

Washington Apple Pi



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Number 8

Highlights

- Laptop Computers - Prompted Uploads
- Family Home Money Manager: Part 4
- Multiscribe: MacWrite Comes to the Apple
- Beyond MacWrite: Professional Writers & the Mac
- 'Excel'ing With Your Mac: Part 6
- Softviews: MacServe and Mail Center

In This Issue

Officers & Staff, Editorial	3	Best of Apple Items from UBBS	Euclid Coukouma 34
President's Corner Tom Warrick	4	Poor Richard's Almanac: Hardworks.	Doug Trueman 39
Annapolis Slice Micha Dannenberg	5	Recent Reading Library Acquisitions..Walt Francis	40
Classifieds, Commercial Classifieds, Job Mart	5	Wall Street Jrnl Reports on PC...Joseph A. Hasson	42
Event Queue, General Information	6	Multiscribe: MacWrite Comes to Apple..J.W. Willis	43
WAP Calendar, SigNews	7	Home Computer Banking Francis Marburg	43
Apple /// News David Ottalini	8	dPub SIG Announcement & Postscript.	Tom Piwowar 44
GameSIG News Ronald Wartow	10	Beyond MacWrite: Prof. Writers.	Patricia Kirby 46
Conflict in Vietnam: A Review Ben Mangus	10	Paper for Laser Printers H.F. Chevalier	48
00-Topos: A Review Barry & Ben Bedrick	11	More on LaserWriter Paper Stephen C. Warren	49
Orbiter: A Review Rick Stickle	11	The View from Durham Chris Klugewicz	50
The Chessmaster 2000: A Review Paul Moore	12	MacNovice Column Ralph J. Begleiter	52
Uninvited: A Review Ronald Wartow	12	Frederick Apple Core	54
Wizard's Crown: A Review Philip Greco	13	Mac Plus with Hyperdrive Lynn R. Trusal	54
Ogre: A Review Ronald Wartow	14	Rhythms with Concertware(+) Peter Markiewicz	57
Hardball: A Review..David Blazina & Ronald Wartow	14	'Excel'ing With Your Mac: Pt 6..David Morganstein	58
WAP Hotline	15	Two Questions About Excel Audri G. Lanford	61
Lap Computers: Part 9 George Kinal	18	WAP Telecommunication Systems (BBS)	61
Apple //c LCD/Battery Pack: A Review..Ray Sperber	20	Softviews David Morganstein	62
ProDOS Ram Disk with Saturn Mike Ungerman	21	A Developer's View Jim Lanford	65
Control Appliances with Apple][. George Kinal	22	Latest Versions of Mac Software	66
On Buying a Surge Suppressor Chris Klugewicz	23	Disketeria Dispatch Jim Little	69
Bank Street Filer: A Review Mark Blass	24	Mac Disk News Martin Milrod	69
WAP Acrostic Professor Apple	26	Disketeria Order Form	71
AppleWorks on a][+ Randy Zittel	27	Tutorial Registration Form.	72
Family Home Money Manager: Pt 4 Brian G. Mason	28	Index to Advertisers, Author Index	72

For information on joining WAP, see "General Information", page 6.

New Software

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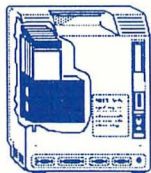
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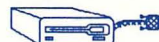
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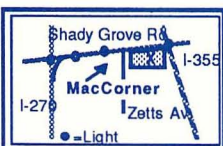
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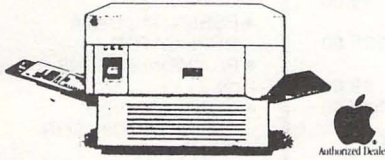
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Marano pointed out that Apple has been so successful because it has focused on the needs of the consumer and then targeted specific markets. We will be seeing more of that in the future as Apple expands into Desktop Publishing, Communications, Business Productivity, Business Management, and Engineering.

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EDITORIAL

Thank you to all who were at the Midwest Apple Users Group Conference in Chicago July 19 and 20. Thank you to the 110+ representatives of some 39 user groups from that region for being patient while I described how Washington Apple Pi does things, and my seemingly endless stream of suggestions. Thank you to Steve Kramer of Miami, Dick Hubert of A.P.P.L.E., and Tom Warrick of Washington Apple Pi for taking part in the demonstration of telephone conferencing. Thank you to Larry Kreitman and to your assistant for making this demonstration possible through the good graces of Confertech, Inc. Thank you Ellen Leanse, Cathy Hoolihan and Phyllis Farnum for making this meeting (and my participation) possible. Thank you again, Ellen, for being a good sport during the telephone conference. And

lastly, thank you to Helen and Terry Tufts for inviting me and for all the work of conceiving and putting on such a helpful event.

The representatives came to learn from Apple, from the guest speakers and from each other. This was accomplished with style and we all had a fine time. It was most edifying to me that the problems voiced and solutions offered went specifically to the heart of the purpose of a users group. How do we attract and hold our membership? How do we motivate the volunteers and put their efforts to good use? How do we raise funds, attract writers and publish a newsletter? Group purchase, public domain software? How do you run a meeting? And more...

It became apparent that not everything could be covered in contd. on pg 27

PRESIDENT'S CORNER

by Tom Warrick



Did you find what you were looking for (or looking to unload) at the Washington Apple Pi garage sale? The June installment of our twice-yearly affair was a record success, with more people attending this event than ever before. Thanks go in large part to *Joe Fuchs*, who organized the sale and conducted the always popular "distress auction" at the end. Few came away distressed, thanks to

Joe. The garage sale is always interesting for what it reveals about people's selling habits. Last December, the big item was *non-Apple serial cards*. Virtually no one was selling Apple-brand Super Serial cards—an indication of the dominance Apple has established over the interface card market, which until 1984 it left largely to third-party manufacturers. In June, there were quite a few Apple][+ systems made "surplus" by people's purchases of Macintoshes. There were also a number of 128K and 512K Macintoshes being sold by members who had upgraded to the Mac Plus.

Another interesting observation I offer is that fewer people this year were selling used *magazines*. The computer magazine industry has undergone quite a shakedown in the past year, with many titles no longer in publication. With fewer magazines around, there are fewer to sell.

Dave Michelson told me the other night that Americans move, on the average, every four years. People at Washington Apple Pi are no exception, and one of the functions of this column is to record the comings and goings of some of the people behind and in front of the scenes here at the Pi. This month we are especially pleased to welcome back *Bob Platt* from Amarillo, Texas, where he spent the last few years as a "high flyer" working for the celebrated *T. Boone Pickens* at Mesa Petroleum Corp. Few people have served the Pi more selflessly than Bob. To name a few of the things Bob has done: He was one of the early movers behind the Pascal special interest group, a New Disk Librarian, the first Vice President for Special Interest Groups, a member of the Board of Directors, a temporary editor of the WAP Journal and the editor of Perfect Pascal Programs (still available for only \$5.00 at the WAP office, Bob reminds me). We are very fortunate to have Bob back.

We are unfortunate, however, to lose *Tim Buehrer*, the Chairman of the Macintosh Programmers' Group, although all of us envy him. Tim is leaving Washington to become—get this—Staff Counsel to the Ways and Means Committee of the Congress of the Federated States of Micronesia. Micronesia is a group of islands in the tropical Pacific, north of

New Guinea and east of the Philippines. Micronesia was formerly part of the Pacific Trust Territories and has been given its independence by the United States. Tim and his wife *Carol Walker* will be on Ponape, the capital island, which has something like 11 miles of road and a coral reef offshore. The temperature never varies much from 80°. We're talking tropical paradise here, folks. Tim is getting the MacNifty sound digitizer, and he has promised to make us a Mac disk of the Pacific island surf. That's rubbing it in, Tim! But we're looking forward to it.

As many of you know, I have another reason for regretting Tim's departure. Tim used to work for the same law firm in Georgetown as I do (*Pierson Semmes and Finley*), and our firm will also miss Tim greatly. Besides, there was much to be said, I must tell you, for having the Mac Programming Chairman's office a few feet from yours.

Another departure we are facing is that of *Leon Moore*, who has been scheduling our meetings at *USUHS* for the past couple of years. While Leon may not be leaving the area, he will no longer be in a position to sponsor WAP within the *USUHS* organization. Accordingly, it is *very important* to the Pi that we find a replacement by September, because we *must have* someone who works at *USUHS* sponsor us in order to be assured of a chance to continue to use the *USUHS* facilities. If you work at *USUHS* and can help us out—it takes only a few hours a month—*please* call Bernie at the WAP office, 654-8060.

Finally, someone has told me that *Regina Litman* may be leaving Washington for Philadelphia. If she does, we shall miss her column on the goings-on of the Mac bulletin boards. We hope she continues to hang around the bulletin board systems in the area and can make the trek down from Philly from time to time.

A couple of other WAP announcements: Washington Apple Pi will participate in the second annual Boston installment of *MacWorld Expo*, to be held this year on August 14-16. If you are going to be in Boston and can spend a few hours at the WAP booth, stop by! (Even if you can't, stop by anyway.) This year, we're going to show off some of the great things in the Mac world being done by people in the Washington, D.C. area, so it should be quite a bit of fun.

The August general meeting will feature another annual event, our Games extravaganza, hosted by *Ron Wartow*. Ron has promised me that this should be quite a show, and he expects some of the big names in the industry to be there, in addition to the regular cast of GamesSIG characters. The key question: Is the world ready for *Pixel's Revenge*?

In September, probably on the third Saturday (exact date and time to be determined), WAP will hold its annual "*Future of the Pi*" meeting. Every year we hold an open, no-holds-barred discussion of the Pi and how we can do things better. Everyone is invited, whether you come to praise, criticize or just listen. (I just listen—these sessions are extremely useful in letting me know what you're thinking.) This time, it will also give us something to discuss while we contd.

wait for the IIGS to come out!

Later in September, our new SIGs and Slices coordinator *Jay Thal* will be contacting SIG chairs regarding SIG elections. If you're interested in helping out your special interest group as a reporter, program chair or in some other way, contact one of the SIG officers or give Jay a call.

Let me also put in a plug for our *Dealer Relations Committee*, whose members (and their phone numbers) are listed on the masthead. We expect the people we do business with to live up to their promises and to behave ethically and responsibly, just as we should as customers. If you come across a dealer or mail-order house that is not behaving in what you believe is an appropriate manner, please let one of our Dealer Relations Committee members know what has happened. If an advertiser in the WAP Journal hasn't lived up to his promises, we *urge* you to let us know as soon as possible so that the matter can be resolved. In the coming months, we hope to conduct a survey of mail-order houses, which is where there seems to be a vast difference between the good guys and the bad guys.

And speaking of good guys, *the Woz* (Steve Wozniak) was in Washington for the awards banquet of Apple Computer Clubs International, the Apple Computer, Inc.-sponsored user groups in elementary and high schools around the country. Woz captivated the kids with stories about his early days in electronics and the Homebrew Computer Club, where Apple Computer, Inc. got its start.

Some of the winners had done some pretty spectacular things. Several winners are from the mid-Atlantic area: the *Country Apple Computer Club* of the Worcester Country School in Berlin, Maryland won the Community Service award in the Elementary School division, and *Adam Marsh* and *Stephen Mumford* were runners-up in the BASIC programming category, Secondary School division. Adam and Steve have been finalists two years in a row, and we're going to have to get them to come to a WAP meeting and show off their "Illustrated SAT" program. There were also two Virginia finalists, the *Microworms Computer Club* of the Edinburg Middle School in Edinburg, Virginia, which won the Community Service award in the Secondary School division and *Jacqueline M. Foster*, runner up from George Washington Carver High School in Fieldale, Virginia. To all, our congratulations!

ANNAPOLIS APPLE SLICE by Micha Dannenberg

Announcing the formation of the Annapolis Apple Slice (approved by WAP).

Good things have already progressed—lots of people came to the July meeting, even though it was 90° in the shade and on a Saturday too. The next meeting will be Sept. 13, 1986, at Anne Arundel Community College in Arnold, MD. On the agenda are a business meeting and a demonstration. For additional information call: Acting President Steve Toth at (301) 757-3280, Acting Vice President Jim Wint at (301) 544-5850 or Acting Secretary Jeanne Tillotson at (301) 721-3183.

CLASSIFIEDS

WANTED: 9" amber or green monitor. Jay Thal, 244-3649 (H) or 755-6664 (O).

FOR SALE: NEC PR-103A NLQ Printer, \$120; Music System for II, hardware and software, \$65; Vista 80 Column Card, \$75. Jay Thal, 244-3649 (H) or 755-6664 (O).

FOR SALE: Managing Your Money, like new including warranty card, \$60. Call John Willis at 353-4095 (day) or 301-694-9410 (evenings-Frederick).

FOR SALE: Transtar 120 daisywheel letter quality printer, \$250; Multiplan with original documentation, \$50; ProPrint Macintosh software for Transtar and other daisywheel printers, \$35. Any reasonable offer will be considered. Call Lynn R. Trusal at (301) 845-2651 in Frederick (evenings with no calls after 10:00 PM).

FOR SALE: Macintosh 512K, external disk drive, 4 months old, MacWrite, MacPaint, all original packing, 2 hours training. \$1500. Bradley Husick, (703) 759-5149, evenings.

FOR SALE: Apple 512K RAM Expansion Board for Lisa/MacXL, \$300. Ed Pirtle (313) 434-5757. (Aug. 15-21, c/o David and Linda Morganstein, Germantown, 972-4263.)

FOR SALE: Epson RX80 Printer, \$175; Grappler+ Board, \$35. Call Bob, (703) 444-1840.

FOR SALE: Apple //e 128K, with 80-column card, monitor and two (Apple) disk drives, \$950 or best offer. "Driven" only one year by a very careful little old lady. Call J.L. Tillotson, Crofton, MD (301) 721-3183 after August 4.

FOR SALE: Apple][+ compatible computer, 64K, 2 disk drives, Mono Monitor, includes word processing and dust covers. Excellent condition, \$695. (919) 228-8458 or write to June Dennis 1804 Woodhue Drive, Burlington NC 27215.

FOR SALE: Grappler Interface Printer Card, \$70. Call Mable Thompson, 345-2366.

COMMERCIAL CLASSIFIEDS

Will repair and align disk drives. Apple and others, plus hard drives. No repair, no charge. Rich Mlodoch, (703) 360-1858, evenings and weekends.

Tutorial Service Available: Macintosh computer instruction given in the general Frederick, MD area. General instruction or specific software. AppleTalk consultations and help with pre-buy decisions. Personalized service and reasonable rates. Call Lynn R. Trusal, (301) 845-2651, evenings, with no calls after 10:00 PM.

JOB MART

HELP WANTED: Exciting opportunity for programmer to develop software systems in Pascal for Macintosh computer. Knowledge of Macintosh Tool Box required. Work in graphics and AI. D.C. area. Please call Barbara Stern, 442-4842, days.

HELP WANTED: Accounts receivable / accounts payable / general ledger program, either custom made or configure an existing program. Must be able to keep track of paying contd.

approximately 75 professionals and billing over 250 clients. Program should be similar to that which is used by a large "group practice". (I am currently using AppleWorks, but perhaps not in the most efficient manner for this task.) Also have "Simply Perfect" and "Data Base II" but not the knowledge nor time to configure them. I have an Apple //e with a 512K Ramworks card and a CP/M card. Prefer to use existing software if you can configure it. If you think you can help me, call for details. Fee negotiable. 460-6668 after 6:00 PM and ask for Joel.

