also imports double hi-res graphics from a variety of sources. Its simple pull-down Mousertext menu structure and great documentation, which comes in a sturdy three-ring binder, helps the user move quite handily around the program with barely an hour or two of practice.

Experienced **Publish.It** user Dave Harvey offered these hints:

Although Timeworks denies GS font compatibility, the fonts can be imported if the GS file types are changed to "F7" via one of several readily-available utilities. The company's comments about slight alterations in typeface proportions may be of moot concern to most users since any nuances are not at all distinguishable to the average eye.

Despite what they tell you, a mouse is needed for this program. A joystick presents far too sensitive a device for this.

Once you import a text file, you then can change file sizes and typefaces. **Publish It** also does kerning the same way. Kerning involves the squeezing of some letters of the alphabet into others, to create a professional and tighter printed product.

The program also includes a full text-processor function. It justifies, boldfaces, underlines, and allows printing in doublestrike mode.

Two drives are needed, one for the program and one for data, plus extra art and type styles.

A laser printer utility and extra artwork and typeface packages are available from Timeworks for this program. As with



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TELECOM SIG NEWS

by Dave Harvey

other DTP programs reviewed at the meeting, Publish It is not copyprotected.

For the Apple IIGS, Medley offers desktop publishers a bigger program with more options. Ted Meyer demonstrated the excellent features of the program, with comparisons to other Apple II DTP products. Medley is, for instance, "interruptable": The user can work on his or her product while the computer is working, perhaps importing a text file. Its word processor includes text wrap-around and other features. It has an 80,000 word spell checker plus a thesaurus. It can be used with a laser printer. Medley includes a fully-featured paint program with clip art.

Multicolumns in Medley are created by first setting up boxes, for example gutters—or that white space normally between columns—and then wrapping the text around the boxes. This layout procedure is done within the paint feature of the program. The program produces a wonderful printed product on a IIGS and Imagewriter II. It requires 1.25 MB, or at least a 1 RAM card in addition to the GS' 256K on-board RAM. More memory is even better.

One bug was noted: In condensed text mode, the software adds blank lines at the bottom of the page, leaving too much white space as a footer.

A comparison of the five DTP programs was prepared by Ted Meyer. Basis of the comparison was personal test, promotional literature, and the September '88 issue of A+ Magazine. Features evaluated were included for Springboard Publisher (SBP), Publish It (PI), Personal Newsletter (PN), GraphicWriter (GW) and Medley:

All programs except PN could produce multipage documents. They would all import text; SBP, PI, and Medley included Appleworks and ASCII files; the others would take ASCII text only. Only Medley had spellers or would open multiple documents at the same time. Where GW and M would accept all GS fonts, the others included fonts: SBP (19); PI (21); and PN (6). Each one performed kerning, GW not well and Medley great.

Only GW included a drawing program, and it did not include clip art. All with the exception of PI featured painting. All programs imported graphics: Hi-Res, Newsroom (SBP); Hi-Res & Double Hi-Res, Dazzle Draw (PI); Hi-Res & Double Hi-Res, Dazzle Draw, Newsroom and Printshop (PN); Super Hi-Res (GW and M). The two IIGS programs could produce a color product. The applicability for print products was questioned, however, since color printing requires single-color separations.

A LaserWriter could be used with GW and Medley. The capability was an add-on for SBP and PI (planned), and a promise for the next version of PN.

A mouse is used in all programs. SBP and PN could also be accessed, with somewhat more difficulty, by the keyboard.

Documentation was somewhat limited in GW, where the manual was limited to 62 pages. The others had hefty books: 249 for SBP, 232 for PI, 192 for PN and 253 for Medley, which also had a quick reference card and tutorial.

No program was copyprotected. Retail price for each is: SBP (\$139.95); PI (\$99.95); PN (\$59.95); GW (\$149.95) and Medley (\$195.95).

Ted Meyer plans to include a full discussion of "Medley" in the next WAP Journal. ☞

The regular September meeting of the Telecom SIG was held at its new time on the 4th Thursday of each month at the WAP office at 7:30 pm. We will be meeting at this new time from now on unless there's a conflict such as a holiday on that day.

The main topic of the meeting was a report on happenings at AppleFest that related to telecommunications. Reporting on that was Allan Levy, the chairman of the SIG group. Allan reported that EPIC has come out with a new internal 2400 modem which is called "Classic II". This modem, which he passed around for everyone to look at, is very small—about the size of a printer interface card. Included with the purchase of this modem is the popular telecommunications program, PROTERM. The list price of this modem will be \$239 and will include a 5 year warranty. Allan also announced that at a future WAP general meeting we will be having a TELECOM "extravaganza" where this modem will be given as a door prize. Epic also announced at AppleFest that they will have an internal Modem for the new Apple IIc+ that was introduced at AppleFest. The internal modem will have space to add extra 1M memory SIMMS. Checkpoint Technology was at AppleFest and announced a new version of PROTERM which adds Z-Modem capability. Other manufacturers announced new 9600 baud modems at the show.

Cards were passed out at the meeting that could be sent back by members to allow them free sign-up to Applelink - Personal Edition. We briefly discussed this new service marketed jointly by Apple Computer and Quantum Computers. Applelink - PE can be best described as the most user friendly and easiest to use of the Online Services. The system faithfully reproduces the desktop metaphor with pull down menus and some modifications that make it look a lot like the AppleWorks user interface. It can be used on an enhanced Apple IIe, Apple IIc and Apple IIGS. Special software is required to use this service and that is furnished when a member signs up for the service. Applelink-PE can also be used on the Macintosh; however, the software for that computer is not out yet. Another thing different about the service is that the \$6/hour charge during non-prime time, includes Telenet and Tymnet charges and is the same price for the higher baud rate of 2400. This is in contrast to other services that charge a higher rate for 2400 baud.

The question and answer session which followed mainly centered around problems using BLU, the Binary II utility. One problem that occasionally crops up is when a Binary II file is made using an older version of the utility and someone later tries to extract the files using a new version. An error sometimes results which indicates that the pathname is wrong. In this case you must use a separate un-squeezing utility to unpack the file rather than try and get BLU to do the job. Help was given on how to make a Binary II file. When BLU is used, if at all possible, use a RAM disk for both the packed and unpacked files, because of the excessive disk access that occurs during the processes.

We then discussed the newsgroups that are associated with some of the UUCP (Unix to Unix Command Processor) mail systems such as USENET, ARPANET and others. These mail systems offer coverage for a wide area of the country and even

IMPORTING PRINT SHOP GRAPHICS INTO PUBLISH.IT

by Gary Hayman

Publish.It is a fantastic Desk Top Publishing (DTP) program from Timeworks. All the major Apple II magazines have given it 4 to 5 stars in their glowing reviews. Not only is this an excellent program, it is a MUST program for you to own. It is easy to use, quick, and is very inexpensive. Listing for \$99, I have seen it available in the \$50 dollar range from various mail order houses.

Publish.It's early advertisements stated that you could directly import Print Shop graphics—this is not true. A representative from Timeworks advised me that this was their original intention but it was not included in V1.02.



Well I have a collection of close to 1000+ Print Shop graphics that I wanted to use in Publish.It. Publish.It will import all or parts of any normal HR and DHR graphic so the trick is to convert your Print Shop graphics to normal HR or DHR format. There are several ways of doing this, the easiest being by the use of a program called GAP available from Big Red Computer Club, 423 Norfolk Avenue, Norfolk, NE 68701 (402) 379-4680 for only \$9.95. WAP's Ray Settle discussed this program in a September 1988 WAP Journal article. Read his article again and immediately order GAP.

Earlier versions of GAP would save 9 Print Shop graphics at a time in a HR or DHR graphic that can be used by Publish.It (and other) DTP programs. Unfortunately, it saves it as white lines on a black background. Usually we would want black lines on a white background. I don't know if the fix has been placed in the recent shipments of GAP, but here is the fix if you would care to use it. Write and run the following Applesoft program with a copy (always) of the GAP disk on line.

```
5 PRINT CHR$(4);"BLOAD/GAP/G1"  
10 FOR X = 1 TO 3  
20 READ A  
30 POKE 27535 + X,A  
40 NEXT  
50 FOR X = 1 TO 6  
60 READ A  
70 POKE 28279 + X,A  
80 NEXT  
90 PRINT CHR$(4);"BSAVE/GAP/G1,A,$6800,L1653  
100 PRINT "DONE"  
110 END  
200 DATA 32,111,110  
210 DATA 73,255,145,0,200,96
```

Once you have done this you are now ready to use GAP to make a HR or DHR collection of PS graphics. Since most of your graphics will be in DOS 3.3 format you want to first collect them and copy them to a ProDOS disk/Ram disk/hard disk. I use Copy II+. You don't have to copy your entire collection, just copy the ones that are the most appealing to you. GAP will read from a DOS 3.3 disk but I want the collection in ProDOS format so that

I can have more than 105 graphics in a sub-directory. You can suit yourself. It is easy for me to do it this way since they can go to my Sider hard drive. Once you have the graphics saved, you might want to order them in common groups of nine which will make life easier when you begin to save the groups as your HR/DHR graphics. I use Sider File for this, but there may also be other programs available.



Boot your GAP disk and select Convert A Graphic, choose P.S. Graphics (small) (unless you have larger pictures in mind, select HR Graphic or DHR Graphic (HR is fine), tell GAP where the PS graphics are, including sub-directory; select one to nine of the PS graphics with the highlight and space; tell GAP where to save the composite graphic, including sub-directory; give the graphic a name (keep it simple—like ART1, ART2, etc.), and the graphic will now be on the disk that you have specified and is ready to be imported into Publish.It or even other DTP programs.

Now you should make a picture catalog of the graphics. You can use Publish.It to do that and print three graphics or up to 27 PS graphics on the page. Boot Publish.It and select your data drive to correspond with where your graphics are located. Using the graphics tool create a very large box. When you let go of the mouse the box will snap back to the proper size to capture the whole graphic. Select import a graphic and a catalog will appear. Choose the art work that you want, the picture will appear on the screen—then press return, selecting the entire graphic. You are now back on the main screen. Make sure the graphic is in the upper left corner and using the print option, print it on paper. [IMPORTANT] IIGS owners please make sure your printer buffering is deselected in the control panel. When the paper form feeds turn your printer off and rewind the paper till Top of Form is just under the printed graphic. Turn your printer on. Making sure your graphic is selected, press the delete key removing it completely. Again use the graphics tool to create the large box and proceed again as above for each piece of art. You will be able to print three graphics on a page this way. Hand title each graphic and save in a catalog so you know where your individual PS graphics are stored so that you can use them later in your Publish.It documents.

I am sure that you will find yourself using your PS graphics throughout your Publish.It documents. There seems to be a never ceasing wealth of PS graphics available to you. ☺



THE DATA PROCESSOR

by George Koelsch

Last month, I wrote about an excellent coin management program. During my analysis of existing packages, serendipity occurred. I ran across THE DATA PROCESSOR. It's the main program in the package called COIN COLLECTOR or STAMP COLLECTOR for the Apple II, II+, IIe or compatible, DOS 3.3, 48K RAM (also MS-DOS based machines). ANDENT, 1000 North Avenue, Waukegan, IL 60085, (312)-223-5077, sells the program.

The COIN COLLECTOR (or STAMP COLLECTOR) is the shell that allows the user access to the collector database of choice. Once the database is chosen, THE DATA PROCESSOR takes over, and handles all database processing.

So what's so special about that? This program within a program is an excellent menu-driven package in its own right. For people who don't need the power of a dBASE II or the complexity of a command language, here is an alternative. With DATA PROCESSOR, you have the opportunity to create your own databases for whatever collection you want. In fact, you can create a database for anything, not just a collection.

The key I want to emphasize is the menu-driven aspect of the program. As more and more new people find their way into computerdom, enough facets exist to overwhelm them. A simple DBMS is a step to reduce it. Figure 1 shows THE DATA PROCESSOR menu.

Option 1, the select file option returns you to the COIN COLLECTOR menu shown in figure 2. Once you've chosen the file you want, you'll return to the DATA PROCESSOR menu.

The Add, Change, and Delete options (2, 3 and 4 respectively) are the standard database functions. List, option 5, shows all or part of a file. Option 6 let's you search for a record that matches a user-specified criteria. Sort, option 7, allows you to reorder a database.

The Printer option (8) allows you to customize the report format, either on the screen or hardcopy. You can specify the number of characters per line, the number of lines per inch, and the number of inches per page.

The Report option (9) prints, creates, or deletes one of the predetermined reports. When you choose an existing report, you'll see the report format. Then, you'll be asked if you want all or part of the file.

The Save Data option (10) update the data base, it doesn't do it automatically (at least in the earlier Apple version I'd seen).

The Add, Change, and Delete Header options (11, 12 and 13) allow you to take the appropriate action on data fields.

The Quit option (14) ends the session with the computer.

Before you exit, the program offers you the chance to save the data. Good error checking.

PLUSES FOR THIS PACKAGE: This program is very easy to use. The manual is clear, concise, and complete. You need very little training to run this system. There is no on-line help function. But, since it is so easy to use, you don't really need it. The program is not copy protected.

MINUSES FOR THIS PACKAGE: The company does not provide a telephone number, if you have a problem. You

must write instead of call, which takes time. Two drives cannot be used. The manual mentions using subfiles to break up the larger data bases, but never states how to do it. The program is written in BASIC, so it might be a little slow (on the Apple II version).

If you want a simple, easy to use, menu-driven database management system, this is the program for you.

```
***** THE DATA PROCESSOR *****
***** BY DICK STEIN 8-10-80 *****

CURRENT FILE: FOREIGN COIN LIST

CURRENTLY CONTAINS: 10 RECORDS

ROOM FOR 118 MORE RECORDS

PRINTER STATUS OFF

1 SELECT FILE      8 PRINTER OPTIONS
2 ADD              9 REPORT OPTIONS
3 CHANGE          10 SAVE DATA
4 DELETE          11 ADD HEADERS
5 LIST            12 CHANGE HEADERS
6 SEARCH          13 DELETE HEADERS
7 SORT           14 QUIT

WHICH ?
```

FIGURE 1 - Main menu from the DATA PROCESSOR menu.

```
SELECT FROM

1 FOREIGN COIN LIST
2 DOMESTIC COIN LIST
3 MEETING LIST
4 SOURCES

5 CREATE A NEW FILE
6 DELETE A FILE
7 RENAME A PROGRAM
```

FIGURE 2 - The file selection menu from COIN COLLECTOR

GROUP CHARACTER RECORDING AND MODIFIED FREQUENCY MODULATION

by Charles Roettcher and Bob Golden

The Woz developed an Apple method of recording, ("group recording") in Apple disk drives, used in the last 12 years. This seems to be swept away by a better method, thanks to a technology improvement. This new Super Woz Integrated Machine (SWIM) uses the modified frequency modulation (MFM).

Formally, group code recording is a method encoding four consecutive bits in five bits without referring to synchronization, to define unambiguously each bit. It works like this:

RAW DATA (4 bits) GCR DATA ON DISK (5 bits)

| | |
|------|-------|
| 0000 | 11001 |
| 0001 | 11011 |
| 0010 | 10010 |
| 0011 | 10011 |
| 0100 | 11101 |
| 0101 | 10101 |
| 0110 | 10110 |
| 0111 | 10111 |
| 1000 | 11010 |
| 1001 | 01001 |
| 1010 | 01010 |
| 1011 | 01011 |
| 1100 | 11110 |
| 1101 | 01101 |
| 1110 | 01110 |
| 1111 | 01111 |

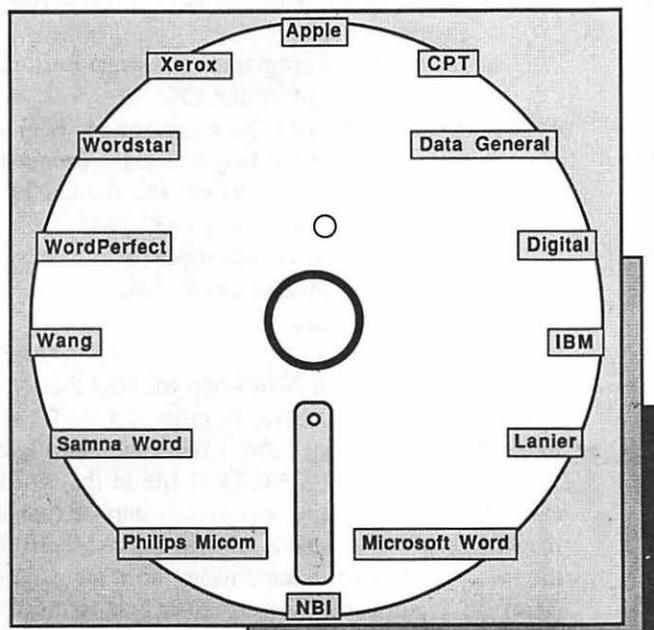
GCR never has more than two zeros in a row of five bits. This property in a simple circuit of JK Flip Flops yields a synchronization signal and thus eliminates ambiguity and jitter in a data signal half byte. This process is thus a Steve Wozniak inheritance and applies to all disks made by Apple. All other manufacturers use the modified frequency modulation format (MFM) and use different synch error coding schemes. Consequently, Apple could never exchange floppy disks with others without difficulty. This is changing: a new Application Specific Integrated Circuit (ASIC) developed by E. Baden uses pre- and post-compensation of the signal bit together with "fast" memory to overcome shift and jitter errors due to spindle and/or media error variations.

This marvel of technology is a Super Wozniak Integrated Machine (SWIM) and the data signal coming out is an MFM format with a big enough memory buffer and exchange cell. The synchronization signal is recovered or adhered to as well.

The new "universal" disk controller makes interchange of Apple disk format with PC disks finally possible. Apple format promises this in a release of the new Apple IIc+ in November and perhaps already in the Macintosh and Apple IIGS.

It would be interesting to see if the Laser 128 EX uses this ASIC. Does anyone know? 

Can all these word processing systems interchange formatted documents?



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AUTOMATIC RAM DISK REBUILD FOR IIGS

by Linda Van Zee

Ted Meyer has written some WAP Journal articles on using the RAM disk with the IIGS (April 1988 and June 1988, in which he explains how to boot a stripped-down version of Finder from a RAM disk). In this article, I will demonstrate how you can automatically rebuild the programs and files in a RAM disk when you first boot the computer.

There are two things you will need in order to automatically rebuild a RAM disk:

1. Enough memory on the IIGS so that you can afford to have a RAM disk and still retain enough memory to adequately run programs. 768K would be the minimum total memory, and more would be better. A stripped-down version of Finder takes about 400K. If Finder is the only program you put on the RAM disk, you will have about 368K to run programs if the total memory is 768K. (See June 1988 WAP article by Ted Meyer for essential Finder file listings.)

2. The program ProSel by Glen Bredon. I had read and heard so much about this program that curiosity got the best of me and I ordered one. Chuck Ward wrote a review of ProSel on the IIGS in the August issue of the WAP Journal and there seems to be a periodic debate on the WAP telecommunications system about the positive and negative points of ProSel vs. Finder. You too can be one of the "in" group by ordering ProSel from Glen Bredon at 521 State Road, Princeton, NJ 08540, for \$40.

I first read about the technique for automatic RAM disk rebuild in the article on the System Disk 3.1 by Tom Weishaar on pages 3.90 - 3.92 of the January 1988 issue of *Open-Apple* (another one of those items that everyone was talking about and I couldn't stand the curiosity). There are also instructions in the ProSel manual on "Automatic Booting and Loading of RAM Volume," but I found the instructions difficult to follow and assumed a higher technical understanding than I have. I am going to elaborate on the steps to clarify them and describe some options so you can tailor the RAM disk to your needs.

The generic instructions are as follows:

1. From the control panel of the IIGS, set the RAM disk size. Maximum RAM disk size is 768K because you will be backing up the RAM disk onto a single 800K, 3.5" disk, and you need room for 2 more files.

2. Turn the computer off, wait a few seconds, and turn it back on to activate the RAM disk setting.

3. Using your favorite utility:

- a. format the RAM disk.
- b. name the RAM disk /RAM5, or whatever you want.
- c. format a 3.5" disk.
- d. name the 3.5" disk /RAMREBUILD or something like that.

4. Copy the programs and files you want to /RAM5 (the RAM disk).

5. Reinsert /RAMREBUILD (or whatever you named the 3.5" disk in step 3c above).

- a. copy the file P8 from the IIGS system disk to /RAMREBUILD.
- b. rename P8 to PRODOS.

- c. copy the file RESTORE from ProSel to /RAMREBUILD.

- d. rename RESTORE to RESTORE.SYSTEM.

6. Run the ProSel program BACKUP.

- a. reinsert /RAMREBUILD into the 3.5" drive.
- b. when the program asks for the slot and drive of the original, enter the slot and drive the IIGS uses as a reference for the RAM disk. If you have 1 3.5" disk drive, the RAM disk is in slot 5, drive 2. If you have 2 3.5" disk drives, the RAM disk is still in slot 5, drive 2, and the second 3.5" drive becomes slot 2, drive 1. An explanation of RAM disk slot and drive references can be found on page 117 of the System Disk User's Guide. At this time, you are not booting from the RAM disk, so it would not be slot 5, drive 1.

- c. slot of destination disk = 0. This is so you can put the contents of the RAM disk into a file on the 3.5" disk.

- d. filename = /RAMREBUILD/RAM.IMAGE. The contents of /RAM5 will be copied into the file RAM.IMAGE on the disk RAMREBUILD.

7. Run the ProSel program BLOCK.WARDEN.

- a. make sure /RAMREBUILD is in the 3.5" drive.
- b. enter P for prefix and /RAMREBUILD.
- c. enter F for file and RESTORE.SYSTEM.
- d. enter E for edit.
- e. use arrow keys to move cursor to byte 6. A window will appear.
- f. enter name of file RAM disk backup is in: RAM.IMAGE.
- g. go to byte 49. Hit TAB key (to edit in ASCII instead of hex).
- h. enter name of program to run when Restore is finished: /RAM5/PRODOS.
- i. hit TAB key again (back to editing in hex).
- j. go to byte 48, enter length of string (in hex) begun at byte 49 in step 7h above: 0C. (Length of "/RAM5/PRODOS" = 12 = 0C (zero C)).
- k. press ESC to leave edit mode.
- l. press W to write changes to disk.
- m. press Q to quit.

There! You have it. Now when you boot the computer with RAMREBUILD in the drive, the programs and files you copied to the RAM disk in step 4 above will automatically be restored to the RAM disk. The PRODOS file in the RAM disk will automatically run, putting you directly into the first program on the RAM disk. One little hitch—when RAMREBUILD boots the message "Wrong volume name, do it anyway? (Y/N): Y (blinking)" comes on the screen right at first. Remember that you named the RAM disk RAM5 when formatting and copying files to it in steps 3 and 4. It no longer has this name since you turned off the computer. Just press return (to accept Y) and on it goes.



The above steps may look a little complicated, especially if you are not familiar with ProSel. Let me assure all of the non-techie types (of which I am definitely one) that it is not difficult. After figuring out what the ProSel manual was trying to say and filling in the holes, I got it on the first try. I hope this article has filled in the holes for you too and encouraged you to try making an automatic RAM rebuild disk.

The reason it is worth having programs in the RAM disk is the ready access and the speed with which they run. Because the programs are memory resident, they run faster than a hard disk. A 768K RAM disk can be restored and Finder up in 1 minute 52 seconds. Thereafter, Finder boots in 10 seconds.

Now, what kind of programs and files would be appropriate for an automatic RAM rebuild? Files that change, such as data or word processing files would not be appropriate because you would need to backup the file on disk and copy it back to the Ram disk next boot, or backup the whole Ram disk into /RAM. IMAGE again before turning the computer off.

One logical first choice is a program selector and utilities such as Finder or ProSel, then favorite programs for as much memory as you have left in the RAM disk. I have 1.5 meg on my IIGS, 768K on the RAM disk and 768K for running programs. I have 3 different RAMREBUILD disks to boot depending on my mood that day. One disk has Finder, AppleWorks with QuicksPELL (including the dictionary), and Instant Pascal (which I was using for a class). Another disk has ProSel, AppleWorks, and The Bard's Tail. The third disk has Finder with nearly 400K of font files. I run MultiScribe GS with this RAM disk because all the fonts are memory resident which makes font changes much faster. With fewer font files, MultiScribe GS could be put on the RAM disk.

The only problems I have had with this setup is running copy-protected software and getting back to the RAM disk. I try to avoid this by not letting my kids run their programs until I'm completely through with the computer, but I often don't succeed.

Try it and see what you think. ☺

REFLECTIONS ON MY FIRST APPLEFEST

by Owen Crabb

You'll see by the following that I'm still pumped up over my first San Francisco AppleFest. These points capture the highlights which I would like to share with our members.

APPLE II CORPORATE SUPPORT. John Sculley kicked off AppleFest by apologizing for the lack of Apple II Corporate support over the last two years. But, he quickly added, it was necessary due to the hard times Apple was suffering then. Those days are gone and corporate support is being rolled in behind the Apple II. That support was crystal clear at AppleFest. For example, as a result of the new OS-GS operating system (4.0 release) Apple was able to demonstrate the Apple IIGS using AppleWorks GS in combination with a CD ROM player using MicroSoft's *Book Shelf* CD disk. And, over 100 other new products were announced at this AppleFest. With this new Apple IIGS capability, how far away can things like CD-based interactive video instructional programs be?

APPLEWORKS GS. This was the show stopping product. Claris (and StyleWare) have done a remarkable job of combining and integrating six applications on limited disk space. I don't see how they get the high speed out of this program. It's almost startling to see how you can drag data from one application window to another without using the clipboard. If this software doesn't sell 100,000 Apple IIGS's this Christmas, I'll be surprised.

EXHIBITS. If you visit the exhibits, you need to hang on to that VISA card. Temptations present themselves at every turn. Hindsight now tells me you need to prep on facts ahead of time, because the exhibit format encourages hype. To make sure of a purchase, double check the facts.

PROGRAM. In terms of depth and breadth, I can't think of another place one could go to get so much on Apple II programs. If I had to give an award for the best presentation, it would go to Tom Snyder. His message of don't forget teachers when introducing computers into schools hit home.

STEVE WOZNIAC. The award for inspiration would go to Steve. Not so much for what he said, but the way he conducted

himself. He is a legend in his time, and his humble manner with all was truly moving. None who were there will ever forget the personal conversations that took place after his formal remarks.

GAMES. It's easy to forget the typical one-year development time needed to produce software for a new product like the Apple IIGS (the GS is now two years old). Just now the real quality graphics are coming on. Nowhere is this more evident than with games. I decided Alien Mind was the one to have for the kids back home and took advantage of the moment by having the graphic artist, Matthew Crysdale, autograph the guide. It worked so well that the kids popped out of bed on my 2:30 AM arrival and wanted to play.

Was it worth it? You bet! I'd go again in a second. This is a show for the masses—witness the grass roots Saturday/Sunday crowd vs. the Friday corporate group. Given the choice, I would suggest the event be held in a less expensive area. Finally, I'd tell people to expect and demand the best—because it is! ☺

Telecom SIG News contd. from pg 22

have foreign sites located in such countries as Canada, West Germany and Israel. These newsgroups have a large number of topics to choose from; all the way from computers to astrophysics. Some of the more popular ones are comp.sys.apple, comp.sys.mac.digest, and apple2-L. Apple Computer is represented on the comp.sys.apple newsgroup and regular dialogs are conducted between some of the Apple representatives and Apple users that use the system. These newsgroups were only available for a long time on computers running UNIX, but for about a year now they can also be found on Apple BBS systems that run the ProLine BBS software. Describing the details of the UUCP mail system is a complicated topic that could take up a separate meeting all by itself.

The door prize for this meeting was a Mousepad, won by Ken Hutton, a newcomer to the SIG.

The meeting adjourned about 9:00 pm. ☺

BEST OF THE APPLE ITEMS FROM THE TCS

by Paul Schlosser

What Day Is It?

FROM JAMES FAHS ON 09/14

Now that I get the correct date upon AW startup, perhaps you can answer another question. If AW knows the correct date, why does it have to ask for it when I go to print a report? Or is there a special response which tells AW to use the current date?

FROM HARRY BACAS ON 09/14

I would guess the reason AW asks for the "date" when you print a report is to give you the option of printing a date different from that day's. If you finished a report on 9/14, for example, but didn't get around to printing it until the next day, you still might want it to be "dated" 9/14.

FROM PAUL SCHLOSSER ON 09/15

You don't have to enter just a date when AppleWorks asks for it (prior to printing). You can enter any string of characters you want, up to a limit of 19. Comes in handy sometimes, for adding special identification to a printout.

AppleWorks and Fonts

FROM GEORGE LEYENDECKER ON 09/20

OK, so I'm finally making money with my //e. I've got this database of files and I'm making labels for a small time golf course and another for a small video rental house. Question: What program will give me to most fonts to use with AppleWorks V2.0 database and word processing?

FROM LEE RAESLY ON 09/20

SuperFonts will do your job. Also, you might want to check out Labels-Labels-Labels from the Big Red Apple Club. It was advertised in InCider in the October issue. I think it costs \$29.95.

The Apple IIs and Memory Chips

FROM PHIL GRECO ON 09/23

I have an Apple memory expansion card for my GS with 256K in chips on it. I'd like to expand it to 512 (for a 768 total) but can't seem to find dealers with the chips. I've been told my chips are 150 nanoseconds. One dealer, Family Computers, only had 120 ns chips, and Clinton told me that their recent batch of chips didn't work and they didn't know when they would get more. Any suggestions? If possible, I would like a dealer in Va. who would install the chips.

FROM BILLY THOMAS ON 09/24

I'm almost sure the 120 ns chips will work with the GS as long as they are CAS/RAS. But as expensive as chips are now, I wouldn't buy them from a dealer and I'd put them on myself. A dealer there in VA wanted to charge me \$25 to put 1 bank of 256 on. Although I'd never installed them before I just couldn't handle paying that much. It's a relatively simple task—just take your time. I believe Applied Engineering prices are lower than most dealers and they do guarantee them.

FROM DALE SMITH ON 09/24

The 120 nanosecond chips will work with the 150's—just don't

mix the speeds in one bank of chips.

FROM PHIL GRECO ON 09/28

Thanks to all of you who gave me advice of expanding my memory card. It's interesting to know that the 120 and 150 ns chips are compatible. I must admit that I'm still leery about mixing two different chips as well as installing them myself. I think I've located a dealer who has the 150 chips and will install them. I'm sure it's not the cheapest way to do it but I think the peace of mind will be worth it.

AppleWorks and Macros

FROM HARRY BACAS ON 09/25

I just got AppleWorks 2.1 and installed UltraMacros 2.0. Until now I had been using AW 2.0 and SuperMacroWorks. This is my question: there was (is) a macro in SMW which I can't find in UM. Can somebody help me? The macro I would like to find (or construct, with help) is sa-ctrl-T. It is for finding and loading ASCII files into AW without typing the filename. It really speeds up the process of getting and reading text files.

FROM GARY HAYMAN ON 09/26

I don't know the answer to your question, but I WOULD like to know it if you find out. On the surface, you have to know the pathname of the text file and type it in—then it is converted to an AppleWorks file. If there is a quicker way, I could use it too.

FROM HARRY BACAS ON 09/27

Gary, I found the answer, after further study of the manual and the files on the UltraMacros disk. In brief, some of the SMW macros, including the one I wanted that lets you load non-AppleWorks files quickly by point and shoot rather than laboriously typing in pathnames, are in a file on the UltraMacros disk. It is called Macros.From.SMW. This file has information on the differences in structure and ALSO has some of the SMW macros adapted to UM. The one I especially wanted is the sa-ctrl-T that shows you all files on the selected disk and lets you highlight any one and it types the pathname in for you. To add it, I just copied the macro from that file into my UM macros file and recompiled it and saved it. Works like a charm. I compared the new definition token-by-token with the old SMW definitions they are virtually identical. One token is absent in the new definition and one uses different syntax.

Real Men Program in Assembly

FROM JACK MORTIMER ON 09/28/88

A usually uninformed source has just released the following list of previously undocumented machine language mnemonic codes for one of the yet to be released super CPU chips. If you are a machine language programmer you will want to capture this list so as to be able to incorporate these very powerful commands in your programs.

AGB Add Garbage
BBL Branch on burned out light
BAH Branch and hang
BLI Branch and loop infinite



BPB Branch on program bug
 BPO Branch if power off
 CPB Create program bug
 CRN Convert to roman numerals
 DAO Divide and overflow
 ERS Erase read-only storage
 HCF Halt and catch fire
 IAD Illogical AND
 IOR Illogical OR
 MDB Move and drop bits
 MWK Multiply work
 PAS Print and smear
 RBT Read and break tape
 RPM Read programmer's mind
 RRT Record and rip tape
 RSD Read and scramble data
 RWD Rewind disk
 SRZ Subtract and reset to zero
 SSD Seek and scratch disk
 TPR Tear paper
 WED Write and erase data
 WID Write invalid data
 XIO Execute invalid op code
 XOR Execute operator
 XPR Execute programmer

The New Apple IIc Plus

FROM PAUL KELBAUGH ON 09/24

It was CERTAINLY impressive to actually see the //c+ at the September WAP meeting at USUHS. Looks like we had all the facts right here, but it was nice to be able to reach out and touch it. Just one of the many benefits of Pi membership and a reason to try to attend each monthly meeting even if the scheduled part of the program doesn't grab you. You never know who or (this month) what the surprise guest will be!

To Read or Exec that Text File

FROM THOMAS BLASI ON 09/18

I've held off asking this question because it seems so basic. But I've not been able to figure it out for myself. Since I've starting downloading files I've had to learn how to create disks for myself. I'm learning little by little. But one thing I can't seem to do is run a text file. The only way I'm able to do it is by reading them through ProTerm. Will someone explain to me what everyone else probably already knows?

FROM HARRY BACAS ON 09/21

ProSEL has a function that lets you read text files immediately without first loading a word processor program. It is in ProSEL's Cat Doctor. You just enter T (for Type) and click on the file or files you want and they will come up on your screen so you can read them. ProSEL is \$40 from the author, Glen Bredon, and free updates are posted on this system.

FROM SAM KNUTSON ON 09/25

I don't want to discourage anyone from purchasing ProSEL which is a fine program selector with many good utilities like Cat Doctor thrown in—but if all someone wants to do is read or edit text files they don't need to spend the money for ProSEL. We have a couple of good full featured word processors in the library (Freewriter and Fredwriter) as well as the FREEWARE utility

TEX which does both of the things this fellow is asking about (viewing text files and stripping carriage returns or linefeeds). ProTerm also has a nice editor and can save your file as either normal text or .AWP format. The last and really Quick and Dirty approach is to add the TYPE command that is used on all ProDOS WAP library disks to your boot disk and just TYPE filename to view the files you want. The TYPE CMD file must be BRUN to install it in ProDOS and this can be done by your STARTUP BASIC program.

TimeOut for Beagle Bros

FROM ROBERT LAMACCHIA ON 09/11

The September issue of Open Apple states that you need version 2.0 of the TimeOut utility itself with AppleWorks 2.1. It goes on to say that "Beagle Bros has started a 'Beagle Buddy' program whereby a designated member of your local user group can provide you with the necessary updates". Does WAP have a "Beagle Buddy?". I have requested AW 2.1 from Claris, and would want to update the TO programs I have (just 3—Filemaster, Ultramacros, Sidespread). If WAP has a Beagle Buddy, it could save the members some money as Beagle wants a \$10 handling charge plus \$2.50 per disk (\$12.50 for 1, \$15 for 2 items, etc).

FROM LEE RAESLY ON 09/11

Actually, you have to have version 2.1 of Timeout, (the Binary file) and version 2.0 of most (but not all) TimeOut Modules. I have applied as a Beagle Buddy—will let you know what happens.

FROM DAVE HARVEY ON 09/30

Beagle Bros announces a new mail feed that will allow users of their products to discuss related topics via the proline network. The local proline BBS is pro-Novapple and I'll be monitoring that newsfeed and pass on here any info that I get from there that would interest users of their products.

MouseTalk and Printers

FROM STAN PALEN ON 09/03

I can't get MT 1.5 to print to my Epson with a prograppler interface. The old version would. I wrote them 4 weeks ago and no answer yet. I hate to pay for an upgrade I can't use.

FROM DIRK BAKKER ON 09/04

Glad you've voiced this problem, I also have this particular combination and am having the same problem. Let us know, if and when UST answers, it definitely is a nuisance.

FROM DIRK BAKKER ON 09/09

Almost forgot, in the meantime I reconfigured using the "install program" and selected "Generic Parallel printer" and IT works.

Do You Have a Call Waiting?

FROM BILL HARK ON 09/05

I have been wondering what will happen with my call waiting if a call comes in while I am using the modem. I'm new to this. Any help will be appreciated.

FROM JIM SUTHARD ON 09/18

There was a discussion of this on Conference 3 a few weeks ago. The consensus is that until *70 is installed in this area the only



way you can disable it is to have call forwarding. One person suggested that you could direct the calls to yourself and thus create a busy signal. That doesn't work for me in Northern Virginia (998) but it may elsewhere as that person indicated. Late at night, I have forwarded it to various pre-recorded messages when I could not forward to somewhere for messages. Time and weather doesn't work though. A certain observatory does, but I won't mention which branch of the service that might be.

MouseTalk and Downloading

FROM KEN HUTTON ON 09/14

I have experienced problem downloading programs from other BBS's. For instance, the last two evenings I've tried to download a program called "UTILITYWORKS.GS.BQY" from GENie. I have MT 1.5. I use Xmodem/CRC/128k/and auto extract (whatever you call it). I also have the file type selected as BIN. The first evening when unsqueezing the subsequent QQ files, both the DOC file and the program QQ files gave me an "INTERNAL ERROR/Check Sum failed" response and neither were usable. Tonight, I used the same process and the DOC file was able to be read. However, I got the same error message when trying to unsqueeze the program file. I was unable to use it. Anyone have any ideas what I may do differently so as to achieve a higher download success rate? Thank you in advance for your assistance.