EVENT QUEUE

Washington Apple Pi meets on the 4th Saturday (usually) of each month, both Apple and Mac, at the Uniformed Services University of the Health Sciences (USUHS), on the campus of the Bethesda Naval Medical Center, 4301 Jones Bridge Road, Bethesda, MD. Disketeria transactions, Journal pickup, memberships, etc. are from 8:45-9:30 AM and during the Q& A sessions (times for these vary according to the main meeting topic). The business meeting is from 9:00-9:30.

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

Following are dates and topics for upcoming months:

- | | | |
|------|----|--|
| Aug | 23 | - GameSIG for both Apple & Mac |
| Sept | 27 | - Apple II - Mouse & programs |
| | | - Mac - Power data bases |
| Oct | 25 | - The Apple IIGS (tentative) |
| | | - Macintosh bridges to other computers |

The Executive Board of Washington Apple Pi meets on the second Wednesday of each month at 7:30 PM at the office. However, the August meeting will be on the third Wednesday night, August 20. All members are welcome to attend ☺.

General Information

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

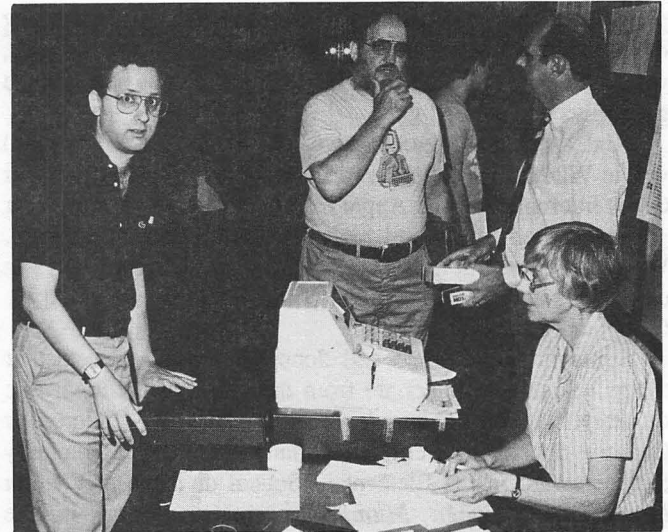
Membership dues for Washington Apple Pi are \$32.00 for the first year and \$25.00 per year thereafter, beginning in the month joined. If you would like to join, please call the club office or write to the office address. A membership application will be mailed to you. Subscriptions to the Washington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

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

Current office hours are:

- | | | |
|-----------------|---|--------------------|
| Monday - Friday | - | 10 AM to 2:30 PM |
| Thursday | - | 7 PM to 9:00 PM ** |
| Saturday | - | 12 Noon to 3:00 PM |

** Office will not be open on Tuesday evenings during July and August. ☺



Photos by Wolfgang Wagner

Don't you wish you had been there?

Top to bottom - Last month's business meeting.

Tom Warrick, Marty Milrod, Adrien Youell standing, Gena Urban seated at cash register.

The garage sale in full tilt.

* August 1986 *

SIGNEWS

WAP

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 Deadline for Journal articles	2
3	4 PI-SIG 7:30 PM Office	5	6	7 GameSIG 7:30PM-Off. Mac Progrms 7:30PM-Lady of Lourdes		9 MusicSIG 1:30 PM - Call Ray Hobbs
10	11 Telecom SIG 7:30 PM Office	12	13	14STOCKSIG 8PM Office: FAC Slice 7:30 MRIID Ft.Detrick	15	16 Forth SIG 12 Noon Office
17	18 Mac Begin. Tutorial #1 7-10 PM Office	19	20 Executive Board 7:30 PM Office	21 Pascal SIG 8:00 PM Office	22	23 WAP Meeting - Apple II & Mac 9AM - USUHS
24	25 Mac Begin. Tutorial #2 7-10 PM Office	26 BBS Comm. 7:30 PM Office	27 No Apple /// meeting this month	28 NO EDSIG meeting in August	29	30
31						

Apple /// SIG meets on the 4th Wednesday of the month at 7:30 PM in the Chamber of Commerce Bldg., 1615 H Street NW, DC. There will be no meeting in August.

AppleWorks SIG offers two meeting options: 8:00 AM before the regular meeting and 12 Noon after the Apple II Q&A session. Attend either or both.

DisabledSIG - For information call Jay Thal at 344-3649.

dPub SIG (Desktop Publishing) meets on the first Wednesday at 7:30 PM in the PEPCO auditorium at 1900 Penn. Ave., NW. See their announcement elsewhere in this issue.

EdSIG (the education special interest group) meets on the 4th Thursday of the month at the office, 7:30 PM. There will be no meeting in August.

FEDSIG meets on the last Wednesday of the month at 7:30 PM at the office.

ForthSIG meets on the third Saturday of the month at the office, 12 Noon.

GameSIG meets on the first Thursday of each month at the office, 7:30 PM. The next meeting will be on August 7. See their news elsewhere in this issue.

MusicSIG meets on the 2nd Saturday of each month at 1:30 PM. Call Ray Hobbs at 490-7484 for place.

PIG, the Pascal Interest Group, meets on the third Thursday of each month at the office, 8:00 PM. The next meeting will be on August 21

PI-SIG meets on the first Monday night of each month at the office, 7:30 PM. Call Bob Golden at 593-6165 for details.

SigMac Programmers meet on the 1st Thursday of each month at Our Lady of Lourdes School, 7500 Pearl Street, Bethesda, MD.

StockSIG meetings are on the second Thursday of each month at the office, 8:00 PM.

Telecom SIG meets on the second Monday night of each month at the office, 7:30 PM. ☺

* September 1986 *

WAP

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 Call Bob Golden 593-6165 re PI-SIG meeting	2	3	4 GameSIG 7:30PM-Off; Mac Progrms 7:30PM-Lady of Lourdes	5	6
-> Monday, 8th is deadline for Journal articles	8 Telecom SIG 7:30 PM Office	9 Apple// Beginning Tutorial #1 7:30-9:00PM Office	10 Executive Board 7:30 PM Office	11STOCKSIG 8PM Office; FAC Slice 7:30 MRIID Ft.Detrick	Sat. 13th-> contd.-Mus. SIG 1:30PM Call Ray Hobbs	13 Annapolis Slice-Anne Arundel Com Col.Arnold
14	15	16 Apple// Beginning Tutorial #2 7:30-9:00PM Office	17	18 Pascal SIG 8:00 PM Office	19	20
21	22 Mac Begin. Tutorial #1 7-10 PM Office	23 Apple// Beginning Tutorial #3 7:30-9:00PM Office	24 Apple /// Ch. of Com. Bldg., DC 7:30 PM	25 EDSIG 7:30 PM Office	26	27 WAP Meeting - Apple II & Mac 9AM - USUHS
28	29 Mac Begin. Tutorial #2 7-10 PM Office	30 BBS Comm. 7:30 PM Office				

APPLE /// NEWS

by David Ottalini, /// SIG Co-Chairman

By the time you read this, fellow /// SIG members, we should have our very own Apple /// up and operating in the WAP office! That's one of the most exciting things to happen over the past several months for us, along with the release of our /// PD library and continuing development of our hard-copy library in the WAP Office.

Now that we have an Apple /// in-house, we will be able to have tutorials without having to have a member bring his or her own machine in. And members can test out their new PD disks, try programs and training disks. The list goes on and on. Obtaining an Apple /// for WAP was one of my major goals for 1986 (along with the PD library) and it gives me great satisfaction to see something so positive happen for our members.

Believe it or not, WAP continues to get new /// members (we are closing in on 80 or so!). As a result, I have been averaging at least a couple of calls each week from new /// users looking for help. I recently talked to one man who's boss dragged an Apple /// out of a closet at work and gave it to him to use. Unfortunately, there was no documentation, no programs, etc. We were able to get him going. We've even gotten a couple of calls from a man who works at a radio station on the other side of Maryland who is using a program called "Sunspot" which is a broadcast management program for the ///.

Charlene Ryan has been working on a list of /// SIG members whom we can include as contact people for help with specific programs like /// Easy Pieces, VisiCalc, Apple Writer, Cata-lyst, etc. We hope to get it added to the WAP Hotline in the near future. If you are fairly expert in a particular program and would like to volunteer, please give Charlene a call.

I am also working on a New Members Disk for our /// SIG library. It's already filled one side and a second side is a-building now. In the interim, I have consolidated and updated a set of articles recently published in the WAP Journal. A hardcopy will be included with each packet sent out to new WAP members who indicate they own an Apple ///.

Our hard-copy library continues to grow. There are now a number of manuals on many of the generally-available programs like Apple Writer, VisiCalc and Pascal, as well as information on the Apple /// modem, the Profile, etc. Check it out the next time you're in the office. Jim Salerno, our librarian, is always looking for more material to add, so drop it by the office if you get a chance.

Rumors, Cheers and WPL

There are rumors out that Titan Technologies, the company that makes the ///+//e card for the Apple ///, has gone bankrupt. I called them in early July and was told by an employee they are still manufacturing the ///+//e and other products and that "everything is normal". But I was not allowed to talk to one of the executives of the company, and was simply told someone would "get back to me" in a week or so. I'll let you know how that works out.

You may remember a /// native-mode magazine-on-disk

called "/// Cheers". I talked to its publisher by phone recently and was told they are still committed to making sure those people who subscribed to four editions will receive them. But there is still no time-table available as to when the next issue will be released. /// Cheers uses an innovative Pascal-based interface called BOATS that uses windows and other neat tricks. You can still obtain the first two editions from the A.P.P.L.E. Cooperative or directly from the publishers for \$10.00 each (check prices, though, this may have changed). The address for the publishers, Donovan's Reef is: /// Cheers, 12513 SE 216th, Kent WA 98031.

I contacted the owner of MinuteWare, Jim Pirisino, to find out a little bit more about his new set of WPL programs called "The Filing System for Apple Writer". By the time I was done, Jim had agreed to give me a copy so that I could do a review of this unique data base system for use from within Apple Writer. Unfortunately, since it is only available for the Apple // (DOS 3.3 and ProDOS), I have been spending some time making changes so that it would run on my ///+. I can report to you at this point that, for the most part, I have gotten it working (on both the 2.0 and 4.0 versions of Apple Writer ///). My expertise with WPL was not great prior to tackling this project, but has increased since taking it on (as you might imagine).

Thank goodness Apple had the sense to develop ProDOS from SOS. Without that, making the conversion would have been much more difficult. What's been the biggest headache so far? In Apple Writer // WPL, a [Control L] command is used to clear the screen prior to printing text. Our /// version uses [Control Backslash]. Using the F)ind command to replace all in each program helped—but it still took a long time!

By the way, we are also working on a set of PD disks for the /// SIG PD library containing WPL programs. If you have any you'd like to donate, please give Al Lambert a call.

Any of you with Apple Care contracts take note that they may be used at any Apple-authorized dealer. My dealer, The Computer Store, recently bellied-up. I called Clinton and they said they would honor it without any problem.

Summer Meetings Past and Future

Our June meeting was a great success thanks to Bob Schaffer, who literally took an Apple /// apart and put it back together before our eyes. We learned it isn't all that difficult to disassemble our pride and joy—but it sure seems like it takes a lot of metal and plastic to protect that poor little chip-laden mother board.

Our July meeting was a beginning tutorial for any and all interested Apple /// SIG members. We set this up for the folks at the Chamber of Commerce who were interested in learning more about how to operate their ///s in native mode. We are hoping to have additional tutorials next fall.

As for August, there will be no /// SIG meeting, since your officers will all be out of town. We will pick up with the September meeting and can already report that *Ed Gooding*, the Sysop of ///s Company BBS in Richmond has contd.

agreed to come up and talk to us. It should be an interesting evening, so put it on your calendar (September 24th, 7:30 PM at the National Chamber of Commerce across from the White House and Lafayette Park).

A Possible Apple /// Convention?

The /// community around the country is excitedly talking about a possible Apple /// Convention sometime next year. The meeting location will probably be Chicago, although San Francisco has also been mentioned. A coordinating council, made up of /// group representatives from around the country will probably be put together to get things going. But it appears the Third Apple Users group (TAU) in the Chicago area will probably end up doing much of the actual coordinating (if the convention is held there).

Frank Moore of The /// Magazine has already agreed to provide \$200 seed money, with the idea that other /// vendors and groups will follow suit. As your /// SIG Co-Chairman, I hope to be able to provide some input into the planning process and would welcome your thoughts as to what types of programs you might like to see at such a convention.

Stuff for Sale

There were two Apple ///s for sale at the WAP garage sale in June. Both were going for what I thought to be reasonable prices. I didn't stay to the end, so I don't know if either was sold. Otherwise, I saw little other Apple /// software or hardware. But there were plenty of things to keep us interested and the prices, as usual, were great.

If you are looking for sources of Apple /// stuff, you might try Morris Horn and Associates in Ft. Worth, Texas. They say they have a large assortment of Apple /// parts and peripherals. For more information, write them at Box 330876, Ft. Worth, TX., 76163.

Haba/Arrays is offering a 300/1200 Baud Hayes-compatible modem at a summer-special price of \$139. Their address is 6711 Valjean Ave., Van Nuys, CA. 91406. And locally, BCE Liquidators is also apparently offering a 300/1200 baud Hayes-compatible for \$137. This was in early July, so give them a call at 944-3900 to double check that they are still offering the deal.

Coming Next Month

We hope to have a review for you of Apollo Software's Font Generator /// and, if we're real ambitious, a review of MinuteWare's The Filing System for Apple Writer. ☺



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The Data Factory	119	MacLion	Call
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Charlie Brown's ABC's	29	Evelyn Wood Reader	56
Computer SAT (HBJ)	62	Power Math	62
<u>Graphics</u>			
Fontrix 1.5	66	ReadySetGo 2.0	132
pfs: Graph	87	Silicon Press 512K	55
<u>Leisure</u>			
Microleague B'ball	29	Chess Master 2000	35
Summer Games I,II	ca. 29	Wizardry I	43
<u>Programming</u>			
Enh. Terrapin LOGO 3.0	70	MacForth II	Call
MacroWorks	25	Turbo Turtle	43
<u>Spreadsheet</u>			
HabaCalc N Graph	38	Business Filevision	235
Supercalc 3A	121	Multiplan	150
<u>Word Processing</u>			
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Word Perfect 1.0	98	Think Tank 512	121

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☺ ☺ ☺ (5.7) **Mousewrite** (Roger Wagner Publishing) — An Apple IIc and IIe word processor that mimics Macwrite. Mousewrite offers pull-down menus filled with easy-to-use features. We strongly recommend purchasing a mouse in order to take advantage of this product. Mousewrite is worth a test drive for home and small-business users. *Category: Performance Software.* (11/18/85)

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GAMESIG NEWS

by Ronald Wartow

Special guests, door prizes, and the latest in gaming will highlight the August Main Meeting.

JULY MEETING

45 gamers jam-packed into the tutorial room on the day before the holiday. They were treated to demonstrations of much of the new software that was reviewed last month and saw some of the software that will be reviewed next month.

Plans were made for our sponsoring the main meeting next month. A rundown was made of what's coming in the next few months, always a good time for games, and software in general, as the companies gear up for the holiday season. Next month's GAMESIG meeting will be on August 7, at the Office, beginning at 7:30 p.m.

GATO and ORBITER Upgrades for the Macintosh Plus

Spectrum Holobyte asks our indulgence. Through no fault of their own, but problems with Apple's new 128K ROMs and Systems, both of these popular programs will bomb with an "ID-25" error when multiple objects are displayed on the screen. This makes GATO virtually unplayable and ORBITER partially unplayable in its MMU mode. (The programs will run fine under the old Roms.)

A GATO patch has been received from Apple and the company was testing the program and preparing to release version 1.4, which will not be copy-protected. The ORBITER problem may be fixable through dealers or just by talking with the company since the program was released without copy-protection.

The upgrade policy will be \$5 for shipping and handling of a new disk, if necessary. All registered owners that want to upgrade should notify the company about their interest before returning their disks.

Since this is written as the System 3.2 updates were released in late June, hopefully the upgrades are now available.

BOYCOTT THE TIMES??

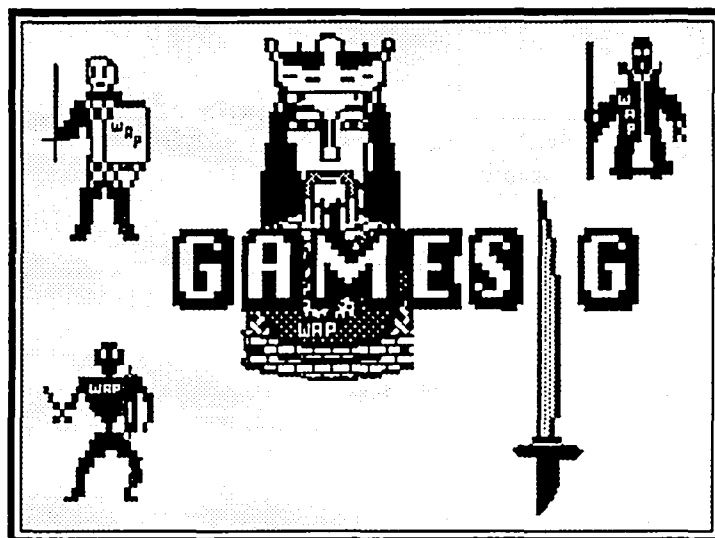
All gamers probably have bought an Infocom game and enjoyed the regular issues of THE NEW ZORK TIMES. Apparently, THE NEW YORK TIMES took legal offense to a perceived similarity between a york and a zork. As a result, the latest issue of Infocom's newsletter is called simply DELETED and solicits suggestions for a new name.

NEW SOFTWARE RECEIVED

UNIVERSE II (Omnitrend for Apple // series with 128K 80-column card, two disk drives, mouse optional and for Macintosh 512K)--Mammoth 5-disk (Apple //) or 3-disk (Mac) space exploration strategy program. Be a trader, pirate, and/or miner, solve a text adventure, make a fortune, and save the universe.

ORBITER (Spectrum Holobyte for 512K Macintosh)--Intricately detailed space shuttle simulation with speech. Many different missions to perform, including rescuing damaged satellites, deploying telescopes, and spacewalks.

TELLSTAR, Level II (Spectrum Holobyte for 512K Macintosh and Apple // series with 64K)--Your own personal



planetarium. Locate and identify constellations, stars, planets, the sun from anywhere on earth. Special utility section for amateur astronomers and educational institutions.

FIGHT NIGHT (Accolade for Apple // series)--Multi-featured boxing simulation which is joystick and keyboard controlled. Play against the computer or another person and construct your own boxers, train, spar, and conduct tournaments.

LAW OF THE WEST (Accolade for Apple // series)--Joystick-controlled game combining hand-eye coordination with strategic conversational interaction set in the Old West. Try to survive until sundown and you will be evaluated on everything from how well you maintained your authority to your romantic prowess to your survival rate to the number of baddies you shot.

COMICWORKS (Macintosh 512K, single drive, 2 drives and printer recommended. Macromind and Mike Saenz, for Mindscape)--A customized version of desktop publishing for making and printing cartoon characters and text suitable for inclusion in comic strips, posters, greeting cards, etc. Art Grabber+ and PosterMaker, and several new fonts.

SWORD OF KADASH (Macintosh, Polarware/Penguin)--Fantasy action adventure converted from the Apple II. Realtime animation as you try to cope with the traps and puzzles in a very large maze. Essentially mouse-run. ☺

CONFLICT IN VIETNAM: A Review by Ben Mangus

CONFLICT IN VIETNAM (MicroProse for Apple // series with 64K. Flip side takes advantage of 128K) covers 5 scenarios: Dien Bien Phu-1954, Ia Drang Valley-1965, Khe Sanh-1968, Cambodia-1970, and Quang Tri-1972. In each scenario, you have the option of player vs. player, computer vs. computer, or computer vs. player. (Player can be Communist or American). Also, besides the historical scenarios, there are several "what if" situations one can choose for each variant.

The game is set on a scale of 1 mile per hex on a scrolling map with battalion size units as your smallest force. Movement is done through the keyboard or joystick. Factors contd.

that affect battles and/or movement are terrain, weather, supply, airpower and artillery. This game is played in accelerated realtime movement. To stop play momentarily, one can press a key to freeze the map. This is very important when you want to issue orders to your units. The orders one can give are attack, defend, move, or go into reserve to build strength. Each unit is rated according to experience (green to elite), effectiveness (how fresh or tired the troops are), formation, supply, weapon types and number of men.

In playing the game, each unit will be operated by the computer (local command) until you issue orders and set objectives for each unit; therefore, it is important to keep track of which units are under local command or your

OO-TOPOS: A Review

by Barry and Ben Bedrick

Polarware/Penguin (formerly Penguin) has added graphics to the classic Apple // series text adventure, OO-TOPOS. While we have not completed the game, we have played enough to be hooked and to recommend it highly. Polarware tells us, and THE BOOK OF ADVENTURE GAMES confirms, that this version differs somewhat, both in map and puzzles, from the earlier text version. Therefore, we suspect that those who previously played the game might very well enjoy a "replay," particularly given what we say about the impressive graphics that have been added. (This was confirmed during the July GAMESIG meeting where the program was demoed. Several who had played the game expressed a renewed interest after seeing this program's enhanced presentation.)

You are the pilot of a spaceship on a rescue mission. The game begins after you have been captured by pirates and imprisoned on the planet named, not surprisingly, OO-TOPOS. You must escape, elude recapture, recover and reinstall the ship's contents, and complete your mission. Documentation, which consists of a mission explanation and a log and operating manual from your spaceship, is helpful and amusing.

Exploring the alien complex is enjoyable. Descriptions are clear and sometimes witty. Puzzles seem fair, logical, and challenging, but not to the point of teeth-gnashing frustration. Polarware's new "Comprehend" parser works well. We have had little difficulty framing commands or finding the right synonym.

The graphics (either double hi-res or normal mode can be selected) are excellent, colorful, clear, and imaginative. Several key points in the game have been presented by the graphics in such a way as to give the impression of special effects. The double hi-res graphics do take time to fill. Therefore, while in familiar territory, we switched to the all-text or normal graphics mode, in which response is very fast, with relatively little disk access.

Finally, while we would recommend this game at the standard adventure game price. Polarware's new pricing policy (see last month's Journal article on the CES show) halves the cost, making it an excellent value indeed. ☺

command. Units under local command may retreat or attack when you least want them to. For the longer games, a save feature is offered. Victory is defined by objectives given in the rulebook for each scenario. Objectives can be based on number of men and materiel destroyed, and/or terrain objectives.

The rulebook is divided into 5 parts and is somewhat impressive at first glance because it is 110 pages long, but the rules cover only a small part, while the rest is made up of very helpful information concerning the history of the war, strategy and tactics used by both sides, hints on play and briefings on each battle and designer notes.

I can easily recommend this game to anyone who has an interest in the Vietnam war or wargames in general. ☺

ORBITER: A Review

by Rick Stickle

I looked out the front window and the Moon hung bright in the black sky, turning around I could gaze across the bay and see the Earth turning slowly below me... Science Fiction? No, ORBITER Space Shuttle Simulation by Spectrum Holo-Byte. Orbiter is the second shuttle simulation for the Mac and by far the best. With a choice of 16 basic missions, Orbiter simulates everything from launch to landing. Fortunately, for most of us, the on-board computer handles most of the hard things, but for the brave few there is the option of doing the whole mission manually (even NASA won't try that!)

Orbiter requires a 512K Mac and comes on two unprotected disks. All of the graphics except for the landing sequence are in full 3-D and extremely well done. All of the required tools for a space mission are there, the remote arm, and the Manned Maneuvering Unit for those outside jobs. The simulation itself is extremely accurate. As a beta tester and a Payload Safety Officer for NASA, I kept checking the procedure manuals at work for errors in the program and only found about 3. (For example, we give the astronauts more than 1 minute to get away from a PAM ignition.)

The documentation that comes with Orbiter is complete and essential, e.g. some reading will be required! The documentation also contains the complete list of computer commands and an excellent glossary of NASA terms and acronyms.

One flaw in the program is lack of information at times. During beta testing I had a mission aborted on the launch pad. I sat and waited for further instructions, but none came.

I do feel the necessity to include a small warning. Most of the simulation is in "real time." If it takes the shuttle 10 minutes to reach orbit, it takes 10 minutes of sitting at your Mac. There is a time compression option and another option to just do partial missions such as launch, orbit, or landing. I do recommend Orbiter as one of the best simulations I have seen, being both fun and educational for anyone interested in space. Since this is the closest that most of us will ever get to an actual space flight, I hope you all will try a space flight—you'll love the challenge.

Well, I've got to go now. I'm trying to decide whether to retrieve the satellite they sent me up for, or maybe just swing by the space station and grab a cup of coffee with the boys...☺

THE CHESSMASTER 2000: A Review by Paul Moore

THE CHESSMASTER 2000, from Software Country (distributed by Electronic Arts), is the latest chess program available for the Apple // series (64K). The one-disk package contains the program, a brief typewritten instruction leaflet and a glossy 20-page booklet about the rules and history of chess and the 100 demonstration games on the flip side of the disk.

The program's features include: color and 3-D graphics displays of the chessboard; pleasant chimes and chirps (which can be disabled) to accompany the moves; 19 levels of playing strength, ranging from 5 seconds a move to an infinite analysis mode; options to change sides or take back any number of moves; a "coffeehouse" option where the program will play weaker but more colorful moves; a problem-solving feature; a claimed library of 71,000 chess opening moves, which can be disabled by selecting the "easy" option, and menu-driven selection of the program's many options.

I found this program rather easy to work. There is little need to consult the instruction leaflet once the game is underway. I judged the program to be much stronger than SARGON III and a slightly better player than COLOSSUS CHESS IV, especially in the endgame play, which has often been a failing of earlier programs. (Ed. Note: Paul's impressive credentials for reviewing computer chess programs are stated in last month's review.) It plays a very safe and solid style, waiting for its opponent to make a mistake. This conservative approach reminded me very much of COLOSSUS' style, and was quite different from that of SARGON, which can at any moment go into a pawn-grabbing "coffeehouse" mode. I had to work hard to win against this program, harder than against COLOSSUS and much harder than against SARGON.

There are some things I like about the program, and others

I don't, especially when compared to the competition. First, I still think SARGON's display is the best available. CHESSMASTER's two-dimensional color display is OK, but the pieces look slightly squat. Its black-and-white display is undistinguished. The program's 3-D board in both color and monochrome modes is very poor. The board is presented floating against a stark black background, like outer space. Your vantage point is slightly above and behind one corner of the board, which I found to be rather disconcerting. It is difficult to see over the pieces to the pawns, and using the program's option to rotate the board 90 degrees doesn't help much. Second, although CHESSMASTER claims to have a huge library of opening moves, I didn't see it follow any given system very far down the line in the variations I played against it. I definitely favor SARGON's opening power to that of the other programs. Third, I judged CHESSMASTER's feature for setting up the chessboard to analyze a position or solve a chess problem to be superior, though COLOSSUS has many more features concerning the various types of chess problems. Fourth, I thought that the program should have displayed more than one move ahead what line it was thinking about, and it also should have a display to tell you whether it thinks it has an advantage, a worthwhile feature of the other programs.

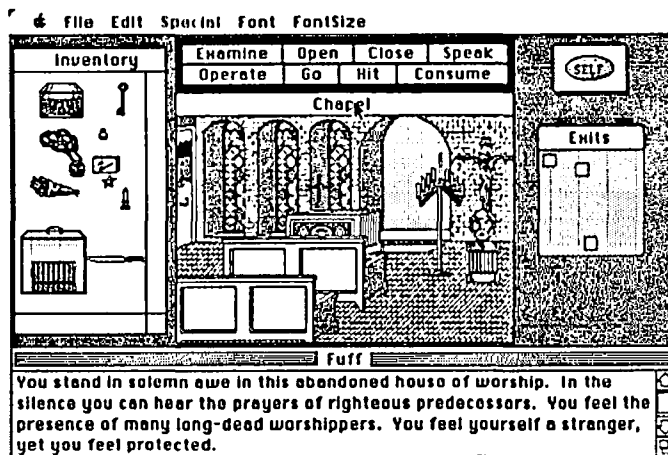
The bottom line is that CHESSMASTER is a clear advance in playing strength over SARGON and is slightly stronger than COLOSSUS. If you are in the market for a new computer chess opponent, I would say get COLOSSUS if you are interested in added features, such as a chess clock for 5-minute games or a tool for solving chess problems in books and newspapers. Get CHESSMASTER if your main concern is having the strongest available computer competition. ☺

UNINVITED: A Review by Ronald Wartow

I highly recommend UNINVITED (Icom Simulations for Mindscape, 512K Macintosh, 2 disks), a puzzle-oriented adventure game with a humorous, gripping story in a "gothic horror" setting, detailed graphics, realistic digitized sounds, and spirited animation. Continuing the innovative "no muss—no fuss" mouse-only gaming concept introduced in DEJA VU (see January 1986 Journal), UNINVITED makes ultimate use of the Mac interface.

Essentially, you have a practically perfect adventure game environment, as you try to rescue your little brother from the haunted house to end all haunted houses. The screen contains a rectangular box comprised of the 8 clickable allowable commands, and location graphic, inventory, exits, text, and self screens. This permits object manipulation and mouse-clicking to your heart's content.

(2) Smash a window with an axe or your hand, and you can see, definitely hear, and practically feel the shards fly. I



almost had a heart attack one night at 1:00 a.m. exploring a maze when thunder exploded out of the Mac's speaker. Bats contd.

fly by, maniacal dogs bark in the distance, doors creak, and strange creatures appear and dissolve with sound effects reminiscent of the old horror films.

(3) Go through a door with a simple double-click and an intricate graphic of the eerie surroundings or possibly an animated "thing" appears.

Add to the above, well-crafted text, a combination of Woody Allen and Edgar Allan Poe, guaranteed to have you howling with laughter or "cringing" in fear. The many puzzles are fair, but the game is definitely more difficult and larger than the novice-intermediate DEJA VU. To help, multiple saves are permitted and limited only by disk space, and explicit clue sheets are available from Mindscape. You

WIZARD'S CROWN:

A Review by Philip Greco

WIZARD'S CROWN is a fantasy role-playing (FRP) game from Strategic Simulations, Inc. (SSI) for Apple // series with 48K. After gaining a reputation in strategy and wargames, SSI has now released several FRP games, including QUESTRON, PHANTASIE and a sequel [Review next month], and RINGS OF ZILFIN. I give this game high marks.

The game has the usual elements of an FRP game: the magical crown stolen by an evil wizard; a countryside infested by evil monsters; the need for a band of intrepid warriors to battle the monsters, puzzle over clues to defeat the wizard and rescue the crown and country. The game follows a recent trend to allow more characters on your side, here 8 different alter egos whom you control and develop. Absent from the game, however, is the need for extensive mapping, as in an ULTIMA, or WIZARDRY. The few "dungeons" in WIZARD'S CROWN are houses, with each level seen from a bird's eye perspective, remembered for you by the computer.

The most unique feature of the game is "tactical combat." When you encounter monsters, you may have the computer handle the battle quickly or do it yourself. If you choose the latter, the 8 characters and opponents are placed on a battlefield. Each character can move depending on the status of the battle and the character, and choose from many options, including attacking or defensive possibilities, casting spells, healing wounded allies, or running for dear life. SSI's experience with wargames shows here, although the complexity is less than a battle in most wargames.