FROM JON THOMASON ON 09/14

MouseTalk has at least one error in Binary II extraction. Try turning auto-extract off, and downloading it all as a file. Then have BLU take a shot at it. If you get it to work, we'd always appreciate the upload here!

FROM KEN HUTTON ON 09/16

Thanks for your sound advice. The Auto Extraction appears to have been the problem. When switched off, files downloaded were easily handled with BLU and no errors were noted. As you asked, I downloaded the UTILITYWORKS.GS from GENie and uploaded same to WAP in the GS Utilities section. Enjoy!

Pull Up the Anchor

FROM RICK FOLEA ON 09/09

Does anyone have any information about the Anchor 2400 baud modems for sale at the WAP office? I am interested in buying one, but have heard about incompatibilities of other Anchor modems. Anyone have any comments?

FROM DON AVERY ON 09/09

I'm not sure which Anchor 2400 modem is being sold by WAP, but assuming it's the relatively new, relatively inexpensive 2400E (external), I purchased one back in February and have been using it ever since, first on a //e and then on a GS, with no problems whatsoever. The modem is 100% Hayes compatible, so far as I can tell, and compares favorably with the Hayes 2400 modem we use at the office.

Strange Languages

FROM JIM WELLMAN ON 09/06

I am new to APPLESOFT BASIC but not new to programming. I have done extensive programming in PASCAL, C, COBOL, and ADA but seem to have a problem in APPLESOFT BASIC. I have AppleWorks and other programs that utilize my printer to

its fullest capability (ultra condensed and condensed print). I have an Apple //c and an Imagewriter II. Here is the problem: I want to write more than 80 cols across but I get a line feed at the 80 col position. In IBM Basic there is a command (WIDTH) that is used to tell the printer the column is longer than 80. Is there such a command in APPLESOFT BASIC or is there an address that I can poke a value into to tell BASIC that I want 132 or more columns.

FROM JON THOMASON ON 09/06

Since the IWII defaults to 12 chars per inch, I set it to 96 columns. Do the following:

```
]pr#1
]?chr$(9)"96N"
]list
]pr#0
```

Of course, the LIST is optional. You won't be able to see what you're typing after the first line. If you want more columns, I believe you need to print a total of CHR\$(27)"q"CHR\$(9)"132N". At least I THINK that's the code. Check your IWII manual. Remember that your PR#1 will only work as a ProDOS command. If you don't enter it on a line of its own, it has to be PRINT CHR\$(4)"PR#1" instead, and same with the PR#0. Have fun!

FROM TOM VIER ON 09/15

Jim, what Jon is saying is that it is your interface card, not Applesoft that is generating the short line. Find out what command is for your interface to set it to the line length you want. Normally, it would go something like this:

```
1000 PRINT CHR$(4);"PR#1"
1010 PRINT CHR$(9);"132N"
1020 PRINT "your string"
1030 PRINT CHR$(4);"PR#0"
```

Word Processing

FROM BOB COSGROVE ON 09/21

Any word about the WordPerfect upgrade for the GS that is supposed to be the most powerful version of the program on any system?

FROM TIM MCGRAW ON 09/26

WordPerfect released their IIGS upgrade during AppleFest in San Francisco this month. A windows option has been added to the menu bar, allowing switching between documents by name instead of just number. Following the Mac WP design, it also has a hierarchical menu system. This means, essentially, that it's no longer "point and click." It's "point and click, point and click, point and click" as you navigate several "pull-downs." Registered owners can upgrade for \$30. Frankly, I wonder if it's worth it. For more info you can call (801) 225-5000 and asked about WP for the GS v. 2.1.

The New Internal Hard Disks

FROM DAVE HARVEY ON 09/15

Anyone had any first hand experience with the new internal hard disk for the Apple II+, IIe and IIGS? Sounds very interesting, but I'd like to hear from someone who knows if the drives are any good. The drives are made by Applied Ingenuity.



FROM RICKY JUDGE ON 09/14

Talked to a firm out in California that has a new line of hard disk drives for the GS. They sell a 20, 30 & 50 Meg that fits inside the GS. Replaces the power supply and has a card that fits in a slot. Don't think it's SCSI, or at least doesn't have a port to chain from. The 20 meg version goes for \$450. Seemed reasonable to me. I don't like the idea that its not portable to the Mac though (although at present I don't own one).

Ultima V

FROM PHIL GRECO ON 09/23

Well, I've finally finished Ultima V! Thanks to all of you who helped me in all the times I got stuck. If I ever try Ultima VI, please remind me of my frustrations with Ultima V and have me committed if I try to go on anyway. Maybe now I'll catch up with my reading. Or should I go on to Wasteland? Or, if I'm really a glutton for punishment, go back to Return of Werdna and try to finish it? I still haven't located any expansion chips for the GS so Defenders of the Crown is still gathering dust. Perhaps for my sanity it's just as well.

FROM K C MULCAHY ON 09/26

Congratulations. Rest a bit and then take up Return of Werdna again. I had more of a feeling of making progress in ROW than I have in Ultima V. I'm not real sure of any sensible questions to ask. Needed more experience points, but the battles are slow and one-sided most of the time.

System Disk 3.2 Questions

FROM HARRY BACAS ON 09/12

I have been making a working disk (and hard disk) of System.Disk 3.2, wishing to include only what's necessary, and I have questions about several files. System 3.1 had a SOUND.INIT in SYSTEM.SETUP. System 3.2 does not have a file with a similar name. Is it OK to delete it? There was an APPELMIDI among my old DRIVERS (don't know where it came from—it's not on 3.1). Since there is an APPLE.MIDI among the 3.2 drivers, is it OK to kill APPELMIDI? OK to drop everything in the APPELTALK directory? And all SYSTEM.SETUP files that start with AT plus SPLOAD and PFILOAD? And TS1, since I gather TS2 is what you need if you have the ROM update, which I do? In DRIVERS, 3.2 has PRINTER while 3.1 had both PRINTER and PRINTER.SETUP. OK to drop both the latter? Also OK to delete LASERWRITER and IMAGEWRITER.LQ drivers, since I don't use either printer? OK to delete BASIC.LAUNCHER and COPY.ME since they don't seem to do anything? Do they have any use? I'd appreciate guidance on any or all of these. Thanks in advance.

FROM JON THOMASON ON 09/12

If you're moving to Sys Disk 3.2, I wouldn't recommend keeping ANY of the system files from 3.1. Chances are that the modules from 3.2 are smart enough to ignore the old files, but I can't see a reason to try. I would replace the APPELMIDI with the newer copy, just in case. My guess is that the old one is a beta version from some commercial package. Yes, you know which AppleTalk files to kill. Try killing TS1. As I hear, that's right, but I've never tried it. Don't kill BASIC.LAUNCHER. That's used from the Finder, Launcher, etc. when trying to launch a BASIC program. The Finder launches BASIC.LAUNCHER, which loads BASIC.SYSTEM, which loads your program. Your

program quits to BASIC SYSTEM, which quits to BASIC.LAUNCHER, which does a P16 quit back to the Finder.

The Apple IIgs and System 4.0

FROM DALE SMITH ON 09/17

(Downloaded from Applelink Personal Edition.)

APPLE IIGS SYSTEM SOFTWARE, VERSION 4.0. Copyright 1988, Apple Computer, Inc. Apple IIGS System Software, Version 4.0 is a 16-bit, native-mode operating system (GS/OS) with a revised Finder, and two new utilities: the Installer and the Advanced Disk Utility. Version 4.0 system software improves the performance of independent, standalone Apple IIGS systems, and provides a powerful, versatile system software platform for non-networked Apple IIGS software products.

The Apple IIGS system software, Version 4.0 features include:

- **16-Bit Operating System.** The essence of Apple IIGS System Software 4.0 is GS/OS, the first 16-bit, native-mode operating system. GS/OS significantly speeds up boot time, disk access time, and program launch time, and increases the performance of disk-intensive applications. Data can be accessed directly from a wide range of guest file systems via File System Translators. It also has the ability to access file systems that support very large files and storage media (up to 4 gigabytes). GS/OS is compatible with Apple IIGS ProDOS 16 and will run applications that follow ProDOS 16 design guidelines.

- **Improved Finder.** The Finder has been improved to support GS/OS and to provide better overall desktop performance. Several new features are supported by a more informative interface, allowing better desktop management.

- **Two New Utilities.** The Advanced Disk Utility and the Installer are two new system utilities included in the 4.0 release. The Advanced Disk Utility has an easy-to-use graphics interface, and provides functions such as initializing and erasing hard and floppy disks. Hard disks can be partitioned to create multiple file systems on a single disk. The Installer can be used to customize start-up disks to match the system configuration. For example, the Installer can be used to add a start-up disk to the appropriate system file needed to connect a SCSI hard disk or CD-ROM drive to the Apple IIGS. It also ensures system software integrity by updating associated system files to the correct version, freeing you from manual updates of system files. Apple IIGS System Software 4.0 requires 512K RAM and ROM version 01. Apple IIGS System Software, Version 4.0 (A2D6013).

FROM RICH JAROSLOVSKY ON 09/24

GS/OS is available NOW—it arrived Friday (9/24) at Bethesda Computer, and I assume it will be showing up elsewhere soon, as well. Bethesda's price is \$39. For that you get two disks. One is the new system disk (4.0), which includes GS/OS, the new finder, etc. The other is called IIGs System Tools. It includes a program called the Installer which automatically updates your startup disks—I just used it on my hard disk, and it took only a matter of a few moments—and also several disk utilities that I haven't yet had time to play with. The package also includes manuals for the System Disk and System Tools.

FROM KIM BRENNAN ON 09/25

\$39 for GS/OS? Sounds a bit expensive to me! Also, charging for the new system doesn't sound like normal policy, though you did



note that it comes with a manual (though it probably isn't worth the dollars if it is like most of Apple's 'manuals').

FROM DALE SMITH ON 09/25

I think it may be the 350 page user and technical manual, but I'm not sure. The System.Disk and System.Tools without docs will also be distributed via electronic services: GENie, CompuServe, AppleLink, etc. for the price of the connect time for downloading. And from APDA, if you're a member, for \$13.50.

FROM HARRY ERWIN ON 09/26

\$39 for GS/OS expensive? How about \$800 for OS/2: half an operating system for half a computer...

FROM KIM BRENNAN ON 09/26

Well, I went ahead and got 4.0. The docs are the System disk user manual (tells you what you can do by pulling down the Finder menus) and the System Tools manual which explains a couple of things I didn't know before. First off, the Advanced Disk Utility program is a MUST for anybody running a SCSI drive on their GS. It allows the SCSI drive to be partitioned in a manner similar to the partition program that comes with the SCSI card but with more features. The SCSI card program ONLY allows for TWO partitions. The ADU allows for MORE partitions (up to 7) if the SCSI card is in slot 5. In addition the partitions don't HAVE to be ProDOS. Though the Docs don't say what other OS/s are supported. Another thing mentioned that is interesting is that the interleave factor prompt when you are initializing a 3.5 disk on the AppleDisk 3.5 is explained. Normally you will use the 2:1; however the manual claims that the 4:1 factor will allow for faster reading if the disk is used on a UNIDisk 3.5!

FROM DAN HUGHES ON 09/26

I just got GS OS for free from Bethesda Computers. If you supply the disks, they will copy it for you. That's nice. I heard some other dealers weren't allowing the free upgrade. They wanted you to buy the useless Apple manual and two disks for \$39. Take it from me, you don't need to pay the \$\$ if you just want to upgrade your system files. It's so simple. Just like the Mac now. All you have to do is run the installer program and the system files on any volume, including hard disk, will be changed to GS OS. The only thing that happened with me is that I lost my customized Finder.Icons and had to recopy them after the install. The installer has an option to install "everything" possible, too. My opinion of GS OS. It's terrific. Draws the screen a lot faster and is super fast when copying files compared to the old system. The only problem was I had to get rid of startup sound. My hard disk wouldn't boot with the startup sound program and Hal, but did boot with startup pic. I deleted both finally, figuring why run an 8-bit program when I'm launching directly into a 16-bit Finder now. It doesn't boot much faster from hard disk, but from my new GS OS Rom disk—22 seconds flat. Do you believe it. And that's with oodles of icons to load from the hard disk. Get it!

Needs a New Battery?

FROM STAN PALEN ON 09/03

A while back I posted a message about my system coming up in a trashed state, sometimes with all the control panel settings reset. I thought it might be the battery or the video chip had been reported to be causing problems. Originally the problem came only when the machine was very cold. Mine's in the basement.

I noticed the message in the Journal. I found part of the problem when I was real busy and never posted it. Shame—Shame. I was about to measure my battery voltage, when I discovered that my video chip was not seated properly. It was 1/8 th inch higher on one side. It is located under the power supply, so I didn't see it before. I seated it properly and I haven't had a problem since. I hope this helps someone else.

Hard Disk Advice

FROM DAVID WOOD ON 09/05

I've never needed a hard disk before. I've never had to look at them. I've never had to compare prices. I've never had to worry about formatting, security, parking heads, fans, cables, or where to put the blasted thing so line noise from the CPU or printer or whatever didn't erase it. But that was then. Now, I'm about to take on a home job, and one which is quite probably going to generate enough files to choke a VAX. I need to very carefully consider prices, or failing that, where can I get all the pricing information and the best deal? For that matter, since I'm completely new to this, you may want to tell me what's the first and most important thing I should consider before getting the danged thing.

FROM KIM BRENNAN ON 09/05

Okay, so you need a Hard Disk. Since you left this message on a GS board, I'll assume that you're running on a GS. (not that it makes a lot of difference, as long as it is not a //c). First rough pricing of HDs: Going from a low end of \$500 to more money than you are likely to want to spend. However, less than \$1000 is probably the ball park figure that you can (or should) be able to afford. In that range you have the Sider Hard Disks. Proven and reliable they come in a couple of different sizes 20Meg, 40Meg, and (maybe) 60Meg. CMS also makes a 60Meg that can be bought for \$900 or so from various discount places. Both the CMS and Sider drives come complete with controller card and cabling and rudimentary utility software. You can ALSO buy a SCSI card (a special type of interface card) for your Apple II [GS or not] and can buy other SCSI Hard disks and devices.

For the range of SCSI type drives you may want to look into a recent issue of a Mac oriented magazine (MacWorld or MacUser). However the prices for SCSI drives there is not less than for Apple II specific drives: ie. 20Meg for \$650 and up. Consideration of WHY you would want to spend more money on the SCSI path involves future consideration. You can always upgrade a SCSI drive with another SCSI drive (even adding them onto your current setup). Also you may be able to pick up used SCSI drives for much less than new prices. However both the CMS and Sider drives ARE SCSI drives. There DOES seem to be some compatibility problems with the CMS though (I'm not positive about attaching other than Siders onto another Sider). Utilities: Last subject on this dissertation. You will want to make 'backups' of your hard disk. Hard disks do on occasion 'crash'. i.e., the data becomes unavailable to normal users. If you haven't backed up your data—then you have lost it. A good collection of utilities for backing up hard disks and other things is available in a Package known as ProSEL by Glen Bredon. It's a mail order thing and worth the money (somebody else will supply the address info if you ask).

FROM TOM VIER ON 09/16

Try a used Corvus—VERY reliable. Also, if business use, get



TWO. Then if one gets scrambled you can stay on the backup drive. (You'll still want to archive. Corvus can be backed up on your VCR).

The IIGs and Keyboards

FROM ALAN HOFFMAN ON 09/11

Sometime ago, Data Desk advertised an extended 101 keyboard for the IIGS. However, they apparently never finished the ROM's on it, and at my last contact with the company back in February, they were not planning to market it. I don't know why the mail-order company Programs Plus always advertises it if it never came to market. The MacIntosh Standard and Extended keyboards can be used with the IIGS but the NUM lock and function keys don't work properly. Now, an article in the latest edition of A+ (Oct 88, page 118) lists an extended ADB 105 keyboard for the GS at \$155. It is apparently fully compatible with the MacIntosh as well. The company that sells it is: Ehman Engineering, Inc., 97 South Red Willow Road, Evanston, WY 82930, (800)-257-1666, (307) 789-3830.

Quad Density

FROM DALE SMITH ON 09/14

I have a chance at some Memorex 3.5 disks, 2S/4D, 135 tpi at a very good price. I have tested two—one had been formatted and written to previously, the other was blank. I reformatted both successfully and verified the disks. They seem to work just fine. However the quad-density makes me think of the HD disks used on the AT which require a much higher magnetic field to write and erase. Are these similar in that respect?? Could I encounter problems using them? Should they be kept for archive disks—written once and then locked, not to be written again? Or are they just as usable as 2D disks?

FROM DAVID PAGE ON 09/18

I have and am using the same disks that you are talking about for sometime now, and haven't had any problems except for normal wear and tear. If you can get them at a good price, get them and use them as you would 2D disks.

Mouse Alternatives

FROM PAUL HORN ON 09/16

Does any one have any experience with any of the mouse alternates. For example, the turbo mouse, mach IV by CH, the mirage by CH, etc. I need something that my son (age 7) and his friends can use which has a sturdier button than the regular mouse.

FROM TIM MCGRAW ON 09/17

The A+ optical mouse is highly rated. It has fewer moving parts and sells mail order for about \$60 or \$70.

Mouse Problems

FROM TIM MCGRAW ON 09/28

Clinton Computer-Laurel has swapped out my IIGS motherboard twice now because of this problem I've been having where, arbitrarily, after the computer gets warm, the mouse pointer floats off into a corner and the whole system hangs, requiring a hard boot. They said something about the timing and synchronization of the mouse being off. Well, it's still happening. But I've just discovered that when I unplug the mouse from the keyboard and plug it back in, I get my pointer back. The

mouse has been cleaned and the plug receptacles don't appear to be dirty, preventing contact. But the problem still remains, and I can't sit here and plug and unplug my mouse all day (once it starts hanging, it hangs frequently). Possibilities: 1) there's something to this timing bit, and unplugging and plugging re-synchs it; 2) there's a short in my mouse or cable to the keyboard; 3) there's a problem in the ADB inside the keyboard or, for that matter, the keyboard cable. I'm not familiar with the ADB. Any thoughts on this matter would be greatly appreciated, as Clinton will soon be running out of GS motherboards at this rate.

The Apple //c and Clocks

FROM JOHN WAAK ON 09/14

I recently bought a No-Slot clock to put in my //c equipped with a 512K ZRAM. Unfortunately, it would not fit physically on the IIC motherboard unless I permanently removed the ZRAM. There was also no place on the ZRAM card to install the clock, so I sold it (the clock). What are my alternatives for adding a clock to my ZRAM-equipped //c? Does AE offer an upgrade to their ZRAM ULTRA-2? I saw an AE //c System Clock at VF Associates, but have not seen it advertised nor mentioned in any of the computer magazines I usually read. Anyone have any useful info along any of these lines?

FROM LEE RAESLY ON 09/15

AE does offer an upgrade path for Z-RAM. I recently took mine all the way from the 1/2 MEG early one to Z-RAM Ultra III. A full MEG, CP/M, and a clock!

FROM RON ABELES ON 09/18

I have been using the AE IIC external clock for more than two years. I haven't had any difficulties with it. You plug it into either the IIC printer or modem port. It has a port as well so that you can then plug your printer or modem into the back of the clock. It uses pen light flashlight batteries which seem to last about one year before requiring replacement.

The Apple //e and 3.5 drives

FROM JOHN KHOURY ON 09/28

Is there any possible way to hook up an APPLE 3.5 drive to a p//e (not the Unidisk.). Some apple technicians I've spoken to say that the Unidisk 3.5 controller card will run the Apple 3.5 drive, but with all the Unidisk controller cards I've tried at the dealer, it never works. Does Central Points Software Universal controller run the Apple 3.5 drive in a //e? If not, is there such a card?

FROM KIM BRENNAN ON 09/28

There are two cards that will allow you to use the Apple 3.5 on the //e. The UDC (Universal Disk Controller) from Central point is one (I'm pretty sure that this is the case, since it will also allow you to use Mac drives and what else IS a AppleDisk 3.5 other than a Mac drive?) The other card is a bit pricey but has loads of features. It is the PC Transporter card from Applied Engineering. And besides allowing you to use the AppleDisk 3.5 on your //e it also gives you the capability of running MS-DOS programs on your //e. It also has a RGB interface and Ram that is usable on your //e (if you are using ProDOS) as a Ram Disk. Obviously if all you are looking for is a Disk controller, then the UDC is the cheaper choice. ☺

WAPACROSTIC

by Dana J. Schwartz

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

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| 14 | P | 15 | Y | 16 | Q | 17 | S | | 18 | K | 19 | W | 20 | C | | 21 | L | 22 | K | 23 | C | 24 | T | 25 | R | 26 | F | 27 | X | 28 | S | 29 | M | 30 | J | 31 | W | | | | |
| | | 32 | J | 33 | L | 34 | V | | 35 | S | 36 | O | 37 | R | 38 | J | 39 | B | 40 | V | 41 | A | 42 | K | 43 | M | 44 | Q | | 45 | B | 46 | R | 47 | W | 48 | H | | | | |
| 49 | Z | 50 | V | 51 | G | 52 | Y | 53 | U | 54 | O | | 55 | Y | 56 | S | | 57 | H | 58 | O | 59 | M | 60 | U | 61 | K | | 62 | B | 63 | U | 64 | L | 65 | H | 66 | I | 67 | A | |
| 68 | W | 69 | M | | 70 | Q | 71 | B | 72 | C | | 73 | F | 74 | C | 75 | I | 76 | N | 77 | D | 78 | G | 79 | X | 80 | Z | 81 | R | | 82 | D | 83 | C | | 84 | D | | | | |
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| 123 | N | 124 | Q | | 125 | T | 126 | B | 127 | H | | 128 | I | 129 | J | 130 | E | 131 | P | 132 | G | 133 | V | 134 | T | 135 | Z | 136 | C | | 137 | A | 138 | G | 139 | N | 140 | Z | | | |
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| 160 | V | 161 | X | 162 | Q | 163 | J | 164 | R | 165 | W | 166 | A | | 167 | M | 168 | A | 169 | S | 170 | N | | 171 | W | 172 | Q | 173 | H | | 174 | D | 175 | B | 176 | R | | | | | |
| | | 177 | U | 178 | X | 179 | J | 180 | B | 181 | A | 182 | G | 183 | L | 184 | T | 185 | Q | | 186 | X | 187 | G | | 188 | D | 189 | C | 190 | I | 191 | R | 192 | N | 193 | U | | | | |
| | | 194 | T | 195 | Q | 196 | L | | 197 | E | 198 | V | | 199 | U | 200 | P | 201 | C | 202 | N | | 203 | U | 204 | M | 205 | J | 206 | D | 207 | A | | | | | | | | | |

Definitions

Words

- A. Furnish Furniture
105 97 168 137 181 166 67 41 207
- B. Current Social Problem
71 145 126 111 175 45 180 62 39
- C. Light Toy
93 74 99 189 201 20 119 23 72 102
156 136 83
- D. Smooth Peach
174 153 122 188 84 92 82 77 206
- E. Semiprecious Gem
197 10 130 158
- F. Hit Upside the Head
26 7 149 73 104
- G. Innately
138 51 78 121 150 182 132 12 187
- H. Looked
57 98 65 127 112 86 173 48
- I. Why a Duke?
120 66 75 128 190
- J. Destroy Public Property
129 179 110 205 32 163 38 152 30
- K. Cap Extension
61 22 42 95 4 18 114
- L. Dodge Model
108 9 64 183 21 196 33
- M. Maurice Andre, e.g.
167 204 146 144 59 100 29 43 69

Definitions

Words

- N. Discourteously
76 90 192 94 202 151 123 159 139 170
- O. Oozed
54 8 13 58 36 154
- P. Chevrolet Model
131 103 117 155 14 200
- Q. Eye Condition
195 116 162 172 124 70 16 148 85
- R. Accumulator
37 91 176 81 191 25 164 46
- S. Lost by Neglect
141 17 35 56 169 28 147 107 88
- T. Ready to Run
194 113 24 118 125 134 184 5
- U. Home of the "Five Civilized Tribes"
63 53 60 87 193 203 199 177
- V. Marched Cross Country
40 198 133 50 11 34 160
- W. Verbalize
19 47 165 31 171 106 68
- X. Dominate
79 178 89 27 186 161 1 142
- Y. Military Body
6 52 15 55 3
- Z. By the Bishop's Authority
49 157 109 80 101 143 2 96 115

APPLE'S TAYLOR POHLMAN ON GS BASIC: Part 1

Transcribed by John Lomartire, Edited by Dave Ottalini

(The following transcription is taken from a seminar given by Taylor Pohlman at the October, 1987 Phase /// Conference in Chicago. This seminar, along with others given during Phase /// will soon be issued as a WAP /// SIG PD disk).

We believe that GS BASIC is going to provide an environment to do any sort of software you want in a GS environment. Everything from converting your Applesoft and Apple /// Business Basic programs over to the GS pretty much straight as they are, through utilizing the full facilities of the system. There are no real limitations to the ToolKit and the tools that you can get to, in the GS. Everything from SoundManager to you name it, and new tools as they appear, are ready to interface.

Let me give you a little background about GS BASIC. First, I left Apple for a while back in the Fall of 1982. I started a couple of companies and had a lot of fun. Then (Apple's) Dan Cochrane (came to me and) said Apple needed a manager of languages and utilities parts management. He told me about the new Apple IIGS.

Cochrane said there were a couple of guys who still remembered assembly language but everybody was really hot on C. There's not going to be a Pascal apparently for the machine. Nobody is going to do BASIC, except Applesoft would be put in ROM so that the old programs could go on. I said, "You're kidding!" Pardon me for offending anybody, but in 1979 when I first joined Apple and looked at Applesoft after having programmed on an HP and other kinds of mainframes, I refused to write code in that language until they fixed it. When Business Basic came out, I had a language I could write programs in, and that's what I did.

I said to Dan, "No way does that make any sense." So Dan said he'd work something out. (What he worked out was) he gave me the source code to Business Basic (to convert over) and said once I got it going, he'd help figure out how to get the thing out the door. I thought that sounded like a pretty neat idea. How many people here have programmed in assembly language? OK. How many people didn't raise your hand because you really do know how but you're afraid someone might ask you to? I'm kind of in that second category. I sort of know how and have sort of done it, but that's the last thing I'd do for a living. So I said, "I've got to get someone who knows what they're doing."

Once upon a time, a long time ago (in 1979), a guy named John Arkleys used to work for me at Apple. John was now doing some consulting, working with FORTH company. He had put out some wonderful programs pretty much on his own in a garage behind his house. I managed to find John. John actually worked on a lot of the early Business Basic stuff. I dragged John out of the garage and I told him we've got a chance from Cochrane to get the source to Business Basic and convert it. He liked the idea, so I put him together with my partner at the time, Dan Winslow, who was Apple's old lawyer who did the patent trademark stuff, fought the Franklin and Comb wars, and all that stuff. The three of us got together and went off to do it.

It became pretty apparent when we got into it that we could do it. In fact we did a port pretty quickly. We started in July and

by September we were actually demonstrating Business Basic programs running on the GS with a little bit of extension like larger memory and so forth. But it was clear that although it was interesting and useful, it really wasn't what the machine wanted. I'm a firm believer that languages are only good if they let you at the machine. So we sat down and really started thinking. At that point we started working very heavily with Apple Product Management.

That's how David Ives became the sort of quasi product manager working for Cochrane on the project. We all sat down and said, "Now what kind of BASIC do we really want for the GS, given the fact that we want to be sure that we've got backwards compatibility. We want Business Basic programs by and large to run unchanged and to tap all of that market and tap all of those people who have that kind of expertise, but on the other hand we want to let them at the machine so they can do applications." We cooked up a language specification—and we came up with, we think...an outstanding version of the language.

I'm happy to say today that the beta-4 version of that is now in APDA's hands, they are shipping it. I brought some data sheets along with me today, and for \$50, you can actually have one of your very own. What Apple will exactly do in shipping this product, if it is ever actually shipped officially from Apple, I don't know. We are committed at least to do one more beta version through Apple which is going to make some internal changes as soon as it comes up. But the language as it stands right now is set. We know what it does and that's really what I want to spend some time with you about today.

What is this new language and what kind of impact will it have on people who want to develop things for the GS, either quickly or spend a little bit of time doing something really fancy? And also, those of you who program in assembly language, I want to talk a little bit about how GS BASIC, for me, presents one of the finest platforms in assembly language development that's around. Those of you who did assembly on the Apple ///, let's say, using the invokable module will find an incredibly similar but far more powerful annotation of assembly language in GS BASIC and therefore we think it's the right place to turn this stuff loose in that system.

If you want to do the easy part in BASIC, the hard part in assembly, it's an ideal environment. Besides, the invokable module interface, if you remember from the ///, presented product opportunities for assembly language programmers to fill routines that were useful to a large body of programmers. The way we've done the interface to assembly in this product will also give you more of an opportunity to do high quality invokables for the GS with this product. This product is even better.

Next month: GS Basic Internals



ON THE TRAIL OF THE APPLE ///

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

WHERE DO I FIND PARTS FOR MY APPLE ///?

Finding parts is becoming more and more important for the Apple /// community. The reason, of course is that Apple has not made our computers for some time. In fact, some reports say they are actually destroying machines! But don't fear—there are still a number of third party vendors who have everything from whole Apple /// motherboards to memory cards, chips, etc. The list below, with some additional notes, should give you a good idea of where to start looking.

COMPANY/NAME: Computer Service Experts
ADDRESS: Box 70698
CITY/STATE/ZIP: Sunnyvale, CA. 94088
PHONE: 408-338-4339
CONTACT: David Rowe

Computer Service Experts says it has Apple /// ROM chips. Check the Apple /// Service Manual for more information about this chip (in the WAP library). Call for more information and availability. The last information I had indicated they were going for \$5.00 each with quantity discounts.

COMPANY/NAME: Electrovalue Industrial
ADDRESS: P.O. Box 376-CPC
CITY/STATE/ZIP: Morris Plains, NJ. 07950
PHONE: 602-428-4073

These folks say they have "Genuine Apple Parts" so they may also carry parts that will work in your ///.

COMPANY/NAME: Jameco Electronics
ADDRESS: 1355 Shoreway Road
CITY/STATE/ZIP: Belmont, CA. 94002
PHONE: 415-592-8097

Jameco is an excellent source of chips for your ///, e.g. 6502B microprocessor, clock chip, etc. I've ordered a number of things from them and have received excellent service. Prices are good.

COMPANY/NAME: Morris Horn and Associates
ADDRESS: Box 330876
CITY/STATE/ZIP: Ft. Worth, TX. 76163
PHONE: 817-292-3432
CONTACT: Morris Horn

Last time I talked to them, Morris Horn had lots of Apple /// parts, including motherboards, chips, cases, etc. They had so much stuff, in fact the guy asked if I knew anyone who wanted to take it off his hands!

COMPANY/NAME: N.D.R.C.
ADDRESS: 8511 Manderville
CITY/STATE/ZIP: Dallas, TX. 75231
PHONE: 214-750-9889

N.D.R.C. advertises in Computer Shopper and offers a number of /// parts products, including motherboards, memory cards, power supplies, etc. Decent prices, in line with what Shreve and others are asking. Call for latest information.

COMPANY/NAME: On Three
ADDRESS: 8920 Yolanda Avenue
CITY/STATE/ZIP: Northridge, CA. 91324
PHONE: 800-443-8877
CONTACT: Bob Consorti

On Three has been a long-time vendor for the /// community. They offer 65C802 microprocessor chip upgrades (cheaper from Jameco), interlace kits, clock kits and some other items. Check their magazine for the latest offerings and prices.

COMPANY/NAME: Pre-Owned Electronics
ADDRESS: P.O. Box 644
CITY/STATE/ZIP: Lincoln, MA. 01773
PHONE: 617-891-6851

Another Computer Shopper advertiser, Pre-Owned Electronics also offers a wide range of /// parts ranging from /// motherboards, 12 and 5 volt memory boards, even analog disk drive boards. Call or write for more information.

COMPANY/NAME: Shreve Systems
ADDRESS: 845 Lark Ave.
CITY/STATE/ZIP: Shreveport, LA. 71105
PHONE: 1-800-227-3971

I discovered Shreve in the back pages of Computer Shopper as well. Contact them for a complete list of offerings. Has some software too.

COMPANY/NAME: Sun Remarketing
ADDRESS: Box 4059
CITY/STATE/ZIP: Logan, UT. 84321
PHONE: 800-821-3221
CONTACT: Bob Cook

Sun is another long-time Apple /// vendor that offers parts, including hard-to-find Apple /// chips. They tend to have chips others don't have. Call for latest information. They have a free quarterly publication you can order.

TIMELY PROGRAM

Here's another program with will display the correct time for you if your /// has a clock chip (and it's been set properly using System Utils). This particular program will display the time in the upper right hand corner of your screen and could be incorporated into other programs fairly easily.

```
10 HOME:legal.char$="AaBbCcDdEe"
50 correct.time$= TIME$
60 correct.time%=CONV%(LEFT$(correct.time$,2))
70 IF correct.time%>12 THEN correct.time$
   =correct.time%-12:time.of.day$=
   "PM":ELSE time.of.day$="AM"
75 new.time$=CONV$(correct.time%):
   IF LEN(new.time$)=1 THEN new.time$="
   "+new.time$
80 SUB$(correct.time$,1,2)=new.time$
90 VPOS=1:HPOS=70:PRINT correct.time$,"";
   time.of.day$
100 ON KBD OFF KBD:POP:GOTO 120
110 GOTO 50
120 char$=CHR$(KBD):IF NOT
   INSTR(legal.char$,char$) THEN PRINT
   CHR$(7);:GOTO 50
130 END
```

NEW PD DISKS

We are pleased to offer two new PD disks this month. The



first is disk 1035 and is called "THE BEST OF BLOOM". It includes Dr. Al Bloom's set of recent articles from TAU Tales explaining how to transfer data from an Apple /// to other computers (and back) in various ways. There's also information about all the articles he's written and where to find them as well as descriptions of all his programs offered by WAP and other Apple groups. They are both provided in ASCII format and 3EZP/AppleWorks Data Base files. As with many of our other disks, this one is self-booting on side one.

Disk 1036 has two more of Daryl Anderson's gems. On side one you'll find RAM+3, a set of VERY USEFUL RAM drivers for those of you with ///+// or ///+//e cards. Side two has 2NFRO, a program designed to let you return to Catalyst or Selector once you've run the ///+//e emulation program. This is a beta version and works—to a point. See Jim Suthard's comments about it in last month's Journal. This disk is self-booting on side one. Full documentation included for both programs.

Next month, in time for Christmas, we'll be offering the long-promised CustomFONT program, with its associated manual disk AND a double-sided disk full of fonts!

DR. BLOOM STRIKES AGAIN

SIG member Dr. Al Bloom has decided to place more of his great programs into the public domain. Namely, they are his excellent set of utilities of use with Mail List Manager. Any of you who have this program know its limitations. But with these utilities, you'll be able to push MLM to their limit. We will be adding these to our PD library in the next few months, so stay tuned. In the meantime, here's a list of the 7 programs and a short description of what each does:

1. MLMINFO consolidates all the important information about an MLM file on a single page—your file's content, structure, sort fields, and print-control specifications.
2. MLMSORT adds the power of a general-purpose sort to your MLM system. It resequences a file in any order you desire, using any of up to 14 data fields in an MLM record.
3. MLMLIST is a flexible and sophisticated list facility for attractive and meaningful display of MLM data. This utility allows you to list any MLM file data items in an informative layout of your own choosing.
4. MLMCNVT allows you to respond to changing needs by converting an MLM file into another layout. You may rename and reorganize the data, delete obsolete fields, combine and split fields, and create new fields.
5. MLMERGE merges the records of a two-disk MLM file. Duplicate records are not merged into the resulting output file. The result may be combined or equally divided between two output files for easy record insertion.
6. MLMASCI converts MLM files to formats that can be loaded into other systems—Apple Writer, Keystroke, PFS, /// Easy Pieces, etc. MLMASCI has four output formats: Apple Writer mail/merge, ASCII text, Name:Value, and DIF.
7. MLMUPLD uploads (creates) MLM files from other systems and programs. MLMUPLD accepts four input formats: ASCII text, Name:Value, DIF, and "comma separated value."

ENDIT

That's all for this month. Have a great Thanksgiving. ☺

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| On Balance | 43 | Rags to Riches Sys | 335 |

Communications

| | | | |
|---------------------|----|----------------|-----|
| ASCII Mousetalk 1.5 | 76 | Intalk 2.11 | 122 |
| Point to Point | 80 | Mail 1-4 users | 215 |

Database

| | | | |
|-------------------------|-----|------------------|-----|
| DBase II 2.43 | 340 | Omnis 3+/Express | 345 |
| pfs: Workmates(f,r,p,w) | 128 | Reflex Plus | 200 |

Education

| | | | |
|--------------------|--------|-------------|----|
| Computer SAT (HBJ) | 28 | Mathtalk | 32 |
| Stickybear Series | ea. 26 | Speller Bee | 37 |

Graphics

| | | | |
|-----------------------|----|----------------|-----|
| Publish It! | 79 | Canvas 2.0 | 175 |
| Springboard Publisher | 92 | Calendar Maker | 32 |

Leisure

| | | | |
|---------------------------|----|--------------------|----|
| Mean 18, Ultimate Golf-gs | 29 | Beyond Dark Castle | 35 |
| Pirates | 29 | Chessmaster 2000 | 33 |

Programming

| | | | |
|---------------------|----|-----------------------|-----|
| Super Macroworks | 32 | Lightspeed C 3.0 | 119 |
| Timeout Ultramacros | 39 | Lightspeed Pascal 1.1 | 86 |

Spreadsheet

| | | | |
|----------------|-----|-------------|-----|
| GSWorks | 155 | MacCalc 1.2 | 97 |
| Visualizer Iie | 57 | Trapeze | 185 |

Word Processing

| | | | |
|---------------------|-----|-------------|-----|
| Multiscribe/GS 3.0 | 70 | Mindwrite | 128 |
| Word Perfect/GS 2.0 | 107 | MS Word 4.0 | 280 |

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

| APPLE | | MACINTOSH | |
|-----------------------|-----|-------------------|-----|
| 816/Paint | 48 | Cricket Presents | 315 |
| CAD Apple | 295 | Draw It Again Sam | 94 |
| California Games | 29 | Fastback | 62 |
| GEOS | 92 | Fox+ | 235 |
| Music Studio 2.0 - gs | 70 | Quicken | 36 |
| Orbitor-gs | 33 | ReadySetGo 4.0 | 330 |
| Scrabble | 30 | Powerstation 2.4 | 38 |
| Smoothtalker-gs | 37 | Symantec's SUM | 69 |
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GAMESIG NEWS

by Steven Payne

Karen Rall wrote the excellent column in last month's issue describing the August GameSIG-sponsored main WAP meeting. All that needs to be added is a special word of gratitude to Charles Don Hall who organized all the details of the day, to Ron Wartow who chaired the extravaganza, to the Granites who hosted a great post-meeting party, and to the many collaborators whose combined efforts made the day such a success. (Ask Richard Clark about his lonely vigil for the "late" Lord British!)