The computer takes 5-10 seconds if you pick the quick combat option. Doing it yourself takes from 10 minutes to over an hour for the most difficult monsters. This represents a considerable time investment. The game will take dozens of hours without this. I generally chose the long option the first few times I encountered a particular monster group, and picked a quick fight when I was in a hurry or when I had pretty thoroughly mastered defeating that group.

I recommend the lengthy combat. By seeing your characters function with particular weapons and skills, you get a better idea of what overall strategy to use in developing them. You can also, once you develop skill in combat, defeat certain groups that will always clobber you if you let the

can even cast magic spells. (OK, so you have to type a few words once in a while!)

The play is lightning fast, as the locations are loaded into memory. The game supports two drives, but was reviewed on a single-drive MacPlus. Mindscape's technical support was very helpful in advising how to eliminate most of the disk-swapping.

One minor nitpick. You "die" a lot in this game. I'm tired of "dying" when I do something wrong in an adventure game. Of course, I didn't have to enter the house, and the documentation did warn that "my other guests haven't eaten in a long while." AND, after all, I was *UNINVITED*. (Fade to scary organ music.)

computer decide tactics. If you do the fighting, you have more options, particularly with priests who can protect and heal only if you picked the extended option. Most importantly, the tactical combat is fun. It is particularly gratifying after a difficult combat to see the last opponent lie prostrate and see the caption "The defender lies unmoving." It gives a real sense of participation in the action.

Like many FRP games, it is possible to miss or misinterpret a crucial clue, go off on a wild goose chase, or become stuck. I spent hours trying to find the 3rd part of an item (not essential as it turned out but one that helped in battles), only to learn that the clue was misleading. While not as unfair as the absurd answer to the riddle in THE KNIGHT OF DIAMONDS, it was annoying. Fortunately, the docs invite you to call or write for help. A couple of calls to California was an expensive way to get through the game, but saved more hours in wasted effort.

The game has a couple of drawbacks. The rooms in the "dungeons" have a set group of monsters. Once a room is opened and a battle engaged, the monsters disappear from the room whether or not you win, so if you are losing you can turn off the computer, reboot, and return to an empty room. In fact, I never did defeat the evil wizard, but simply returned for the crown after he wiped me out. It saves time, but is far less satisfying. You can always restore that floor of the dungeon and try again; if I have time, I'll do just that.

Overall, I would give the game a 9 out of 10 rating, with particularly high marks for their combat option.



OGRE: A Review

by Ronald Wartow

OGRE (Origin Systems for Apple // series with 64K, mouse and/or joystick optional; expected conversion to Macintosh) is a strategy game with a decided wargame flavor. While I do not play wargames due to the relatively slow pace, complexity of command and information displays, and subject matter, OGRE is a wargame for people who ordinarily do not like wargames.

I thoroughly enjoyed and recommend OGRE, a fast-paced, short, and simple to learn (but not so simple to win) game with infinite play variations in a fantasy setting. While Origin's previous products (ULTIMAs III and IV, MOEBIUS, and AUTODUEL) play from 30 to 200 hours depending on player proficiency, an OGRE game typically takes about an hour.

OGRE, a conversion of a popular Steve Jackson board game, takes place in the crater and rubble strewn battlefields of the future, where conventional nuclear-armed tanks, speed vehicles, howitzers and infantry try to prevent the destruction of a command post by a single Ogre, a cybernetic computer-controlled tank with uncanny intelligence. The game, which can be played by 1 or 2 players, has 5 preset hex-gridded 2-screen playfields, and 5 more can be constructed by you. The boot cycle defaults to an editor, where, using pulldown menus and windows, you place your defense. The program monitors your setup to assure that standard OGRE game rules are followed.

The amount and placement of your forces depends on whether you decide to tackle a "puny" Mark III Ogre (12 armor units, 20 infantry squads) or a "monster" Mark V Ogre (20 armor units, 30 infantry squads). If you're thinking, how could a single Ogre fare against your numbers, rest assured that the Ogre is well-armed and smart. (The docs contain great detail on the artificial intelligence programming of the Ogre for movement and attack.) The battle proceeds after the Ogre enters from the southern portion of the map. Alternate turns, between the Ogre moving and firing then your forces doing likewise, produce no "wargame waiting." If the sound is off, the longest lapse of action was not more than 7 seconds.

Very effective sound effects accompany the continual shelling, ramming, overrunning, and crushing by the combatants (usually by the Ogre). While the menus display wargame factors like range, kill percentage, attack/defense strengths, etc., this does not detract from the simplicity of the play, because all of it is succinctly displayed. For example, if you want to get your (probably fleeing) tank's range to the Ogre (or vice versa), just click on the tank, then the range box and the hexes where the you can move and fire are highlighted in green and blue. When a tank of yours is close enough to fire on the Ogre, and not disabled (rarely), a dialog box gives the choice of Ogre weapons or treads to fire at and a menu box displays the percentage of the target being destroyed. This percentage can be raised by simply combining attacks on the target. After awhile, I was able to master the capabilities of my forces and the Ogre almost by intuition. All of this is very simply implemented with a joystick or mouse (Keyboard

control is even faster.)

At any time, you can edit the playfield to put impassable craters in the Ogre's way or add 10,000,000 howitzers in your defense. The program will remind you that this violates standard OGRE game rules, but "what the hey." This editor also serves as a powerful construction set to set up innumerable different scenarios. The color graphics are pleasing to the eye, and the destruction of the Command Post (usually) or the Ogre brings up a spectacular animated graphic. The thorough documentation contains understandable discussions of strategies and wonderful background material. Games and fields can be loaded and saved at any time.

Finally, after watching the Ogre wipe me out a few times, I went to the "Preferences" menu containing sound effects/message speed-type choices. My smile on seeing a box to change the Ogre's intelligence turned to a frown when I noticed the default was LOW. ☹

HARDBALL!: A Review

by David Blazina and Ronald Wartow

HARDBALL! (Accolade for Apple // series, joystick and keyboard control) is a baseball simulation. David, who admittedly does not enjoy baseball, "pinch hit" for the originally assigned reviewer. I thought members would also like to know what a baseball fan thinks of the program.

The simulation piqued David's interest in baseball, and, to him, the simulation was "very entertaining." He found the graphics "absolutely stunning" He liked the large screen displays from over the back of the pitcher and the left and right field screen displays, and how the player movements were realistically depicted. For example, the pitcher toes the rubber before delivery, the batter arches his front leg as the pitch comes, and the catcher spots the pitch. He felt that the documentation did not adequately explain some of the baseball terms, and he found that he was outclassed by the computer in that "I kept on being beaten by such absurd scores as 25-3!" Despite this, he rated the game an 8 out of 10.

Take heart, David. This former Little League batting champion who always wore Babe Ruth's number and, chewed tobacco once when he was 11 because he revered Nellie Fox (I was sick for a week), was destroyed by the program on his first outing. You are right, the game is clearly not geared for someone new to baseball, and the packaging makes this clear. However, baseball aficionados will have a field day.

On the surface, HARDBALL! does not appear similar to the "serious" baseball simulations that pit actual famous past or current teams against each other. However, I found the play with the 2 supplied mythical 25-person rosters to be uncannily realistic at times. For example, guess what happened to my 3-1 count offspeed pitch down the groove to the other team's cleanup hitter? Should I have been surprised that my flamethrowing starter walked 3 straight persons in the 7th

contd. on pg 16

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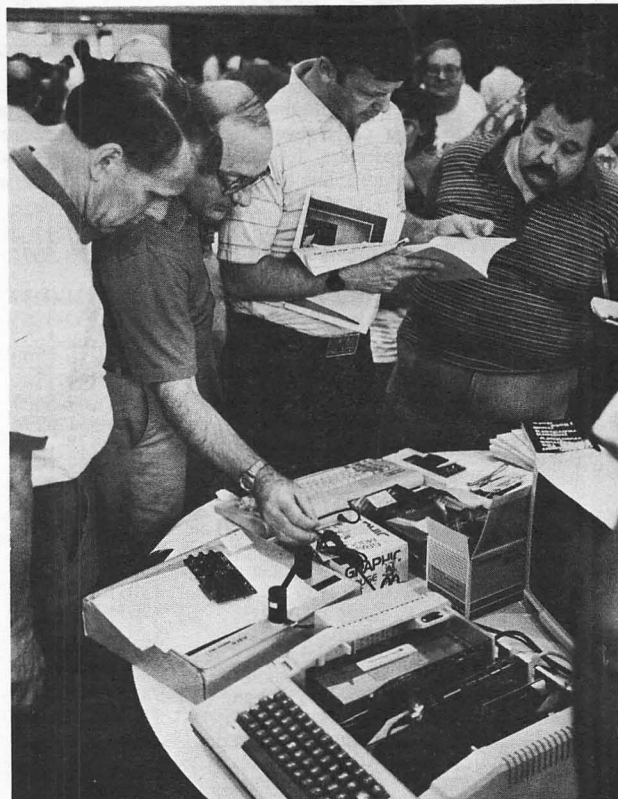
* Calls until midnight are ok.

inning or that one of my righties, swinging late on an offspeed curve into his gut, merely dribbled the ball down the first base foul line.

HARDBALL's strategic options are many and varied from the 12 possible game option combinations (To DH or not to DH?) to infield and outfield shifts, to players substitutions, to a pitcher's selection of any of 4 kinds of pitches to one of 9 locations, to a batter's options to swing in one of 4 directions, to stealing or taking an extra base, to lifting your tiring pitcher. The players supplied with the game have their vital statistics available at all times, and over time it is possible to discern strengths and weaknesses in all of them.

The graphics are truly impressive, as fielders lunge for balls just out of reach and a peg home is slow or fast depending on how deep the outfielder is when the ball is thrown. For this review, I used the joystick and the one-player mode. The joystick was generally responsive to the many variables locations involved in some of the basic game movements. I had the most difficulty in becoming proficient at hitting. As in real baseball, you simply have to size up the pitch and take a few occasionally. Once I got the hang of it, I was competitive with the computer, helped occasionally by a little stacking of the lineup.

In sum, HARDBALL! was a pleasure to play and presents a real challenge. I'm sure if David had ever chewed tobacco when he was 11, he would agree. ☺



Looks like some good stuff!

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LAP COMPUTERS AS APPLE ACCESSORIES

Part 9: Prompted Uploads to WAP's Telecommunication Systems

by George Kinal

INTRODUCTION: The Problem

One of the nicest features that the laptop computers have is the permanently integrated text processing and telecommunication functions. A feature of the UBBS program (used on WAP's Telecommunications System) that does not exist in many other BBS programs is automatic word wrap on text input. You don't need to enter messages line-by-line. Just type continuously, as with most word processors.

The problem is, these features are incompatible! In principle, it would often be useful to be able to compose messages off-line using the Laptop's TEXT program, then call the BBS (oops, I mean Telecomm. System) and transmit (upload) the messages. This doesn't work, as many of us have discovered. In order to "wrap" a word that you are in the middle of entering, UBBS must first eradicate the beginning of that word on your screen by sending "destructive backspaces." Each such destructive backspace in computer telecommunication really consists of three characters: a backspace, a space, then another backspace! The UBBS program must then issue a line feed and carriage return, and re-print (transmit) the eradicated characters on the next screen line. So wrapping say four characters involves the transmission of 18 characters (plus perhaps two or more nulls). All of this takes time, especially at 300 baud. Thus, if you try to send text using Telcom's UpLoad function, the text will be seriously garbled with many lost characters.

You'd think that the solution is obvious: don't let UBBS ever word wrap. Instead, let Telcom do the word wrapping, by specifying a line length shorter than the one contained in your UBBS user profile. For example, if your profile is for 80 characters, upload using 78 or fewer. This helps, but not enough: about 3 characters are still lost at the beginning of each new line. Why? Because after UBBS receives your carriage return, it is many milliseconds before it can accept the next line (this is caused by some character array processing in Applesoft). If Laptop TELCOM contained provision for delaying after each line (so-called nulls), or could wait for a prompt before sending the next line, all would be well. But it doesn't, and it isn't...

Thus, there's a real need for a way of uploading to the WAP Telecomm Systems messages which have been previously composed on a laptop. Remember what I said in a previous installment about how the laptops are easier to program for communications than Apples, because laptop MicroSoft BASIC has built-in commands for I/O via the COM and MoDeM ports? The program I have written takes advantage of these commands. In addition to the character-prompted upload capability, this program dials and logs on to the WAP systems (using the same basic "macro" techniques as described in the Part 3 article in the January 1986 WAP Journal.

II. THE PROGRAM

I will intersperse the description of the program with comments on its development and use. That will, perhaps,

encourage the more ambitious readers to modify or improve the program. Unfortunately, it is not possible to simply add functions to TELCOM, since it is ROM-based. And you can't exit TELCOM to run another routine without hanging up the modem. [NOTE: with appropriate interface cable wiring, it IS possible to run different programs with an external modem connected to the COM RS-232 port. So NEC owners could use TELCOM for the terminal communications part of their session, and switch to this program only for the prompted uploads.] This means that the program must support not only the uploading activity, but the normal interactive keyboard "dumb terminal" functions as well.

Dial and Log On

The key program statements for this activity are lines 30 (the macro itself) and 110. Let's look at the macro, which is the string of characters between the < and the >. The question mark means wait to receive the character immediately following, and when that character is received, transmit all the characters following it in the macro up to the point where another ? is encountered or the macro ends. Thus, wait for (?) the "#", then send ^M (carriage return); wait for another #, send a "0"; wait for "X", send a "0", and so on.

The "CALL 21293,0,AD" is exactly equivalent to the "CALL" command in TELCOM. Variable AD is calculated in lines 40 and 50 to correspond to the macro string LGS. The program comes up immediately with a prompt asking for which WAP system to call (with the current arrangement of three systems on rotary, you really only will need to choose "1" or "4"). Change the telephone numbers in lines 21-23 if you need an office "9" prefix, or with an area code if you require. If the macro string doesn't work, you can progressively take out everything in the string from the right hand side, except the "<>" must remain. If the macro just contains <>, you will go into terminal mode upon connection, and can do the logon manually.

Notice how the two function keys F4 and F8 are re-defined in statements 200 and 210. By the way, I think everyone should redefine their F7 key to "Edit <cr>". That lets you use the tremendously powerful TEXT editor for editing BASIC programs! Here's how. In BASIC, type the following: KEY 7,"Edit"+CHR\$(13) <ENTER>. The word "Edit" should replace the blank spot for the F7 label. Now when you are working on a BASIC program, just press F7 and the machine will go from BASIC direct entry mode to TEXT mode, with the program in ASCII text mode. Now you can edit with cursor moves, the Cut and Paste tools, and so on, like any document. When through editing, you press F8 and the text will be re-tokenized back into BASIC, ready to run, save, list, etc. Try it, you'll like it! It beats the heck out of the Apple ESCape CTRL I,J,K,M diamond technique!

NEC owners will have to modify the program in three ways. First, NEC TELCOM of course does not contain the TELCOM CALL function (not to be confused with the contd.

BASIC CALL), so delete the lines having to do with macros, etc. and with the auto-dial, auto-logon, including lines 100 and 150. Second, all references to the MDM port should be replaced by COM. (And, change the STAT strings which follow from 7I1D to 3I71NN, and the 7I1E to 3I71XN). Third, the NEC uses different function key assignments. I suggest F4 for upload, F3 for directory (Files), and F10 for Disconnect. Lines 91, 100, and 210 are affected by these changes.

The Uploading Function

As mentioned, prior to message uploading, the program will function in a dumb terminal mode. Its major deficiency right now is that no cursor is displayed. While some users might find it disconcerting, a cursor isn't usually critical since the UBBS program does echo all inputs. Three function keys are used: F1 gives you a file directory, in case you have forgotten the name of the file to upload. F8 disconnects from the telephone line and puts the laptop back in main menu mode. F4 is the key for actually uploading. Two important bits of advice. First, line numbering in the UBBS MUST BE OFF! If line numbers are left on, this laptop program will be thrown off track by the extra characters that UBBS sends before each line. Second, the uploading is only for the body of the message. Enter the name of the person to whom the message is going, and the subject, manually from the keyboard, wait for UBBS to send its little "enter RETURN on a blank line" reminder, then press F4. If you give the laptop a non-existent file name, it will come back with a directory. If you enter just a return (ENTER, actually), it will take you back to terminal mode and you may continue in the UBBS editor manually.

It's fairly easy to see how the program works. One character is read (line 660) and sent out (665). Preferably, the echo of that same character is received (line 678), in which case the next character is transmitted, etc. Any line feeds and carriage returns received from UBBS are essentially skipped as irrelevant (line 680). Backspaces get special treatment though (line 682 and subroutine 700). Basically, the number of backspaces is counted (line 740), and then, after a carriage return has been received (UBBS is word wrapping), the program "skips" (ignores the reception of) BS/2 characters (BS=the number of backspaces). For the example cited earlier, with four characters wrapped, UBBS sends eight backspaces. Thus, the program skips the four characters after the carriage return, because these are the wrapped characters. Now it is finally ready to send a new character and be certain that the next character received from UBBS should be an echo of that new character.

Certain text preparation restrictions apply, due to UBBS format conventions. First, two returns in a row terminate text acceptance on UBBS. Remember never to enter two returns/ ENTERs in a row during text preparation on your laptop. Also, you should beware of character sequences which start with a period. I had a problem when I described text files as ".DO " files in one of my messages. This difficulty arises because UBBS accepts dot commands. Suppose you typed the following exact text string:" at the next Telecomm SIG meeting . Sure you will".... And suppose the word wrap just happened to place ".Sure" at the start of a new line. Then UBBS would interpret the ".S" as a command to save the

message at that point. Crash! Normal text, typed normally, should not give any problem. Oh, and remember: We're going to all this trouble so we can have automatic word wrapping. Except for things you need to have formatted in a special way, do not enter your text on a line oriented basis. Just type continuously in the laptop TEXT editor.

Oh, yet another caution. If something should go wrong during the upload process, the program should recover on the next line of text. Please do not hang up and disconnect just because something isn't quite right. The UBBS software is capable of handling sudden disconnections during most of its operations, but gets very unhappy if someone hangs up in the middle of a message entry session.

III. CONCLUSION

Yes, I know it is slow. The program is in BASIC, and transmission isn't much faster than a good typist. But the big advantage of upload transmission over on-line is that the text can be edited beforehand without taking up on-line time. And the message copy is retained in laptop memory.

Your comments are always welcome.

IV. PROGRAM LISTING

```

1 REM A PROGRAM FOR LAP COMPUTERS TO
  AUTODIAL AND LOGON TO WASH. APPLE
2 REM PI TELECOMM SYSTEMS (UBBS BASED)
  and TO UPLOAD TEXT FILES
3 REM WITH PROPER CARE TAKEN TO ALLOW
  UBBS TO WORD WRAP
4 :
5 REM F4 FOR UPLOAD F1 TO GET DIRECTORY
  F8 TO DISCONNECT
6 :
10 MAXFILES=4
20 P1$="9868085"
21 P2$="9868086"
22 P3$="9864715"
23 P4$="9786098"
25 INPUT"SYSTEM 1, 2, 3, OR 4 ";CH
26 IF CH=4 THEN PHS=P4$
27 IF CH=1 THEN PHS=P1$
28 IF CH=2 THEN PHS=P2$
29 IF CH=3 THEN PHS=P3$
30 LGS=PH$ + "<?#^M?#0?X0?X6?X9?XP?
  XS?XW?XD?X^M>"
31 REM PREVIOUS LINE IS FOR PASSWORD
  `0069PSWD`
40 M = VARPTR(LGS)
50 AD = PEEK(M+1) + PEEK(M+2)*256
55 MDM STOP
79 GOTO 100
80 AS=INPUT$(1,1):PRINT AS;
85 RETURN
90 PRINT
91 INPUT "DISCONNECT ? Y/N ";CH$:IF ((CH$<>"Y")
  AND (CH$<>"y"))THEN RETURN ELSE MDM
STOP: CLOSE: KEY 8,"Menu"+CHR$(13): KEY
4,"Run"+CHR$(13):MENU
99 RETURN
100 CALL 21200:REM CONN - USE 21208
  FOR OLI M-10
150 CALL 21293,0,AD:REM DIAL - USE 21298
  FOR OLI M-10
200 KEY 4,"UpLd"+CHR$(13):KEY (1) ON
210 KEY 8,"DISC"+CHR$(13): KEY (8) ON: KEY (4) ON:
  ON KEY GOSUB 500,99,99,600, 99,99,99,90
220 OPEN "MDM:7I1D" FOR OUTPUT AS 2
230 OPEN "MDM:7I1E" FOR INPUT AS 1
320 MDM STOP:ON MDM GOSUB 80
325 MDM STOP:BS=INKEY$

```

contd. on pg 21

APPLE //c CVUE: PRAIRIE POWER LCD/BATTERY PACK

by Ray Sperber

A San Diego firm called Roger Coats, Inc. sells a combination consisting of a Liquid Crystal Display (LCD), lead-acid battery with charger and semi-rigid carrying case for the Apple //c, for \$499 and shipping. They give a 14-day "satisfaction guaranteed" trial period. They have had some nice looking ads in Nibble and have a 800 number (1-800-438-2883) to call. Wanting to turn a //c into a laptop portable suitable for weekly business travel, I purchased this battery set and have been using it for about two months on about ten trips of varying distance and transportation modes.

The CVUE LCD display presents 80 rows by 24 columns with considerably more contrast than Apple Inc.'s LCD unit. The contrast and screen type appear similar to that on the Kaypro 2000 and NEC Starlet displays. All the normal HGR (i.e., non-double-hires) pixels are available as they would be on a normal monochrome monitor. However, the screen surface is squashed down roughly a factor of .65 from the normal monitor's 4/3 horizontal/vertical aspect ratio. The CVUE unit weighs about 2 lbs. 4 oz. and comes with an adhesive-backed plastic clip which permanently attaches to the back of the host machine. The display has a flat ribbon cable which plugs into the //c and needs no other power. A contrast adjustment knob on the side which gives a range from illegibly clear to barely discernably dark is the only control.

Can one see the LCD screen? Yes. Is viewing it objectionable? Well, it depends. I have two other Apple // type computers with amber, green and composite color (TV "white") screens. To me, the flicker on green screens is more bothersome than the strain to see the lower contrast of the CVUE; I find that the CVUE gives tiring eyestrain after four hours instead of headaches after two hours with the green monitors. Ranking my preference: 1) amber; 2) CVUE; 3) composite color; and 4) green.

The display appears to have 200 true pixel rows and 320 true pixel columns. From looking at the collateral effects on the screen one can see that the top and bottom halves are multiplexed separately. When one first turns on the computer the display sometimes comes up with maybe a dozen of the peripheral pixels not used by the Apple screen. I have found that turning the //c off, then on, will always clear these; they seem to be related to long power off times (like several days) between use. It would be nice to know if these extra pixels can be addressed somehow by the Apple. The documentation says nothing in this regard and also nothing about how the display works. No, there is not a schematic!

The battery and charger weigh roughly 7 lbs. compared to 3.5 lbs. for the Apple power supply. The charger is a Radio Shack type transformer and rectifier unit similar to those for tape recorders and radios. As the Prairie Power people quite correctly explain, they are giving us extra cycle life by going to a larger than minimum sized (10 Amp-Hours 12V) Lead-Acid unit. At a voltage of 10.5 volts an audible alarm will sound. One charge is claimed to be good for 7 to 8 hours,

depending on disk use. This is consistent with my observations during home use.

In my opinion the battery is uncomfortably heavy unless absolutely needed. I've been leaving it at home for domestic travel but do plan to use it on foreign trips.

The carrying case is briefcase-sized and will carry the CVUE, battery pack, //c and several single 5.25" disks and some papers when used as advertised. In the as-advertised mode the CVUE is disconnected from the //c (easy) and popped out of its clip (tricky—and stressful on the clip) to be put into its own pocket in the case. There are also a separate soft pocket for the disks and two elastic straps for the computer, only one of which is in a position to hold it at any given time. The case has a tan Cordura canvas covering over roughly 3/32" plastic sides (for the flat sides) and a kind of 1/4" elastic foam around the narrow sides. The case halves are zipped together with a rugged-looking plastic zipper. The zipper can easily support a small lock, if you are into that sort of thing. (Lock is not supplied.) There is a shoulder strap (which I leave at home) for longer-distance lugging.

In the mode that I have been using the case, the CVUE is left attached to the //c but folded down flat forward. It seems to me to be a more rigid and even support like this, as well as immeasurably easier. Leaving the battery pack at home and taking the normal //c power supply instead gives enough room for two ten-count cardboard disk boxes (which miraculously seem to survive), a Wizardry game box over the keyboard and roughly a quarter inch (up to a half-inch will fit, so I'm not overpacking) of paperwork. This mode has worked for airline travel both as part of checked luggage and also as underseat carry-on. Both the case and a normal sized briefcase will not slide all the way under an airline seat, however. The bar in the middle allows the top item to be pushed in only about halfway. Still, stepping on it doesn't seem to matter much.

I ordered my package when the price was still \$549. Even with "2nd day air" it took a week to get here (after a Friday order). My first LCD screen worked but had some intermittent contrast rows that did not inspire user confidence. After phoning Roger I sent it back to be presumably sent another screen by fast air. (It was needed for a trip.) Due to an unexplained lack of communication in San Diego, a Coats' employee phoned a week later to ask why it was sent back—seems that nobody told him about it, and Roger was away. So the replacement didn't arrive for another week. The new unit worked fine. Would I buy from them again? Sure. Would I expect fast action? No more than from any other company. ☺

ProDOS RAM DISK FOR APPLE][WITH SATURN RAM BOARDS

by Mike Ungerman

If you have patronized any of the Washington Apple Pi's garage sales, or the local flea markets for computer products, you have probably run into a used Saturn 128K RAM card or its clones. As the owner of an Apple][+, I had not felt the need for greater than 64K of memory, but with the availability of patches for AppleWorks, I decided to obtain an 128K card to make use of the greater sized desktop of the modified AppleWorks.

The Saturn 128K card (or clone) usually comes with utilities on disk to make use of the additional memory. The utilities are DOS 3.3 based and include a RAM disk and memory expander for BASIC programming. However, since these cards are not actively marketed at present, disk utilities for ProDOS were hard to find. While reading "Nibble" magazine, I came across an advertisement for a ProDOS RAM disk utility marketed by Steven Humpage of Portland OR, priced at \$20.00 ppd. I quickly sent off a check, and about a week later the disk arrived.

Steve's disk contains the programs necessary to install his memory patch on an Apple][,][+ or //e. Yes, even if you have an expanded memory //e, you can't take advantage of a Saturn RAM card in another slot. The configuration program was quick and painless, and allowed me to configure for the slot within which the Saturn card was located (0-7). The program allows for other 16K cards in slot 0 and will take advantage of the additional memory. The ProDOS volume name may be specified. I used "/RAM" to give my][+ the same capability as //e's have with a RAM disk of the same name. //e owners should also use "/RAM" to expand the memory of the existing RAM disk. One interesting feature of the configuration which Steve has authored is the option for a speaker click everytime a program or you access the RAM disk. I have enabled this option and find it valuable in knowing when disk access is operating.

When the configuration is complete, two disk files are generated: one will have the same name as the ProDOS volume you created (RAM in my case) and the other will be named "RE" + the volume name (RERAM in my case.) These files may be transferred to any ProDOS volume and when BRUN or "-ed, will install the RAM disk initially or reinstall it if the system has been interrupted by a re-boot and you wish to recover the information stored on the 128K card (a nice feature after a forced cold startup.)

As if this utility alone wasn't worth \$20 by itself, Steve has included several other utilities on disk to really enhance the operation of your RAM card, as well as other ProDOS functions. He has included a utility to create a COPY command when operating under BASIC.SYSTEM, which allows copying files to and from the RAM disk. He also has a program which makes use of the COPY command to do bulk copying for you; you don't have to leave the environment of BASIC to do file copying as you would if you ran FILER or another copy program. He has also included a

program to create EXEC files so that you can put your RAM disk startup program on a ProDOS disk, BRUN it and then copy any resident files you wish to the RAM disk, all automatically! Additionally, there is a program to create a TYPE command, so you can read back your EXEC files to make sure there are no errors.

I have used the RAM disk utility extensively with ASCII Express in telecommunications. An EXEC file on my AE disk installs the RAM disk on boot and then BRUN's ASCII Express. When capturing data, I specify the RAM disk as the storage device for auto saves, decreasing the connect time spent with commercial services while saving buffers to disk. I can subsequently use the COPY command to copy the buffers to floppy. When uploading or downloading files, I specify my RAM disk as the source or storage volume and the file transfer process is greatly enhanced, cutting the time of transfer by a factor of 3.

The RAM disk utility is presently only available from the author, Steven Humpage, 2427 NE 24th AVE., Portland OR 97212. (3)

Laptop contd. from pg 19

```
326 IF B$="" GOTO 330
327 PRINT #2,B$;
330 MDM ON
340 GOTO 325
500 REM READ FILE DIRECTORY
510 FILES
599 RETURN
600 REM MAIN UPLOAD SECTION
610 MDM OFF
615 PRINT
616 A$=""
619 FNS$="":ON ERROR GOTO 625
620 INPUT"FILENAME TO UPLOAD ";FNS
621 IF FNS$="" THEN RETURN
622 FNS=FNS+ ".DO"
624 GOTO 630
625 IF (((ERR=52) OR (ERR=55)) AND ERL =630) THEN
PRINT:PRINT"BAD FILE NAME": PRINT:FILES:
RESUME 615
630 OPEN FNS FOR INPUT AS 4
650 IF EOF(4) THEN GOTO 698
660 C$=INPUT$(1,4)
665 PRINT #2,C$;
675 GOSUB 80
678 IF A$=C$ THEN GOTO 650
680 IF A$=CHR$(10) OR A$=CHR$(13) THEN GOSUB
80:GOTO 650
682 IF A$=CHR$(8) THEN BS=0:GOSUB 700:GOTO 675
685 GOTO 650
698 CLOSE #4
699 RETURN
700 REM BACKSPACE PROCESS
710 IF A$=CHR$(8) THEN BS=BS+1
720 GOSUB 80
730 IF A$<CHR$(13) THEN GOTO 710
740 FOR I=1 TO (BS/2):GOSUB 80:NEXT
750 RETURN
```

AN EASY WAY TO CONTROL ELECTRICAL APPLIANCES WITH YOUR APPLE][

by George Kinal

I have recently found a source of some very inexpensive solid state relays which can be activated directly from the Apple][game port. These make it easy to use your Apple for a variety of control functions.

Probably a lot of owners of][-family Apples think the game port is only for inputs, such as joysticks, mice, etc. Very rarely are the output functions of the game port used. The port has four so-called annunciators. These are electrical connections which can be switched between "low" (about zero volts) to "high" (about five volts) under control of the computer. Each reference to the annunciator's memory location (a PEEK will do) changes that annunciator's conditions (high to low or low to high).