GameSIG's September meeting is traditionally the most sparsely attended, since the chairman usually passes the hat to help pay for the August festivities. With that danger past, however, GameSIG members reappeared in record numbers for our regular monthly meeting on October 6th. Chairman Charles Don Hall got things underway with another funding appeal, encouraging folks to give "lots of money" to Dave Granite (though no great surge of giving was noted). Next, Al Vannoy offered a demo of **Fire-Brigade: The Battle for Kiev, 1943**, a new war game for the Macintosh which can be networked via modem or cable to other computers, including the IBM. The game contains variable skill levels, is largely icon and menu driven, and is apparently generating considerable interest at the Pentagon and West Point! At present, however, **Fire-Brigade** is only available directly from the Australian publisher (Panther Games, P. O. Box 8, Hughes ACT 2605, Australia), for \$50 plus \$8.50 air freight. (The IBM version is \$60, and an Amiga version is expected soon.)

After that presentation, Jeff Stetekluh hosted the monthly **Robot Tanks** tournament, once again with robots by Jamie Kowalski, Richard Clark, Davy Hakim and Jeff himself. Jeff's machine won (not surprising, perhaps, since he wrote the program!).

Richard Ogata, David Romerstein, and Garry Knox followed with a demo of the upgraded **Falcon** (Spectrum HoloByte) F-16 flight simulator running on two Macintoshes, connected over an AppleTalk network. Garry successfully shot down all opponents. Charles also passed out new software for review, including the following:

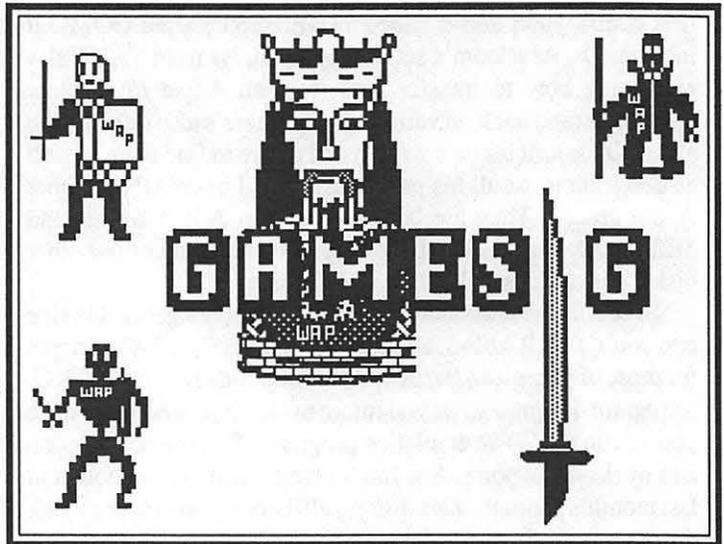
King's Quest III: To Heir is Human (Sierra, IIGS): graphics adventure (see below);

Sherlock: The Riddle of the Crown Jewels (Infocom, Apple II series): text adventure in the "Immortal Legends" series;

Grammar Mechanics (Mindscape, Apple II series with 48K): educational program for grades 2 to 3.5;

Dive Bomber (Epyx, Apple II series, \$39.95 list): flight/combat simulation set in 1941, in which you pilot an "Avenger" and try to "sink the Bismark."

In the "current and upcoming games" department, Charles Don Hall talked about **Demon's Winter** (sequel to **Shard of Spring** from SSI); **Pool of Radiance** (SSI, Apple II series), which uses the Advanced Dungeons & Dragons System; **Star Saga One: Beyond the Boundary** (Masterplay, Apple II series and IIGS) a science-fiction role-playing game by Andy Greenburg of Wizardry fame; **King's Quest IV: The Perils of Rosella** (Sierra, Apple II series) whose heroine is also scheduled



to make a cameo appearance in **Leisure Suit Larry II; Manhunter** (Sierra, Apple II series) set in Manhattan after an alien takeover (so what's new?), where you can either collaborate with the aliens or join the resistance; **Typhoon of Steel**, and new wargame from SSI; and of course **Zork Zero** and **Shogun** from Infocom, which you've read about here before. (My own tidbit of information concerns Environmental Simulation Systems' fantasy/role playing game **Quarterstaff**, which has now been adopted by Infocom and re-dubbed **The Tomb of Setmoth**—it may already be in the stores by the time you read this. Having struggled through somewhat buggy earlier versions of the game, I suspect this will be worthwhile investment, particularly with all of the improvements Infocom is likely to add.)

The meeting ended with a David Wood's demo of **Dungeonmaster** (FTL) on the IIGS, as gamers broke up into smaller groups to discuss their favorite programs and share hints. Meanwhile, look for GameSIG-sponsored reviews of **Moebius** (Mac version), **King's Quest III** (Apple II version), **Tetris** (Apple II and IIGS versions), **The Hobbit, Fellowship of the Ring, Shadows of Mordor, Tomahawk, Reach for the Stars** and **Space Quest II** elsewhere in this issue. The next regular monthly GameSIG meeting will be on Thursday, Nov. 3, 1988 at 7:30 PM in the WAP Office in Bethesda. See you there! ☺

MOEBIUS (MAC VERSION): A REVIEW by David Granite

If you liked "Karataka", you'll love **Moebius: the Orb of Celestial Harmony** (Origin Systems, Mac). This game is an interesting attempt to meld arcade-like kung-fu technique with a straightforward fantasy-role playing game. It succeeds to some extent in that encounters are decided by sword or hand-to-hand combat of figures you control by the keyboard or mouse. Unfortunately, the fights become routine in the usual combats against guards or assassins. The struggles with the evil monks were of another order altogether and I had to call in my son to finish them.

The plot is linear, much like a kung-fu movie. You must defeat the ex-follower of Moebius who is disrupting the harmony



of the earth-water-air-fire nexus which keeps the land of Khantun peaceful and prosperous. You travel from one plane of existence to the next, each plane governed by earth or water or—you get the idea. In each plane, you must evict the evil monk from Moebius' shrines and replace him with a good monk. Evict as in kick and punch the ever-lovin' harmony out of him until he is an extinct monk. Once you do that, you can move onto the next plane, up to the final confrontation.

The graphics of this game are interesting, and they do transfer well to the Mac. You are symbolized as a mobile head, moving around the land having encounters (conversations or battles) with other mobile heads. In combat mode, you become a full-size figure fighting against another figure. One of the irritating things about this game is that there are frequent earthquakes, which usually occur just as you are trying to move to a crucial area and block the area with rock-slide. While the quake is happening the screen shakes back and forth for an extended period of time, during which you can do nothing. After a few of these shake and bake routines, they become very annoying.

Another little problem is that the good monks must follow you to certain places. They say they will follow you but they have a little problem with corners and seem to disappear at intervals. The best defense against this is to save frequently and go back and get them.

Finally, the big question: does this conversion follow the Mac interface? We all know this is very much like religious orthodoxy. If you follow the interface, you are a good program and 'intuitive.' If you don't follow it you are an evil program and 'work real well on an IBM.' Well, Moebius is semi-good, but it won't get to Mac heaven. There are numerous pull-down menus and one can even attempt to fight by clicking on icons with the mouse (one can also attempt to do a swan dive on the 10-meter board with one's hands tied). Obviously, fighting has to be done with the keyboard to be successful. And the keyboard ain't intuitive.

All in all, not a bad game, but not one of my favorites. I would give it a 7 out of 10. If you are a black belt role-playing expert, this is the game for you. ☞

THE HOBBIT, FELLOWSHIP OF THE RING, SHADOWS OF MORDOR: A Review

by Stephen Granite

These three games (Addison-Wesley, Mac 512Ke or better) are almost exact duplicates of the books in every way. You have the fun of going through the adventures and also the hardships of the adventures.

In *The Hobbit*, you are Bilbo Baggins, the hobbit who never wanted to go on an adventure, but was talked into it. You start off at Bag-End with Gandalf and Thorin. Gandalf gives you the map to get to the dragon, Smaug, and you start off. You walk along and have to keep your eye on Gandalf because every so often he will try to take the map and run away with it. You also have to watch out for trolls, goblins, spiders, and Smaug. You have to go and get lost in the goblin caves, find the ring and Gollum (who will try to trick you into his riddle game) and make sure that Gandalf does not get killed in the caves while doing so. Then you have to run to Beorn's house to get away. I was only able to get this far because Gandalf kept getting killed (he ran off a lot) and because I could not find Beorn. Nonetheless, I liked the game.

In *The Fellowship of the Ring*, you can be Frodo, Sam, Pippin, Merry, or all four of them. Again you start off at Bag-End, but only with Frodo, Sam, and Pippin. Your first job is to find Merry (or be Merry and find Frodo). Also you have to watch out for the Black Riders who will try to stop you and take the ring. I was only able to get this far because after this I would always run into the Black Riders and get killed. I liked this game, too, but not as much as *The Hobbit*.

In *The Shadows of Mordor*, you can be Frodo, Sam, or both. This time instead of starting at Bag-End, you start at the outskirts of Mordor trying to finish your quest to destroy the one ring. Also along with you is Smeagol (a.k.a. Gollum) who now seems to be helping you to destroy the ring. You walk along and come to a

tree hanging over a cliff. You think "Aha! I'll tie a rope to the tree," and become Sam and tie a rope to the tree. (You have to say that you're playing Sam at the beginning to become him.) As soon as you climb down to the bottom of the rope—Splat!—you become a blob that looks like the gum that gets stuck to the bottom of your shoe. This is as far as I got in the game because I couldn't find anywhere else to go. I also liked this game, but not as much as the two before.

In all of these games the parser was tough even using the words given in your book. Also you have to do all of the small parts in a specific amount of time or something bad will happen, e.g., not finding Pippin, or Gandalf dying. Despite all of these things I found wrong, I liked the games because I became one of the people who took part in the adventure and excitement. I would suggest them to people who don't get frustrated easily. ☞



SPACE QUEST 2: Roger Wilco, Over and Out

by David Wood

Once again, you don space suit and blaster pistol and head for The Wild Black Yonder. You, as Roger Wilco, Space Hero Par Excellence, must battle an evil opponent and a terrible threat to Man-and-friendly-Alienkind.

Maybe I stretched the truth. Okay, so I broke it clean through. You don't get a blaster pistol, you get a broom, and you're really—you guessed it—a janitor. Again. And "terrible" galactic threat is a half-truth: the full quote is "terribly silly."

Let's start from the beginning. In Space Quest 1, a race of lizardine nasties known as the Sariens got hold of a device known as the Star Generator, capable of turning a planet into a sun. The Sariens planned to use the Star Generator to solarize (?) your home planet, except that you somehow managed to stop them.

For that, you were given something loosely resembling an award (it's a surprise. Play SQ1) and became famous for a little while. Then it was back to life as you knew it before: janitoring.

However, another galactic nasty known as Sludge Vohaul, who was using the Sariens originally to blow the planet Xenon into itty bitty dust thingies, has devised another terrifying(ly silly) plan: He is going to bombard Xenon with thousands of genetically engineered insurance salesmen (!?).

The culprits of this graphic adventure with a text assist are Mark Crowe and Scott Murphy. Sierra is the software company/ accomplice. The version I got to test is for the IIGS with 512K memory and optional (but very, very helpful) joystick.

The parser runs quite like that in Space Quest 1. You can type things in on the keyboard, but if you want to move around, you have to use your joystick or mouse. If you want to use a command

at a particular time, you can use the button on your joystick instead of RETURN. The parser is somewhat comprehensive; I can't help feeling that it's shrunken because of all the graphics. In all, it interprets your commands fairly smoothly.

The graphics are also like that in Space Quest 1, but that's not necessarily good. Both have a low-resolution look because they use doubled-up pixels (the screen is effectively 160x200 minus score/menu bar and space at the bottom for text input). It's colorful, but the scenery and such could have been a bit sharper at the cost of a little more disk space.

One of those things I liked: They used more sounds in 2 than they did in 1. Whooshes, clinks, slurps, snaps, whirrs, etc. came through at fitting times to liven up the game. It doesn't use stereo, but that's why they call it a graphic adventure and not an audio adventure.

In all, the main reason to play this game is for the humor. The game itself may be rough in spots and the scenario may be a little too linear, but it's main attraction is the wit—sarcastic, acid, cute, and sometimes just plain weird, but still real funny.

Summary:

LOOK: 7/10 (The graphics were colorful, but sort of blocky. Animation in places was a nice touch.)

FEEL: 8/10 (The movement system is slow, but it's smooth and fairly well-defined. You still can't jump, by the way.)

PLAY: 9/10 (The puzzles and action sequences are fairly logical, entertaining, etc. The parser is usually a joy.)

OVERALL: 8/10 (Slow and blocky, but still good for a chuckle or three.)



KING'S QUEST III: A Review

by Ian Soboroff

King's Quest III: To Heir is Human is a new graphic adventure game. The reviewed version runs on the Apple //e or //c with 128K, and would probably run on a //GS (I haven't tried), though there are special versions of the **King's Quest** series designed specifically for the //GS.

In this game, you are apprenticed to the great wizard Manannan. Although this might not seem so bad to start, Manannan has a reputation for having apprentices disappear every 18 years. Since you're entering the teen years yourself (characterwise), this is not a bright prospect. Manannan has you doing menial tasks so that you have no time to mess around with "magik." Every time it looks like you are doing something you shouldn't, some insane punishment is meted out to you (such as hanging upside down in the kitchen, magikally).

As the game starts, you are in Manannan's house (you aren't allowed outside), and the wizard sends you on some task, such as cleaning the kitchen or dumping his chamber pot. The first time through, you will undoubtedly have no idea what to do, so after some bumbling about looking for the chamber pot (or whatever), Manannan will promptly have you vaporized. This happens a lot

in the beginning, until you get to know the house and where everything is. After a while, Manannan announces that he is going on a journey, allowing you (whee!) free run of the house. After fully exploring the house, however, there is no place to go but outside, down the mountain . . .

The front of the box sports a banner saying "The Bestselling 3-D Animated Adventure Series." This is easy to believe. **King's Quest III** has some of the best full-color graphics I have ever seen for the //e. The backgrounds are not animated themselves, but animated characters may appear from time to time, such as the wizard's cat, birds, and the like. Unfortunately, this makes the game unbearably slow. Also, this game (in my opinion) is better suited to a younger audience, around 10 to 13, old enough to be able to solve the puzzles without getting frustrated by the many deaths in the beginning, but young enough so that the game has appeal. I found many aspects much better suited to those of lesser years. Also, the documentation is very sparse. It tells you the basic story, and how to mix some spells, but nothing else. A special reference card is included with each different version, giving information on how to start up, save,

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REACH FOR THE STARS GS

or How to Take Over the Galaxy in Not Enough Easy Lessons

by David Wood

Reach For The Stars is 512K game for the Apple IIGS. It's a 1-4 player space-takeover-type wargame written by Strategic Studies Group in Australia (They publish a number of board-type wargames as well) and distributed by Electronic Arts in America.

At first, several things about this program worried me. It all started when I opened it up and found the loading instructions for the Amiga. It has a startup screen, but not a very good one. The sound effects are sparse, and not always apropos to the events they're played for. I also found one or two glaring bugs which I still have to write to SSG about.

Most of these, though, are cosmetic. The game itself actually plays well, and get this—it uses Apple's Human Interface Guidelines. No kidding! It uses real Apple menus and Modeless Dialog Boxes to get important information to you. It really works!

The point of the game is fairly simple: In forty to two hundred turns (you can select how many), you have to develop your own ships, planets, and establish colonies while you trounce the other players. You do this by using resource points (available every other turn) to assemble ships, improve your technology, develop your planets, and recruit scouts and colonists to locate and populate New Worlds.

The game has several interesting twists:

First, you know nothing about your opponent. There are two ways of getting this valuable information: 1) Send scouts out and hopefully stumble upon it, or 2) watch the screen as he takes his turn. Otherwise, two people could play and never learn anything about—or even encounter—each other.

Second, there are always four players. Those that aren't played by humans are played by the computer, and every one can be set to play at a different level. Even against three Beginners, you'll get a run for your money.

Third, the basic game is extremely malleable. You can add novas, natural disasters, xenophobes, solar debris effects, random map setup (there is a standard map included in the documentation), adjustable victory criteria, and/or use the advanced rules. You can change the costs of planetary development, ships, technology, colonists, scouts, and planetary defense bases. You can change the maximum distances all ships can move per turn. If you want, you never have to play the same game twice.

Fourth, the routine that the computer uses to spend its production points is available to the player: It's under the Production menu, it's called Advice, and for the beginner, it's very useful. It fills in the production box in exactly the way the computer would do it based on your situation. If you don't like the computer's distribution, you can always change it.

Fifth, it's not copyprotected. With software companies fixing their products so they can be pirated with difficulty and fried by power surges with ease, it's nice to see a program friendly enough to allow backups, hard drive storage, etc. In fact, since it so closely follows the Human Interface Guidelines, you could

probably put on your favorite desk accessories.

Overall: It has its little defects, and it's a tough enough customer that the impatient beginner will be discouraged. That person who likes settling down in front of a table and pushing counters and dice around will be happy to find that the mouse will take his mind off of moving pieces and back onto his game.

LOOK: 7/10 (The presentations were simple, but they got the point across. Graphics were adequate).

FEEL: 9/10 (The Human Interface Guidelines were a boon, really they were, but moving about the map is a bit rough).

PLAY: 10/10 (It plays a very strong game, whatever variants you choose to use).

OVERALL: 9/10 (Strategic gamers will love it. Beginners may find this useful for learning other strategic games). ☺

TOMAHAWK GS: Whaddya mean, "Rotor Blade Lost?!"

by David Wood

"The Tomahawk's impressive array of weapons and unmatched maneuverability make it the toughest air-war fighter going!"

So it says in the Pilot's Handbook. The title character is not an Indian, but the Army's AH-64A Apache, Advanced Attack Helicopter. And as the introduction says, it has firepower, maneuverability, and great sound effects.

The Tomahawk I'm referring to is the one produced by Datasoft for the IIGS with 512K and a 3 1/2" disk. For a good time, though, you also oughta have a joystick, 256K more memory, and a stereo card. ESPECIALLY the stereo card.

When you boot up and sit through the title theme and screen, you'll have your choice: Keyboard or joystick, starting sound volume, and whether or not you have a stereo card. If you tell it you do have a stereo card, you have to hook speakers up to it to play; it will turn off the internal speaker. If you don't have a stereo card, I pity you; the whumpwhumpwhumpwhumpwhump of the rotors is a real nice touch.

After that, you get the scenario screen. You can select day or night, clear or cloudy, crosswinds and turbulence, mission number, and pilot skill level. Then it's good luck and off to your mission.

Mission 1 is just the training mission, where most every target is hostile, everyplace is safe to land, and nothing shoots back.

Mission 2, you have to clear four sectors of ground targets (There are four tanks and four artillery in each sector). Oh, and they do shoot back, and half the map is hostile, but you won't end up there unless you get seriously lost. Hint: Watch your compass when you travel.

Mission 3 is more of an epic than a scenario: The whole map



is hostile, except for the one sector you're in. The objective: clear all 128 sectors, starting with yours. As you clear sectors, you can land at those sectors' helipads. The enemy is going to fire at you, of course.

Mission 4 is an all-out strategic battle between the Allies (blue, on the left) and the Enemy (orange, on the right).

You'll notice that the last two scenarios look like long ones. And they are: One, you have to clear half the map, and in the other, you have to clear all of it! When you discover that there's no save game option (which surprised me), you'll wonder when you'll find the time to play it. Sure, you can pause it, but if you want to start up something else in the meantime, your system is tied up by a game you don't want to stop.

It's fairly well armed too: To blast your foe into itty bitty little bits of flaming wreckage, you can use your chain gun (limited range and fairly hard to target), your rockets (less limited, but still hard to target), or your laser-guided missiles (terrific range, automatic targeting, guaranteed kill. It gets next to no score). In that regard, it's too good: If explosions are going off all around you, you don't want to sit there and move the little red dot in the center of the chain gun scope to where you think the enemy is. You want to nail him before he takes your rotor off, and that usually means using the missiles and getting peanuts for score.

At first, I thought this was a great, challenging game. I couldn't take off or land. I sometimes forgot that no heli can do a forward, sideways, or any other kind of roll. And I pulled off most of my classic maneuvers during that period. There's only one other helicopter on the map at any one time, and I say you haven't lived until you've run into it backwards twice on the same day.

But now, I can take off beautifully and nail targets on the way up, t'boot. I can also land with some confidence, having learned that I can use my rudder to slow myself down over the helipad. I can locate targets, fly to them, usually take them out (still with missiles—they fire back!), and then locate the next target.

And until you master the really difficult dogfighting techniques (descriptions are included), that's effectively what the game boils down to. Despite the sound effects and outbreaks of Pilotus Screwuppus, the game becomes a lot like any other shoot-em-up, and a little dull, too.

LOOK: 7/10 (The control panel was well-detailed, but the targets and land features were line-drawn for speed.)

FEEL: 9/10 (The controls are sensitive. My first few crash-and-burns were due to overcompensation.)

PLAY: 6/10 (Until you learn takeoffs, it'll seem interesting. Until you learn dogfighting, it'll seem dull.)

OVERALL: 7/10 (If you find it dull, you won't want to play. Still, it's interesting for a while.) ☺



Annapolis Apple Slice

P. O. Box 1332

Severna Park, Maryland 21146

by Katherine M. Cave

An audience of about 60 persons was on hand for the excellent slide show and lecture presentation on lap-top computers given by Lou Aymard at the September 10 meeting.

The MacSIG was held September 15 with good attendance and Steve Toth as moderator. Future meetings will be held October 20, Nov. 17, and Dec. 15, at the Annapolis West Street branch of the Anne Arundel County library.

The October meeting was the Electronic Flea Market, chaired by Tracey Faust, final results not known yet. Early response was very good. At the executive board meeting on Oct. 14, the nominating committee presented its slate of officers for the new year. Their bios will be written up in the November Newsletter, more nominations accepted at the November regular meeting, then voting will be done at the December 10 meeting, with new officers taking charge at the January meeting.

The November 12 meeting will be held in the Lecture Hall of the Careers Building at Anne Arundel Community College, Arnold, Md. beginning at 9:30 a.m. and featuring Charles Schindler on "Computers in the Home".

The December 10 meeting will be on "Computers in Business" given by Abel Merrill held in the same location.

The newsletter is a great success! Ray Settle is doing a fabulous job of running it off each month. Great work, Ray!

CRABBS (Chesapeake Region Apple Bulletin Board Service) phone (301) 974-0221, is busy as ever. A new student section is being discussed and may be operating by the end of October. If you are not able to get on the board now, contact AAS, at the above address for membership information.

That's all the news from Annapolis, a small city of 30,000 but with a suburb area of 80,000 or more (all claiming Annapolis in their addresses). ☺

Kings Quest III contd. from pg 40
and so on.

I found the game rather enjoyable, both visually and play-wise. However, the slow speed made it almost unbearable to play for long periods, and the lack of documentation was irritating. I would give it a 7 out of 10 (recommended, with reservations). ☺

COMPUTERS IN THE WORK PLACE: SPECIAL ISSUES

by Joseph A. Hasson

Report No. 19 of the National Commission for Employment Policy is entitled Computers in the Workplace: Selected Issues. In this Report, the Commission assesses how the "Computer Age" is affecting the labor market, including the education and training of workers, the functioning of the work place and its impact on our educational and training institutions. The "computer age" is permitting workers to store and manipulate information and materials in ways and at speeds never before thought possible. We have seen the adoption of Universal Product Codes which greatly facilitates checking out at the grocery store. We have seen the growth of automated banking stations. There has been an increase in the use of robots on factory floors. Word processors have infiltrated into our offices and altered their routines. Video arcades have risen and fallen. These computer-based techniques already have had a considerable effect not only on levels of employment but also on the structure of labor markets. Most of these uses of computers are labor-saving, capital-intensive and have the effect of increasing labor productivity. It would be incorrect to conclude, at this level of analysis, that such changes create or add to unemployment. When the total effects—direct and indirect—are fully taken account of, the conclusion may be that total employment possibilities have been enhanced. In addition, computers are just one of several technological advances currently working their way through the economy.¹ Technological changes are impacting on the types and numbers of goods and services produced as well as on methods of production.²

¹ *Microcomputers are called personal computers and are used for word and data processing. Minicomputers have greater computing capacity and can be used by several persons at the same time. They have industrial as well as personal uses. Mainframes handle computations from hundreds of sources simultaneously and are used for large-scale scientific calculations.*

Consumer preferences are undergoing change as new products enter into the market, many of which perform novel functions and tap new human needs. The flow of goods in international commerce is being modified. Centers of production are shifting nationally and internationally. The scope of these changes, singly and in combination, can alter the typology of the world as we have known it. Such widespread changes—the more rapid and the slower ones—bring benefits; but they can also cause wrenching distortions, especially for the unprepared. The real challenge is to build on what we have learned thus far so that we can prepare for even greater changes in the future. Such adaptations should, if possible, be engineered so that they benefit workers, managers and the Nation and minimize costs.

The Commission recognized that the computer will be a major instrument affecting the workplace because of its wide applicability and because it requires new skills and training not transferable from other areas of endeavor. There have been other technological changes which were revolutionary in their effects on employment. Earlier innovations include the sewing machine, the power loom, electric power, the automobile, the railroad—all have had great effects on employment, labor market structures and wide ranging social effects. The following is a quotation from a *Scientific American* of 1862: "The rapid rise of the . . . business constitutes one of the wonders of this enterprising age. No industrial revolution can equal that which has been produced by it within the short span of 16 years." The quote applies to the sewing machine.

Generally, technological progress and innovation have been a major source of

² *Among computers used directly or to assist in production, the following are the categories commonly employed: (a) computer-controlled tools; (b) robots; and (c) computer-assisted designs. These, more complex uses of computers, are less likely to spread so rapidly.*

economic growth and have helped keep our economy competitive. In that sense, such changes, in total, are job-creating not job-destroying. A problem arises when the jobs created require new skills not previously extant and available in activities where jobs are destroyed. Some advocate sole reliance on free markets during the transition period as the new is integrated into the structure of production. Others feel that free markets are (a) too impersonal, (b) work too slowly and (c) result in an inequitable distribution of the adjustment costs.

Initial findings of the National Commission on Employment Policy can be stated briefly as follows:

(1) Some types of computers—especially microcomputers—and their peripheral equipment are entering the work place at a very rapid rate. Existing strategies for adopting them and adapting workers to altered situations have generally been satisfactory.

(2) Other types, mainly mainframes, are being introduced at a less rapid pace. Adjustment is slower and smoother.

(3) Careful preplanning is essential when new technologies are put into place. Preplanning should take workers into account and aim at the optimal utilization both of manpower and equipment.

(4) Optimal utilization of both is a complex problem of social engineering. It requires, first, recognizing that a problem exists. Second, this recognition must be followed by appropriate steps which bring manpower and equipment into synchronization. This synchronization implies that as equipment is installed, trained personnel are available to use it. This awareness will insure that both equipment and personnel are employed in a cost-effective manner. From the point of view of the firm, the rate of technological change is exogenous to it and largely beyond its control. It must, therefore, properly select equipment which is consistent with the training it is prepared to provide workers.

(5) Even more important than an immediate knowledge in programming,



workers in the computer age must have a sound foundation in basics: writing; reading and comprehension; mathematics; and problem-solving logic and techniques.

(6) Computer skills are an important adjunct to, not a substitute for, these basic and other occupational skills. Computers should be looked upon as tools and means towards an end—the end is the efficient production of goods and services to meet market requirements. There are several basic functions that must be performed in an economy—capitalistic or socialistic. One is to determine “What to Produce”; a second is to determine “How to Produce.” Computers and computer-oriented technology will affect the second question; it may also impact on the first as new products are made possible with them.

(7) Because of its great power and versatility, however, the very scope of the market one serves can be altered and expanded when computers are employed. Managerial skills, imagination and vision—entrepreneurial abilities—come into play.

In the computer age, a particular form of technological progress is occurring. The end results are impossible to foresee at present. Based on previous history, defined phases are traversed by a society or an economy as it passes through an era of technological progress. First, there is the introductory phase. The hardware—the capital goods embodying the technological innovation—is first introduced. (In learning curve terms, the introductory phase may extend along that segment of the curve below the inflection point.) Persons involved in this phase include the innovators and initial imitators. These may be persons of considerable vision who are risk-prone, adventurous and can command resources to translate visions into realities. While the profit-motive may operate in a particularly strong way amongst them, non-economic forces may also be present in generous doses. By “non-economic” we mean the drive to be first; the feeling of accomplishment associated with being different; the creative impulse may be fulfilled like a composer who writes a new symphony; or a poet who expresses his inner feelings in the words he selects and the meter of his creation.

The second state is the “adoption phase”, characterized by improvements and modifications in the new equipment,

continuing and concurrent competition from older technologies and a period of “learning by using.” A diffusion process occurs wherein the new technology permeates the economy in a more extensive and ramified manner. This can be—has been—a relatively long period. Electricity, for instance, took about 50 years after Edison’s first power station before it spread throughout the American economy. Given the accelerated pace of the contemporary world and the greater interdependence in the world economy, it is likely to take less than 50 years for the computer and computer-based equipment to be spread widely in the economy.

During this period of “adoption”, preparatory steps should be taken to insure that workers, managers, educators and students learn to apply the technology in the most productive manner. This is called the process of optimizing. During this period, too, job displacement can occur. One must recognize that in a dynamic, changing economy, there is a simultaneity and interdependence among changes which makes difficult the establishment of cause-effect relationships without highly sophisticated statistical analysis. Such analyses may be essential to separate the effects of technology from the other factors that are simultaneously impacting on employment. While the range estimates of job-displacement because of computerization and robotization is wide, there seems to be consensus among professionals that some will occur. Such a consensus should be interpreted with caution for a number of reasons. There is not a sufficiently clear delineation between the “direct” vs “indirect” effects of technological changes. In technical economic terms, one must distinguish between movements along curves and shifts of curves. This distinction has a sound theoretical basis; but its identification in reality and empirically, may be more difficult. If computerization and robotization reduce costs of production, prices of the goods affected may actually decline. This decline, together with demand elasticities, complementarities, effects on real incomes and other factors may lead to more active markets. Hence while technological change may lead to substitutions for labor there are income effects which may be stimulative to the economy.

Before the computer is adopted by firms in the wide range of functions and

services they can provide, careful analysis and preplanning is essential. This preplanning can have a significant effect on the productivity of workers and managers; it can affect the level and mix of investment undertaken. A firm is typically confronted by a “production horizon.” This implies that a given bundle of goods and services can probably be produced in several alternative ways. Each alternative (a) will require a different number of dollars invested, (b) a different degree of training for workers and managers, and (c) will yield a different spectrum of production costs and expected rates of return from investment. Existing workers will need to be trained and retrained. New workers employed should have prescribed minimum levels of skill in the new technology. It is estimated that presently workers use computers in at least 140 of 673 (20.8 percent) occupations listed by the Bureau of Labor Statistics with 5,000 or more workers. Thirty percent of workers are in these occupations; but fewer than one-half of them use computers. In aggregate, about 13 percent of American workers need to use computers. Note that the same occupational class may be found in several different industries. Hence, a comprehensive evaluation of computer use in the American economy requires a two-dimensional categorization: occupation and industry.

American workers who use computers can, however, be broken down into three major occupational categories, depending on the amount of computer training they require.

1) Group I. This group requires extensive and comprehensive training - often several years. Their training is a combination of formal education and on-the-job training. The group includes workers, who design, program and repair the equipment, and systems analysts. It is estimated that persons in this Group will consist of not more than one percent of the U.S. workforce by 1995.

2) Group II: This group of workers can get required computer training by taking a single college course, other brief training or by working their way through a manual. They learn most of what they require by being exposed to on-the-job training. Some may get to the point where they can write their own computer programs. The group includes scientific-technical workers, accountants, economists, and a few



other professionals. Currently, these consists about one percent of the workforce; by 1995 it is expected to increase to about 7 percent.

3) Group III: This group operates computers and related equipment with packaged software for data base and word processing purposes. They are concerned with information retrieval and control of industrial processes. They can learn what they require with a few weeks of formal and some on-the-job training. The group includes secretaries, bank-tellers, real estate agents, airline reservation clerks. By 1995, it will account for about 23 percent of the American work force, up from about 11 percent at present.

Members of these three groups must possess one common quality—trainability. Trainability requires reading and comprehension, writing and computational skills, a capacity for rigorous, logical thinking and, perhaps, most importantly, motivation.

In light of these general requirements—substantial investment, careful preplanning, altered and, perhaps, unpredictable market horizons, essential training at various skill levels—the firm may itself have to be restructured and reorganized from top to bottom to accommodate and reflect the revised conditions imposed by the new technology. Fixed mind-sets and resistance to change will have to be abandoned and could prove fatal.

One can posit a set of alternative scenarios, each of which will have different investment costs, a different combination of computer equipment and peripherals, different levels of required worker training, different effects on production methods and costs. Analytical methods derived from operations research and the development of objective functions with numerous relevant variables may be required. Optimizing solutions for problems of this type will be sought. Each alternative scenario will yield a different benefit-cost ratio and, hence, a different level of desirability. An added element should be taken into account: with a rapidly changing technology and dynamic market conditions, a high degree of uncertainty must be allowed for in one's calculations. Early, continuing cooperation and participation of workers is essential to avoid or minimize conflicts with labor and to insure continued increases in productivity in the future.

It has been estimated that between 12.5 and 15 percent of American workers have used computers on the job and the proportion is rising. Among those who have used computers about 5 to 10 percent required specialized training or advanced academic degrees. These comprised less than one percent of the workforce. The remaining 90-odd percent of computer users achieved the required skill levels by training on-the-job. Also, the required computer skills constituted a relatively small proportion of the total skills necessary to perform.

We have presented, above, estimates for three Groups and skill levels each will require in an evolving computer-oriented age. This analysis of skill requirements constitutes the demand side of the market equation. Next, we shift to the other side of the market: the supply side. Where will the workforce for computer usage come from? The supply of the computer-oriented workforce will be differentiated by several factors: (1) the quality and level of computer-oriented education they will receive; (2) the nature of their more general occupational training; (3) the flexibility and capacity to be adaptable, imparted them through their training and education. These factors will determine not only the initial level of skills they attain but also the ease with which they can adapt to altered conditions in an area where technology is changing rapidly.

Three categories of persons will be drawn on to meet supply requirements. These categories include (1) high school graduates, (2) college students and graduates and (3) adults.

(1) High School Graduates: A basic question with this group is whether or not the mere possession of a high school diploma qualifies one for computer training. It is necessary to distinguish between the quantity and the quality of education. When American high school youth are compared with their foreign counterparts, they are often found deficient, especially in mathematics and the physical sciences. Moreover, there are great variations in the quality of education received by American high school youth. It is difficult, therefore, to generalize about this cohort except that one can state unequivocally it must have adequate basic reading and comprehension skills and an affinity for mathematical and logical subjects.

(2) College Youth and Graduates: It is

estimated that between 15 and 17 percent of college graduates obtain degrees in quantitatively-oriented fields, the physical and biological sciences, engineering, mathematics and computer science. Women and minorities continue to be under-represented in these areas although their proportions have increased. American college youth appear to be flexible in their choice of career fields, responsive to perceived market conditions. However, this is not necessary and sufficient for adequately meeting supply requirements for computer-oriented persons. The American time horizon, demonstrated by painful past experiences, is short- rather than long-term. America does not turn out a sufficient number of engineers; it produces too many lawyers because our has become a highly litigious society. There are many criteria for making this kind of evaluation. In addition, not only do market conditions often change rapidly on the demand side but responses on the supply side occur invariably with a lag. By the time, the supply response occurs, the dynamics of the market may alter. A seesaw effect of alternating shortages and surfeits may occur which can be costly for the individual and non-optimal for society. How to deal with this condition is beyond the scope of this paper; but certainly better flows of information among markets should be helpful.

(3) Adults: The American workforce has a high average level of educational attainment. It is also flexible in that, overall, it is regarded as adapting well to changing conditions. These observations do not imply that there is no room for improvement, as noted above. More integrated labor markets would be desirable. Better communications between areas of labor shortages and labor surpluses are desirable. Labor mobility is a way of coping with a newly developing technology which may not affect all parts of an economy equally. The fastest growing segment of American education is adult education, shown in the high enrollment in evening classes. Much of that education is financed through company contributions and subsidization; a significant portion is privately or self-financed. American workers are prepared to invest both the funds and the time necessary to upgrade their skills. This augurs well for a supply of computer-trained adults emerging from this pool of our workforce. In two areas,



constraints and limitations emerge: first, there are in our population disturbing numbers of functionally illiterate; second, there are those with financial difficulties because their work experience do not conform to labor market requirements. Either they are unemployable or they cannot find permanent, steady jobs. Continued absence from the labor market increases the difficulties of re-entering it.