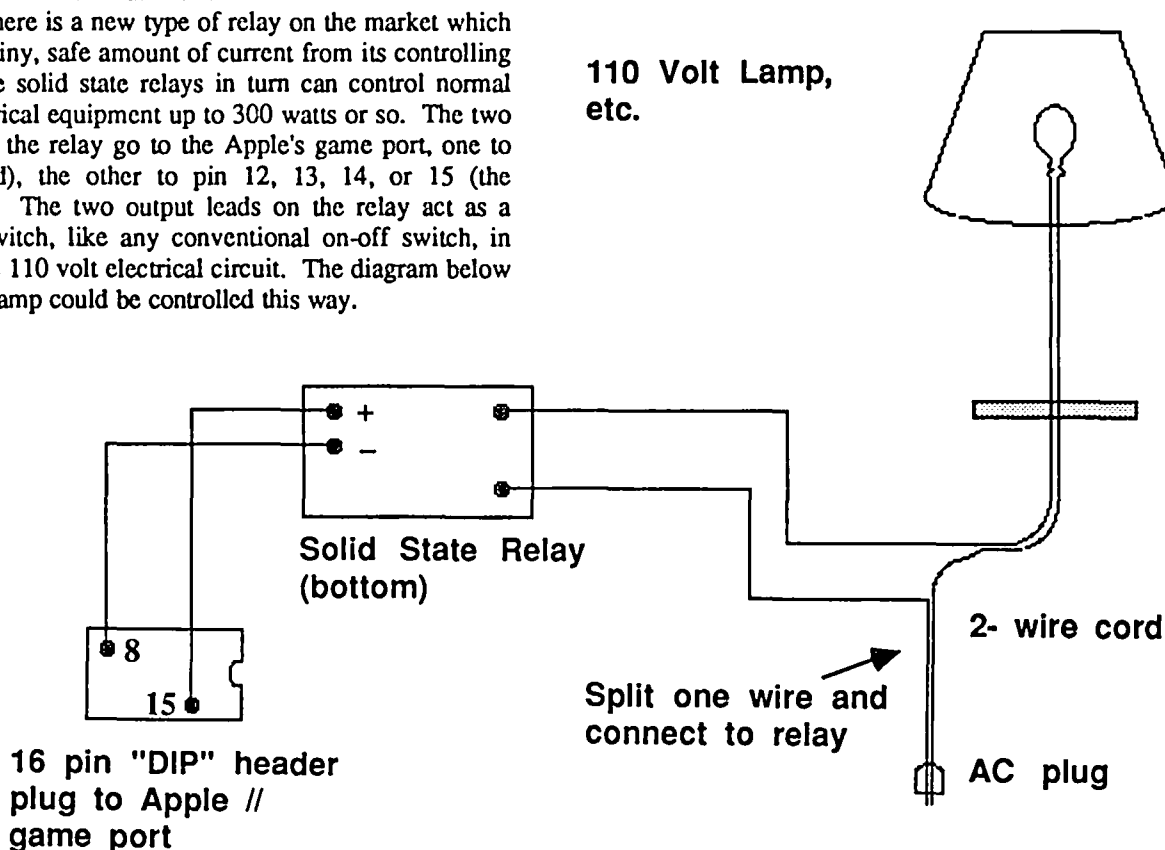
There's just one problem. If you were to connect a five volt relay or light bulb or whatever to the annunciator, nothing useful would happen. The chip which controls these annunciators cannot put out very much power. In fact, most relays would just blow the chip. So, in the past, you had to build a "buffer" circuit (sort of a little amplifier) to go between the Apple and the relay or whatever. That takes it out of the realm of the casual user.

But now there is a new type of relay on the market which draws only a tiny, safe amount of current from its controlling circuit. These solid state relays in turn can control normal 110 volt electrical equipment up to 300 watts or so. The two input leads of the relay go to the Apple's game port, one to pin 8 (ground), the other to pin 12, 13, 14, or 15 (the annunciators). The two output leads on the relay act as a single pole switch, like any conventional on-off switch, in series with the 110 volt electrical circuit. The diagram below shows how a lamp could be controlled this way.

Frankly, I've never seen the utility of tying up an Apple to do home control, burglar alarming, etc. And this technique isn't as handy as the BSR-module (wireless) approach. But if you need to control something electrical nearby, especially something directly associated with your computer, then these relays can't be beat! For example, a set of them could be used to control peripheral equipment power. I am currently building a power control unit for the WAP Telecommunications System installation which will permit any one of four Apples to switch on or off any one of the three others in the system, by means of these relays.

You can get these handy little solid state relays, at \$2 apiece (plus shipping, \$10 minimum order, CAT# SSRLY-3U) from ALL Electronics, Box 20406, Los Angeles CA 90006.

I think they're so handy that I've bought a few extra for future projects..... Maybe I will build an Apple controlled security system after all...



ON BUYING A SURGE SUPPRESSOR

by Chris Klugewicz

At the May meeting, someone asked how to choose a surge suppressor for a computer. This article should help in wading through the mass of hype and hearsay about that surrounds these devices.

What a surge is. Problems on the power line come in a variety of flavors, most of which the average home user can't control. A **blackout** is a total loss of power; luckily, these occur only very rarely. Somewhat more common is the **brownout**, which occurs when the utility reduces the power supplied below the normal 120V (volts). Since most power supplies are designed to operate between 105V and 130V, this type of disturbance is generally not a problem unless the reduction is drastic. The only way to protect against these two types of problem is to use an uninterruptible power supply (UPS), an expensive unit which contains a battery that takes over in case of a power failure. The other sort of power disturbance is what most people mean when they talk about "surges". It is the **voltage transient**: these include surges of voltage above normal levels, sags of voltage below normal levels, and high-energy voltage "spikes." Surges and sags are caused primarily by some heavy appliance turning off or on, respectively--you've probably noticed how the lights brighten or dim when your air conditioner switches off or on. "Spikes" occur because of the opening of switches, short circuits, or tripped circuit breakers or fuses. Such spikes last less than 100 μ sec and can range as high as 6000V. These are the most dangerous kind of disturbances for electronic equipment.

How surge suppressors work. Almost all (as in 99.99999%) surge suppressors use metal-oxide varistors (MOVs) as protection against voltage spikes and surges. An MOV works by "clamping" excess voltage down to some nominal (usually 120V) level; the overvoltage is dissipated as heat. (For a more detailed explanation of how MOVs operate, see Reference 1.) In addition, many surge suppressors possess an "EMI/RFI filter" (electromagnetic and radio-frequency interference filter); this is basically a low-pass filter which attenuates the higher frequency "noise" that is induced in the power line by electronic equipment, among other sources.

What to look for in a surge suppressor. PRICE: MOVs cost about \$1.50 each; three are necessary for complete protection against spikes and surges: one to prevent differential-mode surges (between the two "hot" conductors) and two to prevent common-mode surges (between one of the two "hot" conductors and the ground conductor). A good EMI/RFI filter costs about \$12, bringing the cost of adequate protection to \$16.50. Add the cost of a power strip (\$10-15) and a little bit for assembly, packaging, etc. (\$5), and you have a reasonable range for the cost of an adequate surge protector.

FEATURES: Both common- and differential-mode protection is a must. Some surge protectors only have differential-mode protection (because it requires only one MOV), which is inadequate. EMI/RFI filtering is nice, especially if you have a lot of electronic equipment in the same room as the computer. All surge suppressors should also have a fuse; if the MOVs are overcome by too much voltage (or too many spikes one after another), they literally fry, causing a short circuit. A fuse will prevent damage to anything plugged into the surge suppressor. Any other features (lights, switches, etc.) are simply fluff--you'll pay a

premium for them, and though they may be convenient, they're also unnecessary.

Are surge suppressors necessary? My honest answer to this is, "I don't know." Some people swear by them, others say that they're utterly worthless. I went without one for three years and two computers without a mishap, but then, the power in my area is reliable and pretty "clean." However, there are enough horror stories in the literature (References 1 and 2) that I am of the opinion that they're good insurance against disaster. As I've said elsewhere, I firmly believe that an ounce of prevention is worth a pound of cure. \$30 to \$35 is little enough for peace of mind.

Any recommendations? I own an SGL Waber "DataGard" surge protector. It cost me \$35, and it has EMI/RFI filtering as well as complete surge protection. It has a circuit breaker and a lighted on/off switch, and six outlets. Radio Shack sells a similar surge suppressor for \$30. Either of these fulfills my requirements for adequate protection.

References:

1. "Keep Power Line Pollution Out of Your Computer" by Steve Ciarcia. *BYTE* magazine, December 1983.
2. "Wednesday's Child is Full of Woe" by Leon H. Raesly. *Washington Apple Pi*, November 1984.
3. "Power Spikes and Surges: The Enemy of Sensitive Electronic Equipment" by the Baltimore Gas and Electric Company. Mailed April 1986. ☺

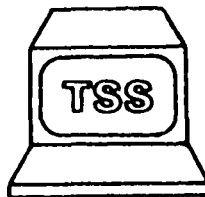
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BANK STREET FILER: A Review

by Mark Blass

Some Apple users have a snobbish attitude about Broderbund Software's Bank Street product line. It's sort of like network TV—none of the *cognoscenti* admit to watching it. Still, the networks sell a heck of a lot of ad space and Broderbund sells a heck of a lot of Bank Street programs. Somewhere, people must be scrunched in their closets, with monitor screens turned to a dim glow, lest they be caught using Bank Street Writer. Perhaps the idea that these products were designed for children is a turn-off. Too bad; the entire product line is both well-conceived and executed, and can do yeoman's work within limitations.

I confess that I used Bank Street Writer for 1 1/2 years before I upgraded to the "killer" processor from Ontario that shuts everything else down. I still use it when I need to knock off something quick without having to drive the "killer" out of the garage. My son will probably use Bank Street Writer for the bulk of his school career. If I were to switch to an IBM-compatible system, Writer would be the first program I'd buy for him. That's the beauty of the Bank Street system—simple enough for a child to use yet laden with enough features to satisfy the needs of the average home user. Everything works smoothly and logically so that the manual is more of a reference than a text. And Broderbund is a first-rate software producer. I'm into my third version of Bank Street Writer, each upgrade having been supplied gratis by Broderbund at my request.

I had been using a "test copy" (that's a euphemism) of AppleWorks which I had promised to either buy or discard. After investing in the new word processor, I couldn't justify spending another large sum for 1/3 of an integrated program. When I looked for a less-expensive program for consolidating my home files, producing long lists of possessions at which I could gaze like Scrooge McDuck, I knew from the quality of Bank Street Writer that Bank Street Filer wouldn't disappoint.

By the numbers, Bank Street Filer is a structured database that allows for the construction of files as large as 512 records (32,000 to 50,000 bytes), with as many as 50 fields per record, where each field can be as long as one screen line. The records can be sorted, stored and retrieved according to user-defined criteria, and printed in a variety of report formats. If the user has more than 512 friends, toys, credit cards or mystery novels to-be-read, she should either split her files (large files, however, can't be recombined) or buy another program. Filer isn't for everyone.

Bank Street Filer has a familial resemblance to its siblings. Pressing ESC during the program boot process, as in Bank Street Writer or Speller, will side track the user into Filer's utilities. These offer a wide variety of program controls, allow for splitting of large files, make a single backup of the program disk, and provide the ability to configure printed protocol (a //c-Apple printer combination is the default).

The principal utility allows the user to select such defaults as the number of disk drives in use, auto line- and form-feed, and other less critical things such as whether to produce an

audible key-click. A second utility allows the user to change default values in the report program and another allows for the examination of any passwords that have been inserted to protect files. The value of passwords is questionable since anyone who knows how to use Bank Street Filer can get into the password file during the boot process.

Experienced Bank Streeters will recognize the main program screen with its horizontal menus spread in 2 rows across the top. Frequently used commands such as ADD RECORDS, CREATE FIELD and SORT are normally sitting up top. Less frequently used file storage and retrieval commands are available in a sub-menu that is one of the main menu selections. Commands are accessed by cycling through the menus with the TAB and SPACE keys. Keyboard pros may be slowed down a bit by having to use the menu to perform chores that may be done in more sophisticated programs with 1 or 2 keystrokes. Just as Filer isn't designed for large business data bases, it isn't built for speed. It's better suited to the user who like to sit in front of the green tube in his skivvies and lovingly savor his lists. But, isn't that what the Apple is about? Let the clerks have the fast lane to themselves.

The data entry screen is a 17 x 78 character portion (in the 80-column mode) of a larger 66 x 96 character worksheet. Fields (up to 50) can be placed anywhere on that larger sheet, but most home users will probably stay up in the upper lefthand corner. Field categories are NUMBERS, MONEY, DATE, ZIP, PHONE, TIME, COMPUTED and a catch-all in which you can enter ANYTHING on the keyboard. Each record may have appended to it a COMMENT field of up to 7 free-form text lines. Comment writing is eased by a wrap-around feature. At any time, even after hundreds of records have been created, fields may be added, deleted, redefined or moved about the data entry screen.

The specialized category fields provide error checking. They do their job too well. If a United Kingdom phone number is input to a PHONE field, it won't be accepted - wrong number of digits. Likewise, 6-digit Canadian mail codes can't be put into a ZIP field. The latter problem may be best solved by dropping one's Canadian friends. Filer's FIND feature will do that in a jif.

In addition to its data entry and report modes, Filer has a browse and edit mode in which records may be scanned page-by-page. Filer offers no option to toggle into a list-type screen display as in AppleWorks to allow the entire file to be scrolled up or down the screen. This lack of scroll capability is an inconvenience because the page browsing speed is significantly slower than the comparable AppleWorks feature.

Filer has a fairly powerful search feature. Up to 4 keys can be used and each field type has a selection of appropriate operators to ease the construction of a search key. A selection of small window menus leads the user through the construction of the search key. As the key is built, the program constructs a sentence description of what is being coded. The program "remembers" the search key so that if the user errs and has to start over, the entire selection criteria need not be re-contd.

coded. Using the search feature to locate a particular record is less convenient than in AppleWorks because Filer's search is specific to designated fields. There is no global search capability. AppleWorks, on the other hand, allows the user to locate a character string anywhere in the entire file.

Filer's sort utility works similarly to the search procedure except that there are only 2 keys permitted per sort. Again, the program offers either alphabetic or numeric sorts in either direction, according to the type of key field. More complex sorts must be done in phases, moving from minor to major keys. This procedure is no more of a problem than with an AppleWorks multiple-key sort which must be done the same way.

Bank Street Filer offers three pre-defined quick report formats (table, list or page) or the option of constructing a custom format which may be saved with the file. Custom formats may either be the table, page or text variety. By selecting an ultra-condensed font with a dot-matrix printer, tables of up to 128 characters in width can be created. Many options such as commas, dollar signs, date formats, margins, line spacings, totals, field breaks, page number options and locations can be varied to the user's needs. Although either line or page field breaks can be specified, it is not possible to break on the first letter of an alphabetic field, as for easier reading or surnames in a personal phone directory. Of course, breaks can be forced by inserting dummy records containing only 1 letter. During the construction of a list format, the program reads the entire file and prints on screen the character length of the longest entry in each field. This handy information avoids the tinkering that often occurs when the report is later printed and over-long record fields are found to have been truncated.

The custom page format is similar except that fields can be printed anywhere on the page. Finally, the custom text report has the ability to mix data with text and automatically account for different length elements in any field. Presumably, labels can be produced with text format, although I've not tried this.

Filer's 97-page manual is well organized and explains each feature plainly. It has both a table of contents and an index, and is a model for other software producers to emulate. The reverse side of the program disk has what is generously described as a "tutorial", although it is little more than a showcase of main program features. It also contains some sample practice files.