In the United States, the National Academy of Sciences, the Office of Technology Assessment, the National Science Foundation and the U.S. Department of Labor have undertaken research on various aspects of the relationship between computer-based equipment and employment. Their work is unfinished, in part, because there is a lack of adequate data on the number of computers, robots and other computer-based equipment that are in the workplace. The deficiency in required data can be overcome only with a comprehensive census on an industry-by-industry, firm-by-firm basis. Computer-based equipment will have to be defined, identified and probably be broken down by categories. Proper instructions will be required to guide form fillers to a consistent basis for enumerating their equipment. A one-time census would be helpful; but in order to get a continuing perspective of the changes that are occurring in the national economy, such a census will be required every couple years.

There is available through the Department of Labor detailed information on the numbers of characteristics of workers in different occupations. However, these data are not linked to the kinds of equipment workers employ in their jobs. Establishing statistical links between workers and computer-based equipment would be invaluable for its own sake; but also for assessing the contributions that computers may be making to worker productivity. We know full well that worker productivity in the United States has lagged in recent years - both in rates of change and levels of productivity. These conditions have contributed to the loss of U.S. competitiveness in world markets. On purely theoretical grounds, it is argued that when the relationship between capital and workers increases, the productivity of workers increases. The precise relationship between computers and peripherals (capital) and workers is an empirical issue; and without detailed information, one can only hy-

pothesize what has been the exact effect of computers on productivity.

Finally, there is the question of the effectiveness of educational institutions in providing computer training, consistent with the capacities of their students:

(1) Computers in Grades K - 11: The effectiveness of computers is determined largely by the presence of three conditions: (a) advance planning; (b) extensive teacher training; and (c) high quality software.

(2) Four Year Colleges and Universities: These institutions are expected to experience financial stringencies because of declining enrollments and rising costs. They will have decreased flexibility of altering the mixes of their faculties and of up-dating to new professional needs. The average ages of their teaching staffs are likely to rise. At all levels of education, a critical need exists for high quality teacher training, raising motivational levels, upgrading teaching materials, wise planning and, of critical importance, good administration. If these conditions are met, it facilitates integrating computers into the educational process. An important and, perhaps, even decisive battle will be fought in the educational arena. One is reminded of a shocking statement that appeared in the Report, *A Nation At Risk* a few years ago, on American secondary education to the effect that if the United States had been occupied by a foreign power, our educational system would have suffered no less than the damages we have inflicted on it ourselves. And the damage we have inflicted stems from our allowing "mickey mouse" courses into curricula, the breakdown of discipline, the lack of respect for teachers, their low level of pay, the infiltration of drugs, the digression from and neglect of basics, the over-emphasis on extra-curricular activities that do not well augment the basic educational process, the levelling effects of allowing mediocrity to take over. More recently, there are the proceedings of a Conference on International Competitiveness held November 19-22, 1987 at Columbia University, under sponsorship of the American Assembly. The opening statement in the Preface of its Report is ominous:

"The United States is 'gambling recklessly with its destiny' unless it takes immediate steps to..increase its global competitiveness." [Starr, Mark K.(ed.)

Global Competitiveness: Getting the U.S. Back on Track (W.W.Norton & Co., New York, 1988),p. 5]

Against this background and after extensive deliberations, the Conference reached several conclusions. The conclusion of greatest interest within the framework of this paper is the following:

"Education, we believe, is the single most critical element in enhancing the individual's contribution to our society's long-term competitiveness; increasing the educational attainment of all Americans is in the direct self-interest of each American. There is widespread dissatisfaction with our schools at the elementary and secondary levels, and concern for both the quality of U.S.technical education and [its] very relevance to a modern, globally competitive economy. . Therefore, continually improving education must become a first priority for competitiveness." [ibid.,p.388 308.]

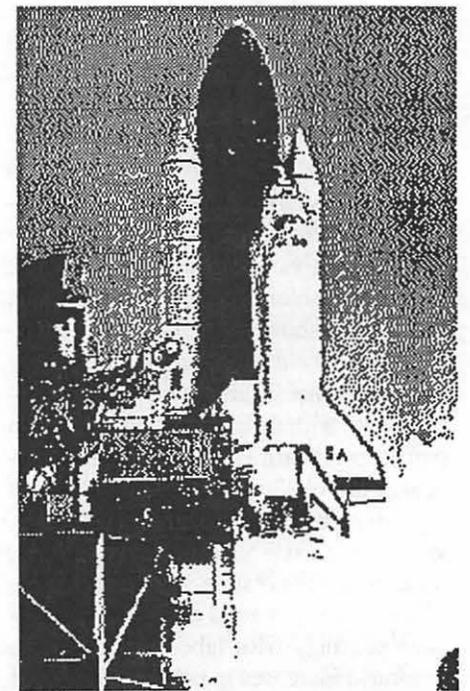
The National Commission on Employment concludes

(1) that computerization is continuing and is irreversible;

(2) at a rate that is manageable when based on careful, intelligent planning;

(3) that among governments, schools, unions and firms, each has a special role to play; and

(4) that parents have a special responsibility so their children are educated in a changing environment in which the computer will play an important role. ☞



"GENESIS" (as appeared in Sept '88 *Capitol PC Monitor*)

by Bruce Wolfe

In the beginning, IBM created the 8088 and the Random Access Memory. The One Megabyte address space was without form, and void, and darkness was on the face of the display. And the spirit of IBM was hovering over the face of the display. Then IBM said, "Let there be text," and there was text. And IBM saw the text, that it was good, and IBM divided the text from the graphics. IBM called the text the Monochrome Display Adapter and the graphics He called the Color Graphics Adapter. So the evening and the morning were the first day.

Then IBM said, "Let there be a firmware in the midst of the One Megabyte address space, and let it divide the display from the display." Then IBM made the firmware and divided the displays that were under the game adapter from the displays that were above the game adapter, and it was so. And IBM called the firmware ROM BIOS. So the evening and the morning were the second day.

Then IBM said, "Let the displays under the 8088 be gathered into one place, and let the free memory appear," and it was so. And IBM called the free memory 640K DOS and the limbo memory beyond he called "reserved." And IBM saw that it was good. Then IBM said, "Let the reserved memory space bring forth BASIC, the language that yields programs, and the compilers that yield .COM files according to their kind, which generate other languages, in the 640K address space," and it was so. And the ROM chips brought forth BASIC.COM, the language that yields programs according to its kind, and the compilers that yield .COM files, whose assembler is in itself according to its kind. And IBM saw that it was good. So the evening and the morning were the third day.

Then IBM said, "Let there be opcodes in the firmware of the 8088 to divide the PC-DOS memory from the extended memory, and let them be for error messages and system status, and for flicker-free scrolling and time/date stamping, and let them be for character fonts in the firmware of the display and to give life beyond the One Megabyte address space," and it was so. Then IBM made two great CPU's: the greater one to rule the ATs and the lesser one to rule the XTs. He made the laptops and the Juniors and the PC Portable, also. IBM set them in the marketplace of the personal computer to rain chaos on the market. And IBM saw that it was good. So the evening and the morning were the fourth day.

Then IBM said, "Let the display abound with an abundance of characters and standards, and let the EMS fly above the One Megabyte address space across the face of the firmware of the 8088." So IBM created the MGDA, EGA, PGA, and VGA with which the display abounded, according to their kind, and every cursor according to its kind. And IBM saw that it was good. And IBM blessed them, saying "Be fruitful and multiply, and fill the displays in the PCs and let the bytes multiply on the One Megabyte address space." So the evening and the morning were the fifth day.

Then IBM said, "Let the One Megabyte address space bring forth the peripherals according to its kind—keyboards and mice and joysticks of the PC-AT bidirectional data bus, each accord-

ing to its kind," and it was so. And IBM made the bus of the One Megabyte address space according to its kind, keyboards according to its kind, and everything that creeps on the PC-AT bidirectional data bus according to its kind. And IBM saw that it was good.

Then IBM said, "Let us make PS2 in Our image, according to Our likeness; let us have dominion over the bits of the C, the cursors of the screen, and over the disk drives and over every creeping thing that creeps on the PC-AT bidirectional data bus." So IBM created PS2 in His own image; in the image of IBM He created them; 8086, 80286, and 80386 versions He created them. Then IBM bundled them, and IBM said to them, "Be fruitful and multiply; fill the One Megabyte address space and subdue it and have dominion over the bits of C, over the windows of the screen, and over device drivers that move on the PC-AT bidirectional data bus."

And IBM said, "See, I have given you every language that yields programs that is on the face of all the One Megabyte address space, and every compiler whose fruit yields .COM files; to you it shall be for food. Also, to every bit of the One Megabyte address space, to every window of the screen, and to every bug that creeps on the PC-AT bidirectional data bus, in which there is power good status, I have given every language for food," and it was so. Then, IBM saw everything that He had made, and indeed it was very good. So the evening and the morning were the sixth day.

Thus the 8088 and the One Megabyte address space, and all of the host of them, were created in six days and obsolete on the seventh. And on the seventh day IBM, ended His work done, and He rested. On the eighth day IBM created OS/2—and Eve went looking for an Apple.

T*R*A*S*H REVISITED

by Fred Seelig

Tubbs cups his hand over the telephone mouthpiece.

"Got a guy here that wants to sell us a computer with an operating system that looks like MultiFinder."

Crockett replies, "We already have one."

"Well, he says his will have lots of applications that will work on his new operating system."

"Not more than ours."

"Claims that he can rig it to all his computers."

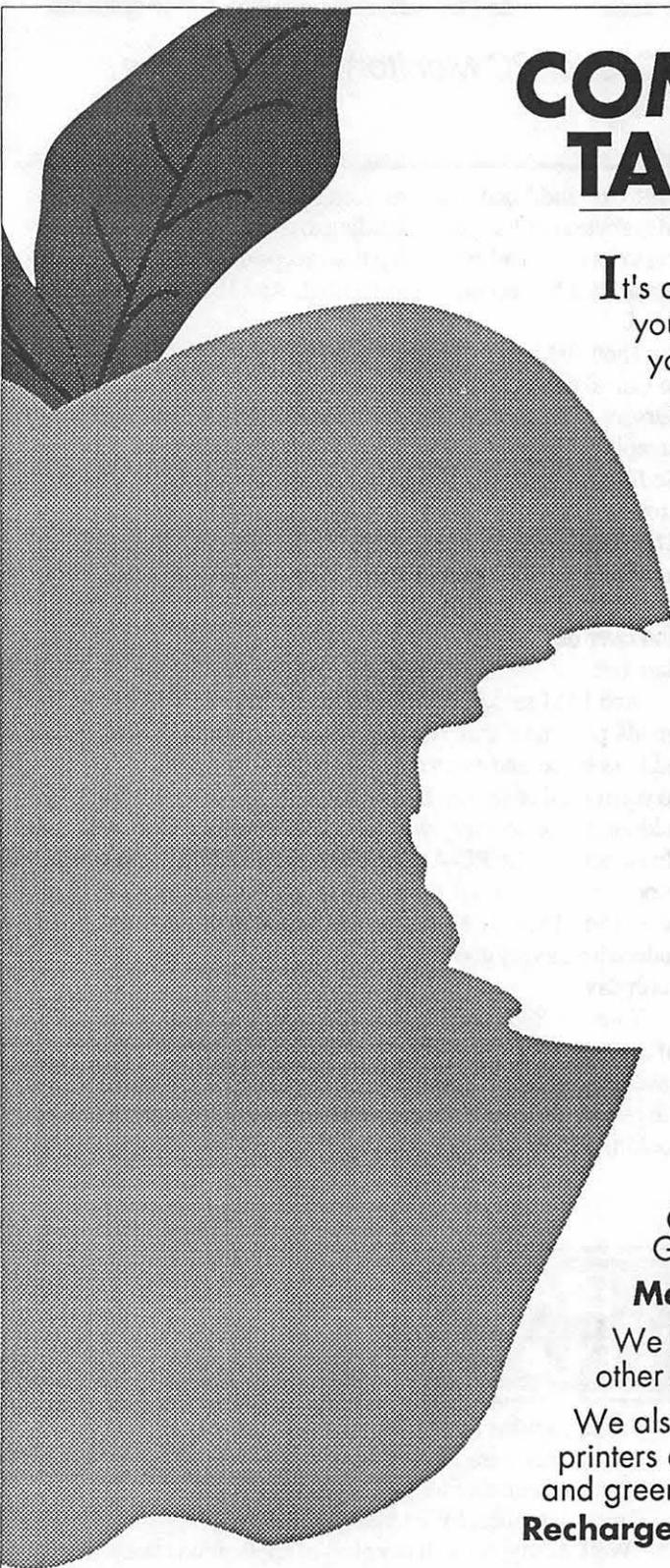
"We don't have to rig ours."

"Dude claims that it will support windows, pointing devices, and multiple processors."

"You mean like ours?"

"Says it will make sense for business."

Lt. Castillo snakes over and takes the phone. "Not for ours." ☞



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available, and get MacWorks Plus for
Macintosh performance.

Monitors

Radius Full Page Display...\$1490.
Radius Two Page Display...\$1990.

Printers

Olympia NP 30...\$299, includes printer cable.
GCC Technologies PLP and BLP.

Memory for all Macs in stock.

We buy and sell used Macs, LaserWriters, and
other Mac peripherals.

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THE ALAN KAY VIDEO: A Review

by Phil Shapiro

Little known to most WAP members is the wonderful collection of videotapes stored at the WAP office. The videotapes are a mixture of taped WAP meetings, and videos sent in by Apple. Newcomers to the group can catch up on past meetings by signing out the videotapes for home viewing. Oldtimers can view meetings that they might have missed. (Not all meetings have been taped) No fee is charged for borrowing videotapes, but a \$20 deposit is required to ensure the prompt return of the tapes.

Some of the videos in the collection are real gems. Back in January of 1984, Apple Computer put on a special presentation for the Washington Apple Pi, introducing a brand new computer called the Macintosh. Steve Wozniak and the designers of the Mac all give short speeches. It's a real treat to watch, even if you're an Apple II die-hard. So much has happened in the last four years.

A recent addition to the WAP videotape collection are some videos sent over by Apple. A number of the videotapes were put together by the User Group Connection, the folks at Apple who see to it that user groups are treated right. These tapes include speeches by Apple's executive officers at various functions, and a number of other promotional clips.

However, one new videotape in the WAP collection is particularly interesting. The tape titled, "Emerging Trends," is an hour-and-a-half presentation by Alan Kay, an Apple Fellow. For those of you unfamiliar with the term, a "Fellow" is basically a visionary in a suit and tie. Alan Kay is a dynamic speaker, and what he has to say about the future of microcomputers makes for gripping viewing.

He starts out talking about his predictions for the next five to ten years. He divides these predictions into the obvious ones, and the not-so-obvious. Included in the obvious predictions are micros with larger memories, faster CPU's, and smaller size. But he then goes on to describe some of the not-so-obvious advances that are likely to occur.

What is interesting about his presentation is that he ties in his predictions for the future with his own predictions that he made ten and twenty years ago. Following the adage that history often repeats itself, he seasons his talk with anecdotes and stories of the development of Xerox's photocopying machine, and the early precursors of the personal computer. For the most part, Alan Kay's visions of the future have materialized in the way he predicted them.

Sprinkled throughout his presentation are quotes from such thinkers as Arnold Toynbee and Marshall McLuhan.

It's obvious that Alan Kay is as excited by ideas themselves as he is by the incredible potential of the microchip. You get the impression from the video that Alan Kay is no self-styled futurist, but a serious thinker of where civilization has been and where it is going. This is not to say that his talk does not cover some quite technical subjects. For example, this viewer's eyes glazed over just a bit when he talked about the technical differences between 16-bit and 32-bit data paths. He also spends some time on the subject of expert systems, which can be difficult to understand if you do not have at least a rudimentary background.

The last half hour of the videotape is spent on the subject of 3D graphics. With the growing computing power of personal computers, 3D graphics becomes increasingly feasible. Alan shows video clips of some real-time 3D graphics work he has been doing. It sure looks stunning, although the practical uses for 3D graphics remain somewhat obscure at this time.

All in all, the Alan Kay videotape is both entertaining and thought provoking. Ironically, this videotape is itself living proof of the new age of communication we are entering. Marshall McLuhan would certainly smile down upon Alan Kay, using the "cool" medium of video to disseminate his "hot" ideas.

(Please note: most of the videotapes in the WAP collection, including this one, are in VHS format.)



CALLING ALL TRANSPORTATION MAC USERS

by William G. Allen Jr., P.E.

It's a Big Blue world out there. It is well known that IBM and other MS-DOS personal computers have so far captured a big slice of the engineering market, and an even bigger share of the segment devoted to transportation planning and traffic engineering. Because of the sheer number of MS-DOS machines, almost all the transportation software is developed for that system.

This is an appeal to any and all of you who may be in the transportation business and who are using, or would like to use, the Mac in addition to (or perhaps instead of) MS-DOS boxes. Some of you may use a Mac at home, or have one stashed away in a closet in your office. In order to find out what prospects there may be for using the Mac in transportation, a special users' support group for the Macintosh is being formed. Perhaps there are some spreadsheet templates, databases, or programs that you could share with other Mac users. Maybe some MS-DOS applications have already been converted to the Mac and are awaiting a wider audience. Or maybe you just have a few questions you need answers to.

What is your level of interest in Mac transportation software? This could be simply conversions of MS-DOS programs, or newly written programs to take advantage of the Mac's graphic interface.

So, if you are presently using the Macintosh in transportation planning and/or traffic engineering, or would like to, speak up. Please contact:

McTrans, The Center for Microcomputers in Transportation, University of Florida, 512 Weil Hall, Gainesville, FL 32611. (904) 392-0378. Electronic Bulletin Board: (305) 554-2145.

SEPTEMBER MAC MEETING REPORT

by Karen Rall

The September meeting was a really good time, with many great giveaways. Microlytics distributed 10 free copies of "GOfer" and discount coupons for everyone attending, Layered gave out a free module of its accounting package and Farallon passed out a number of disks with their demo stack.

This meeting had a diverse group, from the seek and locate DA "GOfer", the Farallon "SoundRecorder" to the top of the line accounting package from Layered.

First up was Microlytics. Their products include WordFinder, the DA version of the Thesaurus included with FullWrite and MacWrite and "GOfer", a snappy little utility that finds which file you left your information in. It searches through your hard drive or disk, to find every occurrence of a word or phrase appearing in a document from most any application. You can even give it more than one word to search for, using Boolean logic to find the missing file. You can search for every file that has the words "Travel" and "Leisure" or the files that have the words "Travel" or "Leisure". Find all the memos written to a particular person at a rate of one megabyte per minute. If that is too slow for you, you can give "GOfer" a hint so that it can search a single folder. Each time a document is located, it is opened within "GOfer" so you can see the whole portion of the document to see if it is the one you meant. You can cut and paste, even collect sentences from a number of documents on the clipboard at once using the "append" clipboard command.

Microlytics says that it works well in many varied application, but one of the most popular uses is with PageMaker. When you want to import just a part of an article into a PageMaker file, normally you bring in an entire file, then delete all the parts you do not need. With "GOfer", you can just pick out the sentences you need from one or several documents and drop them right into your PageMaker file. The other use is to quickly retrieve information while you are communicating on a Tops or Novell network without having to close down one application to get into another. GOfer retails for \$45, WordFinder for \$59 but both are available most places at a discount.

Farallon Sound Recorder

The Sound Recorder looks like an oversized mouse with a microphone in the front. It hooks simply into the serial port with no added cards or other equipment necessary. This demo was one that you had to be present to get full benefit. Most of the demo was done on the spot, recording comments and applause from the audience. The Sound Recorder at the front of the auditorium was able to record voices near by, or comments from the audience. The sound quality was surprisingly good, even under those conditions. When a sound is recorded, it is brought into Sound Edit, a HyperCard based sound editor. The controls look like tape recorder buttons. You can edit the sounds, shorten them, add an echo, take out words in the middle of a phrase or any of a number of special effects. An experienced Sound Edit user can work with four mixers, record in stereo (this takes two recorders), or remove background noise.

Sounds are stored at various sampling rates. The better the

sound quality, the more memory it takes up. There is a compression feature which helps to reduce the total amount of memory used.

The Sound Recorder retails at \$199.

Layered Insight

Insight is a set of accounting modules by Layered that helps a growing business pay bills, do billing, and keeps you informed at a glance on the financial stability of your company. This is a powerful system which integrates with a number of other business application modules from Layered.

The real strength of Insight is its ability to give you reports and information quickly and easily. This gives the owner or manager the opportunity to keep on top of his business, by seeing trends promptly. For example, data can be displayed graphically or numerically on how many accounts are overdue, by how much and by how long. You can get separate listings for accounts that are 30, 60 or 90 days past due. A simple mouse click can bring up customer histories on a ledger card which contains all information about the customer, his payment history and the salesperson covering the account. You can attach electronic sticky notes to the ledger to keep track of comments or information you want associated with the account. The notes stay with the card until you remove them.

Insight follows the Macintosh interface closely, you can use the mouse for many functions, or use command keys to simplify data entry and review.

For example, you can highlight a product on the product list, and the pricing information name and codes will be entered onto your order form.

Insight has been sold for over three years, and has the ability to grow with an expanding business. The average company which writes between 50 and 100 checks per month can store a year's billing records in less than 5 megabytes on a hard drive.

Insight modules retail at \$695. There are simplified versions that sell for \$295. ☺

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MacNovice Column

by Ralph J. Begleiter



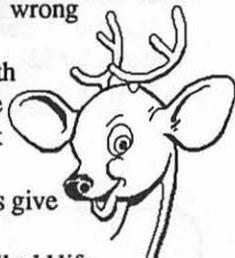
With the holidays fast-approaching, here's the annual MacNovice Holiday Gift-Givers' Guide—a collection of gift suggestions for the MacNovice in your life whose dreams could come true with just the right gift from you.

Although it's true that many kinds of Macintosh equipment, software and supplies seem to be increasing in price as the Mac gains corporate acceptance, it is also still true that there are many Mac-related gifts which are relatively inexpensive. These will be welcomed by any MacNovice.

Next month, I'll highlight more expensive Macintosh gifts. But for now, here's a rundown *proving* how much you can get for less-than-\$50 for the Macintosh users on your gift list. In this price range, perfect for friends or for stocking-stuffers, MacNovices will welcome a host of useful items.

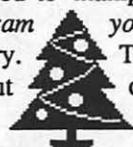
(Comments associated with all products are strictly my personal views. Price estimates are based on recent mail-order prices.)

- **Blank Disks** (\$20) - perhaps the most useful of all simple gifts is a box of ten blank Macintosh disks. While there are quality differences among brands, it's hard to go wrong with any major brand name.
- **Mouse Pad** (\$10) - a small foam pad beneath your Macintosh mouse makes it work more precisely and controls the amount of desk space absorbed by moving the mouse.
- **Printer Ribbons** (\$5) - A few fresh ribbons give new life to your Mac documents.
- **Dust Cover** (\$15) - An accessory which will add life to your Mac and its keyboard.
- **HyperCard Books** (\$25) - The "Complete HyperCard Handbook" is the original text for making the most of Apple's versatile program, but there are others now available which will help take advantage of HyperCard's tricks.
- **Disk Case** (\$30) - As a MacNovice's disk library grows, this accessory will help keep order in the house.
- **Software Books** (\$20) - A variety of books designed to help Mac users make the most of their software is available for many of the Mac's most popular software. Microsoft Press publishes books for "Excel," "Word," and "Works," for instance.



ful accessories for Mac users, ranging from a "Mouse Pocket" which keeps the mouse clean and off the desk when not in use—to cleaning kits, a security system to prevent theft of Macintosh hardware and a handy tilt/swivel base for the Mac. (Also available at about \$65 is an electrical control center, called "System Saver," which includes surge suppression, modem line noise, a cooling fan and two electrical switches for controlling the Mac and accessories.)

- **Information Service Subscription** (\$25) - If your MacNovice has a modem for communicating by phone using the computer, an inexpensive subscription to CompuServe or Dow Jones will introduce him to the world of telecomputing. Unfortunately, the introduction is deceptively less expensive than the price you'll pay in "connect time" once you're "hooked."
- **Font/DA Software** (\$35) - Two small but wonderful programs are available to allow virtually unlimited flexibility using different typefaces and desk accessories. Either "Suitcase" or "Font/DA Juggler Plus" make outstanding gifts. Each program is worth its weight in gold.
- **Fonts** (\$45 & up) - From a number of software developers come a universe of different typefaces your MacNovice can use easily. These programs are easy to install in your System files to give your word processing the distinctly-Macintosh variety of typefaces. There are even foreign language fonts available for Hebrew, Greek, Cyrillic, Arabic, Kanji, Chinese and many more.
- **"DiskTop"** (\$28) - Another gem of a program. Virtually indispensable for anyone who uses several programs and does a lot of document filing on the Mac. DiskTop substitutes for Apple's "Finder," but allows you to manipulate files and folders *without quitting the program you're working in*. It works as a desk accessory. This is another program users can't do without once they've tried it.
- **Clip Art** (\$45) - Various collections of MacPaint files with useful pictures can turn humdrum word-processing documents into lively presentations. Be careful shopping for these, however. Review the pictures on the box



carefully. There are some collections whose images are much more *useful* than others. I recommend the "Wet Paint" "Classic" and "Publications" collections from Dubl-Click, and the "Click Art Personal Graphics," "Publications" and "Business" collections from T/Maker. There are specialized collections, too, such as religious images (for church publications) and Japanese art.

- **PowerStation** (\$37) - This small program is another inexpensive delight. It substitutes for Apple's "Finder," making opening and manipulating documents and programs using on-screen "buttons" faster and more efficient. "Shareware" programs called "SuperFinder" and "Oasis" are similar and useful.
- **Educational Software** (\$26-\$39) - A collection of programs for young children from First Byte (\$32 each) can help your kids with shape recognition, spelling, math and reading. These are called "KidTalk," "MathTalk," "MathTalk Fractions," "Speller Bee," and "First Shapes." Another collection from Great Wave Software is called "KidsTime." This \$26 program includes five modules to teach reading, letter recognition, puzzle-solving, and matching games. Another program called "American Discovery" (\$39) from the same company teaches US geography, history and trivia. Another collection, from Unicorn Software, includes titles such as "Read-A-Rama," "Math Wizard," "Decimal Dungeon," "Fraction Action," and "Animal Kingdom." These programs (\$27 each) include multiple levels of difficulty and animated graphics. Another program, called "Alphabet Blocks" (\$32), helps teach young children how to speak correctly. It makes your Mac's voice ask kids questions, prompting their answers and improving their speech. Still another group of programs, aimed at older audiences, comes from True BASIC. These teach arithmetic and math subjects such as algebra, trigonometry, calculus and probability. (\$35 each)
- **"QuickDex"** (\$32) - This outstanding desk accessory is another treasure. It's a free-form database which looks (on screen) like a Rolodex file. Enter data any way you like (no graphics, though) and retrieve it later in a *flash* (literally!). Great for phone and address lists, things-to-do, etc. One of the best of its kind.
- **"Smart Alarms"** (\$35) - Another desk accessory sure to be a long-time hit. This program creates "reminders," then alerts you like an alarm clock when your reminder is due. Users set the alarm, including recurring reminders (like birth-days and quarterly reports) and advance notice.
- **"Quicken"** (\$35) - A simple checkbook program which can keep your balances straight and even print your checks.
- **"WillMaker"** (\$35) - A simple program whose most useful attribute is that it might actually *force* you to do something you've been putting off forever - making a Last Will & Testament.
- **"World Builder"** (\$41) - This innovative program helps you create your own *interactive* computer games or presentations. Hard to describe, but fun to use. Use it to create, for instance, an interactive instructional program, complete with multiple-choice answers, etc. Or, create an interactive fiction game for



your Mac (which is how this program got started).

- **"Typing Tutor IV"** or **"Type!"** (about \$35) - Two of the better Macintosh programs aimed at teaching you (or your children) to type.
- **"SmartScrap & The Clipper"** (\$35) - A pair of outstanding desk accessories which improve on the Macintosh "Scrapbook." Highly recommended for anyone who inserts graphics into word-processing or desktop publishing programs.
- **"Acta"** (\$36) - This desk accessory creates outlines, with many of the features of stand-alone outlining programs such as "More!" An excellent choice for "list-makers" and writers.
- **"FindsWell"** & **"SpellsWell"** (\$29-\$42) - These programs help locate documents and files on your crowded hard disk drive, and help check your spelling in word-processing documents. Be sure to check the SpellsWell package to see if it's compatible with your user's word-processing software.
- **Games** (\$20-\$50) - There is by now an almost limitless variety of games available for the Mac. They're too numerous to list. But any MacNovice's collection would not be complete without at least *some* entertainment software. Try "Millionaire" for the stock investor on your gift list. Or "Balance of Power" for the diplomat you know. "Patton vs. Rommel" or one of the several "flight or submarine simulators" sound good for your Pentagon friends. And "Chessmaster 2000" is one of the best available computer chess programs, with outstanding graphics. There's even "Scrabble." Any of the Infocom interactive fiction games can be fun. And for arcade-game lovers, try "Fool's Errand," or the "Dark Castle" pair of games from Silicon Beach.



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MAC Q&A

by M&M (Marty Milrod & David Morganstein)

Q. I am confused about the terms Inits, Cdevs and DAs. Can you explain?

A. All of these are auxiliary, generally smaller, programs whose features are available to you from within most applications. The INITs and Cdevs are loaded into your computer's memory when you boot your MAC. DAs appear under the Apple menu and are selected when you need them.

While there are hundreds of INITs, some of the most common are SuitcaseII (which permits virtually unlimited use of fonts and DAs), QuickFolder2.0 (which permits you to create new folders "on the fly"), OnCue (which allows you to launch any program appearing in a user defined list) and Vaccine1.2 (which prevents anything from accessing the "innards" of the Mac known as the "toolbox" without your knowing about it).

Cdevs are "Control Devices" which are a form of INIT that show up in your Control Panel. The Apple system software provides Cdevs named "general" (for setting the background pattern, clock, sound volume, RAM cache, etc.), "mouse" (for setting the mouse tracking speed), "keyboard" (for setting the key repeat rate), and other standard settings. Once again, while there are many forms of Cdevs, some of the most useful are SuperClock2.9 (which shows the time in the upper right hand corner of the Mac screen and can toggle to the current date), ApFont3.1 (which enables you to change the default font and size for your machine), Narrator (which permits you to write "scripts" of spoken text for your machine to "speak" upon startup) and SoundMaster1.3 (which permits you to designate different sounds for inserting disks, ejecting disks, etc.).

To use these programs, you just place them in the System Folder and re-start your Mac. Many INITs and Cdevs display an icon on the screen as they are being loaded into memory during the boot-up process. What is more, there is frequently a way to prevent their loading by holding down certain keys during boot-up. This is a handy option if you suspect a conflict between them that might be causing crashes.

DAs (Desk Accessories) are mini-programs such as word processors, graphics programs, spreadsheets, sound players, address-keepers, among many, many others. The most common way of installing them is to use the utility from Apple called the Font/DA Mover to place them into your System file (usually found in the System Folder). If you use SuitcaseII or MasterJuggler, or other such programs, you can avoid using the Font/DA Mover.

There are many different kinds of these "small programs" almost all of which have different versions which may act differently with different System versions and with each other; most of them are shareware or Public Domain materials, but more and more of them are being sold commercially as well. For beginning users, we recommend using only a few tried and true "small programs" such as the ones mentioned herein, and getting advice from more experienced users about what is most functional. By and large, the sleeker and leaner

your System is, the better off you will be.

Q. How can I get my icons to lineup quickly and neatly?

A. Under the Special menu item at the desktop is a menu selection called "Clean up Window." If you hold down the option key when you click on that menu item, all of your icons will flow to fill the active window you have set; changing the active window size will reflow the icons to fill the new size of your window when repeating this function. We recommend that if you have too many icons than can be clearly viewed within your active window, consider changing your "View" of your window to "small icons" or "by name." Nothing is more disconcerting than not knowing what is in your active window.

Q. What telecommunications program do you recommend and what are Modems needed for?

A. Most telecomm programs work with most modems. We have had experience with Red Ryder, Versaterm, Smartcomm and Microphone. They all have their strengths and weaknesses and any one of them will allow you to access your favorite bulletin board or mainframe. In addition to software, you will need a modem to dial into another computer, be it Mac, PC or mainframe. A modem (modulator/demodulator) converts the zero/one binary language of the computer into one of two audible tones which can be transmitted over a telephone line. We would recommend the fastest speed you can afford if you plan to do a lot of file transfers. 2400 baud modems are increasingly popular and there are several models with prices below \$200. The PCPC unit can be purchased through the WAP group purchase program. ZOOM offers a 2400 baud modem in this price range. Be careful when considering a 9600 baud unit. Unfortunately while just about all 2400 and slower baud units will talk to one another, the same can not be said for 9600 baud units. Make sure you get the right cable to hook up to your Mac. It will have a 25 pin RS232 connector on the modem end and either an 8 pin DIN connector for a Plus, SE or][or a 9 pin RS232 connector for a 512.

Q. Why should I use a Hard Disk?

A. Anyone who frequently switches between more than one program on his Mac should seriously consider getting a hard disk. Not only will it increase your work output tremendously but it will allow you access to the whole range of DAs, INITs and Cdevs, as well as provide a way of using lots of different fonts, all of which need to be "on-line", that is available to the Finder and System. There just isn't enough room on an 800K floppy to store many of these excellent support programs.

Q. What is the most efficient way to backup a hard disk?

A. The most efficient way is to back up to another hard disk! After that, a cartridge drive is a fast and easy backup device (the Syquest 45 meg cartridge drive, used by at least three suppliers of cartridge systems is actually as fast as just about



any SCSI hard disk out). Next comes tape backups which are a little slower and have certain price advantages over the first two methods. Lastly you can always backup to diskettes, a time consuming but necessary activity. Whatever method you choose, **BACK IT UP!!**

If you back up to a hard or cartridge disk, you can simply do a Finder drag and copy. We suggest not copying an entire HD in one pass as the Finder occasionally has trouble copying more than a few hundred files in one pass. Drag a series of folders over, limiting each copy to one to two hundred files. If you are using a tape system, you will use the software that accompanied it. There are two types of tape systems, one of which allows simple Finder copies, the other of which requires the selection of files to back-up or restore. If you are backing up to floppies, you will need a program which can simplify and automate the process. Again the choices are numerous. The main idea is to speed up the back up process by keeping a list of files that were backed up and their dates. The software should give you the option of backing up only the new items or those that have been modified since the last backup. Another issue is the way in which the second and subsequent backups are performed, that is, where the new or modified programs are placed. Some packages keep adding to new diskettes, increasing the set of backup disks. Others, erase files appearing on the diskettes that are no longer on the hard disk and free up the diskette space for other files. This more efficient use is preferred. Make sure that whatever program you choose, you can read the backed up diskette directly from the Finder. Some early back-up programs stored files in special compressed formats that couldn't be read by the Finder. If the unique directory on these diskettes becomes damaged, the backup set becomes useless.

Q. Why do I always have some space used up on a newly initialized disk or hard disk?

A. The Mac Operating System (OS) maintains a file called the "desktop" on every "volume" it accesses. By volume we mean a diskette, hard disk or hard disk partition, file serve volume, etc. This "desktop" file contains all the file names, as well as their sizes, icons, positions, dates, etc. The "desktop" file grows as files are added to the volume (dragged there or created by applications). As you can imagine, this file is very important, accordingly, the OS makes it invisible so you don't accidentally trash it. Neither its icon nor its name appears in the standard window. (A number of utilities such as Mac Tools and the Disktop DA do display the desktop file and its size).

Interestingly, an occasional problem reading a diskette or hard disk can be caused by a corrupted desktop file. If you suspect this to be the case, you can re-build the desktop file by holding down the command and option keys when the Mac boots or when quitting an application. The only harm in doing this is that the descriptive text which appears at the bottom of the Get Info box will be lost in the re-build process. Another reason for re-building might be that for desktops on hard disks which have had many applications deleted from them. The desktop file can grow to be several hundred K in size. A re-build will streamline the desktop file to contain info

about only those files that are currently on the hard disk.

Q. Apple keeps changing System Version numbers. Is it important to keep up with these changes and how might the updated System Version affect my current programs?

A. Well for one, it might destroy some programs! Many people were bitten by the release of System Software 6.0. This version, now replaced by 6.0.1 (and maybe 6.0.2 by now), was just not ready to see the light of day. It destroyed Helix data files, unlinked 4D relations, eliminated the system beeps and generally crashed with an awful lot of other programs. We consumers are caught between a rock and a hard place on this one. In general, if you are not having troubles with your current version, don't bother to upgrade until the "latest" versions have been thoroughly tested by others. Each new release seems to take up more disk space and more RAM, leaving you less to work with. Of course, there are the benefits of the new "features" and hopefully the elimination of earlier errors. ☺

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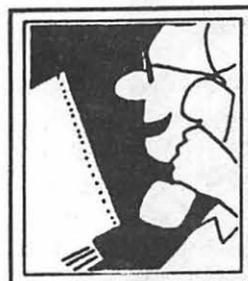
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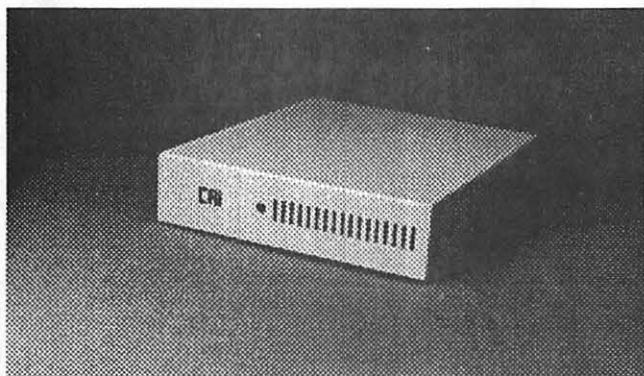
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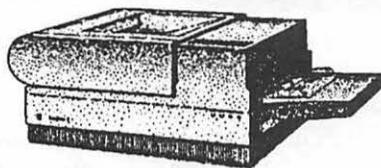


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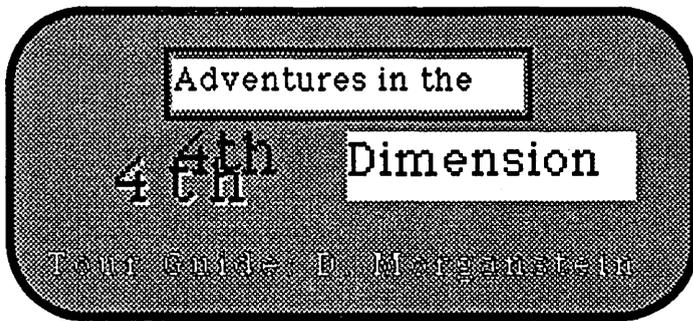
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A number of WAP members have expressed interest in the 4th Dimension database from Acius. This impressive program has a number of important shortcomings, not the least of which is complexity and poor documentation. As a result, this article is a trial balloon to explore the level of interest in a 4D SIG and a semi-regular column where solutions can be aired. If you would like to participate in a 4D SIG, to learn or to contribute, contact either Norton Baron at 652-1783 or me.

This month we look at Ducsoft, a rather specialized package of interest to new 4D developers. 4D is an extremely powerful database program. It is a relational database which features hierarchical file structures and a sophisticated programming language. Its language can be extended using externally compiled routines which simply add new commands to an already rich, though sometimes deceptive language. The Ducsoft utility package was assembled to help the novice 4D programmer to understand 4D and to develop good work habits that will ease them up the learning curve. First a few words about 4D, then onto the Ducsoft package.

4D. 4D is two things: database power and complexity. After wrestling with it for several months, I think the power is worth the price. In two weeks I built an application that would take more than two months to do in dBase under MSDOS. If 4D came with more coherent manuals and ran faster, I would have no major complaints. To those who are unfamiliar with it, you don't need its programming language to build data files with complex relationships, or to construct workable input screens and intricate output reports. You do need to understand how 4D works, though, if you want to program a stand-alone application using Mac pull-down menus and dialog boxes for use by others.

4D supports hierarchical data structures. For example, you can have a file of patients. Each patient can make one or more office visits. Each office visit can have one or more procedures performed. A patient's monthly statement would list any office visits and under each visit, all the procedures performed. While this kind of problem can be handled with a relational database program (like dBase) that allows linking three separate files, patients, office visits and procedures, it is far easier to deal with it using a tree-like structure with the patient as the main branch, any visits branching off of the patient record and all procedures performed branching from the visit. Assembling the patient's statement is much easier than having to open separate files and do look-ups to match records at each level.

4D is a relational package. You can have a list of all procedures, with a code, text description and fee associated with them. This procedure branch of the patients office visit branch need only contain the procedure code. Using just the code stored in the patient file, a single 4D command will extract the remain-

ing items (text description, fee, etc.) from the procedure file for inclusion in a patient financial statement. In fact, a built-in feature allows you to enter only the first couple of digits of the code and 4D will offer a complete list of all records in the procedure file that begin with those lead digits. The user can scan these partial matches and make a quick selection without having to remember or enter the entire code.

Creation of reports is also very easy. Variables are icons which can be placed anywhere on a page, sized appropriately, displayed in a variety of fonts/formats and embellished with fancy graphics. Sub-file data (the hierarchical stuff) or items from related files are added to a report through pointing and clicking. Reports have built-in capacity for headers at the top, breaks in the middle for sub-totals and footers at the bottom for totals.

4D handles graphical data items such as scanned images of people or houses.

It has multi-user capability for file-sharing over a network. I am assisting my ENT doctor in building a system where his two offices are connected by phone via a Shiva Netmodem, sharing one 4D database containing all patient/appointment data. The file will be accessible from either office. But enough of 4D for now.

Ducsoft. The package consists primarily of a dozen 4D applications and an instructive manual which describes how the applications work and how they can be extended. According to the 160-page manual, the Ducsoft Volume 1 applications have two purposes. They can be dissected and used for learning and they can form the seed for your own applications. I agree with the authors on both counts.

The bulk of the manual (135 pages worth) describes the applications. Each application is discussed in the following sections: what does the application do, using the applications, programming highlights, possible uses for the application, the file structure, the main menu, the layouts and the procedures.

The manual did contain several other useful items. There is a discussion of naming conventions which can help clarify and identify the various parts of a 4D application: filenames, field names, subfile names, layouts, variables and procedures. There is an alphabetical listing of all 4D commands with their proper syntax. This list is also provided in text form for accessing with a desk accessory text editor such as MockWrite (which is supplied in the package) or miniWriter. Four pages of hints and references offer a handful of additional pointers.

The examples range from very elementary and even incomplete to fairly complex. While each example taught me something, the DucComm communications program and the Multi-User Invoice were the most complex and went far beyond the 4D

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manuals. Other interesting applications included a calculator, and examples showing the use of graphics to create charts and statistical functions.

Weight Minder. This example revolves around a single file which is to hold data on a person's weight over time. The example contains a single menu with three items for adding records, listing records and plotting the weights. It is of interest primarily in showing how to move data from a set of records into an X and Y array which are passed to the GRAPH command for display. The example does not show you how to protect against having a large number of values which overlap and form an unreadable graph with a multitude of tiny bars.

Loan Payment Calculator. The "calculator" label is a bit of a misnomer. The example features a single file where each loan is a record containing a principal, annual rate, number of periods and periods per year. The example shows how to take file data and compute values from a record (i.e. the payment, total interest and total repayment) using variables in the computation and displayed as a part of the entry layout.

DucStat. Here, statistical computations are performed on a set of records. Although 4D offers some of the most commonly used statistical functions, they can only be used as display in output layouts. In this example, sums, averages, and standard deviations are computed by looping through a selection of records, storing the required computations as the records are processed. Oddly, the procedure computes the minimum, maximum and range but the output layout does not display these values! The example also shows how to allow a user to identify a set of records for deletion and uses the 4D concept of sets.

DucComm. This is a barebones communication package which requires less than 20 short 4D procedures to function, a fact which speaks highly of 4D. The program allows you to enter phone numbers of bulletin boards, along with a text description and the communications protocols needed for each.

GreasyCalc. A cash register program which monitors input, totals orders, maintains a tape of receipts and checks that cash received matches the order. Below, you see the single menu which drives it. Selecting Display Register provides a scrolling list of all orders.

Summary. That part of the Ducsoft package which offers "standardized" input/output procedures has been incorporated to some degree into the Skeleton program now available to 4D developers and is expected to be included in future versions of 4D. If you have already worked your way through the development of one application, have written global procedures and implemented menus, you will gain less from the package than

will a novice who will find the manual and examples a breath of fresh air in helping to understand how to program 4D. While most of the examples are fairly straightforward, there are a number which reveal a few of the fancier tricks and can teach even an "old dog" 4D developer a thing or two. Ducsoft, 238 Columbus Avenue, Sandusky, Ohio 44870. Phone (419) 626-6797.

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ILLUSTRATOR 88— Version 1.6:

A Comprehensive Review

by Jonathan Tetzlaff and David P. Cabitto



Introduction

Illustrator 88, version 1.6, is the newest upgrade of the powerful Illustrator program. Adobe, the company that brought us the Postscript page description language, clearly has another winner with Illustrator 88. With Illustrator 88, a talented graphic artist can produce artwork of extremely high quality. Every aspect of the artwork can be controlled with precision, from custom fill patterns to perfect arcs.

Unlike many product reviews, written within a few weeks of a program's release, this article reflects our impressions of Illustrator 88 after many months, and hundreds of hours, of use. Illustrator is an integral part of our office's production system. We have used it to create a variety of graphics, including maps of considerable complexity, and have become quite familiar with its attributes and its quirks.

Illustrator 88 is device- and resolution-independent. Using the Postscript language, this program creates artwork limited in quality only by your output device. Unlike programs such as MacPaint, which create only a series of dots of the screen, Illustrator creates a mathematical formula that defines a shape; the better the printer, the higher quality the object. With the superb control Illustrator gives over drawing, the possibilities are almost limitless for the skilled user.

A warning is in order, however. If you have never used Illustrator, be prepared to invest a considerable amount of time learning the program. You'll also have to be prepared to make an ongoing commitment to using the program with relative frequency. The commands are difficult to learn, but easy to forget. The accompanying video, which states that Illustrator 88 is "...easy to use, even if you haven't drawn since the fourth grade," is not entirely accurate. If you haven't drawn since the fourth grade, you may not have the graphic skill or the need to use a program of this power. Also, the commands are complex and code-intensive.

If you are currently using Illustrator 1.1, the addition of several new tools (especially the Auto-Trace tool) alone justifies the \$100.00 upgrade. Furthermore, the updated version seems to behave almost exactly like the older version, so the adjustment is not very difficult. However, the absolute smallest Macintosh on which you can use Illustrator 88 is a Plus. And if you have only a Macintosh Plus without additional memory, you may not want to upgrade from the older Illustrator program. The memory demands are considerable; many activities are either difficult or impossible within the limitations of one megabyte of RAM.

Functions

The Federal Research Division (FRD) of the Library of Congress began working on a major new project almost two years ago: the creation of Country Studies formerly produced by the American University. This project required not only powerful word processing and text handling, but also a graphics

capability that exceeded anything previously possessed by the Division. After some research, the Macintosh and Adobe Illustrator were selected. Thus, FRD was one of the early users of this program, regularly in contact with Adobe Systems, Inc.

Documentation

Illustrator 88 comes with two manuals, the "User Guide" and the "Tutorial." Both are attractive, clear manuals with excellent indexes. The User Guide is 238 pages of detailed information. Although it may seem somewhat defeatist to start with "Appendix B, Error Messages," we would nevertheless recommend at least a quick look at this section. It gives an overview of the various hurdles in the way of the Happy Graphic Artist; familiarity with this section will make the inevitable appearance of these dialog boxes less frightening. (Users of older versions of Illustrator will be very interested in Appendix C, which lists new additions to Illustrator 88.)

The Tutorial is a 148-page manual, clearly written, with helpful illustrations. Like the User Guide, it has a detailed Table of Contents and Index. Illustrator 88 also comes with a large useful laminated card, the Quick Reference Guide, which summarizes commands and tools. This card should be available close to the computer even after the user has become proficient with Illustrator.

Using the Program

We are using Illustrator 88 on two Macintosh Plus computers running System 4.2 and Finder 6.0. Although this version of Illustrator is MultiFinder-compatible, one megabyte of RAM is insufficient for this purpose. One of our computers has a Big Picture large screen (from E-Machines), and Illustrator has generally worked well with this screen. The program requires a hard disk; we are running it on a MacBottom 20 and a Dataframe XP60. Adobe Illustrator 88, version 1.6, is not copyprotected.

As with previous versions of Illustrator, the best way to use this program is to begin with an object to trace. The object, which can be a MacPaint document, a scanned item, or other graphic, becomes your "template." The user traces the objects using the toolbox (explained below), and modifies the drawing as desired. Objects traced with Illustrator are first displayed with visible "handles." Clicking and dragging these handles allow objects to be resized, reshaped, and otherwise altered.

Learning to manipulate the handles, link lines, and exploit all of the tools is essential to a successful experience with this demanding program. Understanding the display options is also important. Choosing "Preview" from the View Menu will display the object as it will be printed, without handles. The following graphic shows an illustration in various modes.

One of Illustrator's more powerful features is its ability to open several linked windows simultaneously. Most Macintosh programs permit the opening of multiple windows; the users can

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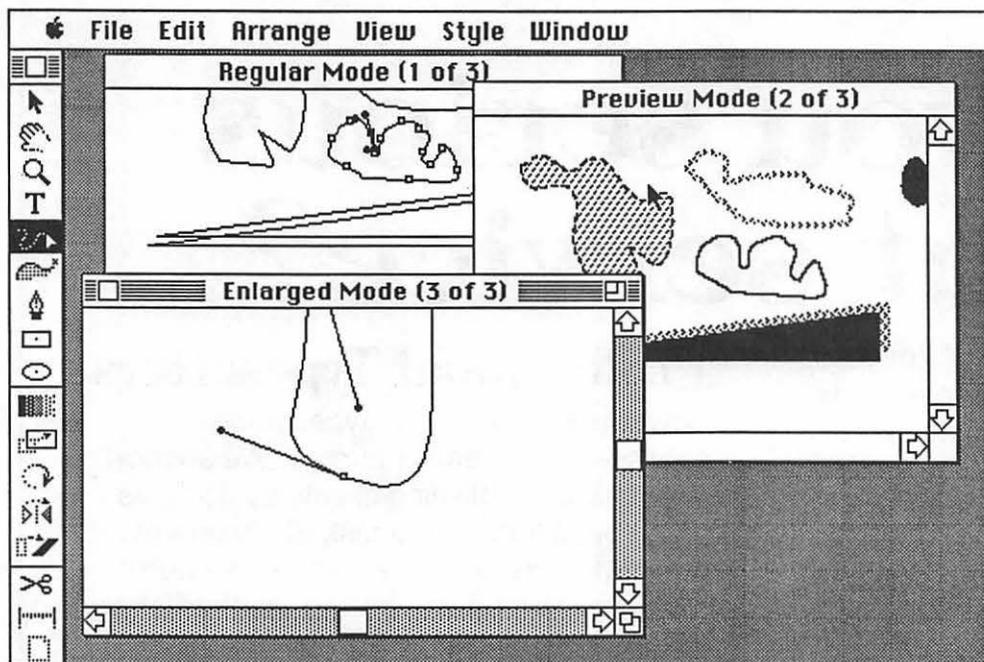
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cut and paste between them, but changing information in one window does not automatically alter another window. Illustrator is different. With sufficient RAM, users can do more than just open several windows—they can concurrently view the graphic in several different modes. As you can see above, the graphic can be displayed in regular mode, preview mode, and enlarged mode. When making a change in the regular mode, the changes are automatically displayed in the preview and enlarged modes, giving the user an immediate view of the effect of his/her changes.

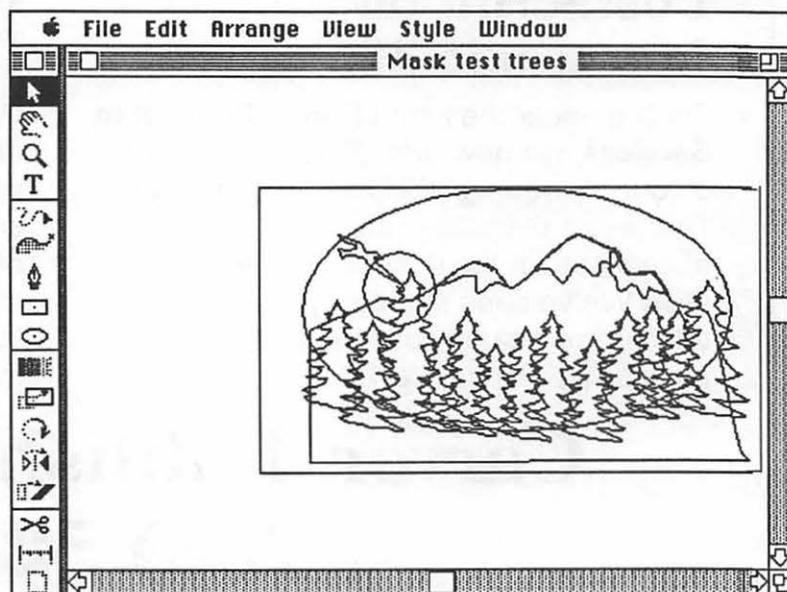
Tools

Illustrator 88 has several tools that are used for most of the drawing functions. The "Freehand" tool is the most accessible. It can either draw original objects or trace templates, and is the tool of choice for most users in a wide range of functions. The "Pen" tool draws both straight and curved lines; click the mouse at the beginning point, and then click again at the end point. The program will draw a straight line between the two points. Curves can be added by click-dragging; they can be adjusted to any shape by clicking on the anchor points and using the direction points to move the curve. Adobe warns that lines should not be too long; the manual recommends that users check the preview mode often. If a line is too long, a dialog box will say "Line too long to preview." The user can then divide the line into segments. (The program does not,

however, say which line is too long; finding the culprit in a complex map can be quite a challenge.)

The "Rectangle" and "Ellipse" tools create the expected shapes. Variations include holding down the "shift" key to constrain the rectangle to form a perfect square and the ellipse to form a circle. The user can also get a dialog box in which to enter numerical values for the object and let the computer draw it. (The illustration below highlights some of the more important tools.)

- Freehand
- Auto-Trace
- Pen
- Rectangle
- Ellipse
- Blend



Among the more exciting tools are the Rotation tool, the Blend tool, and the Auto-Trace tool. The Rotation tool allows the rotation of any object with exquisite detail; its dialog box allows the creation of objects such as bicycle wheels, with

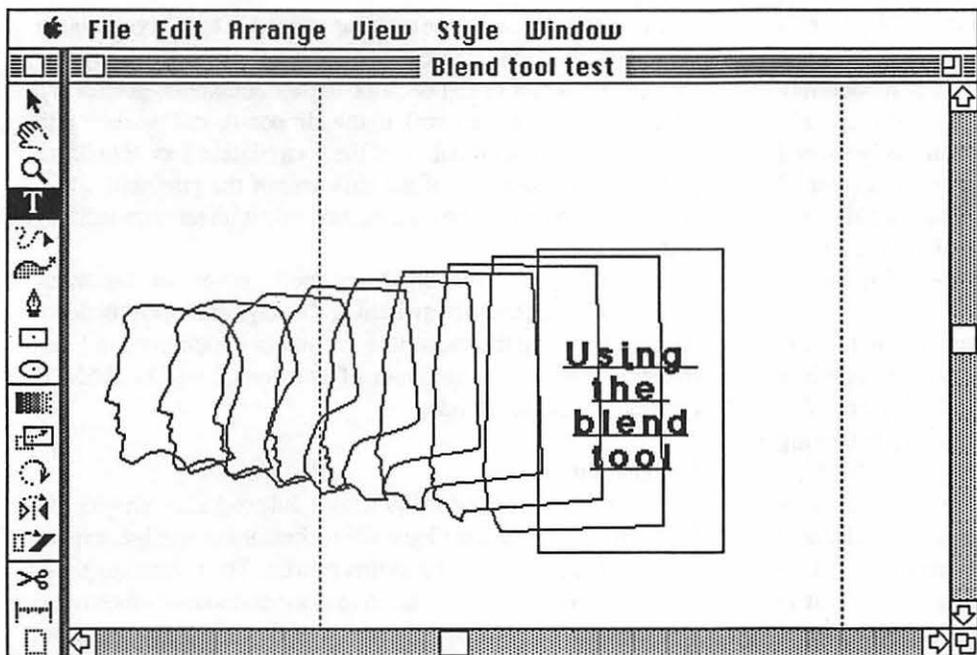
numerous spokes arrayed around a center point. Drawing such an object manually would be very time-consuming. The Blend tool has considerable artistic potential. Using Blend, the artist takes two distinct objects, and has the program link one to the other in a progressive series. (See the illustration below, in which a face is gradually transformed into a rectangle.) Other uses could have an ugly duckling gradually transformed into a swan or perhaps a biplane transformed into a Concorde. Fill patterns can be blended, too, giving the final item a smooth and professional appearance.

In terms of sheer utility, however, the Auto-Trace tool is without peer. In earlier versions of Illustrator, users had to trace every twist and turn of a template. This task could take many hours for complex items. With Auto-Trace, one can simply choose the item to be traced, select the tool, and let the program do the tracing. This tool does not create artwork as precise as that created manually, but the traced object can be edited and adjusted as can any other object. Using this tool for a quick trace, and then modifying the resultant artwork, can save enormous amounts of time and avoid needless drudgery.

Color

To those fortunate enough to have use of a Macintosh II, Illustrator offers access

to a vast range of color capabilities. Over 700 printing inks and all Pantone colors (from the Pantone Matching System) are available. The user can also create and save custom colors. Graphics can be created in, or filled with, any color. The



Blend tool allows very subtle and precise ranges of color. Color documents can be output to a thermal printer; Illustrator can also print color separation negatives directly onto a Linotronic, eliminating mechanicals and making revisions relatively simple.

Needed Improvements

Most of Illustrator's functions adhere as closely as possible to the Macintosh interface. One exception involves the steps to follow when opening documents. When on the Desktop, most Macintosh users tend to open documents by double-clicking on them. (Although virtually all programs also support opening documents by first opening the application, programs do not generally require that this extra step be followed.) You will notice that you have two icons for your illustration: the original template, which remains unchanged, and the artwork you've created. When you double-click your artwork, Illustrator opens both it and the template. Given sufficient memory, this is a convenience to the user. As you approach the tight memory limits of the Mac Plus, however, this dual-document selection can lock the computer and give the user an "insufficient memory" message. The only way to avoid this is to remove the template from the disk (so that the program cannot find it and will thus open only the artwork) or move it sufficiently far away that the computer will stop looking for it.

A related problem also exists. The sequence described above occurs when

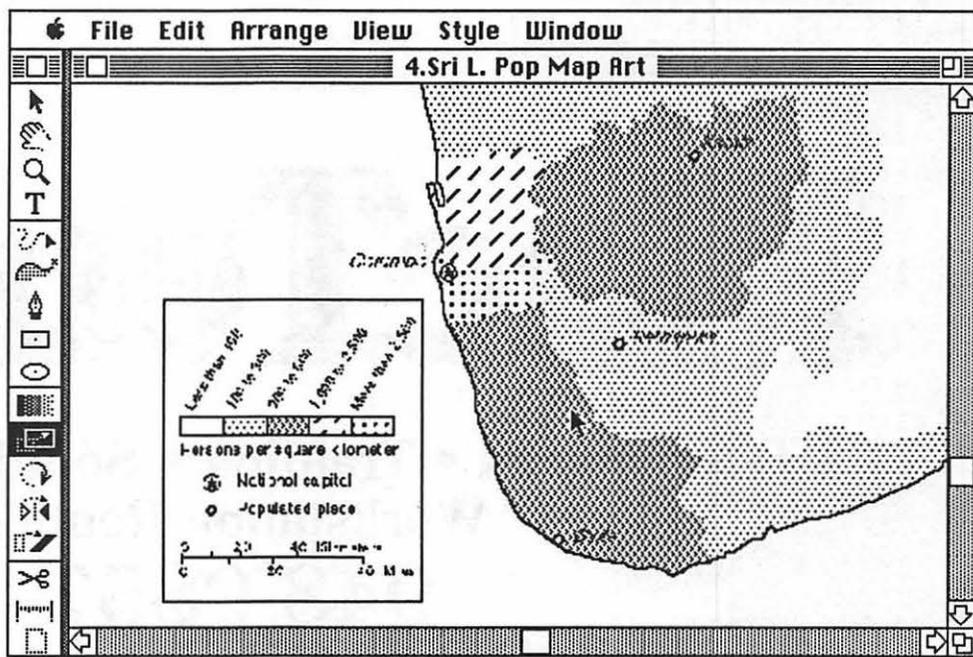
you double-click your artwork on the Desktop. If you double-click the template instead of the artwork, an odd event occurs: the program opens the template as a MacDraw document rather than as an Illustrator graphic! Furthermore, the user is not informed of this fact or given a choice. Only by noticing that the tools are different can the user tell that he or she is in MacDraw rather than Illustrator. To avoid this problem, Illustrator should present the user with a dialog box offering the following choices: "Open as Illustrator Document," "Open as MacDraw Document," and "Cancel." This would avoid confusion and let the artist, rather than the program, remain in command.

Illustrator offers the user a variety of powerful typographic effects. However, its text-handling capabilities are limited in many ways. The procedures required to create and manipulate text depart from the standard Mac interface. Future versions of the program would benefit from simplified procedures in creating and placing text; more flexibility in mixing fonts and styles would be appreciated.

Another oddity in this excellent program involves fill patterns. Illustrator 88 (unlike previous versions) allows the user to create complex and easily-modifiable fill patterns. Inexplicably, however, the program does not include a single fill pattern with it. Until the user creates his/her own patterns, it is not possible to create filled objects. Adding 20 or 30 standard fill patterns, as is traditional with most other graphics programs, would be an easy solution to this problem. (The graphic below is a template, scanned into the Macintosh. The text is from the original scan, and will be replaced as the map is prepared. The fill patterns were created at FRD.)

Illustrator also suffers from speed problems. Many functions are processor-intensive; opening and closing documents can take from 20 seconds to 4 or 5 minutes. Even dialog boxes take awhile to arrive. Moving graphics about on the page is an exercise in patience and frustration. More memory would be very helpful here; perhaps a numeric coprocessor would also speed things along.

Speed problems are closely interre-



lated with RAM limitations. Previous versions of this program demanded less memory than Illustrator 88. The program itself requires approximately 600K of RAM. Even a moderately complex template can take another 200K, thus leaving only 200K for the artwork. Complicated graphics can easily exceed this memory: a transportation map of El Salvador consumed 267K; a map of Chad required over 250K. Once we realized these limitations, we immediately ordered a RAM upgrade. Unfortunately, the worldwide shortage of RAM chips has affected everyone.

The last recommendation for program enhancement—the addition of a “command-period” cancel option—also involves the matter of speed. Because opening and closing complex documents can take up to several minutes (and simply moving artwork on a page can require repeated waiting periods as the screen is slowly redrawn), the waiting involved with Illustrator can be excruciating. The addition of the cancel command would allow the user to halt an operation in progress. This would reduce unnecessary waiting when the user has second thoughts about an operation, or clicks accidentally on the wrong part of the page.

Coping Techniques

While waiting for additional memory, we have developed several ways to cope with the memory limitations. First, when tracing an outline, we avoid using long, unbroken lines. These take an enormous amount of memory; a simple solution is to draw a series of shorter lines, and interconnect them.

Second, we create maps as a series of individual overlays. First, the artist traces the country's borders, for instance. Then,

in a separate document, the rivers are traced. Then, in yet another document, the railroads are traced. Finally, when all overlays are created, the artist opens each of these documents, deletes the template, copies the artwork to the clipboard, and pastes it into the destination document. Just the compilation process takes a very long time because of the slowness of the program. Thus, complex graphics can be created, but only with an extraordinary measure of patience.

Using the multiple windows mode saves an enormous amount of time, because switching displays and opening documents are among the most time-consuming operations in Illustrator. However, a minimum of two megabytes of RAM is essential to use this mode.

Conclusion

Illustrator 88, priced at \$495, is a solid program with very few bugs. But the user must have the technical knowledge, experience, and patience to harness this power. The manual explains program errors in a comprehensive manner (most of which relate to memory limitations). Only rarely do unexplained crashes occur. The precision and power of Illustrator are very impressive; it has not been possible within the space limitations of this review to note most of the program's capabilities. Suffice it to say that there are very few drawing tasks outside the capabilities of Illustrator 88.

Jonathan Tetzlaff is a Unit Supervisor and David P. Cabitto is a Senior Illustrator (Supervisory) with the Federal Research Division of The Library of Congress.



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MACINTOSH BITS AND BYTES

by Lynn R. Trusal



Language Translators

Carnegie-Mellon University (CMU) in Pittsburgh, PA is one of the leading computer R&D schools in the country. Dr. Masaru Tomita of CMU has recently tackled the problem of translating spoken words in a foreign language into written form. He has developed a computer program that translates Japanese spoken into a microphone into English, which comes out of a speaker. Right now the system has the ability to only recognize 100 words that are common to a physician talking to his patient. He sees it being useful in a Japanese hospital to communicate with an English speaking patient. He is currently working on increasing the vocabulary recognition and word discrimination capabilities of the system. Can you imagine how useful that would be at the U.N. if it is ever perfected? Diplomats could shout at each other nonstop without waiting for the translation. (Source - Investors Daily, June 23, 1988).

Mobile Scanners for Human Identification

Scanners of all types are gaining increased acceptance for a wide variety of uses, but the most bizarre may be on the highways. The U.S. Department of Transportation has given California \$276,000 to test the concept that eye scanners can be used for identification of motorists. Retinal scanners are already used for personal identification for entrance into secure facilities. The pattern of blood vessels in the eye is as unique as fingerprints, or voiceprints, and is gaining increased acceptance as a means of identification.

Police could use a portable scanner to scan the eye of a motorist to ascertain true identification for stolen cars, revoked licenses, multiple drivers licenses, etc. Such information would be used to establish a central database at a proposed national registry of motor vehicles. Big Brother is getting closer and closer! (Source - PC Week, Connectivity Supplement, June 28, 1988).

IBM- Has the First Shoe Dropped?

IBM has bitten the bullet to some extent by announcing that it will remanufacture a new personal computer based on a non-microchannel architecture. It will be called the Model 35 and will use the old design but incorporate some the features of the PS/2 models but not the microchannel architecture. It will be priced between \$2,000 and \$3,000 which is hardly the old AT price.

IBM later said that they were misinterpreted and that they have no intention of reissuing an AT based machine. Instead they say it is the first 80286 based non-microchannel architecture IBM. Is that a cop-out or stretching of the truth? I still see the first shoe about to hit the floor. If IBM drops a shoe in the forest, does it make a sound?

IBM has seen its market share erode while Compaq continues to gain in the marketplace selling the older MS-DOS machines. This decision may make some business sense but it has to be considered a defeat for the company that continually announces it has shipped over 2 million of the PS/2 machines. Apparently

many of those 2 million are sitting in warehouse and not in corporate

America. Over one million are at the low end of the PS2 line and are not microchannel equipped. They have a bus similar to the old AT model and use the 8086 Intel CPU. This new model will be the first 80286 machine to not use the microchannel bus. (Source - Investors Daily, August, 1988)

Fireproof LAN cable

Those of you who purchased the Apple brand AppleTalk cable kit were undoubtedly shocked at the \$500+ cost of 300 feet of cable plus some connectors. Most of the cost was due to the use of Teflon for the cable coating so as to conform to fire codes. Although the AppleTalk cable is very unlikely to ever start a fire, it could serve as a conduit for a fire to spread if it were made from a flammable substance.

PVC coated cable could be obtained for about \$0.66/foot but it did not meet fire codes, while Teflon is \$2.50/foot and does meet such codes. Now Black Box Corp. of Pittsburgh, PA has developed with Helix Wire Corp. of Leominster, MA a way to make PVC coated cable fireproof with no increase in the diameter of the cable. (Source- Business Week, August 22, 1988).

Cheap 2400 Baud Modems

The price of 2400 baud modems has reached the price of 1200 baud ones 2 years ago. I recently purchased a Practical Peripherals PM2400SA modem from MacConnection for \$189 and now Zoom Telephonics, Inc. of 207 South Street, Boston, MA (800-631-3116, Ext. 16) is offering the Zoom MX 2400 for \$169 with telecommunication software. This offer supposedly will expire on September 30, 1988 but similar prices will become more abundant in the coming months.

Zoom says their modem is fully Hayes compatible as is the Practical Peripherals. Zoom offers a 2-year warranty while 5 years is standard with Practical Peripherals. Five year warranties are unheard of for computer or peripheral equipment. Now may be the time to upgrade!

The Apple Color Monitor

Everyone who owns the Apple color monitor for the Macintosh II knows that it contains a visible but very fine wire which runs horizontally across the lower one-fourth of the screen. It is not a defect and it helps hold the mask in place on the picture tube. Larger size Sony monitors are reported to have 2 such wires.

I have now seen the gradual appearance of another wire on one of our monitors at work. It runs vertical about one inch in from the right side of the screen but it is only visible for about three vertical inches. I don't know if there are many such wires, only one of which is normally visible, but this may represent a defect in the monitor. It is a minor annoyance but I think Sony should be able to design a monitor with no visible wires.

Old Computers Don't Die—They Get Recycled

A recent article in Business Week magazine (August 29,

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1988) discussed what happens to old computers when their owner buys a new one. The market for used computers is growing fast, with Compaq, IBM and Apple computers in the most demand. A Compaq model that is still in production commands 73% of its street price compared to 67% for IBM and 63% for Macintosh.

A new enterprise in Frederick, MD called "Chesapeake Computer Exchange" (301-694-5074) deals in a wide variety of used computers. If you can not find what you are looking for in the WAP Journal, give them a call and see what they have to offer.

The Apple Scanner

Apple Computer released the Apple scanner at the August MacWorld Expo in Boston. I recently was able to put it through its paces and want to give you an initial impression of this new product.

Apple has apparently had the hardware finished for more than six months but did not release the scanner due to software problems. The scanner itself has a profile of 4" high, 13" wide and 21" deep. The scanning area measures 8.5 x 14" and is covered by a detachable lid that may be temporarily removed to facilitate copying a large book. It seems unlikely this would need to be done very often but it is a nice addition.

Most of the hardware scanners use the same charged couple device (CCD) technology made by several manufactures, and it is really the software that distinguishes one scanner from another. The Apple scanner comes with two scanning packages called AppleScan and HyperScan, the latter of which was written by Bill Atkinson. AppleScan supports from 75 to 300 dpi resolution with 200 dpi for Fax users.

As with most scanners, scanning modes include line art, half tones and gray scales up to 16. Therefore, the Apple scanner is a 4-bit scanner which stores 4-bits of data for each pixel scanned when used in gray scale mode. It is easy to see that an 8.5 x 11 photograph scanned in this mode may take 5-6 megabytes of memory. Serious users of any make of scanner will need a lot of free hard disk space and it is not unreasonable that 20-40 MB may need to be dedicated to it. This will be particularly true for gray scale images that you wish to save since most of them will be too large to back up onto one floppy disk. Just scanning one gray scale image may require 8 MB of hard disk space just to do the scanning even though the saved image may only use 2 MB.

Scanned images may be scaled from 25 to 100% and portions of the scanned image may be selected to change the brightness and contrast for effect. This is done only inside a selection rectangle unlike MacScan that permits real time changes of the entire scanned image.

Halftone images may be altered by applying spiral, Bayer, straightline, 2x2 and tutorial methods with patterns that may also be applied. Typical MacPaint tools include lasso, selection rectangle, eraser and pencil, although there is no provision for text entry. A preview mode does a quick scan so that a more accurate scan area can be defined by use of a selection square that can be moved independently in both directions.

HyperScan is an added software package that permits scanned images to be put directly into HyperCard, but only in a halftone format. This limitation is overcome to some extent by a choice of 30 different halftone patterns that can be applied to

the scanned image after scanning. Both portrait and landscape modes are supported but it is not possible to move the scanning selection rectangle in only one direction while keeping the other direction stationary.

All well and good, but what do the results look like you say? So far I have done mostly gray scale scanning and the images on the Apple gray scale monitor (color) look excellent. Unfortunately, the LaserWriter does not do them as much justice when printed but none-the-less the results are very good. Images may be saved in TIFF, PICT and MacPaint formats, but only PICT may be opened up in AppleScan if further manipulations are desired. This may necessitate saving images in two formats which eats up disk space. I was unable to open up a TIFF saved image in Canvas even though Canvas supports TIFF images. I don't know what this happened but there are different TIFF formats which are not totally compatible.

I tried to print a 2.9 MB gray scale image to a LaserWriter NT and after 2 hrs it still had not printed. It only tied up the computer for about 30 minutes of this time but the slowness of PostScript is never more evident than during gray scale printing.

The Apple Scanner must compete in an ever crowded marketplace for the same audience. It produces excellent results but is somewhat pricy at \$1,799. The rumored price was \$1,600 before release but Apple is known for higher margins based on the Apple name. Consider that the street price will be 20 to 25% less.

The HP ScanJet which supports up to 600 dpi with 16 shades of gray is considerably less (\$1,195) but its Mac interface lists for \$495 compared to only needing a SCSI cable and terminator for the Apple scanner. The street price of both scanners is hundreds of dollars less than retail and a recent rebate offer (now expired) knocked \$300 more off the ScanJet price.

Also remember that if your only output device is a LaserWriter you will have little need for a 64 or 256 gray scale scanner which requires a Linotronic to output full gray scale capabilities. Apple was apparently aiming at the lower end of the marketplace where they perceive more of a need for a 4-bit scanner.

New Apple Reorganization—Again?

Apple Computer has reorganized again for the push into the early 1990's where John Sculley predicts gross sales of \$10 billion dollars, up from just under \$4 billion in 1988. Mr. Sculley retains the title of CEO while four presidents were named as follows: Apple USA (Allan Loren), Apple Products (Jean-Louis Gassée), Apple Europe (Michael Spindler) and Apple Education and Pacific (Del Yocum).

This is a major promotion for Mr. Gassée who is now in charge of all Apple's product research and development and worldwide sales and manufacturing. He was formally senior vice president for research, development and product sales. As such, many analysts feel that Jean-Louis is heir apparent to John Sculley should he eventually decide to move on or retire. (Source - Investors Daily and other sources).