The simplicity of Bank Street Filer is its strongest suit. Like its siblings, it is usable by both adults and elementary school children. Most users should be up and running within minutes of breaking the shrink wrap. It has good error checking ability and can produce several report formats, sorted and selected, with a variety of options. Filer is not large or fast enough, nor does it have the bells and whistles, to be used as a small business database. Its niche is as a home or small organization filing tool. It can be integrated with the other Bank Street programs and is, therefore, a simpler, less-expensive alternative to AppleWorks. Buyers will not be disappointed if they understand Filer's inherent limitations. It gives good value. I purchased a copy by mail at a large discount off the \$69.95 list price.

Bank Street Filer, Broderbund Software, Inc., 17 Paul Drive, San Rafael, CA 94903-2101, (415) 479-1170. ☺

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by Professor Apple

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69	H	70	E	71	I	72	K		73	D	74	E	75	N	76	H	77	G		78	F	79	Y		80	a		81	K	82	T	83	Q	84	F	85	a	86	B		
87	H	88	Q	89	P		90	a	91	J	92	Q	93	G	94	I	95	L	96	B		97	B	98	A	99	K	100	a	101	X	102	B	103	G	104	O	105	D	106	M
	107	N	108	C	109	Y	110	P		111	R	112	A	113	N	114	Y	115	L	116	B		117	J		118	W	119	B	120	L	121	B	122	H	123	G	124	G		
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	140	C	141	N	142	N	143	P	144	R	145	Z	146	V		147	a	148	T	149	Q	150	V	151	a		152	U	153	F	154	W									

Definitions

Words

A. Permutation	112	98	25	36	53	55	
B. Zeus' Game	119	121	96	102	97	86	116
C. Furrow	47	108	21	45	140	131	23
D. Elf; Goblin (Obs.)	3	105	73				
E. Answer to a Reply	74	129	137	70	4	58	
F. Augmenting	35	30	15	78	84	153	
G. Irritated	123	103	93	124	51	128	77
H. Weakened	27	87	69	9	40	76	122
I. In Strong Health	13	71	1	94	68	41	
J. "Old _ Bucket"	29	37	117	91	132		
K. Liability	72	99	139	81			
L. South American Republic	115	95	120	38	31	136	11
M. Fabricate	17	14	61	106			
N. Robber	107	113	141	75	142		

Definitions

Words

O. Endure	44	26	50	104	56			
P. Respiratory Disorder	126	110	143	89	60	134		
Q. Constituted	92	149	88	16	67	83	59	
R. Came Up With	65	144	127	52	111	66	6	
S. Place	12	63	18					
T. Renovate	10	148	5	7	82			
U. Cornhusker City	138	49	152	125	57			
V. Agitate	32	42	46	150	146			
W. Wills	24	64	135	154	118	62		
X. Pushing Off	20	133	101	130	43	54	22	
Y. Glisten	79	48	109	34	114	39	28	
Z. Night Before a Holiday	2	8	145					
a. Holiness	151	80	100	90	33	19	85	147

ANSWERS TO LAST MONTH'S WAP ACROSTIC

"Every time we change our products, it opens up new market niches. Whoever ships first makes out like a bandit. Those who don't adjust are less fortunate, but that's the American way."

Author: Neal Amsden

Work: Apple's New Products

Source: Outside Apple - April Fools Edition

Words

A. Avouch	M. Newsman
B. Matthew	N. Enforces
C. Shuts	O. Whispers
D. Dutch	P. Poem
E. Enjoy	Q. Raftered
F. Neighbor	R. Ottawa
G. Awake	S. Dieu
H. Punks	T. Universe
I. Patti	U. Cometh
J. Liberate	V. Tasty
K. Editorial	W. Shunts
L. Stroke	

APPLEWORKS ON A][+

by Randy Zittel

AppleWorks up and running on a][+! What a delightful experience! It took me quite a while to achieve this, but it appears to have finally been worth it. For the past five years I have lumbered along with Apple Writer 1.1, then Apple Writer II, and what an improvement, ScreenWriter II! ScreenWriter has a great deal of sophistication for its crude menus, and it utilized my Saturn ramcard to ease the transition from edit to print routines.

For the past six months, I have tried the Videx "AppleWorks Modifier" in conjunction with AppleWorks 1.2. It utilized my Applied Engineering 80 column card (what a delight to see a wordprocessor in sharp 80 columns with true descenders), but I could not overcome the printer problem supposedly with my Grappler card. I tried everyone from the WAP Hotline to a large number of people at work who swear by (and not at) AppleWorks on their][+'s. I found that I was not able to exit the printer specification option, since one must use the ^, which is <shift>-6 on a][e, but was <shift>-N on my][+. <Shift>-N is now upper case N with the shiftwire mod and I couldn't find a way to make the Videx modifier provide that darn caret (^). It would've helped to have the documentation, but I could find no other][+ users who used VIDEX.

It turns out that although the Videx Modifier has the capability to utilize certain ramcards, with my version AW 1.2 it wouldn't access more than the 16K language card, giving me only a 10K desktop, or 2-1/2 pages of text. It's amazing how fast one fills 10k.

But now . . . let the trumpets blare!!! At the June WAP Garage Sale, I found a copy of "Plusworks-XM" from Norwich Data Services (P.O.Box 356, East Norwich, NY 11732-0356). This product had been highly recommended on the WAP BBS, while I was searching for help with VIDEX. IT'S GREAT! It does everything it's supposed to do, including a full 120K desktop with my 128K Saturn Board. The printer patch was a breeze, and I can now access all of the keyboard, including ^,], [, {, }, \, |, ` , ~, _ and @. The open-apple is replaced by <ESC>, and the cursor control keys are the <CTRL> E,S,D,X diamond pattern, quickly accessible with the left hand. The destructive DELETE is the shift-left arrow and TAB is <CTRL>-I.

PLUSWORKS-XM even supports larger ramcards up to 1 megabyte (on the][+ no less!) with a dynamic `ram disk' and permanent `ram disk' options. The dynamic option stores ALL AW modules on the desktop, reducing but not eliminating disk access. The permanent ram disk partitions the ramcard into a 144K pseudo disk and usable desktop. This requires 20 seconds loading at startup, automatically partitions the ramcard, and totally frees up Drive 1!

PLUSWORKS is listed for \$39.95, while PLUSWORKS-XM is \$20 more. The 'XM' version supports the ramcards. PLUSWORKS-XMP will utilize the 64K of ram on the ACE 80 CPU card with a resulting desktop of 72K. I've found no mail-order or software stores which carry any version of PLUSWORKS, or 'ITWORKS', which is

PLUSWORKS marketed by the Davka Corporation, but still have the name of the source I found at the garage sale if anyone's interested. Contact me through the WAP BBS or directory.

Then there is my 10 year old Epson MX-80, which I bought used 5 years ago. (Would you believe that the owners manual with it was written for the TRS-80, with a 2 page annex for Apples!) It's never been down for maintenance, and I recently upgraded it with a Grafrax+ kit, giving me super- and subscripts, underline, and bold lettering. AppleWorks controls the MX-80 beautifully. The 5 CPI type size remains on, using the AW software control, until I shut it off, not canceling after each line, as the Epson is designed to do.

I am very pleased with the Norwich product. It adds new life to my apple. There is even a customize routine at the very beginning in case you have a Franklin or other full ASCII keyboard, a printer patch, and an 80 column card driver (if PLUSWORKS doesn't automatically support your 80 column card). I must admit that the VIDEX version was quite faithful to the][e conventions wherever possible, it just doesn't seem to carry through by supporting my ramcard or printer interface. VIDEX uses the <ESC> key as the][e does, with all open-apple functions using <CTRL>-A, while PLUSWORKS uses <ESC><ESC> for the][e Escape function and one <ESC> for open-apple. VIDEX uses the arrow keys for cursor control, with shift-arrows for up and down.

The PLUSWORKS Capslock is <CTRL>-A, so all functions seem available to me, and tonight I'm rediscovering the world of AppleWorks on my "new][+". Since I wanted to test out AW, what better way than to sit down and write an article for the Journal? So . . .

WATCH OUT WORLD...HERE COMES MY OL'][+ STILL CRANKING ALONG. . . ☺

Editorial contd. from pg 3

sufficient detail and that it might make sense to reconvene on APPUG (an electronic network) in successor meetings, or by other means. One concrete program was recommended. A newsletter might be launched which would be devoted to the operation and management of user clubs. A newsletter created for the benefit of user group officers and directors. Best wishes on this, and if you can tolerate more of my suggestions and ideas, count me in for some articles.

Ellen listened intently, took copious notes and agreed that Apple could work effectively with an organization or individuals whose purpose would be to serve the users groups, just as a trade association serves its constituency. Not a governing body, not an intermediary between Apple and the users groups, but as a genuine service arm to the groups. ☺

SEEN AT THE GARAGE SALE

A young man named David Nilles wearing a button which said, "I have not lost my mind—it's backed up somewhere on disk." ☺

THE FAMILY HOME MONEY MANAGER: Part 4

Working One's Way Through an Applesoft Program

by Brian G. Mason

In the preceding articles, we have made a good start at developing our budget program. We have established our budget categories, and we are now able to enter our data. This month we will go over some more of the menu options contained in the program module we call ENTER DATA.

Let us start with menu selection no. 2, "SAVE DATA". This choice sets Q% equal to 2 and takes us to line 2100. Put your budget disk in your drive and type "LOAD ENTER DATA". Now you can begin adding more lines to this module.

SAVING THE DATA

```

2100 IF NS = - 1 THEN 152
2105 PRINT "USE ";FD$;" (<RET>)/N) ";; INPUT C$
2110 IF C$ = "" OR C$ = "Y" THEN 2130
2115 IF C$ < > "N" THEN 2100
2120 INPUT "NAME?";FD$
2125 IF FD$ = "" THEN 2120
2130 PRINT OP$;FD$
2135 PRINT D$;"DELETE ";FD$
2150 PRINT OP$;FD$
2155 PRINT WR$;FD$
2160 PRINT NS
2180 FOR R = 0 TO NS
2185 PRINT CN%(R);",";MO%(R);",";DT%(R);",";
    VEN$(R);",";AMT(R);",";CT%(R);",";R(R)
2190 NEXT R
2195 PRINT CL$;FD$
2197 SS = 1: GOTO 1500

```

First we check to see if there is any data to save. If not, we go to line 152. (We entered this line last month.) Otherwise, we ask if the user wishes to use the file name stored in FD\$. This will ordinarily be "DATA FILE". If the user simply hits <RETURN>, or if they type a "Y" for "yes", choosing to use the default name, then the program jumps to line 2130.

Once a file name has been selected, we OPEN the file in line 2130. If we do not have a file with this name on the disk, OPENING it creates it. Once there is a file with this name on the disk, line 2135 can DELETE it. We do this for the case when we are going to save less data than was previously saved in the file with this name. Disk space will be released. Also, and perhaps more importantly, there will be no chance of the program trying to take data from the end of the old, longer file and putting it at the end of the current data.

Finally, we OPEN the file with the intention of writing to it. First we save the number of data entries we currently have. Then we save the rest of our data in the form of one string of characters separated by commas. In Applesoft, sequential data files or text files are stored as a sequential series of fields, a field being defined as a string of characters terminated by a RETURN character. By separating our variables with commas, we put all the variables in our record into one field. Yet when the data file is read back into memory from the disk, the commas will ensure that each piece of data goes into the correct variable. The importance of saving our data this way

will become even more evident when we talk about reconciling our checks to the bank statement.

QUITTING

Let's look at how we quit this program. First of all, of course, we choose #4 from the Main Menu. This takes us to line 900.

```

899 REM *** QUIT
900 IF SS = 1 AND SB = 1 THEN 987
905 IF SS = 0 THEN 920
910 IF SB = 0 THEN 950
920 CALL - 958: PRINT "CURRENT DATA IS
    NOT SAVED.": GOTO 960
950 PRINT "BUDGET CATEGORIES NOT
    SAVED."
960 HTAB 1: PRINT "CANCEL COMMAND?
    (Y/N)"; GET CS
970 IF C$ = "Y" THEN 1500
980 IF C$ < > "N" THEN 960
987 IF Q% = 21 THEN 995
990 IF Q% = 4 THEN TEXT : HOME : END
991 SS = 1: GOTO 1510
995 GOSUB 10060: CALL H2"BUDGET 1/85"

```

Here is where the flags SS and SB become important, for we want to make sure that if we have made any changes they are saved before we quit. So if they are both equal to 1, the program jumps to line 990 and ends. Otherwise, the appropriate message is printed out and the user is asked to decide whether to proceed or not.

This routine is used before chaining to the other programs modules, also. If our choice is #21, "Initialize New Budget", then we go to line 995. In all other cases, we set SS equal to one and then go back to line 1510 where the value of Q% sends us back to the appropriate part of the program to chain to the desired program module.

For example, if we chose #3 from the Main Menu, "Sort Data", we go to line 1310, where we check to make sure the data has been saved (SS=1). If it has not, then we go to line 920. If the user wishes to proceed, then line 991 sets SS equal to 1 and returns to line 1510, which takes the program back to line 1310. This time SS is equal to 1, so line 1310 can now be executed.

```

1300 IF SS = 1 THEN GOSUB 100: GOSUB 10060:
    CALL H2"BUDGET 1/85"
1301 GOTO 920
1305 IF SS = 1 THEN GOSUB 100: GOSUB 10060:
    CALL H2"EOM PROCED."
1306 GOTO 920
1310 IF SS = 1 THEN GOSUB 100: GOSUB 10060:
    CALL H2"CHECKS 1/85"
1311 GOTO 920
100 HOME : PRINT TAB( 11)"HOME MONEY
    MANAGER": VTAB 18: INVERSE : PRINT
    "PLEASE WAIT": NORMAL : RETURN
10060 POKE 60,LN + 8: POKE 61,HN

```

contd.

```

10070 POKE 62,LO: POKE 63,HO
10080 POKE 66,8: POKE 67,2
10090 RETURN

```

I hope the chaining routine is familiar by now. We chain to the other program modules unless the choice from the Main Menu is one of either 1, 2, 4, 5, 10, 14, 19, 20, or 21. These choices are taken care of in this program module. So far we have covered 1, 2, and 4. Now let's look at #21, "Initialize New Budget". This choice would be made if you want to keep two separate budgets.

INITIALIZING A NEW BUDGET

```

1350 HOME : PRINT " THIS ROUTINE ALLOWS
YOU TO START OVER FROM SCRATCH
WITH A NEW BUDGET. YOU SHOULD
BE SURE YOUHAVE SAVED YOUR
PREVIOUS WORK IF THIS WILL BE A
SECOND BUDGET ACCOUNT. OR YOU
MAY GET RID OF ";
1351 PRINT "YOUR PREVIOUS BUDGET AND
START": PRINT "OVER AGAIN.": PRINT
" IF THIS WILL BE A SECOND BUDGET
ACCOUNT, BE SURE TO GIVE YOUR FILE
NORMALLY CALLED 'BUDGET
CATEGORIES' AND YOUR FILE
NORMALLY CALLED 'DATA FILE'"
1352 L% = 20: PRINT "NEW NAMES": GOSUB 28
1355 GOTO 900
28 VTAB 23: CALL - 958: PRINT "HIT ANY
KEY TO CONTINUE": GET CS: GOSUB 26:
HOME : RETURN

```

After printing an explanation on the screen we go to line 900. If the data has been saved or if the user asks to proceed anyway, line 987 takes us to line 995. Here we chain to the program module, "BUDGET 1/85" which allows us to initialize our new budget. If we want to see how much room we have left, i.e., how close we are to our 300 record limit, we select #19 from the Main Menu.

```

800 HOME : PRINT TAB( 8)"HOME MONEY
MANAGER":L% = 10:T% = 1: VTAB
L%: PRINT "YOU HAVE ROOM FOR ";
300 - NS;" MORE RECORDS"
805 PRINT : PRINT "THERE IS ROOM FOR ";
FRE (0) - 50;" MORE CHARACTERS":
GOSUB 28: GOTO 1500

```

This is a simple routine that just takes the value of NS and subtracts it from 300 to let the user know how many records they have room for. It also uses the command FRE(to indicate how many bytes are available at this point in the program before the user runs out of memory. This is more interesting than helpful, but it demonstrates another use for this command.