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

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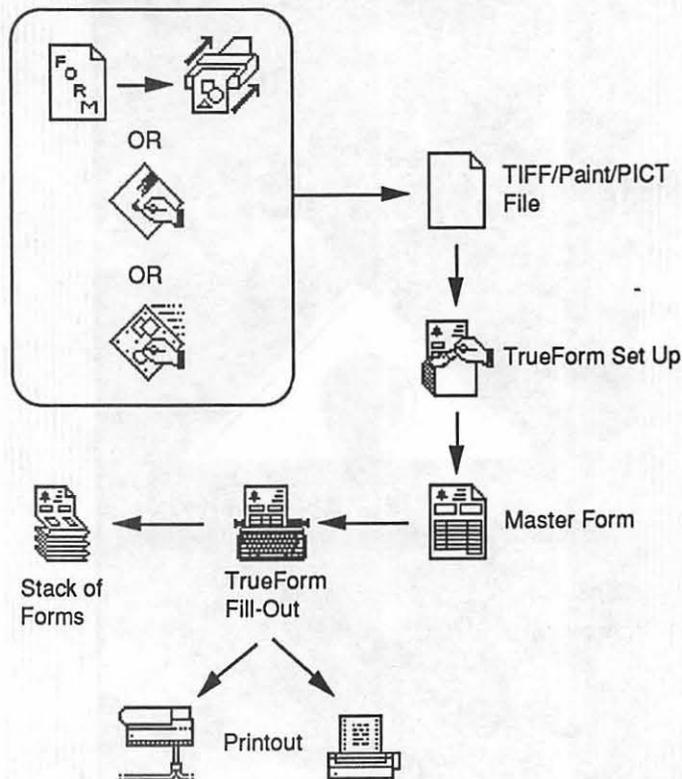
TrueForm: Answer to Form Inundation...

by Phil Noguchi

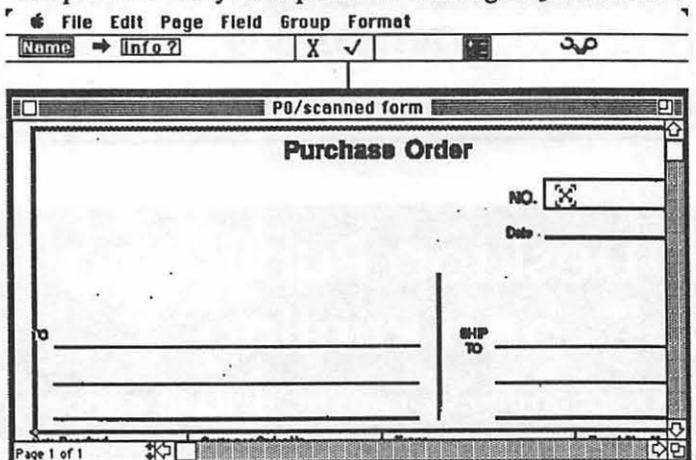


We are inundated by forms, no matter what we do. Taxes, bills, subscriptions, wills—you name it, it requires a form. As a Government employee, I have to know far too many arcane terms such as OF-8 (Official Form 8), SF-52 (Standard Form 52). Hey, isn't one of the things we all got the Mac for was to make it easier for the rest, not the best, of us? Wouldn't it be nice to have all the forms you would ever need and then be able to fill one out and print it on that nice laser printer? With leading questions like that, you know the answer is "Yes!" and, remarkably, one can actually do it with the program TrueForm by Spectrum Digital Systems. One can better understand the audience for which this program is intended by reading a snippet of the introduction of the User's Guide: "... TrueForm is for people who fill out lots of forms, lots of different kinds of forms, or forms supplied by other people...". Notice: a starting form provided by, say, the Government or Apple Computer is assumed; this is NOT a forms generation package.

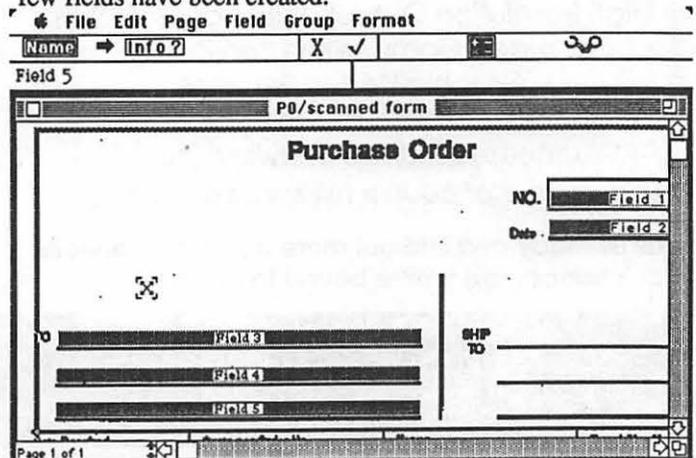
TrueForm is not for the casual user, but requires a fair amount of persistence. Part of the complexity arises from the multiple steps that have to be done to get final, completed form. As illustrated in the following figure, the first step is to produce a form that can be read by the TrueForm Setup program; this can be done by using a paint or draw program to make up a new form, or an existing form can be scanned and save as a TIFF file. The TIFF/Paint/PICT file is then read by the Setup program to produce a master form; the master form is then read by the TrueForm Fill-out module to produce either a file to store, or to printout on an Imagewriter or LaserWriter—whew, not like the old days of MacPaint 1.0!



Although one can certainly produce acceptable forms in MacDraw, the real power of the program stems from the ability to accept scanned forms, like an SF-52, and to work with the scanned image. Once printed on a LaserWriter, it looks like a fairly good xerox of the form along with the sharp print of the LaserWriter printer. The following review will barely skim the overall capabilities of TrueForm, but it should give a good taste of the power of the program. The program disk comes with a number of MacDraw created forms; to simulate more general use I printed out one of these forms in MacDraw and then scanned it at 300 dots per inch on a MacScan scanner. One can also use TrueForm Set-Up to run the scanner, but there is no control of contrast within the program. It turned out that I needed to run the MacScan with light contrast so that dust spots would not show up on the scan. Once scanned, the TIFF file is opened within TrueForm Set-Up; the picture does look muddy, but remember it represents 300 dots per inch while the screen can only show 72 dots per inch. At any rate it prints out "Just as good as a Xerox..":



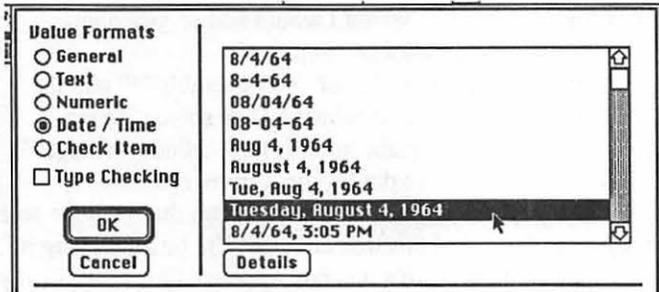
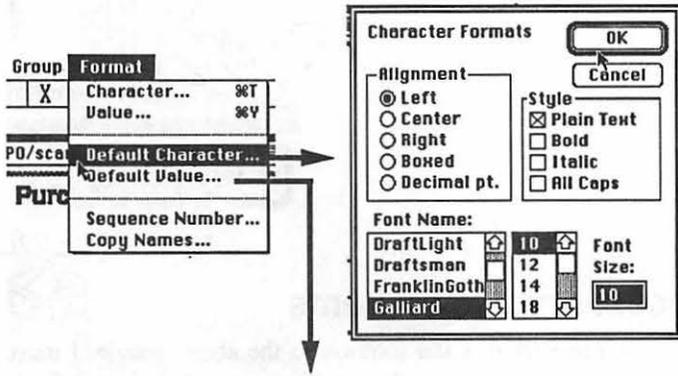
Notice the funny cursor with crossed arrows—click once and a field box automatically appears that fits just along the line. Some proprietary intelligence routines will fit to a fair degree the boundaries defined by the underline. In the following figure, a few fields have been created:



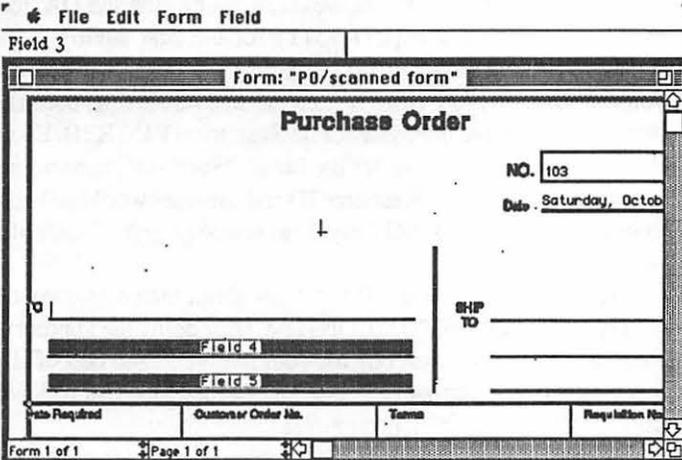
Once the fields are placed, they can be edited to set up defaults



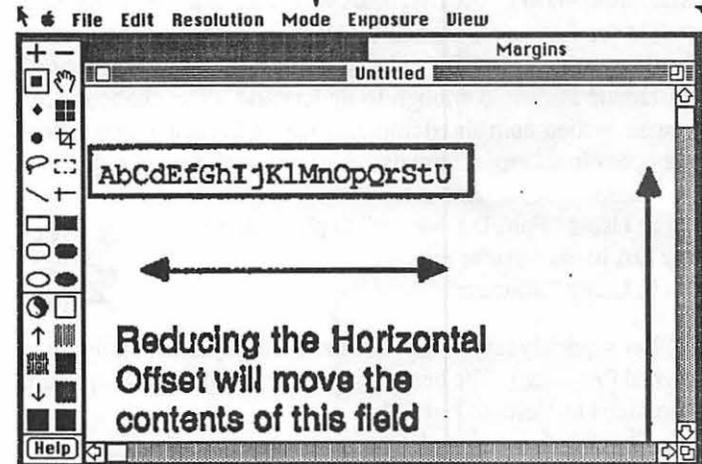
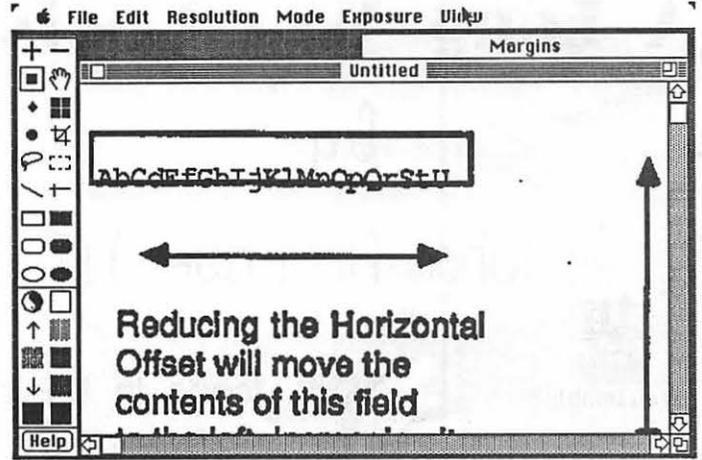
such as date, invoice number and so forth; font size and styles can also be specified:



In addition to these expected niceties, a number of further extensions are available, a few of which include the ability to order the tabbing of fields in any arbitrary path, the ability to specify types of data, a useful set of numerical procedures, and the ability to attach popup fields of information that will be displayed when a specific field is entered so that the operator can get hints on what to enter in that field. Once the fields are defined in the way you need them, Set-Up is exited and TrueForm Fill-Out is entered:



Notice that the Invoice and Date fields have been filled out automatically and the cursor has jumped to field 3, ready for input. After the form is completed, printout proceeds in the usual manner. With a LaserWriter, one has the option of caching the form itself in the printer; this way, only the changing data in the fields will have to be sent to the printer and printing is much faster. If one uses a PICT file for a form, what you see on screen will very closely match what you see on the printout; however, with TIFF files, minor adjustments to the program must be entered on a one-time basis. The next two pictures show scans of printouts from the alignment form included with the package:



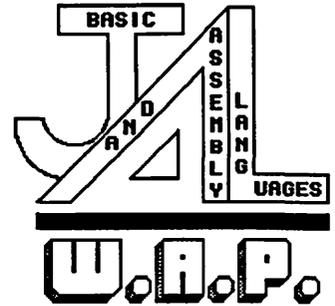
Notice how in the first one, the data entered overlaps the bounding box while with the adjustments entered the alignment now matches the screen. These adjustments work well as long as you only use one printer; if you use another printer you may need to readjust the settings. This is not the result of a program bug, but rather reflects the fact that TIFF files use a different imaging model than QuickDraw.

After using this package for several months, I can give the following overall impressions. Unlike so many programs that promise everything, this one has well-defined goals and it performs them in a very competent and straightforward way, with excellent adherence to the Mac interface. It is NOT what I would call a program for the casual user; this is industrial strength and justifiably is best used with large hard disks, a scanner and page display screens on a Mac II (although the speed is fine on an SE). For the small business, large business, government, etc. it would seem to me a logical program to use to keep formania in check. While it has import and export capabilities, one would think that this would be an ideal front end for a database and I understand that such capabilities are in the works. When this occurs, TrueForm would be an ideal package for computerizing those operations in which standard forms have been used for years. One possible next step, which might take a while to develop, would be a system where already filled out forms could be scanned in, and the data extracted automatically from user-defined fields. As it stands now, TrueForm is a well-thought out useful piece of software that works. What more could we ask?*

A Long Word Wiser

by

John A. Love, III



McAssembly™

©R, Icons in Desk Accessory Menu Items

I am currently writing a Desk Accessory in whose MENU Items I would like to have ICONS. Immediately we have two seemingly disparate numbering systems as dictated by "Inside Macintosh" (IM). The first deals with the arithmetic pertaining to IDs for Resources owned by Desk Accessories; the second pertains to IDs for ICONs placed in MENU Items. Each set of arithmetic is simple enough to understand. The challenge, of course, is their combined implementation in each of two different operational environments.

These environments are:

- Using "Font/DA Mover" to physically place my DA in the System File.
- Using "Suitcase".



Let's quickly review the first numbering system pertaining to owned Resources. The best way to accomplish this is the picture contained in Volume I of IM:

| | | | | | | | |
|----|----|-----------|-----------------------|----------|---|---|---|
| 15 | 14 | 13 | 11 | 10 | 5 | 4 | 0 |
| 1 | 1 | type bits | ID of owning resource | variable | | | |

Figure 1. Resource ID of an Owned System Resource

Since a Desk Accessory is a DRVR-type Resource, the type bits=000. The ID of the owning Resource can be derived one of two ways, the most common of which relies on dCtlRefNum in the Device Control Entry (DCE). The last 5 bits, earmarked "variable", are up for grabs so long, obviously, as the quantity is in the range 0 → 31. Speaking of ranges, what this long word reduces to is a number in the range =-16000→-15521 for a Desk Accessory.

NOW, what about the second numbering system that addresses the IDs of ICONs for MENU Items?? IM stipulates that these hummers be in the range 257→511. Once again it is obvious that when you load or create your MENUS in the Open Section of your DRVR, you've got to temporarily change the high negative ID of your owned MENU ICON to a low positive # before you call _SetItemIcon. No sweat, right?!*!*? Yup, anything you say!!

As if the above gymnastics weren't enough, it turns out that "Suitcase" searches for the first empty slot (a positive Unit # = the ID of the owning Resource) and temporarily converts that to new IDs for your owned Resources. For example, if your Source Code specifies a Unit# of 16 (mandatory range= 12 → 26), but "Suitcase" detects an empty Slot #12, "Suitcase" will temporarily change all the IDs of your DA's owned Resources accordingly (I don't know what "Font/DA Juggler Plus" does behind the scenes). Interesting, you say?!*!*?

Before I address the solution to the above puzzle, I must praise to the skies both the intelligence and patience of the following folk, without whom I would still be grovelling:

- Steve Brecher, author of "Suitcase".
- Dave McWherter, author of "McAssembly™" and the "McSink" DA (best combined \$75 or so you'll ever spend). By the way, the latter is now called "Vantage™".
- Dave Smith (where did he come from??).

By the way, if I blow it, I hereby declare that I am the sole occupant at the end of this tree limb that I'm busily sawing off. Steve and the two Dave's are not responsible for any of my mistakes.

First, what does NOT work:

OpenSection → _GetResInfo (original ID)

...
_SetResInfo (new ID)

Close Section → _SetResInfo (original ID)

These gyrations won't work in either operational environment. Oh, your MENU ICONs will show up as advertised after you open your DA in both; however, upon closing the DA, the new ID is still in place (257→511) for the first environment (using "Font/DA Mover"). NO resetting was implemented. As you can see, I do NOT call _WriteResource on closing, because then I would update the System File Resource (YUCK !!). Even if I would be willing to suffer the latter, "Suitcase", remember, messes with the owned Resource ID and the reset would be back to its make-believe ID, NOT my ID as stored on disk. "Ain't life wonderful??"

Okay, folks, now what?!*!*? How about making a copy of the Handle to your MENU ICONs and, after doing the appropriate arithmetic, using the copy for your MENU...and best of all, this works (well, almost ...). All the Source Code that follows uses "McAssembly™", Version 7.3:

```
setMenuItemIcon MACRO      &1,&2,&3
; MenuItem,Menu Item #,ICON Name.
; First, retrieve the attached ICON Resource:
move.w      RescIDBase,iconID
addi.w      #&2,iconID
GetIcon     iconID,=iconHdl
move.l      iconHdl,tempHdl
; Just temporary, folks !!
; Then, get the Resource file's Attributes so we
; can reset them later. After that, we make a
; copy of the ICON's Handle so that we can use
; the COPY for the MENU:
HomeResFile iconHdl,=resFileRef
GetResFileAttrs resFileRef,=resFileAttrs
```



```

;-----
move.l    iconHdl,a0
_HandToHand
move.l    a0,cyHdl
ReleaseResource    tempHdl
; The ORIGINAL Resource.
; Now, place the ICON's COPY in the Menu Item
; by changing the ICON's ID # to between 257 -
; -> 511:
move.w    #&2,iconID
addi.w    #256,iconID
AddResource    cyHdl,#'ICON',iconID,l.name
bra.s     .l
.name     text    #&&3
align
; Reset to ORIGINAL Attributes to clear the
; resChanged Bit in the Attribute Byte so that we
; don't update the Resource upon Closing AND so
; "Suitcase" DOES reset to the disk-based ID:
.l       SetResFileAttrs resFileRef,resFileAttrs
SetItmIcon    &1,#&2,#&2
; menuHandle,item #,icon #.
ENDM

```

Okay, this almost works, but ... `_SetResFileAttrs`, itself, will eventually do a `_WriteResource`. Since close only counts in horseshoes, so much for that idea. Anything else??

What about setting the "MapReadOnly" bit of the Resource file's Attribute byte so that the changed Resource Map is NOT written to disk. This could be done upon Opening the DA. Upon Closing, the original "MapReadOnly" bit could be reset. Steve Brecher correctly pointed out, however, that this effectively holds your DA's Resource(s) captive ==> a super big "no-no"!!

Okay, I guess I'll just have to implement what Dave McWherter suggested several months back—write my own Menu Definition Procedure—and thank heaven for Darryl Lovato (*MacTutor*, August 86). Darryl presented his code in Pascal. Just for the sake of converting to assembly, there's no need to blatantly repeat his code here. However, I do wish to present the sub-Function that handles "mChooseMsg" simply because I have added access to hierarchial menu items that, guess what, also have ICONs. By the way, I use Mike Schuster's "PopupSelect" routine to implement the hierarchial Menus (see *MacTutor*, Dec 85):

Before I present the modified assembly Source code, I would like to extend a 1000 special "Atta-Boys" to Dave McWherter, author of "McAssembly™" and the "Vantage™" DA, aka "McSink".

Dave's Assembler, in my considered judgment, incorporates many of the most powerful features of Apple's "MPW", while retaining the ultimate of user friendliness. You can even program in the worlds of the 68010, 68020 and 68851 CPUs by invoking a pseudo-opcode, for example, 'M68020'. A very significant part of this user friendliness focuses on what he calls the "Trap Compiler" with which the assembly language programmer can implement the sometimes-lengthy pushes onto the Stack prior to actually calling the various TRAPs via ONE line of code, just like "LightSpeed Pascal". At the present time, the current Version (7.3) uses Apple's "Edit", or other comparable Editor external to "McAssembly™". Be forewarned, however—Dave is working on an update to "McAssembly™" wherein he is incorporating his own Editor internal to his Assembler. In this manner, if there is an assembly error (horrors!!), you bounce automatically into his Editor. Neat, isn't it, again just like "LightSpeed Pascal".

So long as I'm advertising, Dave's "McSink" is now being distributed by: Preferred Software, 5100 Poplar Avenue, Suite 2716, Memphis, TN 38137 (901) 683-3383.

"McSink", now called "Vantage™", is a text Processing Desk Accessory that includes :

- √ Auto-paste and Auto-copy between multiple windows (max = 16)
- √ Horizontal scrolling
- √ KeyPad control of cursor placement
- √ Cataloging Folder contents
- √ Statistics — # of characters, lines, words, sentences and paragraph in the shown document
- √ Add/Strip prefix & suffix strings, as well as line #s

Dave can be reached via: Signature Software, 2151 Brown Avenue, Bensalem, PA. 19020 (215) 639-8764.

Now, onto the Source Code I've promised ==>

First, how do I install my own Menu Definition Procedure?? It's really very easy—all I do is create a 6-byte handle in which I have code to effect an absolute jump to my Procedure. This Handle is then stored in in the "menuDefHandle" field of the Menu Record. This teeny-tiny code parcel is as follows:

In the Open section of the Desk Accessory Driver:

```

move.l    #6,d0    ; "jmp myMenuDefProc".
_NewHandle,clear
move.l    a0,myMenuDefHdl
bra.s     .skipCode
;-----
.code     $CCCCCCCC ; 6 bytes.
.absAddr dc.l    myMenuDefProc-.absAddr
;-----
.skipCode move.l    (a0),a0    ; Convert to a Pointer.
lea      .code,a1
move.w   (a1)+,(a0)+
; Object Code word for "jmp".
lea      .absAddr,a1
move.l   (a1),d1
lea      (a1,d1.l),a1 ; Absolute address of
move.l   a1,(a0)    ; "myMenuDefProc".
...
...
NewMenu   dCtlMenu,lnewMenuName,
          =mainMenuHdl
AppendMenu mainMenuHdl,lmainMenuItems
InstallMenuProc mainMenuHdl
...
...
InstallMenuProc MACRO &1 ; MenuHandle.
move.l    &1,a1    ; Handle ->
move.l    (a1),a1  ; Pointer.
move.l    myMenuDefHdl,menuDefHandle(a1)
; _NewHandle into Menu Record.
;-----
CalcMenuSize &1
ENDM

```

Now, the "mChooseMsg" portion of my Menu Definition Procedure as I stated earlier. By the way, you'll see below some strange looking animals, such as `func`, `endParms`, `locals`, `endLocals`, `enter` & `exit`. These beasts are special Macros that Dave McWherter wrote to assist in the Stack manipulation required to link to an external subroutine.

Some "screwy" things have to happen here in order to simulate a Hierarchial Menu. First, when you choose a main Menu Item that has a Hierarchial {sub} Menu — you know it's a Hierarchial Menu Item because its "Cmd-key" = \$1B—you immediately go to an external Popup Menu routine as shown below. Nothing unusual so far... But, now you have to fake-out



the Menu Manager by returning an un-believable high Item #, like the maximum # = 31, so the Menu Manager does not blink an Item on the main, or parent Menu as you release the Mouse over the sub-Menu. Hold on, I'm not through yet... Down a-ways into the Code, you'll see a reference to supporting your local _MenuChoice on the Macintosh II. Sure enough, but there's another equally important reason for placing the Item # in the global, MenuDisable. The reason is that you peg on MenuDisable in the Menu Event section of your Desk Accessory code, instead of on the csParam field of the Parameter Block Record. The reason for this last divet is that otherwise the Menu Manager will not communicate a Menu Event to your DA. Actually, to tell you the truth, this doesn't make a darn bit of sense, but it's true when you write your own Menu Definition Procedure instead of using Apple's !!

Now, hold on a cotton-pickin minute, Love, don't you know that the new Menu Manger supports Hierarchial Menus already. Yup, sure enough!! Howsomever, there's a bug in the portion of the new Menu Manager that handles screen up-dates after you release the Mouse over a Hierarchial Menu Item (anybody know when System Version 7.0 is due out ??).

```

;=====
;FUNCTION doChooseMessage (myMenu:MenuHandle;
;                          myRect:Rect; myPoint:Point;
;                          oldItem:INTEGER) : INTEGER;
;
; Returns Menu Item # you selected:
doChooseMessage func integer
.myMenu         handle integer
.myRect         pointer
.myPoint        point
.oldItem        integer
                endParms
                locals
.oldRect        rect
.itemKey        char
.itemMark       char
.itemRect       rect
                endLocals
.menuHdl        requ a1 ; My worker bees ...
.cyParamBlkPtr requ a2
.cyDCEPtr       requ a3
.menuReg        requ a4
.theItem        requ d3
                ; Counts Items to get current one.
.enableFlags    requ d4 ; A disabled
.shift          requ d0 ; item ??
                enter
                movem.l d1-d7/a0-a4,-(sp) ; All your goodies.
                ;=====
                move.l .myMenu,.menuHdl ; Handle ->
                move.l (.menuHdl),.menuReg ; Pointer.
                ;
                PtInRect .myPoint,.myRect,=d0
                beq .outsideMRect
                moveq #0,.theItem ; Initialize counter.
.chooseLoop    addq.w #1,.theItem
                push.l .myMenu
                push.l .myRect
                push.w .theItem
                pea .itemRect
                bsr GetItemRect
                ;
                PtInRect .myPoint,!itemRect,=d1
                beq.s .chooseLoop
                move.l menuID(.menuReg),d2 ; Support
                move.w .theItem,d2 ; _MenuChoice
                move.l d2,MenuDisable ; for the Mac II.
.disabled?    move.l menuEnable(.menuReg),.enableFlags
                BitAnd .enableFlags,#1,=d0
                ; Bit #0 for ENTIRE Menu.

```

```

beq.s .yup ; ... it's disabled.
;
moveq #1,.shift
lsl.l .theItem,.shift
BitAnd .enableFlags,.shift,=d1
bne.s .deSelectOld
;
.yup         moveq #0,.theItem ; Item is disabled.
.deSelectOld cmp.w .oldItem,.theItem
                beq .aSelection
                tst.w .oldItem
                beq.s .selectNew
                ; The MenuBar, so don't invert back.
                ;
                push.l .myMenu
                push.l .myRect
                push.w .oldItem
                pea .oldRect
                bsr GetItemRect
                InverRect !.oldRect
                ; Invert back to white, or de-select.
.selectNew   tst.w .theItem
                beq.s .itsDisabled
                ;
                InverRect !.itemRect
                ; Blacken current selection.
                push.l .myMenu
                push.w .theItem
                pea .itemKey
                bsr GetItemKey
                cmpi.w #hMenuCmd,.itemKey
                bne.s .aSelection
                ;
                GetItemMark .myMenu,.theItem,!itemMark
                GetMHandle .itemMark,=a0
                ; = MenuHandle.
                clr.l -(sp)
                push.l a0
                push.l .myPoint
                bsr PopupSelect
                pop.l d1
                tst.w d1
                beq.s .onMenuBar ; Item's disabled.
                move.w #31,.theItem
                ; ... fake out Menu Manager so it
                ; doesn't blink a parent item.
.itsDisabled
.aSelection  move.w .theItem,.result
                bra.s .end
                ;=====
.outsideMRect tst.w .oldItem
                beq.s .onMenuBar
                ;
                push.l .myMenu
                push.l .myRect
                push.w .oldItem
                pea .oldRect
                bsr GetItemRect
                InverRect !.oldRect ; Back to white.
.onMenuBar  clr.w .result
                ;=====
.end        movem.l (sp)+,d1-d7/a0-a4
                ; Withdraw your life savings !!
                exit

```

HyperCard SIG News contd. from pg 80
the WAP Journal in the future. For a \$50 per year subscription, you get a relatively sophisticated index that is alphabetized by product name and article name. The entries are presented in a series of scrollable fields which are best searched with a find command.

FULLWRITE PROFESSIONAL: A Review

by Karen Rall

FullWrite Professional is a word processing application that tries to meet all the needs of people who write. It is a word processing system, not just a word processor.

At the heart of the package is a powerful word processor with many thoughtful features that make it a pleasant, easy-to-use environment. It also has a number of additional pieces—a spelling dictionary, an online thesaurus, an outliner, a complete set of graphic tools and many useful page layout features. You can create a stylesheet of layout, tab setting, and font choices that can be saved and reused with numerous documents.

The Word Processor

FullWrite is a fun environment to work in. It is easy to get started, you can write a letter without ever looking at the manual. On the other hand, due to the great number of features, you will have to take a look at the manual to get complete use of the product. The manual consists of two guides. One is the "Learning Guide", which is tedious. It has a lot of information, but not much on when or why you would use many of its features. For writers unfamiliar with powerful word processors, this can be confusing. The "Reference Guide" is much better, well written and to the point.

FullWrite can operate in any of four modes:

Outline: Creates a full outline in any style your choose, from legal styles to bullet charts. You can fill out the outline with paragraphs, then hide all the outlining. You could choose to leave in main headings but make the lesser heading invisible.

Change Bar Display: Shows which pieces of the document were added recently. This is good for making revisions and updates in existing files.

Icon Bar Display: Displays embedded symbols in a bar down the left margin. These symbols may be for graphics, headers, footers, table of contents entries, glossary or index entries or for temporary notes to yourself.

WYSIWYG Display: Shows the document as you want it to appear when it is finished.

These modes are well thought out. There are times when you might want to be working in any one of these modes, but you would rarely be flipping back and forth between them. These modes give you control of what you are working on. You might do an original draft in the outline mode, if you are into outlines, or, if not, in icon bar display where you can leave private little dated reminders as posted notes. Later, when you edit or update

your work, the change bar mode would be more important. For final proofing, the WYSIWYG is important.

FullWrite makes an attempt at the "do what I meant, not what I typed" philosophy of word processing. You can advise it what you meant about quotation marks (It does smart quotes if you like, putting in " or " when you type "), automatic indenting of paragraphs, formatting issues, like pushing single "orphan" lines onto the next page, units of measurement, and even alerts when you have filled the document with the maximum material to run on a 1 megabyte machine.

Search and Find operations seek and locate words or phrases, but also can check just for words in a specific font or style. There are actually little menus in the Find window. This exemplifies what I like most about FullWrite—you have many powerful word processing tools when you need them, and the option not to deal with them for jobs that do not require the finest word processing has to offer. The Find option can be run like the Find option in Mac Write or WriteNow, but at the click of a mouse, you can do case-style-font specific finds or replacements.

Another ease of use example is what happens to the cursor when you use Italics. In most word processors, the cursor stays upright when you choose Italics. It is difficult to know exactly which letter is under the cursor. In FullWrite, the cursor takes on the same slant as the Italics.

Writing Aids

FullWrite has more than enough writing tools. Some useful, others fun. It has a great spell checker and thesaurus system. The spell checker lets you scroll through the alphabetical listing of possible matches. This is nice, since between my typing and my spelling, I am often off by more than two letters in a word. The spell checker gives you more matches than the spell checker in WriteNow. The interface is easy to use, easy to modify or change your word from within the spell checker. You can add your own words, specific to your document, or add it to the dictionary. The thesaurus is a version of "WordFinder". This is simple to use, and right there. This is the sort of thing computers were made for—you don't need to get up, find the thesaurus, look in the index, then cross index, etc. You can cross index by highlighting a word and it even keeps track of the path you took.

Speaking of word usage, there is a really neat feature, called "Get Info". This feature analyses your entire document for number of words, paragraphs, characters, how long you have been writing—for example, at this point this document is rated to be at the eight grade reading level, with 809 words. It keeps track of the number of key strokes vs number of characters still there and how long you have been working. This is one of the fun features. Yes, it can be useful, especially for papers that need to be a specific length or if you get paid by the word, but it is also something that gives you positive feedback about all the work you you have done.

There are standard things like line spacing, tabs, rulers, and methods to do footnotes, contents, index entries, glossaries, headers and footers. This program has no end of features. To

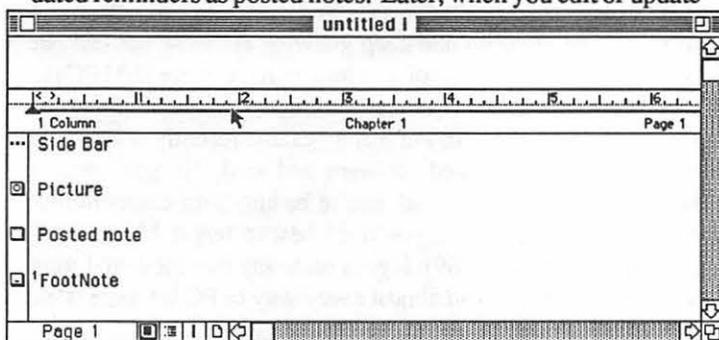


Figure 1: The Icon Bar

| | | |
|---------------------|------------------|------------------|
| Document Name: | Review.FullWrite | |
| Original Author: | | 10/1/88 11:10 AM |
| Session Author: | | 10/2/88 11:38 AM |
| Number of Sessions: | 2 | |
| | Document | Session |
| Keystrokes: | 10203 | 3632 |
| Time: | 1 hr, 56 min | 36 min |
| | Document | Selection |
| Characters: | 8988 | 0 |
| Words: | 1630 | 0 |
| Lines: | 147 | 0 |
| Paragraphs: | 23 | 0 |
| Readability: | 8 | -- |
| Pages: | 5 | -- |
| Size on Disk: | 22 K | -- |

OK

Figure 2: Get Info

understand how to use many of these features, you do need to look at the "Reference Guide" to get an idea on how and why to use them.

Graphics

The graphics package here is a full featured, scaled down drawing package. Draw or import a graphic into a graphic window that you can size to fit your document. You can do things with Bezier Curves (where you designate some points and FullWrite calculates the best path for the curve to take). You can have you graphics visible or hide them for extra speed. Each graphic gets a little symbol on the icon bar so you can see where they go.

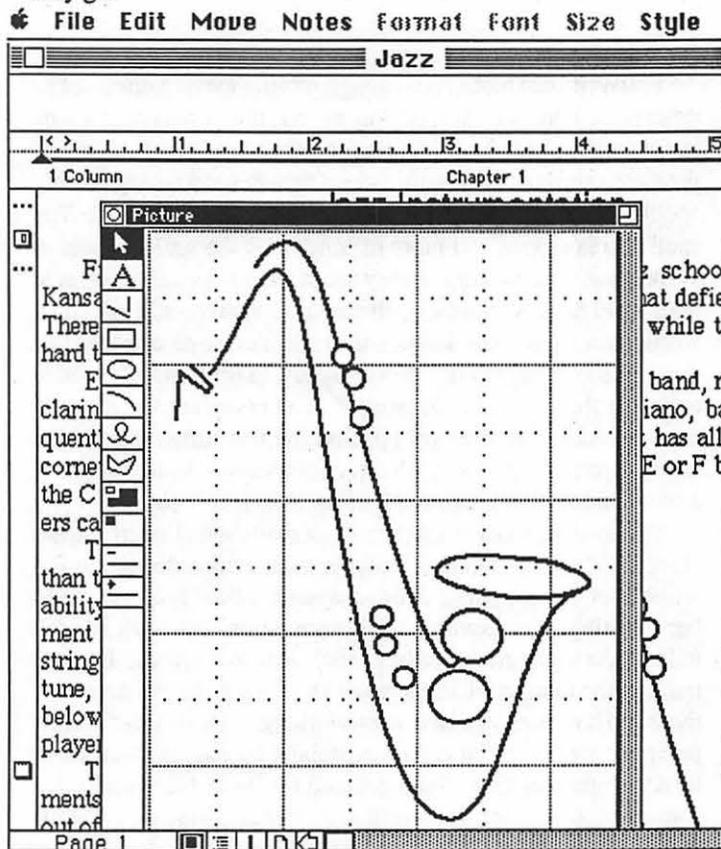


Figure 3: Graphics Tools

Finally Fullwrite has page layout features, which allow for text wraparound a graphic, kerning of letters, sidebars, borders around side bars, among other things. You can set margins, number of columns, use shaded backgrounds and even graphics inside the side bars.

This seemingly idyllic word processor is not perfect. For starters, it routinely beeps twice. A single beep is enough to get my attention. Secondly, there is not a direct translator to WriteNow. I have been working mainly in WriteNow, which is a good standard word processor, but it lacks many features that would be needed by a professional writer. WriteNow does not open FullWrite documents. FullWrite does provide the ability to convert files into MacWrite formats quickly and easily.

In general Fullwrite is full of features, and it tries hard to meet every word processing need anyone might ever need. This, I think, is the biggest drawback of the product. FullWrite runs on one a megabyte machine, but only if the System Folder is small. To make full use of the power of FullWrite Professional, you need at least 2 megabytes of memory.

In the attempt to make a word processor for every need, they created a word processor that was too big to fit comfortably on most Macintosh machines in use today. FullWrite does the job of several applications, an outliner, a graphics package, a page layout program and a word processor. All these features combined in a single application are necessary only on computers that cannot run MultiFinder easily. You already have the power to run a full fledged graphics, outliner, or page layout program concurrently with your word processor.

FullWrite tries to do it all. The features appear carefully thought out. The word processor is the best I've seen. The outliner, graphics and page layout features are not as powerful as dedicated applications, but they are adequate for many of the needs a writer might encounter. Some people prefer to run in a single integrated environment, since it is considerably cheaper than purchasing a variety of specialized programs.

I feel this is a program ready and waiting for the average hardware to improve. What is considered a minimal Macintosh system has changed dramatically in four years. It seems unfair to down rate a good writer's tool because it is too powerful.

True Form contd. from pg 73

*Footnote: It is a measure of the power of the Macintosh that whenever new software appears, we tend to overlook the basic utility of the program and keep gnawing at "well, not bad but whydoncha...". For those of us who also have to use IBM PCs in their work, many of the things we think trivial as Mac'ers are nearly impossible to do. Publish magazine recently reviewed a number of forms-related software and said, "If you haven't bought a computer yet, and you're basing your choice on its ability to process forms, you'd do best to buy a Macintosh." (Publish, June 1988, p69). It goes on to say that the Mac forms software are superior in almost every way to PC software. Can it get the job done? If it can, let's use it!

ON HYPERCARD: Part 3—You Can Get There From Here

by Kenneth Knight

HyperCard provides the user with a great deal of flexibility when it comes to manipulating data. We can see this flexibility in the numerous stacks that have been developed for various purposes, ranging from balancing a checkbook to helping produce indices for books. However, with this flexibility there comes a price, which shows itself in traversing a stack effectively. It is often hard to know just where you are in relation to other information within a stack. This becomes important when the stack you are dealing with is vast. Good examples of such stacks include genealogy stacks, the various developer's stacks, HyperCard's own Help Stack, and the vast databases that are slowly appearing like the Congress and Vietnam War stacks. In these stacks, data spreads out over hundreds, if not thousands, of cards. Moving around such large entities quickly becomes a major issue. It would be quite unreasonable to merely provide forward and backward arrow buttons for movement within such stacks. These types of stacks require much more flexible methods for getting around. In this article we will take a brief look at how one might go about creating a more efficient system for traveling within a stack (or variety of stacks). We will be looking at how to design maps.

Maps in HyperCard stacks are similar to road maps. They give the user an overview of the terrain covered by the stack and provide the information needed to determine a present location and how to get quickly and easily to a new destination. One very important difference between an HC map and a road map is that an HC map will let you go to your destination by simply clicking on the appropriate button. The primary purpose of this type of map is to provide you with an overview of how various parts of the stack(s) are related to each other, and to enable you to quickly and easily move around the entire collection of information.

How do we create maps for our stacks? It is not very difficult. HyperCard's own Help stack contains a very capable map function. You can simply use it as the basis for your own map design. However, making the map itself is not as simple with this particular function as one might wish, because you must assign coordinates to each card's "map coords" field telling the doMap function where in the map to place the checkmark. This is time consuming work. However, with a little effort we can automate the process of filling in the map coords fields and the script creation necessary for each map button.

First place the "doMap" function in either the background or stack script. Next, create a background button to call the "doMap" function. Its script should look like this:

```
on mouseUp
  doMap
end mouseUp
```

We need to add one more background field to our stack—"map name." However, this field will only be required during the creation of the stack's map. After we have made the map, this field can be deleted from the stack. In this field we will place the name of the button that is to bring us to the location we are sitting at now. For example: if we are at the start of the section of our stack that deals with American history, we probably have called

the button in the map "American history." Therefore, we must give that name to the "map name" field. If a card is not part of the map, say the remaining cards in the American history section, then we just leave the "map name" field empty. Ideally you should be filling in the "map name" field as you create your stack. The next step is to actually create the map card itself. This card must be given the name "map." You can set the card's name from the "Card info..." dialog box. We can now proceed to build the visual representation of our map. Just create new buttons, one after the other, and draw your map. Make sure that the button names correspond to the names you have already placed in the "map name" field. After you have created all the buttons for the map, copy the "Map Maker" button to the card. We will only need this button for a short time and it is probably a good idea to delete it after you are done with it. Find out the starting id of the map buttons. It should be 1. Also make sure you know how many map buttons you have on the card. Now, click the "Map Maker" button. One final step. We do not want to background the button that brings up the map accessible from the map card. Simply place an opaque button with no icon on top of it. If all went well, you now have a functioning map.

Let's take a brief look at the "Map Maker" button script. Overall, the script is not very complex, but we can learn how to make our lives easier by examining it. At the heart of this handler are the two repeat until loops. The first one loops through all the cards in the stack searching for cards with "map name" fields that are not empty. When it finds such a field it gets the location of the corresponding map button on the "map" card. It stores the location of the map button in the "map coords" field and thus makes our "doMap" function happy. If a card's "map name" field is empty we simply continue to the next card.

The next loop runs through all the map buttons. Here we come up against the major limit of this handler. The map buttons must be in sequential order. Normally this is not a problem. Just create all the map buttons at one time. Since they are card buttons their ids are not affected by any other buttons that are not on the map card. This loop first sets the card's name to match that of both the "map name" field and the map button. The loop then creates the script that will link the map button to the appropriate card.

Creating a script is fairly straightforward. Simply insert the text of the script into a waiting field or container. Note the "& return" at the end of the line. This places a carriage return at the end of each line of data. The script itself merely hides the checkmark button and then jumps to the card that has its name.

That is all there is to the "Map Maker" button. One last comment. We lock the screen during this button's work. This speeds up performance greatly. If we left the screen active, HyperCard would have to draw each card as it was encountered and that is a very time consuming process.

What I have just described is one type of map. There are many others that can, and are, used. Again, looking at the help stack we see that the first card for, say the HyperTalk section, is merely a series of buttons that point to the various subtopics. All one needs to do is simply click a topic. You could use a field for this type



HYPERCARD SIG NEWS

by Robert C. Platt

of work with a simple script that would jump to the card matching the selected line. Another very useful button is the 'return' button. This is the button that has the left and right arrow icon. It merely pops a card off the stack. Each time you move into a subtopic you just push the card you are leaving onto the stack.

We could say a good deal more about creating maps and on improving the usability of stacks. However, we will leave such discussions until a future date. Until next time, keep on HyperCarding.

— Handler: doMap
— Purpose: DoMap takes us to the map card as shows us
— where we are.

```
on doMap
  put field "map coords" into coords
  visual dissolve very fast
  go to card map
  show card button currentloc at coords
  repeat 2
    get the ticks
    hide card button currentloc
    wait until the ticks > it + 20
    show card button currentloc
    wait until the ticks > it + 40
  end repeat
end doMap
```

— Handler: Map maker
— Purpose: automate the map making process. This script
— the map links from the "map name" field. Map buttons must
— start at a known id number and run SEQUENTIALLY.

```
on mouseUp
  show message box
  lock screen
  put the id of this card into startCard
  put "filling the map co-ordinates fields now..."
  repeat the number of cards times
    put field "Map name" into mapName
    if mapName is empty then
      go next
      push card
      next repeat
    end if
    go startCard
    put the loc of button mapName into coords
    pop card
    put coords into field "map coords"
    go next
    push card
    end repeat
    put "linking map buttons to thier cards..."
    ask "what is the starting id for the map buttons?"
    put it into maps
    ask "how many map buttons?"
    put it into mapSize
    repeat mapSize times
      put the short name of card button maps into mapName
      find mapName in field "map name"
      set the name of this card to mapName
      go startCard
      — Create map button script
      put "on mouseUp" & return into temp
      put "hide card button currentLoc" & return after temp
      put "go card" & quote & mapName & quote & return
        after temp
      put "end mouseUp" & return after temp
      set script of card button maps to temp
      add 1 to maps
    end repeat
  end repeat
  unlock screen
end mouseUp
```

September Meeting. At the September HyperCard SIG meeting, Bob Shaffer demonstrated "101 Buttons and Scripts." This package contains clip art and hundreds of useful buttons and scripts. Some of the more impressive ones were "controls" which allow a stack to simulate real world devices such as a multiple position radio dial, etc.

Stack collection. Our Stackware librarians, lead by Dave Condit, continue to produce many impressive new disks of stacks, XCMD's and XFCN's. You can purchase them at our monthly meetings, at the WAP Office, or by mail order using the form in the back of the WAP Journal. Stack disks have numbers beginning with 19, while XCMD disks have numbers starting with 21. Dave still has about 50 megabytes of stacks to sort and document for our library. If you can review a few disks worth, please call him at 703-349-8752.

HyperTalk SubSig. Are you interested in developing commercial stacks or customizing your stacks with scripts? Then the HyperTalk SubSig is a great place to share your experiences and questions with fellow HyperTalkers. It meets on the third Wednesday of each month (including November 16) at the Fairlington Community Center, 3300 S. Stafford St., Arlington, VA at 7:30 p.m. To reach the center, take I-395 to the Shirlington/Quaker Lane exit. Go south on Quaker Lane, through the first traffic light. Turn right one block after the traffic light. The center is one block in from Quaker Lane, with ample parking available.

Book Reviews. My long-promised review of Goodman's latest book appears elsewhere in this issue. You should also note that a revised edition of Dan Shafer's *HyperTalk Programming* (Hayden 1988) is out. What has become known as the "orange book" is now purple. Dan made minor revisions to cover version 1.2 of HyperCard.

When I am now asked what books I recommend for learning HyperCard, I recommend Goodman's *The Complete HyperCard Handbook* if the reader is going to purchase only one book. If the reader is willing to buy two, then I recommend Carol Kaehler's *HyperCard Power* followed by Shafer's *HyperTalk Programming*. (See my review in the June 1988 WAP Journal.)

Making the Federal Big Time. First there was Congress Stack. Then there was NASA's internal launch handbook. Finally, there is a federal agency which has actually published its regulations in the form of a HyperCard stack. The EPA's underground tank regulations will be available both in HyperCard and as an MS-DOS based hypertext. In addition, EPA's contractor, Versar Inc. will sell an enhanced 3 Megabyte version with the regulation preambles for \$249.

Hyper Mac Subjects. Pointer Publications is distributing a bi-monthly stack which indexes a number of Mac-related publications. It covers ALUG Newsletter, CAD/CAM Journal, HyperAge, Hyper Link, Mac II Review, MACazine, MacGuide Magazine, Macintosh Buyers Guide, Macintosh Horizons, Macintosh Today, MacTutor, MacUser, MacWeek, MacWorld, nibbleMac, and Personal Publishing. They also promise to cover

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All artwork for this ad was created on the Macintosh II and output on the Linotronic 300 at 1270 lpi.

HyperCard

MARK GILLINGHAM on 09/08

Does the language for the rest of us have a break key? I keep painting myself inside infinite loops. If there is no break key, should I make a break button? How?

RICHARD OGATA on 09/08

Command+Period will stop infinite loops in Hypertalk.

BRAD FLIPPIN on 09/20

I create a button and click on ICON and the icon I want is (naturally) not there. How does one add an ICON to HC? Do I have to go through some ICON editor and then add it as a resource? Or is there a simpler way?

BAILEY WALKER on 09/23

There is a tiny (4K) utility called ICN#toICON which will gather all the ICN#'s from the Desktop file and convert them to ICON resources. It's easy enough to use ResCopy to paste the icons you want into the Home stack which then makes them available when choosing icons for buttons. I can upload them if they're not already in the download area.

JERRY WALZ on 09/24

Icon Factory is available from Heizer. Egghead —\$39.95.

BILL BALDRIDGE on 09/26

Received a flyer from Foundation Software last Friday. FS is in the business of publishing HyperCard stacks and Excel templates for personal and business use. They offer a publication path for new authors at a good royalty rate —"usually 50%," which is paid quarterly. Further questions can be addressed to Dan Lynch at 800-521-1986 or GENie: D.LYNCH12. I'm posting this here due to the previous interest in where one can publish one's HyperCard creations, not as any endorsement of this firm.

Telecommunications

WALT MOSSBERG on 09/05

I'm thinking of moving up to 2400 baud for my Mac SE. Which

low-priced modem do people here recommend? And where did you get it?

BILL BALDRIDGE on 09/06

The Pi currently has two options via Group Purchase: 1) Practical Peripherals 2400 with Microphone 1.1 and cable for \$225; 2) Anchor 2400 with nothing (well...it DOES include free connect time on CI\$) for \$155. Both prices don't include tax. Both modems come with 5-year warranty. I'm using the Anchor myself, and I like it.

STEVE TAYLOR on 09/30

Whenever I call the main number (8085) or 8086, I get a connect 1200 and nothing happens after that. Happens always to me without fail. Can someone please explain what is going on?

BILL BALDRIDGE on 10/01

Try one of the eight other incoming lines, and find one you can connect to more regularly. If you let the logon message go the eight numbers are listed therein.

Programming Languages

RUSS BRADLEY on 09/05

I've started 'C' at NOVA this fall and I've just started working with LSC 3.0 on my Mac as opposed to Turbo 'C' on the PC's at school. 2 megs are required to run the source level debugger under MultiFinder so, except for the debugger, it runs fine on my 1 meg Plus. If you don't have 1 meg, you need to get that for more reasons than just to run LSC 3.0. I'd get LSC and work at home for convenience's sake, and hack the VAX when you have time. Learning 'C' in both Mac and VAX environments could benefit you greatly in the future. Although I've got the only instructor on the Alexandria Campus who's programmed a Mac and knows the toolbox, I'm expected to write generic 'C' code which would execute in any environment. The stdio libraries in LSC handle that just fine.

BILL BALDRIDGE on 09/16

Just received a flyer from Microsoft offering upgrade to Quick-BASIC—MS's new version of BASIC. The upgrade is \$42, which is more than the upgrade to 3.0 cost, but less than MS's normal \$50. I'm tempted, but I spend so little time banging around in Basic (or any programming language), I feel it's wasted. I'm MORE tempted to get LSC, and get into a serious environment. Maybe I'll spring for the upgrade, sell the whole shebang for \$90 (2.0, 3.0, compiler, QB), and use that to buy LSC—decisions, decisions.

LARRY STEDMAN on 09/29

Do the sound inits work with 5.3/3.2 and the 512K enhanced—you know to change beeps, startup sounds, etc.?

BILL BALDRIDGE on 09/30

There are sound INITs that will work on either machine, but don't ask me—I just work here. Sound (and associated CDEV's/INIT's) is one of the black arts of Mac-dom. Go ahead and experiment—but remember what happened to the Sorcerer's apprentice!

Professional Software

PAUL CHERNOFF on 09/15

Just got some goodies at work, one of them being Coach Professional. I bought it only because I figured that we should have

a spelling checker DA for PageMaker but found that I got more than I expected. CP not only includes a spelling checker based upon Lightning, but also a Thesaurus and a Dictionary. There are 85,000 words which have their definitions on my hard drive. My Dir. of Pubs is happy that she will not have to search for her dictionary all of the time. CP also includes the medical and legal dictionaries (though just for spell checking I suppose). It is also MultiFinder compatible. You launch it once and its menu appears in all applications. Also lots of configuration options.

DAVID HARRIS on 09/16

Here is some info on an undocumented feature in Microsoft Works word processor, obtained from the Working With Works (WWW) BBS in Illinois: If you choose "Save As..." and at the same time hold down the option key, a word-processor file will be saved with CRs at the end of each line, instead of only at the end of each paragraph. Then if you want to send such a WP file to an IBM-compatible computer over a modem, just choose "Send File" in the communications module and click the radio button for "Send Text (Insert LF after CR)". Since MS-DOS machines require a CR with each LF, this file should be immediately ready to be read by them. (It will be an "unformatted" text file, with no font changes or pictures.) Note: the telephone for the WWW BBS is 1-312-260-9660.

DAs/FKeys/Utilities

JACK EDELSTEIN on 09/03

Does anyone know of any shareware or public domain utilities for a hard disk? I am looking for a program that would let you format a hard disk, initialize it, run a test drive, install new drivers, and other such utilities. Is there one in the File Transfer section?? If you have any info, please leave a message.

BILL BALDRIDGE on 09/03

Depends on what kind of drive you're trying to format. Apple's HD installer is in d/l area 20, and can handle several kinds of drives (Miniscribe, Rodime, Seagate, & one other—I forget). SF&I is in d/l area 5, and is set up for a 20 meg generic drive, but is very much a hacker's formatter. The docs which come with SF&I (SCSI Formatter & Initializer) are sparse to non-existent. There are several commercial formatters available. Need more input from you to give specific recommendations.

ROB SWITALA on 09/22

I'm a fairly new Mac SE user. Any recommendations on a Desk Accessory that provides a built-in phone directory, dialer, calendar, notes, etc.?

BILL BALDRIDGE on 09/22

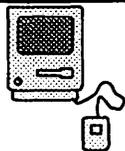
How about QuickDex? I've only seen it used, and have minimal hands-on, but it seems to work.

JACK EDELSTEIN on 09/24

I'm looking for a DA that, when you list the fonts, (in a word processor, for example) it gives you an example of the font. Venice would be written in the Venice font, Chicago in the Chicago font, and so on. I've heard of such a DA, but haven't been able to find it. Anybody heard of this? Know where I can get it? Please leave a message if you have any info.

BILL BALDRIDGE on 09/24

Check out Menufonts II from Beyond, Inc.—\$49.95. Supposed to be Mac II compatible, according to MacGuide.



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RON MANN on 09/28

Talked to Symantec tech support Wednesday morning. They confirm there is a problem with HD partition portion of SUM. Do NOT install HD partition as it will eventually eat your files. They expect an upgrade to be available in "the next four or five days."

Word Processors/DPub

NANCY SEFERIAN on 09/08

I met a man at CMUF yesterday who has a Mac and teaches, I think, at the University of MD. He is a physicist, and would like to be able to write statistical formulas (formulae?) and symbols on his computer. Do you know of any disks, fonts, etc. that will help him?

JERRY WALZ on 09/08

MS Word has a rather sophisticated capability to write formulas. Check the manual as I never used that feature myself.

LOUIS M. PECORA on 09/12

I've used Expressionist and MacEquation. Both are nice, but the new Expressionist is terrific. Many new capabilities, yet still easy to use. The only fonts I use are Times, Helvetica, Symbol, and, occasionally, Cursive (from Paragon, I believe). They cover many of my needs. For simple in-line equations MS Word does well, but it gets messy for bigger things and you should use Expressionist to develop more complicated formulae (formulas is OK, too). The combination of Expressionist and a good graphics program (I recommend Canvas) can make some pretty nice Overhead transparencies, too.

DON ESSICK on 09/16

Anybody out there know of a text storage and retrieval program which allows a user to search for keywords in the text to retrieve it. We have 10 megabytes of information which we use in generating proposals, etc. and need to share it on a network among five people. I know Gofer has this capability, but I am not sure of its search possibilities. Does it have proximity searching (i.e. "apple" within 4 words of "macintosh"?) What other features? I also heard about a word searching HyperCard stack with proximity features. Anybody know about performance? HC stack searches seem painfully slow in most cases, but we will be using Mac II's if we can solve this show stopper—otherwise we stay with the blue boatanchors.

JERRY WALZ on 09/17

There are several things available. Gofer will do proximity searches only by lines (i.e., apple w/i 4 lines of macintosh). It does do it by words. TEXAS is the HyperCard program which is freeware and is remarkably fast too. That again doesn't have quite the proximity that you are looking for but TEX by z may be adding that shortly. Tex by z has a lot of other features for subset searches etc. Tex by z is shareware by Mark Zimmerman who developed TEXAS. Mark is expanding the application beyond what he developed for the govt which explains the shareware rather than freeware. The other choice is SONAR by Virginia Systems Software Services. SONAR goes for about \$200 and the new SONAR Professional is about \$700 as I recall. SONAR has relational capabilities too. You might want to try Gofer first depending on your needs. Gofer is the only one that doesn't require building a separate index file first. Of course that means that it is slower than the other two too. If you have about \$15,000 you can contact MARS in Silver Spring and see what they can do

with their high end text retrieval software.

SCOTT TILDEN on 09/18

One disadvantage I read about SONAR is that you need to preprocess the material. You run a set-up utility on your file and it searches the processed file, not the original. So you'll need lots of extra disk space. But it is F-A S-T!

NANCY SEFERIAN on 09/30

At work I'm using a Mac II, and at home I have my Mac Plus. When I bring work home and put it on my computer, the letters don't look the same. They look all boxey. I know you have probably talked about this before, and I should have been paying attention. But what can I do about it? To make the letters look good at home too?

PAUL CHERNOFF on 09/30

It sounds like the fonts in your computer at home do not match the fonts at work. There are a number of possible causes: 1) your computer at home is missing font sizes of that particular font and the Mac is creating a screen font based upon a strange scaling of what is in your system. 2) your computer at home is completely missing the font used at work, and the substitute font is lacking the proper sizes. 3) your computer at home and at work are numbering the fonts differently and again the substituted font is missing some sizes. The best answer I can supply is to use the same system file on both machines. This will ensure both machines use the same fonts and number them in the same way (differently numbered fonts will arise if you load a font into your system and the font's number is already taken). I suggest reconstructing the system at home to match the one at work. Without seeing your Mac these are my best guesses. If you don't have a hard drive at home then it might be tricky to resolve the problem (since floppies are limited in the amount of fonts they can handle).

Entertainment & Education

RICHARD OGATA on 09/12

Has anyone seen the release version of the new game Colony? It's a blast! Absolutely the best adventure game I have ever played. The entire thing is 3D real-time graphics. You are the sole survivor of an engineering ship that crash landed while investigating a distress call by a distant space colony. Find out what has happened to the colony while trying to escape the planet you are marooned on. If you see it, get it.

STEVE TAYLOR on 09/14

Well, I bit on the offer and am having a Mac II delivered to me in about two weeks through the U. of MD. I've been using an Apple II+ (that's what I'm typing this on) and a //e for the past 6+ years and need help. Since I'm new to the Mac world (totally new—never even used a hard drive before), would someone please suggest some great games to get for the machine?

KEN PEEL on 09/14

Let's see—straight from a //e to a Mac II—games is the Mac II's biggest weakness, as many of the best titles aren't Mac II compatible. Many of the new games coming out are fine, though. I have a Mac+ with a Radius 020 accelerator, so I have much the same trouble. If you haven't played Might & Magic, there is a new port out for the Mac that is II compatible. Also, there's Beyond Dark Castle (the earlier Dark Castle is not compatible) and Crystal Quest.



RICK STICKLE on 09/30

I got two offers in the mail this week that might be of interest to you. First from Mindscape is Balance of Power, The 1990 Edition. Original owners can upgrade for \$24.95. It has a few new tricks to run the world and the database has been updated. The second is a new flight simulator from Bullseye Software (Fokker/Ferrari) called P51 Mustang Flight Simulator, you fly from England to the war and you can dogfight and strafe, the program allows for bailout, replay, and can be played by two Macs but by cable connection only. (They didn't mention a price.)

Macintosh Union

LINDSAY EDMUNDS on 09/13

Does anyone have any strong opinions (pro or con) on the wisdom of leaving a Mac turned on 24 hours a day? The Mac I own I acquired from my brother, who told me to leave it up and running all the time to avoid thermal shock to the components. This I have done with no ill effects. The Mac itself is pushing five years old, has always been treated this way, and has had only two repairs in its lifetime, both minor. It has an internal fan and a MacChimney convection cooling device, but these are fairly recent additions. It also has been upgraded to 2048K of memory.

BRAD FLIPPIN on 09/17

The Mac, like all semiconductor devices, needs some care. It is not necessary to leave it on all the time, but by the same token, it is not wise to keep turning it on and off all day long. The general thinking is that if you are going to use it in another few hours, go ahead and leave it on, particularly if you have a LaserWriter and/or hard disk attached. But, if you won't be using it for another day, go ahead and turn it off. It is true that computers last longer when not subjected to thermal shock, but long periods of operation or in-operation do not create the thermal shock that is destructive. Destruction comes from on/off/on/off repeatedly. The poor components don't have time to recover.

Graphics & Design Software

NANCY SEFERIAN on 09/08

I met a university professor from New Hampshire yesterday who asked if there was a bibliography of best computer graphics books available. She is going to teach a computer graphics course and would like some good references. I told her I would ask you which were your favorites. I think it would be great to compile an annotated bibliography of our favorites. How about it? Can you help? Which books do you refer to most and like the best?

RON MANN on 09/12

While it is not strictly a computer design book (after all, the computer is just another tool, is it not?) one of the very best on its subject is "Designer's Guide to Creating Charts & Diagrams" by Nigel Holmes. I know this book is in the library of almost every newspaper and magazine art department that does much of this type of work and is generally considered "the" book on the subject. Holmes, who is with Time magazine seems to be the person who has learned to make the ordinary (charts and graphs) very unordinary by the inclusion of art work that is appropriate to the subject.

RON MANN on 09/12

I had a couple of other thoughts about your proposed bibliography project. Probably the best source of help I know for this would be Mrs. Ross at Ross Book Service in Alexandria (823-

1919). She seems to have the best selection—and knowledge of what's available—that I have found. Second, I have a rather long bibliography of graphics and design books (though not necessarily computer oriented) that I picked up about a year ago at a Graphics workshop I attended in Boston. If this would help in any way I would be willing to make a text file and upload it to the file area. Let me know how I can help. I think you have hit on a very worthwhile, and needed, project. Good luck.

Peripherals

RICHARD PLATT on 09/04

Can anyone recommend software for defragmentation? I have a Rodime 20+ working off a Mac SE. Can I buy the software locally? Is it available on any local BBS?

DAN HUGHES on 09/04

Disk Express is a commercial program, available mail order for around \$30.

KEN HANCOCK on 09/05

Better give up on Olduvai or ADB for the MacPlus. Latest word is at they've dropped it. Too many engineering problems.

LEE DUER on 09/05

Recent MacUser advertising pitched a fax attachment of sorts for the Mac. Anyone have any experience with this type of device? Should I or I do need a Fax—what should I get? How much should I pay? What do I look for in a Fax?

DON ESSICK on 09/09

That depends. If you already have a scanner and printer then you could probably save yourself some money by buying a fax modem. I know of three: one by Apple and 2 third party units.

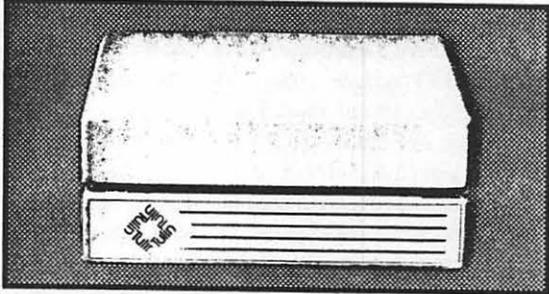


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Have been investigating them myself for several weeks. If you don't have a scanner, you would be limited to sending things created by your Mac. You could receive and print on a printer. The documentation I have received indicates that things to be faxed must be saved as a paint image and then faxed. I hope this is not true. Perhaps I am reading something into the literature. If things ever slow down at the office, I will get back to this project. If you need to send things not already in the Mac, you will need a scanner of some sort. The combination of a scanner at 1500 and a fax modem at 700-1200 would far exceed the price of fairly good fax machines at 1300-1500. BTW, most of the software for fax modems lets it work in the background in MultiFinder.

JIM TAYLOR on 09/14

Have SE with Imagewriter II. Would like something (hardware? or software?) that returns my SE to me while IWII is doing it's thing. Initially thought the Practical Peripherals Mini-Buffer would be a nice buy, but they don't come for supporting serial buffer requirements. I reviewed the latest MacGuide and came across spooler software that seems tailored for laser printers, or hardware buffers that are quite pricey. Have I missed something or isn't something like the mini-Buffer really the answer to what I want to do?

PAUL CHERNOFF on 09/15

I have SuperSpool version 5 by SuperMac to use with my Imagewriter I and it works great, even under MultiFinder. The printer keeps turning on and off as resources become available for printing (depending upon foreground activities) but the final product looks just as good and it becomes a big time saver.

DAVE CHAMPNEY on 09/16

I am interested in the HP Paintjet as an inexpensive color printer. Does anyone know if it works with the Mac and how well. I want to use 4th Dimension and MacDraw II. I hear there is a printer driver called PrintWorks from Softstyle to drive the HP. What happens to fonts and graphics and such? The HP prints at 180 dpi. Does this mean that I can get that resolution from it, or will I be limited to 72 dpi and only HP fonts?

HOLGER SOMMER on 09/16

I am using a HP Paintjet, and like it. I am using the Softstyle Driver.

The Rumor Manager

JERRY WALZ on 09/09

I was talking to Guy Kawasaki in the speakers lounge the other day at CMUF and he told me to look for 4th D v2.0 about the first of the year. A little slip from what was reported earlier.

BRAD FLIPPIN on 09/12

Did you know the 80386 chip has a mean rating of 5.1 MIPS while the 68020 has a 5.4 rating? At the MacWorld Expo I picked up a 68020/68030 package from Motorola full of all kinds of comparisons and technical poop. The '030: 1) second generation 32-bit processor 2) First microprocessor with internal, parallel (harvard style) architecture. 3) First with on-chip data and instruction caches 4) first with dual interface modes (high speed synchronous and low cost asynchronous) 5) Multitasking, and concurrent operating system capabilities since 1984. 6) First chip optimized for inexpensive memory (DRAM) and high-speed memory (SRAM). 7) Available in speeds ranging from

16.67 to 33 Mhz. It is interesting to note that the '030 outperforms the 80386 chip in practically all the tests, including: Dhrystone, Acherman, Fibonacci, Puzzle, Sieve, Towers, Stanford, a Average. Enough trivia.

JOHN CONNAUGHTON on 09/24

Infoworld had some very interesting pre release specs on the NeXT machine. A list of \$5999, (take 40% off the top for the educational market). This seemed to include a 68030 at 25mHz, an optical disk, Adobe display postscript, and all sorts of other goodies. If only it were Mac compatible.

RICH NORLING on 10/02

Apple's publicity on the Macintosh IIX says most programs execute 10-20% faster than on a regular Macintosh II. I am seeing improvements averaging about 15-37% faster on the benchmarks I'm running. In my opinion Apple is being cautious and actually understating the speed improvement you can expect when moving from a Macintosh II to a Macintosh IIX.

Macintosh System

RON ABELES on 09/11

Last week I obtained a copy of System 6 from Clinton Computer (Tysons Corner). Since installing it on my Mac Plus (using the Installer program), I am experiencing an increasing number of crashes. Most of the time, there is no system error message. The program (e.g., Word Perfect 1.0) just freezes up. Sometimes I can move the mouse cursor around the screen, but cannot click on any menus or commands. Other times, nothing is active. The only way I have found to "reactivate" is to turn off the computer and restart. I don't believe the problem is with any particular application program such as WP, since I have experienced these crashes with one than one application. Any one else having similar problems or is it just me? Any suggestions for solving the problem or how to better diagnose it? Thanks in advance.

PAUL CHERNOFF on 09/11

Sounds strange (I have used WP 1.0 on my system) but I have a few questions: 1) what INITs and CDEVs do you have in your system. This could be a cause of problems. 2) are you running MultiFinder? WP 1.0 has some MF problems. My one last remark is that, if you are a registered user, you will be receiving a copy of WordPerfect 1.1 in the mail and you should immediately replace you copy of WP with the newer one. If has some improvements and fewer bugs.

LOUIS M. PECORA on 09/19

This question is probably old hat to most of you and I know I've seen the answer somewhere in the last year or so. I just can't remember it. How do I get the finder to stop showing the generic document icon on files that it has somehow forgotten the actual icon of? I know this happens occasionally, but doesn't it have more to do with it than having the bundle bit set? If I throw away the Desktop file, will that do it? Will that make me lose any notes in the Get Info window? Any answers appreciated, the simpler the better.

RICHARD BROSNAHAN on 09/19

You need to rebuild the desktop. Throw away the desktop file, while launched in an application other than the finder, and when you quit, the desktop will rebuild. OR, when you boot the



computer, hold down the command and option keys. You will get a dialog asking if you want to rebuild the desktop. I think the command option key thing works when you insert a disk as well, such as with a disk that is not bootable, or if you have already booted with another. As for losing your notes in the Get Info, I can't say for sure. It used to be guaranteed that you would lose them. Now with the new systems since 4.2, you may not. The version numbers and such notes remain, if the notes were entered by the application's author. I have not checked this out, otherwise.

FERNANDO SALAZAR on 09/19

To get the icon back, the application that created the document has to be on line when you rebuild the desktop.

Federal Gov't SIG

JIM WELLMAN on 09/06

I have a Mac II and want to interface it to a HP Plotter. I need to know if there is any software out there that will drive programs like Cricket Draw, MacDraw, Microsoft Chart with the HP Standard protocol?

RICH NORLING on 09/06

Cricket Graph contains plotter drivers for most common HP plotters. Cricket Draw does not contain plotter drivers because Cricket Draw does things in PostScript that just cannot be done with a pen plotter (like graduated shading) with any degree of performance.

ROBERT DOHERTY on 09/09

We have used a package called MacPlots from a company in North Carolina and were not impressed with either its speed or accuracy. Cricket Graph has the ability to incorporate drivers from various plotters, among which is the HP7475 family. We used this a little, but looking at the HPGL output, the code produced looked pretty bad. The new MacDraw II comes bundled with the MicroSpot driver software. This appears the best for our purposes, and has the added advantage of being available from any application. It is a real driver, chosen by the Chooser. None of the package produces output as good as a Mainframe package like DISSPLA or SASGraph. The major differences are in the quality of the text, from our experience.

Mac Hardware

LINNEA WIEDERRECHT on 09/12

I'm beginning to see signs that I may need to replace my power supply in the near future. It happened once before to the other Mac, and I figure I'd better start saving the money now to pay for repair/replacement! I would appreciate hearing from those of you who have actual experience—both good and bad—with specific places in the area. Maybe it was just a power problem during all those hot day, but I'd rather be prepared for the worst. Thanks.

BILL BALDRIDGE on 09/14

The closest place to you is Mid-Atlantic Telesis in Alexandria. They do component-level repair on Macs (one of the very few that do). I'd give them a call. It could save you much money over an analog board swap at an Apple dealer. I've chatted with a couple of their techs, and they seem proficient. There is also a place on Wisconsin Avenue (near Sears) called The Computer Clinic, that does component level repair. They've been "fixing"

Macs since '84, so they should be fairly proficient. If you're into doing your own board swapping (to save on service charges and parts), Pre-Owned Electronics stocks motherboards and analog boards galore—wanna upgrade to an SE motherboard? Pre-Owned's got 'em.

JOHN CONNAUGHTON on 09/15

Does anyone have any pros and cons regarding the Apple color monitor for the MAC II?

BILL BALDRIDGE on 09/16

I'm suitably impressed with the Apple Color Monitor, when used in conjunction with the extended color card (256 colors). Of course the software has to take advantage of this capability—this is common sense. While there are hardware combinations that outstrip this combination, you will pay almost twice as much for little gain (in my humble opinion). Right now, the top of the line is the SuperMac 24-bit color card, which will drive the Apple color monitor to the limits of its resolution. The ACM, by the way, is arguably the BEST monitor on the market for the Mac II—best in the sense that it's closely mated to the machine and its capabilities. There are bigger monitors (15", 19", and even 34"(!)), but none has demonstrated the sharpness and brightness of the ACM.

JOE CHELENA on 09/18

In the October issue of MacUser there is an article on color monitors. They test 25 monitors and rate the Apple and Sony the best of the lot. The article is a very good one that goes into great detail. It should be on the newsstand in a week. ☺

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MAC DISKETTERIA NEWS

by David Weikert

Revised Disk Catalog

The Mac Disk Catalog, containing comprehensive information about the entire WAP Disk collection, is now current through the disks released this month. The catalog will be available for the October meeting or shortly thereafter. The catalog costs \$4.00 at the office or general meetings or you may order it by mail for \$5.50 to cover postage and handling. The catalog is organized into four sections as follows: (1) list of disks by disk number and name, (2) descriptive listing of files on each disk by disk number and name for the functional series of disks, (3) descriptive listing of files on each disk by disk number and name for the serially numbered disks and (4) alphabetic listing of files across all disks. With the newly achieved ability to maintain the Mac Disk Catalog in a reasonable state of currency, we are discontinuing the production of the mini-catalogs that were offered with each full functional disk series.

Additions to DA Series

Close on the heels of Desk Accessory (DA) series Mac Disk 2.01A through 2.06A comes an additional four disks of DAs thanks to William Jones who assembled, tested and annotated them. Mac Disk 2.07A through 2.10A include revisions to the DAs on the first six disks plus many new DAs not previously issued. See the notes that follow to see what's new and what's revised. Except where noted, these DAs have been tried successfully on a Mac Plus and Mac SE using System Software version 5.0 (System 4.2, Finder 6.0) and 6.0.2 (System 6.0.2, Finder 6.1). The ten disk set is now available at the special price of \$35.

Revised Paintings Series

We just revised the Painting disks, converting them from 400K sequentially numbered disks to 800K functional series disks. This series is now available in a five disk set labeled Mac Disk 11.01 through 11.05 for \$17.50. Disk content is identical to the disks previously issued except for elimination of redundant files and reorganization to the 800K format.

Programmer/Hacker - Love's Labors Lost

John Love, III, a member of Washington Apple Pi, has developed a disk of demonstrations and program segments primarily for assembly language programmers. This disk will be the first of the Programmer/Hacker functional series and is labeled Mac Disk 14.01. Look for a review of John's offering in the Journal next month.

Addition to Adobe Screen Fonts

We've added another disk of Adobe Screen Fonts, Mac Disk 18.10. These are mostly new fonts but there is an updated Times Family that Marty says really makes a difference. Remember, except for the Times which is a resident font in the LaserWriter and many other PostScript printers, the screen fonts on this disk require the downloadable fonts sold by Adobe in order to print anything other than a bit mapped image.

More HyperCard Stackware

We have five more new disks of Stackware (Mac Disk 19.11

through 19.15) this month thanks to David Condit, our HyperCard librarian, who compiled and annotated the first four and James R. Newton who annotated the last one. Look for additional Stackware releases next month.

Apple System Software V6.0.2, "It's Here"

We received Version 6.0.2, Apple System Software, this month and it is available on four disks for \$5 per disk. (You can combine this order to take advantage of the \$4 price per disk for five or more disks.) One disk includes an updated System, Finder, MultiFinder and associated System folder files. The next disk is dedicated to printer drivers. The remaining two disks contain the Apple utilities including two new ones, a macro recording and playback capability and an expanded screen image for the visually impaired. Please note that the System Software package that we distribute does not include any documentation. If you need documentation, the System Software upgrade package will also be available from your local Apple dealer at a list price of \$49—ask about a discount for WAP members.

Shareware Plea

Please honor the author's requests for shareware fees if you decide to add their programs to your software library. Shareware is an important distribution channel for low cost software and it is important to encourage authors to use this channel by paying them for their efforts. We see more demoware and crippled programs because shareware requests are not being honored.

The New Disks

We have 20 new 800K disks this month, four DAs Series, five Paintings Series, one Programmer/Hacker Series, one Adobe Screen Fonts Series, five Stackware Series and four disks comprising Apple System Software Version 6.0.2. Special thanks go to new duplicator Tony Salerno—he has done yeoman duty this past month duplicating over 900 disks. This month's submissions are brought to you by David Condit, William Jones, Marty Milrod, James Newton and Dave Weikert and the efforts of all the duplicators listed under the masthead. The folder information, where appropriate, precedes the listing of program contents. Folder information is underlined, programs and files are printed in bold with shareware information printed in bold italic.

Mac Disk 2.07A: Desk Accessories - DAs 7A

AddLPrepDA.f: **AddLPrepDA**: Adds a modified version of the PostScript code from the Laser Prep file to a PostScript file (created by hitting Option-F) producing a file suitable for downloading to *any* PostScript printer or typesetter. **AddLPrep** is an application version as described in **AddLPrep docs**. *Shareware—\$20.*

Adventure!.f: **Adventure!**: An all text adventure in desk accessory form as described in **Adventure! ReadMe**. Place **AdventureFile** in the system folder. *Shareware—\$15.*

ASCIIChart.DA.f: **ASCII Chart DA**: The chart shows all 256 ASCII characters and their decimal and hex equivalents in Geneva 9 font.

ATView.DA.v0.8.f: **ATView.DA v0.8**: Lets you view the



status of an AppleTalk network as noted in the AT View 0.8 Documentation. *Shareware—\$5 per network zone.* "...but if you don't want to send me \$5 per network zone this DA is installed on, use it anyway for free (and just feel guilty)."

Autolog 3.2 f; Autolog 3.2: A DA which performs log-on macros while a terminal emulator such as MacTerminal is active. Autolog should work with most terminal emulators. See the Autolog Doc documentation (for version 3.0). *Shareware—"what you think its worth."*

BCS*Clicker2.1: Notes the screen location where the mouse is clicked, compares it to the location of the last click. This is an update of Clicker on Mac Disk # 2.02A.

BezierDA f; BezierDA: A modest painting program with a special talent. Like a French curve drafting tool, it helps you construct smooth curves as described in AboutBezier.

BigCaps: A substitute for KeyCaps with additional features.

BiPlane DA 1.02 f; BiPlane DA 1.02: This is a relatively full functioned spreadsheet in DA form. (There is a companion application on Mac Disk #15.01.) Instructions are provided on 1.02 Intro to BiPlane. *Shareware—\$40.*

calculatorum DA f; calculatorum DA: A four function calculator for Roman numerals described in Calculatorum Docs. *Shareware—"...a nice color postcard of your hometown with comments or criticisms."*

Camera: Permits you to take a picture of the screen after a certain delay, like the timer on a camera. Allows you to take "screen shots" of pull-down menus. This is an update from Mac Disk #2.01A but neither it or the earlier version works with System Software version 6.0.X.

Chemintosh™ MM Calc (Molecular Mass Calculator 1.1): Calculates molecular mass or exact mass of a chemical compound once the chemical formula is entered in the formula box.

CIS Commands: A lo-o-ong list describing the commands available on CompuServe.

CIS Help: Another lo-o-ong help file to assist CompuServe users in learning the new forum menus.

Clarity DA f; Clarity DA: A DA used in conjunction with Clarity application which takes a bit mapped image and processes it for sharper reproduction by an ImageWriter or laser printer.

Clarity DA Docs describes the programs. *Shareware—\$10.*

ClipPrint (v1.24): Sends contents of the clipboard to the printer. An update from Mac Disk 2.02A.

ConSITer DA 1.2.1f; ConSITer DA v1.2.1: A desk accessory to make life easier for folks using Auto UnStuffIt 1.00 It converts SIT files to Auto UnStuffIt and back again by changing the file type to APPL or SIT!, respectively as described in ConSITer DA 1.2.1 Doc. *Shareware - Free if you've paid for Stuffit, but send a message to Sewell.*

convert US: A calculator for precise conversion between metric and imperial measure, etc. *Shareware—\$15.*

CopyFile 2.0: Allows you to copy files while within an application. Later version than on Mac Disk 2.02A. *Shareware—\$10.*

Cursor Maker: Converts an area on the screen to a cursor which may be saved in a file for editing.

DAFont3.1: Displays fonts and styles or statistics about fonts. An upgrade from Mac Disk 2.02A. *Shareware—\$10.*

Density Altitude: Computes density altitude, temperature (Celsius) and Standard temperature (Celsius) from temperature (Fahrenheit) and pressure altitude.

DeskZap f; DeskZap (v1.32): Lets you perform many functions from anywhere you can use a desk accessory, including setting the Finder information for a file; removing line feeds,

control characters, etc. from text files; deleting, renaming, copying, and creating files and HFS folders; moving files to different HFS folders; and closing open files. Described in DeskZap 1.32.doc. A minor upgrade from Mac Disk #2.02A. *Shareware—\$15.*

Mac Disk 2.08A: Desk Accessories - DAs 8A

DAfx 1.31 f; DAfx 1.31: A full-featured, user-friendly special effects paint utility contained in a DA. Supporting files include DAfx Sampler 1/88, DAfx Sampler Description, READ ME! (1.31), DAfx Docs.1.30(word), DAfx Docs.1.30(MW), DAfx Quick Start.text and DAfx.Icons. *KeyWare—\$10 or \$20 for a full-featured version).*

DiskLock™: Allows local disks (floppy or hard) to be locked or unlocked. (As the Get Info box would.) Be careful folks, you can only unlock the disk with this DA and not via the Get Infor window, DiskTop and other utilities.

DtC f; DtC (Desktop Calculator): A basic scientific calculator. *Shareware—\$5.*

Easy Envelopes DA f; Easy Envelopes DA (v6.0): Lets you print envelopes with a return address, up to 99 stored addresses, and an optional endorsement line. **Easy Envelopes Docs, Easy Envelopes File and Updater 2.0** are supporting files. *Shareware—\$10.*

eps->pict.da f; eps->pict.da: Converts encapsulated postscript (EPS) files into PICT format for pasting into Word or WriteNow, for example, without losing the LaserWriter print quality. **eps->pict info** is the brief text file.

Ez-Mail 1.10 f; Ez Mail 1.10: Maintains multiple files of names and E-Mail addresses for up to four different services for



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FatMouse3.1: Displays the time, date, global cursor location (in pixels) and a fat bits view of the location of the cursor. This one doesn't seem to be shareware as was the previous one (FatMouse2) on Mac Disk 2.03A.

FileChange f: **FileChange (v1.0):** Converts various other word processor files to MacWrite. See **FileChange Doc** documentation for items supported. *Shareware – \$10.*

FolderMaker: Lets folders be created and named from within applications. Update from Mac Disk 2.03A.

Mac Disk 2.09A: Desk Accessories – DAs 9A

FontFkeyDaInitPictSnd Sampler f: **The FONT-FKEY-DA-INIT-Picture-Sound Sampler:** Allows you to look at FONT, FKEY, DA, INIT, Picture (MacPaint or PICT resource), or Sound (SoundCap or snd resource), without the hassle of running the FONT/DA mover, ResEdit, SoundCap™, or Paint-type programs. **Sampler Instructions** is the documentation. *Shareware—Your donation.*

Font Sizer f: **Font Sizer:** Use to add additional Font sizes between 3 and 127 points to MacDraw temporarily. This version is an update of the one on Mac Disk #2.03A which works with MacDraw 1.9.5 as described in **Font Sizer.doc**. (MacDraw II doesn't need it.)

Forum Help!: A series of help screens for CompuServe's new commands.

GumbyClock: A large analog clock/current calendar combination with a picture of TwoSheds. Can anybody out there tell us what/who is TwoSheds?

How Far... VOR?: For you pilots, shows distance between two VOR stations.

InternationalTime f: **InternationalTime:** Displays the time and date in 6 different world cities based on Eastern Time. Adjusts for daylight time automatically in summer. **ITNotice** is the documentation. *Shareware—\$5 for source code.*

JoliWrite2.0 f: **JoliWrite:** An attractive text editor DA. Look for the menu under the JoliWrite heading in the window. **Big DAs Runner** is a supporting application to assist in running large DAs such as JoliWrite. *Shareware—\$20.*

Kiwi Envelopes!™ 2.03 f: **KIWI Envelopes!:** A DA to print envelopes on LaserWriters or compatibles. Version 2.03, said in **Release notes (Text Only)** to work under System software v 6. *Shareware – \$8 for registration and documentation.*

Label DA f: **Label DA:** Prints envelopes, labels, and file cards as described in **label & envelope da (text)**. *Shareware—\$15.*

LockOUT (v1.2): Password protect your Mac to prevent access by others when you are away (unless they reboot).

MacPaint Girl (Revisited): The Japanese woman combing her hair in a full view.

McSink DA V6.2 f: **McSink DA V6.2:** A general-purpose text editing DA multi-window memory-based editor. Use up to 16 windows, with the amount of text in each window limited only by the amount of available memory. McSink also provides a number of special purpose editing and file access commands as described in **McSink V6.1 Docs.text** and **MacSink V6.2 Changes**. An upgrade from the version on Mac Disk #2.03A. *Shareware—\$30.*

Memoir DA: A DA to permit you to recover fragmented computer Random Access Memory.

Message: Puts a message of the user's choice in a streaming

news ticker tape across the center of the screen. This version allows longer messages than the one on Mac Disk #2.04A.

Mickey Mouse Clock: It certainly is.

MidiHz v1.1: BDisplays a list of the frequencies and numbers of 11 octaves of musical notes. *Shareware—Donation.*

miniWRITER™ 1.42 f: **miniWRITER™ 1.42:** A text editor with features such as font selection and a find command. **miniWRITER.doc** is the comprehensive manual. An update from Mac Disk 2.04A. *Shareware—\$12.*

MMDA DA (Midi Mode DA): Send Midi messages to your synthesizer from your computer.

Note Pad II: A notepad with an a table of contents feature. *Shareware—\$20.*

Opus Clock DA: The same clock/calendar as above, but with a cartoon of Opus from Bloom County.

Paint DA: Displays Paint type documents, allows them to be copied to clipboard. *Shareware—\$10.*

PatternList DA f: **PatternList FS:** Shows the System PAT# resources (number and pattern).

Phonemes: A list of phonemes (“the smallest units of speech that serve to distinguish one utterance from another...”) and examples.

PowerEdit f: **PowerEdit:** A DA editor designed to bridge the gap between full-blown program editors like QUED/M and the small DA editors. **PowerEdit.wrt** is the fairly extensive documentation. *Shareware—\$20.*

ProCount 1.0: Lets you count the number of words in a text file. A somewhat later version than Mac Disk #2.05A. *Shareware—\$5.*

Quick Label DA f: **Quick Label DA:** A simple one-label-at-a-time printer as described in the **Quic Label Docs**. *Shareware—\$5.*

QuickB Download 1.20 f: **QuickB Download 1.20:** A desk accessory written for the CompuServe user who downloads frequently. QuickB is a new protocol which allows for significant speed gains and time savings when downloading from CompuServe. About **QuickB Download 1.20** is the documentation. *Shareware—\$20.*

QuickPie 0.9 Demo f: **QuickPie 0.9 Demo:** A desk accessory to generate pie charts that may be copied to the clipboard and pasted into documents. Features pattern selection and exploded and three dimensional wedges. **QuickPie Docs** is the documentation. *Demoware—\$35 for full featured version.*

Quote of the Day f: **Quote of the Day:** Displays quotes for each day of the month. *Additional quote files (of 365 quotes) are \$10 each or 365 quotes, football trivia, baseball trivia and New Testament verses for \$25.*

Mac Disk 2.10A: Desk Accessories – DAs 10A

Remember?.da (v1.21) f: **Remember?.da (v1.21):** A Desk Accessory and an INIT to recall descriptions of important occasions, both one-time only (e.g. appointments) and repeating (e.g. birthdays) entered into a file. **Remember? INIT** reminds you of impending events when the Mac is powered up or reset. **Remember? docs**, **General** and **Remember? templates** are documentation and supporting files. *Shareware—\$10.*

ResReview: Shows computer program resources used in Macintosh system files.

Road AtlasDA: A map of ConUS with major cities and the routes between them marked, which calculates the mileage via the routes shown.

Rolodesk Ver2.0: A desk accessory phone list like Bill Atkin-



son's QuickFile (Rolodex) application. This is an update of the version on Mac Disk 2.05A except it is now free instead of shareware.

Scribbler 3.0 f: Scribbler 3.0: An object orientated drawing package in a Desk Accessory as described in Scribbler 3.0 Manual.txt. An enhancement of the version on Mac Disk #2.05A. *Shareware—\$25.*

Search f: (Text) Search: Searches a file or folder for the text which is entered. Works in a variety of word processors and desktop publishing programs, including Fullwrite Professional, Microsoft Word, Pagemaker, WordPerfect, MacWrite, and Quark Express as well as text (ASCII) files. Instructions is the documentation.

ShowDown f: ShowDown: For sysops of BBSs, it provides a message-taking service while the sysop works on other projects. ShowDown.doc is the brief documentation. *Shareware—\$5.*

Strongbox DA: A simple password based file encrypting and decrypting utility. *Shareware—\$10.*

Sun Clock™ Demo: A non-working demonstration of a clock/map which shows where the sun is shining all over the world...*Demoware—\$15 for a working copy.*

Sunrise...Sunset f: Sunrise...Sunset: A DA which tells the current time of those events based on the latitude and longitude data entered. Note: Washington is at 39 N Latitude; 77 W Longitude for all practical purposes. Create Sunrise...Sunset is the application to create the DA.

SysErrTableDA (v1.8) f: SysErrTable DA: Displays a comprehensive list of Macintosh errors. The window comes set for the proper width, and it autocenters itself on the main screen. On a color Mac II, it'll be in color. With a little work with ResEdit it can be used to display other information too. See the documentation SysErr.DOC (which came with v1.3 of the DA) and click on the author credit of the DA.

Talking Mac (MacTalker): The Mac will speak whatever message you type or a text file that is read in. Requires MacIn-Talk in the System folder.

Tic Toc II f: Tic Toc II: A small window that alternately shows time, date or memory or may be locked to display only one. See Tic-Toc II Docs for information on some commercials.

Tracks: Prints a track sheet (used for recording) with space for client, producer, title, engineer, reel#, i.p.s., time, notes and 24 track blocks of info. *Shareware—(but doesn't show a price).*

Turbo Help DA f: Turbo Help DA: Provides functions, procedures and resources help screens for users of Turbo Pascal. Zapf Chancery is the font file for the DA screen. *Shareware—donation.*

Utilities: A useful assortment of file management features (rename, delete, etc.) in a DA accessible within applications. (Many of the same functions as CE Software's DiskTop, but not nearly as nice an interface.)

UnStuffit DA 1.5/Viewer 1.5 f: UnStuffit DA 1.5: A desk accessory which allows you to decompress archives in Stuffit format from within any application which supports desk accessories for you telecommunicators.

Viewer 1.5: A desk accessory which works much like UnStuffit DA except that you may not extract any entries with it. You may only view the entries in an archive. Useful if you do not have enough free memory to run UnStuffit DA.

Utilities/User's Guide is documentation from the version 1.0 package. *Shareware—\$15 for the Stuffit Utilities package.*

ViewArt DA: Permits you to view EPSF, PICT and PNTG files.

Shareware—\$10.

VirusDetective™ 1.2: Searches file directories for files containing possible viral resources. Once an offending resource is found it can be removed. The strings and resources for which the DA searches can be edited. *Shareware—\$10.*

Windows (v2.1): Creates a menu item on which multiple files are placed in either alphabetical or front to back order for applications which may have multiple files open simultaneously. Update of Mac Disk 2.06A. *Shareware—\$5.*

WriteFontSize™ f: WriteFontSize™: Lets font characters be created and viewed in any font size, then pasted into MacWrite (which otherwise limits your size choices). *Shareware—\$10.*

ΣEdit 1.12 f: ΣEdit 1.12: An extremely fully-featured text editor and it's free. ΣEdit 1.12 Docs, ΣEdit Docs and Future Enhancements are the supporting documentation. An update of the one on Mac Disk 2.06A.

Mac Disk 11.01: Paintings 1

A Sumo Wrestler, Kunisada 1835 – A Japanese Ukiyo-e painting of a wrestler done around 1835.

Ace of Spades – Gambler's dream.

Anatomy – Make no bones about it.

Animals Clip Art f: Animals, Bear/Raccoon, Bulldog and teddy1.

Archaeopteryx – a bird of a different feather.

Art Sampler f: Text file ReadMe and paintings discus thrower, man, Mt.Rushmore, peacock, tiger and Tower of Pisa.

Automotive f: 944 Turbo 1, Porsche 959 and PORSCHE.PNT images for those devotees of legendary German craftsmanship.

Car Logos for new and old automobile marques (does anybody remember the Paige and the Graham?)

Old Cars and More Cars add to the nostalgia of yesterday.

TESTAROSSA is a tribute to the soul and vision of Enzo Ferrari.

vette is the American classic.

Aviation f: Attack is a Thunderscanned image from a Popular Mechanics article on the Advanced Tactical Fighter.

F-15 Vertical Climb is a scanned image from the cockpit of an F-15 Eagle.

HUD F-4 .1, HUD F-4 .2 and HUD F-4 .3 are scanned images of an F-4 Phantom Heads Up Display (HUD).

SR-71 side view, SR-71 TR-1 Check 6, SR-71 TR-1 Formation, SR-71 TR-1 Formation1 and the TR-1 are scanned images of our current "spy" aircraft from the late Kelly Johnson's "Skunk Works".

Beatles, Circa 1964 shows the popular 60's rock group.

Betty Boop the cartoon.

Bill the Cat Acck! The Meadow Party candidate for president?

Black Beauty for the equestrians.

Broken Family is a sad comentary on alcoholism.

Bugs for the naturalist.

Castle shows early use of MacPaint textures.

Mac Disk 11.02: Paintings 2

Cheeta is a stiking facial closeup of this fast cat.

Classic illusions are mind benders that puzzle and confuse.

Clint (Eastwood) with a message for the IBM'ers.

Disney Clip Art f: Chipmunks, Disney Clip-art, Disney ClipArt #1, Donald&Daisy, Mickey and Minnie, Mickey Mouse and Mickey Mouse'.

DRAGON an urbane dragon with housekeeper.



Dreams of the Phoenix/Sampler are some clip art samples.
Druidess is a fantasy figure.
Eagle.pnt is an eagle and shield.
Expose Yourself to a new way of computing.
Eye in a closeup view.
Garage
Garfield picture is our fat, furry friend.
Ghostbusters Who do you call?
Grey Otter is a painting of a noble Indian warrior.
Hacker.pnt an ancient horned species of computer hacker .
Hadley's women f: Hadley's Women f are Ann, Fence, Joan, LisaMarie, Lynda (Ronstadt), NewBalance, Prone, Rebeca, Ronda and Weights.

Mac Disk 11.03: Paintings 3

Hands of the Artist by an artist.
HEAVYMETAL a musician, not atomic weight.
Hendrix as in Jimmi.
HORSE from the neck up.
Howdy Do 2.3 the banana meets the rest of the Bloom County fruit.
IBM Dies may be so much wishful thinking.
Jaguar is the kind that does not belong in the Automotive f.
James Bond f: 007 and Thunderball
Japanese Girl is from the original introduction of the Mac.
JOKER as in Batman and Robin.
Kareem and Larry from the 5th game of the 1987 NBA finals.
Keyboard show how MacPaint was used until MacDraw was introduced.
KITCHEN® offers an example of MacPaint pattern use.
Kitchen Robots is another early MacPaint offering.
Lisa in an artists rendering.
M. Duff Scanned Photos f: A number of scanned images of photographs taken in Spain by Martha Duff include: Alhambra, Great Mosque (image found only to the far left of the screen), and Lion Fountain. Several scanned photographs by Martha of are:
Cave, Convent 1, and Ruins Incan and Peruvian locations.
Max HeadRoom f: MAC HEADROOM through MAC HEADROOM IV.
MacRat is a scan of a pack rat.
MacTidings™ Sampler for the holidays.
Magritte is included without comment.
mandala is an interesting pattern.

Mac Disk 11.04: Paintings 4

Meryl Streep
Misc. Objects include some useful clip art.
Moon is a pretty night scene.
Mother&Child is nicely done, good counterpoint to Broken Family.
Mouse is the best kind of rodent to have in the house.
Opus and Opus' are two versions of the penguin from Bloom County.
Owl1 for the nature lover.
P. Scheimer StartScrms f: Some nice startup screens generated as described in the Read This 1st! file.
BlkMosSem, CougarSS, and SwansSS for the naturalist.
Harley SS and MacTruckSS for the two and eighteen wheel set.
Paperone 2 is a rendition of Scrooge McDuck.
Ronnie, the great communicator.
secondtrollly comes before Trolley.paint in an alphabetical

arrangement.
Set Design is an architectural exercise.
Shaman is an exercise in design.
Smiley's Discovery and Smiley's Moon are cartoons with a space theme.
Smurfs f: Smurfs.1 through Smurfs.4 are the real McCoy, not the Washington Redskins namesakes.
Snow Leopard is a real beauty.
Snowbound is a wintery eastern U.S. county scene.
Space f: Energia.pnt is a scanned image of the Russian large space booster.
shuttle is a painting of the U.S. large space booster and shuttle.
Sport Shoes are provided for the sneaker express method of file transfer.
SputnikFish is an unusual juxtaposition of two themes.
Star Trek f: 1stTrek, KlingBC, Enterprise 1701-D, Star Trek are provided for the Trekkies.
Statues f: The scanned images Minuteman and Statue of Liberty would make nice startup screens.

Mac Disk 11.05: Paintings 5

Star Wars f: Millenium Falcon, Tie Fighter, Vader and X-Wing Fighter from the motion picture Stoooges as in Moe, Curly and Larry.
Struthiomimus altus isn't easy for you or me to say.
Teen age Mutant Ninja Turtles f: Donatello, Leonardo, Michaelangelo, Raphael and Splinter. *For those of us who came in late, a teen acquaintance tells me that the teenage mutant Ninja turtles were normal baby turtles without a mother. They were taken in by Splinter, a rate and master of minjitsu. One fine day (as always seems to happen in these sagas, some radioactive waste spilled on the turtles, who began to grow to human size. Splinter trained them in his art.
Texas shows the geography of the second largest state.
The Mask.pnt is a scene from the movie The Mask.
The Struggle or bringing home the bacon.
Tiger is one of the best startup screens available as the paper white screen of the Mac really does it justice.
trains f: are some scanned images of trains.
C&S #9 is a scan of an old steam locomotive.
WP FP7 805A is a Western Pacific diesel locomotive.
Trees(1) and Trees(2) for the landscape architects use.
trolleypaint is the other trolley drawing.
Utamaro Clip Art f: UTAMARO Art-1, Art-2, Art-3, Art-4 and Art-5 are classic drawings of Japanese women. VF-51 Tomcat shows the shoulder patch of an F-14 squadron.
ViewPaint 1.7 Use this utility to look at any of the paintings without needing to run MacPaint. *Shareware—\$5.*

Mac Disk 14.01:

Programmer/Hacker - Love's Labors Lost
This disk is primarily for assembly language programmers. John Love, III has developed this disk of demonstrations and program segments and has provided the source code (in MacAssembly™, Signature Software) for your edification and perusal. John is a member of Washington Apple Pi so don't forget the shareware fee if you keep these programs or benefit from John's efforts. *Shareware—\$10.*
The disk includes four demonstration programs: * Start Me Up *, DissBitsDemo, TearOffDemo and PopupDemo. * Start Me Up * text and menu may be edited and used as a start up utility to explain the contents of any disk that is to be distrib-



uted. DissBitsDemo includes visual dissolve effects, TearOff-Demo shows tear off menus (as in HyperCard) and PopUp-Demo illustrates pop up menus. Supporting folders and their contents are:

TearOff Menu f: TearOffDemo.asm, TearOffDemo.job, TearOffRSRC.asm and TearOffSelect.asm.

Dissolve Effects f: DissBits.asm, DissBits.job, DissBitsDemo.asm, DissBitsRSRC.asm and DissPICT.

PopUp Menu f: * PopUp Coordinates *, PopUpDemo.asm, PopUpDemo.job, PopUpRSRC.asm and PopUpSelect.asm.

Additional folders that include useful source code are:

^Modem f: / lotsASM.sit \ (unpack this file with Stuffit or UnStuffit DA).

Special INCLudes f: PushPop.asm and StackMacros.asm.

HyperCard XCMD/XFCN f: Flash.asm, GetCreator.asm, GetDocs.asm, HyperXCmd.asm, HyperXRes, HyperXRes.job, ImportPICT.asm, Peek.asm and XCmdGlue.asm

Mac Disk 18.10: Adobe Screen Fonts, Disk J

Belwe Screen Fonts #52, Goudy 2 Screen Fonts #54, Janson Text Screen Fonts #55 and Times Family.

Caslon Screen Fonts #53: Caslon 3 Screen Fonts and Caslon 540 Screen Fonts.

Letter Gothic Screen Fonts #27: Letter Gothic Other and Letter Gothic Plain.

Prestige Elite Screen Fonts #28: Prestige Elite Other and Prestige Elite Plain.

Mac Disk 19.11: StackWare 11

Goodies from the HyperCard Test Team

This disk is an interesting collection of stacks from the HyperCard Test Team. It includes everything from a game to XCMDs to give your stack it's own version number. The stacks are all of high quality and although every stack won't appeal to everyone, everyone will find a stack they really like in this outstanding grouping.

ReadMe: A short note from the HyperCard Test Team.

AutoClicker v.1.6: This stack is primarily for stack developers as it will click every button of your stack, giving you an excellent way to check how your stack is working. AutoClicker can test your stacks in three ways, it will click every button in your stack; or it can click buttons randomly in your stack; or it can click only the buttons which have "ask" or "answer" dialogs.

Concentration 3.0: This is an interesting and challenging HyperCard version of Concentration using a deck of cards. Playable by one or two players it will provide a challenge for anyone. The cards for Concentration are generated from a font with the 52 card numbers from a standard deck.

ForeGnd to Bkgnd v4.2: Four utilities that will allow you to move buttons, fields, or graphics from the foreground of a card to the background of a stack. It will also copy a background to another background, if you wish.

Fun with Paint tools 1.0: A fun stack for everyone and a must for anyone who is interested in using Paint tools within scripts. This stack is intended to be a learning tool for scripting with the Paint tools and is also an excellent example "as is" for demos.

Groupies 3.1: Many of us have asked about grouping objects and this stack presents a method for assigning to a group any number of buttons or fields, and then being able to move that group as a unit, or copying and pasting that group onto another

card. Groupies 1.3 is a collection of HyperTalk messages that do operations on groups of HyperCard buttons and/or fields. **Growing Maps:** An intriguing demo using HyperCard's Paint tools and state populations. Click on a state and HyperCard will plot the state's population using the outline of the state, watch the state's outline grow with it's population.

HyperMonkey: This stack will randomly draw with the Paint Tools using different properties and various different effects. This is vaguely like waiting for a monkey to draw the Mona Lisa, but it is an intriguing demo.

Modern Art 1.0: These "Modern Art" buttons draw a unique masterpiece every time one of the buttons are clicked. These buttons are a good introduction to the power of graphics used with HyperTalk.

More HyperScans: Photos and scans by members of the HyperCard test team. All images were created from originals and scanned into HyperCard using HyperScan and Apple Scanner.

Nifty Scripts: This stack is designed to be a repository for nifty and useful scripts. It currently includes 17 Nifty Scripts with instructions on how to use them.

Phone w/Demon Dialer: This stacks adds a functionality many have desired in the phone stack, the ability to redial until connected. In this stack two "Demon Dialer" buttons are included, designed to dial and redial a busy telephone number through a modem repeatedly until the called telephone is answered.

Speech Master: This HyperCard stack can help you to memorize a speech, poem, or any text. All you do is click on a word to HIDE it. As you HIDE words you will have to remember what they were. The more times you read the text and HIDE words, the more you will memorize. *Shareware—\$0.*

Version Control: Two external commands are attached to this stack, they give the stack developer a way to attach version numbers and comments to a stack in a 'vers' resource (like the resource that is attached to the HyperCard application).

Visual Effect Constructor: A stack that allows you to try almost any available single Visual Effect and even a series of Visual Effects. Point and click construction of a visual effect for your stacks or buttons and you can even copy the visual effect for use anywhere.

Mac Disk 19.12: StackWare 12 – Clip Art 2

This disk contains an expanded version (a total of 499 cards) of the Clip Art stack provided with the HyperCard software. This version contains 499 separate cards of clip art, approximately 200 of which are repeats from the Apple stack and the stacks on Mac Disk #19.02. The major difference with this stack is that over 80% has key words entered for searching.

New Atkinson's Clip Art: Three hundred new Clip Art drawings, along with 200 older pieces of art, almost all with key words already entered. Set up and ready to browse.

Mac Disk 19.13: StackWare 13 – Christmas Stacks

A Christmas Sampler to entertain and excite you. Christmas carols, holiday clip art and homemade Christmas cards are all available.

CarolStack: Thirteen Christmas carols completely written out in HyperTalk and ready for you to play. Includes the flute HyperCard sound and such Christmas favorites as Jingle Bells, O Come All Ye Faithful, and The First Noel.

Hyper Cards: This stack allows you to make your own one or two fold Christmas cards. You can import your own graphics and enter your own text, when you are ready to print your card



the program walks you through printing as it automatically formats your personal Christmas card.

MacTidings™ Sampler Stack: A sampler of 8 designs of traditional holiday season art. Includes a sample of drawings, borders, frames and motifs for use in Christmas and New Year letters and cards. *Sampler—\$29.95 for commercial version.*

Holiday ScrapArt@ 1 f; Holiday ScrapArt@ 1: This holiday Clip Art Stack includes graphics, titles, and some excellent digitized scenes. It even includes some icon sized art for creating "Christmas Buttons." Family Feast is a MacPaint document of one of the larger clip art pictures. *Shareware—\$5.*

Mac Disk 19.14: StackWare 14 – Neat Stacks

This disk includes two high caliber stacks. The first is an excellent cataloging stack for use in creating a HyperCard catalog of all your disks and the second is an excellent stack originally created as a countdown timer for Star Trek.

Auto Floppy Log 3.5: Create catalogs of all your floppy disks automatically. This excellent catalog stack relies on an XCMD that will read your disk and create a complete listing of all the files and folders. You can then select any individual file and the stack will graphically show you the path on the floppy disk to that file.

StarTrek-3.12 f; Star Trek-TNG V3.12: This stack started out as a simple countdown timer for the TV show "Star Trek-The Next Generation." This version has been expanded and includes additional sounds, text, and a description of the bridge of the Starship. Each of the major characters has a digitized voice clip within the stack and the entire bridge is composed of buttons to explain what each area does. Read *First-Double Click* gives some hints and cautions for using this stack. *Messageware—call or send an electronic message.*

Mac Disk 19.15: StackWare 15 Miscellaneous Stackware

A potpourri of stackware that offers two educational stacks, a research organizer, a listing of BBS's throughout the U. S., and a help/Demo stack for VersaCad.

BBSs 1.1: Four hundred and five cards make a dandy directory of Bulletin Boards from around the country, giving BBS name, area code, phone no., location, SysOp, hours, BBS program, speeds, and a field for notes. Note that as quick as BBS's start and stop, not all of the BBS phone numbers will still be active.

Neurotour #1: A visual tour through the human brain, with area maps of the brain and zoom-ins galore. Interesting and well done, and of interest to students and teachers.

Periodic Table: A well-done, cleanly executing stack, and a handy tool for students. Each element has it's own card listing Atomic Weight, melting and boiling point, along with six other exotic fields of interest to the student. A nice touch to this stack is the crystal structure shown for each element.

VersaCAD/Macintosh: A detailed help file for VersaCad on the Macintosh. This stack includes an illustrated series of explanations of what each item on the programs screens and menus is supposed to do. This is an excellent example of what a help stack can show in relation to a program.

HyperResearch f; HyperResearch: A simple database for organizing your notes for a research report. The stack allows you to set up your main topics, books, or subjects and link them to individual cards in the HyperResearch Note Cards stack. Within each Note card you can make individual comments on what this reference can add to your report. *Shareware—\$5.* ☺

HYPERCARD DEVELOPER'S GUIDE: A Book Review by Robert C. Platt

(HyperCard Developer's Guide by Danny Goodman, Bantam Books, 1988, 644 pp. \$29.95)

Danny Goodman builds upon his successful *Complete HyperCard Handbook* with a new book which covers stack design and HyperTalk in greater depth. This highly readable, enjoyable book covers the changes to HyperCard through version 1.2. The book features several complete stacks as illustrations of stack design. The Weather Machine illustrates using HyperCard to create a front-end for Compuserve. An About Box XCMD and a Pop-up Menu XCMD round out the illustrations.

Goodman's strength is his specific examples which are drawn from his commercial stacks. His techniques are fairly original and impressive. I am also impressed with his attention to details. He offers a number of insights on user interfaces which stack designers would do well to follow.

One topic which is not well-covered in other books is an explanation of how to design an icon using ResEdit for incorporation into the buttons of your stacks. Similarly, Goodman offers an in-depth treatment of using sound resources from HyperCard.

Goodman offers a detailed, step-by-step set of instructions on building an XCMD from LightSpeed c and LightSpeed and Turbo Pascal. On this score, his book is about as helpful as Bond's *XCMD's for HyperCard*. If you are planning to design stacks to be used by other people or are going to use XCMDs, Goodman's new book will be a valuable addition to your library. ☺

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Apple /// Volumes

- () 1000 /// SIG PD Catalog
- () 1001 Games Volumes I & 2
- () 1002 Basic Utility Vol.1&2
- () 1003 Footnote ///
- () 1004 Sys. Utils & Data
- () 1005 New Member Disk
- () 1006 Word Proc. & WPL
- () 1007 Games for Kids
- () 1008 The Best of MAUG
- () 1009 The Best of the Source
- () 1010 The Best of TAU
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- () 1012 Sketchpad&Slideshow
- () 1013 A3 Diagnostics
- () 1014 Basic Boot Disk
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Pohlman Disks:

- () 1017 Disk 1 () 1018 Disk 2
- () 1019 Disk 3 () 1020 Disk 4
- () 1021 Disk 5
- () 1022 Basic XT and Utilities
- () 1023 The Retriever
- () 1024 Power Print ///
- () 1025 Disk Window
- () 1026 Data Window/Source
- () 1027 Power Cat/Basic XRF
- () 1028 ASCIDIF(Bloom)
- () 1029 Ink Well Manual
- () 1030 Ink Well
- () 1031 Basic Extension
- () 1032 TERMINALL Manual
- () 1033 TERMINALL
- () 1034 PowerKeys DM+
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- () 1036 RAM+3/2NFRO

Apple IIGS Volumes @ \$5

- () 2001 Utilities & Pictures A
- () 2002 Demo Disk A
- () 2004 Slide Show I
- () 2005 Demo Source Code 1
- () 2006 Demo Source Code 2
- () 2007 M18 Courses
- () 2008 Odd Bits I
- () 2009 GS Fonts I

Apple IIGS contd.

- () 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 @\$5

- () 17.3a Red Ryder 9.2
- () 17.2b Red Ryder Doc.
- () 31.1 Dun.Doom/Eliza Talks
- () 32 Fun & Games II
- () 35 Fun & Games III
- () 40 Mac Videos
- () 41 Cap'n Magneto
- () 42 Studio Session (512K)
- () 44 Boston II Fonts
- () 45 Games IV
- () 46 Games V
- () 47 Fonts IV
- () 48.3 Fonts V
- () 51.2 Telecom II (no sys)
- () 54 Games VI
- () 55 Games VII
- () 56 Games VIII
- () 57.1 New Memb. Disk 86
- () 59.1 CE Sampler II
- () 74 Fun & Games IX
- () 75 Fun & Games X
- () 76 Fun & Games XI
- () 77 Fun & Games XII
- () 78 Fun & Games XIII
- () 79 Fun & Games XIV
- () 80 Fun & Games XV
- () 83 Telecom III
- () 84 Fun & Games XVI
- () 85 Fun & Games XVII
- () 89 Fun & Games XVIII
- () 91 Fun & Games XIX
- () 92 Education II
- () 93A & () 93B Fonts VI
- () 95 Fun & Games XX
- () 96 Fun & Games XXI
- () 97 Fonts VII
- () 99 Inits I
- () 100 Fonts VIII
- () 101 Fonts IX
- () 104 Fun & Games XXII
- () 105 Fun & Games XXIII
- () 106 Fun & Games XXIV
- () 108 Fun & Games XXV
- () 110 Fonts XI
- () 113 Fonts XII
- () 115 Telecom IV
- () 120 Inits II
- () 123 Graphics II
- () 128 Fun & Games XXVI
- () 129 Telecom V
- () 134 Fun & Games XXV
- () 143 Games XXVI
- () 146 Fonts XIII
- () 147 New Member's Sampler
- () 150 Games XXVII-Arcade
- () 151 Games XXVIII-Strategy
- () 153 Games XXIX

Note: Mac Disks are contd. on next page.

*Vol. 181 required with these disks.

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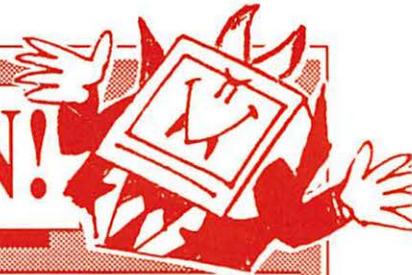
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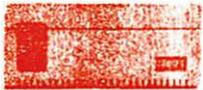
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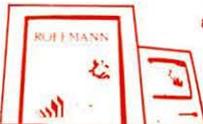
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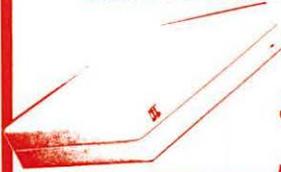
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