WHAT MONTH DID YOU SAY THIS IS?

Another option we handle in this program module is to change the current month. This option might be used when we need to go back to a previous month and close it out if we did not get the job done at the first of the month.

```

200 IF SS = 0 THEN 920
205 HOME : INPUT "ENTER CURRENT MONTH
(NUMBER) - ";MO%: IF MO% < 0 OR MO% >
12 THEN 205

```

```

207 FOR I = 1 TO 12: READ M1,MS: IF M1 = MO%
THEN 215
210 NEXT
215 I = 12: NEXT I: RESTORE
220 K = MO%: GOTO 1600

```

Here again we make sure our data has been saved before going on in line 200. Otherwise, this part of the program is the same as we saw in the module called "BUDGET".

```

19999 Y = PEEK (222): IF Y < > 5 THEN
POKE 34,0
20000 IF Y = 254 THEN VTAB 22: HTAB 1: CALL
- 958: PRINT "***ERROR - PLEASE TRY
AGAIN. ENTER DATA HERE -->";:
RESUME
20005 IF Y = 22 THEN POP : GOTO 1500
20006 IF Y = 9 THEN HOME : VTAB 10: FLASH :
PRINT "DISK IS FULL": PRINT :
NORMAL : PRINT "REMOVE CURRENT
DISK, INSERT ANOTHER INITIALIZED
DISK, THEN TRY AGAIN.": GOSUB 28:
RESUME
20999 PRINT "ONERR CODE = ";Y
21000 X = PEEK (218) + PEEK (219) * 256:
PRINT "ERROR AT LINE ";X: END

```

These are the usual error handlers. Again, I am putting them in just in case.

We have three more options from the menu to discuss which are contained in this module, printing the budget by category (option #5), printing the data by check number (option #10), and printing the month's detail by category (option #14).

WATCHING THE BUDGET

```

2500 HOME : PRINT :L% = 23:CH = 0:BU = 1:
VTAB 23
2502 IF NS = - 1 THEN 152
2505 PRINT "WHICH CATEGORY DO YOU
WANT TO SEE? (ENTER CODE)";
2510 GOSUB 80: TEXT : HOME

```

We are going to use many of the same subroutines for all three of these options, so we will use three flags to keep track of which option we are working on at the present time; CH will be set equal to one if we are listing out the data by check number; BU will be set equal to one if we are listing out the data by budget category; and, of course, PR will be set equal to one if we are printing the month's detail to a printer. We could use just one flag to do the job that CH and BU are doing, but it was easier for me to keep track of things by using two in this instance.

If there is no data to list (NS = -1), we won't go any further. Line 152 will take us back to the menu after telling the user that there is no data in memory.

Once a category is selected by the subroutine at line 80, we clear the screen and print out a heading.

```

2515 HTAB (16): INVERSE : PRINT
"CATEGORY": NORMAL
2520 HTAB (20 - INT ( LEN (CTS(J)) / 2)):
PRINT CTS(J)
2522 IF NOT PR THEN PRINT MS;

```

If you have never seen it before, line 2520 shows the way to print a string centered on the screen. You take the

midpoint of the screen, which on the Apple is at column 20, and then subtract half the length of the string. Then you tab to that point and print the string.

Since we will use this subroutine to print data to a printer, we have to use the printer flag (PR) to keep track of whether the information goes to the printer or the screen. If we are using a printer, PR will equal 1, otherwise it will equal zero. The Boolean expression, NOT PR, is therefore equal to zero, and an IF...THEN statement which contains that expression will fail and move on to the next line without executing the THEN part of the statement.

Let us jump for a moment to option #14, printing the month's detail by category. This routine starts at line 4500.

```

4500 GOSUB 300
300 PT = 0: HOME : VTAB 20: INPUT "PAUSE
    AT END OF EACH PAGE?
    (Y/<RET>);CS$: IF CS$ = "" THEN 303
301 IF CS$ < > "Y" THEN 300
302 PT = 1
303 PRINT : PRINT DS$;"PR# 0":PR = 0: HOME :
    INVERSE : VTAB 10: PRINT " HIT SPACE
    BAR WHEN READY TO PRINT": HTAB 12:
    PRINT "<ESC> TO CANCEL"
304 GET CS$: NORMAL : IF CS$ = CHRS (27)
    OR CS$ = CHRS (155) THEN POP:
    GOTO 1500
305 IF CS$ = CHRS (32) THEN PRINT : RETURN

306 GOTO 304
4501 HOME : INVERSE : HTAB 7: PRINT MD$:
    GOSUB 310:P% = 0:PR = 1: J = 0:
    GOSUB 4505: GOTO 2515
310 HOME: NORMAL : VTAB 10: HTAB 16:
    PRINT "PRINTING": VTAB 23: INVERSE :
    PRINT "HIT <ESC> TO CANCEL":
    NORMAL
311 PRINT DS$;"PR# 1":PR = 1: RETURN

```

The basic difference between printing to paper and printing to the monitor screen is that the option to print to paper prints all the categories, whereas the option to print to the screen prints just one screen at a time. The reason for each option is different too. A person would print the data to screen while they are working on the budget during the month. A person would probably print to paper at the end of the month as a final permanent record of the month's transactions.

At line 300 we initialize the variable PT, which is used as a flag for pausing at the end of each page. Once that issue is settled, we start the subroutine in line 303 which will ask for the press of the space bar when the printer is ready and the user is ready to begin printing. We allow an escape route here, too, so that if a person presses <ESC>, we POP out of the subroutine, and GOTO line 1500, the Main Menu. If you are in the middle of a subroutine, but you don't want to RETURN as you normally would, issue a POP command. Otherwise, the computer would still be waiting for a RETURN command. If you have the program execute a number of GOSUBs without issuing RETURNS, you will eventually (after 25 or so) crash with an ?OUT OF MEMORY ERROR.

After the space bar is pressed, we clear the screen, print a title at the top, and go to the subroutine at line 310 which

prints the message on the screen that printing is going on and that pressing the <ESC> key will stop the process. Then we initialize the variable P% which will hold the page number, set the printer flag equal to 1 and J, our item counter, equal to 0. Next we go to the subroutine at line 4505 which prints the title at the top of the paper.

```

4505 P% = P% + 1: HTAB 7: PRINT MD$
4510 HTAB (20 - INT ( LEN (DTS) / 2)): PRINT
    DT$;: HTAB (35): PRINT "PAGE ";
    P%: PRINT :L% = 8: RETURN

```

This subroutine prints a heading at the top of each page after incrementing the page number variable, P%.

Now we go to the routine starting at line 2515, which is the same routine we use to print the budget to the screen.

BACK WHERE WE STARTED

We want to print the month at the top of each screen, but we do not have to print the month over and over again if we are printing to paper, thus line 2522.

```

2525 HTAB (24): PRINT "BUDGET:":C =
    BUD(J):T% = 34: GOSUB 70
2530 PRINT : HTAB 26: PRINT "+/- ":C = VAL
    (DFS(J)):T% = 34: IF J < > 2 THEN
    GOSUB 70
2531 PRINT
2532 PRINT "ITEM#.CN#.DATE.TO WHOM
    PAID.....AMOUNT"
2534 LH% = 0
2535 IF NOT PR THEN POKE 34,6:L% = 0
2536 L% = L% + 7

```

We will use the variable LH% to keep track of where we are in the process of going through the data and listing it out. To start with, of course, we want to begin with the first item, so we set LH% equal to zero. Hold this thought, for we will come back to it.

If we are printing to the screen, we want to set the top of the scrolling window under the nice titles we have just created, so we POKE 34,6, and set L% equal to zero. We don't have to worry about such things if we are printing to paper. We do, however, have to then add 7 to L% to set the vertical tab under the titles we just printed so we are ready to print the next line, whether to the screen or to paper.

```

2538 B = - 1
2540 LB% = 0:TL = 0: FOR R = LH% TO NS
2541 IF NOT PR THEN GOSUB 29
29 VTAB 24: HTAB 1: INVERSE : PRINT "HIT
    SPACE BAR TO STOP LISTING":
    NORMAL : VTAB L%: HTAB 1: RETURN

```

The variable, B, is used to number the lines as we list out our data. Since we will probably have more than one screen of data to list out and since the variable B will start with "1" at the top of each screen, we use the variable LB% to keep track of the number of items listed. The variable TL will keep track of the total spent in the budget category.

Once those variables are initialized, we go into a simple FOR...NEXT loop to get the data we will want to print. If we are printing to the screen, we will give the user the opportunity to stop the listing at any time by hitting the space bar. This is handled by the subroutine in line 29.

```

2542 IF PEEK ( - 16384) = 27 OR PEEK ( - 16384)
    = 155 THEN R = NS: NEXT R: POKE

```

contd.

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```
- 16368,0: PR = 0: PRINT D$;"PR# 0":
GOTO 2670
```

If we are printing to paper, the escape we use to stop the listing is to press the <ESC> key. If we look at memory location -16384, the value there after pressing the <ESC> key could be either 27 or 155. If that is the value we find there, then we stop the listing by setting R equal to NS, the last value of the FOR...NEXT loop, and then call for the next R. This makes R equal to NS+1 and takes us out of the FOR...NEXT loop. Then we reset the keyboard strobe we just PEEKED by POKEing 0 in location -16368. We set our printer flag equal to zero, tell DOS we want things to be printed to the screen again, and then GOTO line 2670. (We'll get there in a minute. First let us see what happens before <ESC> is pressed.)

```
2545 IF (MO%(R) < > MO%) OR (CT%(R) < > J)
THEN NEXT R: GOTO 2650
```

This line selects the items we wish to print out. If the month is not the current month or if the category is the wrong category, we go back and get the next record. If there are no more records, we GOTO line 2650.

```
2550 HTAB 1: GOSUB 162
2551 T% = 9:C = CN%(R): GOSUB 50
2552 HTAB 12: PRINT DT%(R);: HTAB 16: PRINT
VEN$(R);
2553 GOSUB 16
16 IF LEFT$(VEN$(R),1) = "#" THEN SG = - 1
17 RETURN
2555 T% = 36:C = AMT(R): GOSUB 70: CALL - 958
2560 TL = TL + AMT(R)
2565 L%(B) = R
2566 LB% = B
2570 IF PR THEN PRINT : GOTO 4520
```

However, if the record is one of the ones we want to print out, we proceed to line 2550 which makes sure the cursor is all the way over in the left column and then GOSUB to line 162 which prints the item number. We then proceed to print the check number, the day, the vendor, and then after determining whether we are dealing with a deposit or not, the amount. We then add the amount to the total (TL), put the record number (R) into the array L%(B) which we are using to keep track of which record number is in which line, and finally we make sure that LB% is equal to the latest value of B.

Now if we are printing to paper, we issue a line feed and GOTO 4520. Let us assume that we are printing to paper for the time being, and do that.

```
4520 L% = L% + 1: IF L% < 60 THEN NEXT R:
GOTO 2650
4525 PRINT CHR$(12): IF PT THEN GOSUB 310
4530 GOSUB 4505: NEXT R: GOTO 2650
```

First we increment the line counter, and then we check to see if it is less than 60. If it is, we ask for the next record. If there are no more records, we GOTO line 2650. However, if L% is not less than 60, we issue a line feed (CHR\$(12)). If we choose to wait for a keypress before printing each page, then we GOSUB 303. Next we print the titles at the top of the page and then ask for the next record. Again, if there are no more records we GOTO line 2650. (Isn't this exciting!)

```
2600 L% = L% + 1:T2 = L%:Q = 1: GOSUB 160:
IF L% < 18 THEN NEXT R: GOTO 2650
```

```
160 IF PEEK (- 16384) < 128 THEN RETURN
161 POKE - 16368,0:L% = L% + 1: POP :
ON Q GOTO 2610,2755
```

If we are printing to the screen, the program proceeds to line 2600 as the result of line 2570, where L% is incremented and then the value is stored in T2. We introduce a new variable, Q, which, as we will see, is used in line 161. It is at this point that we test to see if the space bar has been pressed, in which case we will stop listing out the data. (See line 29.) Actually, in line 160 we check to see if any key has been pressed. If one has, the value in memory location -16384 will be greater than 128. If one has not, we simply RETURN. If one has, we reset the keyboard strobe by POKEing a 0 in location -16368. We again increment L% and issue a POP to leave the subroutine without a RETURN. Since we set Q to 1, we immediately GOTO line 2610. (This subroutine will be used when we are listing out our data by check number. At that time we will have Q set to 2 and will GOTO line 2755 from here.)

If a key has not been pressed, we RETURN to line 2600. If L% is less than 18 then we ask for the next record. Again, if there is no more data, we GOTO line 2650. If there is more data and L% is 18 or greater, we go to line 2610.

WHAT'S THE BOTTOM LINE?

```
2650 C = TL: PRINT : HTAB (24): PRINT
"TOTAL:": GOSUB 70
```

```
2655 PRINT
```

```
2657 IF J = 2 THEN C = BUD(J) + TL: GOTO 2661
```

```
2660 C = BUD(J) + VAL (DFS(J)) - TL
```

```
2661 L% = L% + 3: PRINT TAB(18)"WHAT'S
LEFT:": GOSUB 70
```

```
2662 IF NOT PR THEN POKE 34,19: GOTO 2615
```

Let us deal with the routine at line 2650 first, to see what it is that happens when we have finished going through all the records. Remember, if we are printing to paper, we get here from either line 4520 or line 4530. As you can see, we set about printing the total that we have accumulated and the difference between what we have spent and what was budgeted. If we are dealing with the "INCOME" category (J=2), then we do not have a previous month's difference to deal with (line 2657) and we have to add the month's total and the budgeted amount together. However, for all the other categories, we do have to add in the previous month's difference and then we subtract what has been spent this month.

So we have the situation where we have printed out all the data for a particular budget category, the total for the budget category, and the amount left over. If we are printing to paper, the program proceeds to line 2664. Otherwise, it goes to line 2615.

We also have the situation when printing to the screen where we have simply listed as much data as we can on one screen for that budget category. If this is the case, we say there is more data in line 2610 and then go to line 2615.

Let us deal with the situation when we are printing to paper first.

```
2664 IF PEEK (- 16384) = 27 OR PEEK (- 16384)
= 155 THEN J = NC:NEXT J: POKE - 16368,0
```

```
2665 J = J + 1: IF J > NC THEN PRINT CHR$(
12): PRINT D$;"PR# 0": PR = 0: GOTO 1500
```

```
2666 PRINT : PRINT : PRINT
```

contd.

```

"-----": IF L% > 60
THEN PRINT CHR$(12): IF PT
THEN GOSUB 303: GOSUB 310
2667 IF L% > 60 THEN GOSUB 4505
2668 GOTO 2515

```

The first thing we do is provide for our escape by checking for a press of the <ESC> key. Remember, we did this in line 2542, also. Then we go to the next J, that is, the next category. If there are no more categories, we issue a form feed to roll our paper out of the printer, return to printing on the screen, reset the PR flag to 0 and return to the Main Menu since we are finished with our task. If we have not reached the last J, however, the program continues in line 2666, where we skip a couple lines and then print a line across the page as a separator between categories.

We then check to see if L% is greater than 60, in which case we will issue a form feed, go to the wait-for-keypress subroutine at line 303 and then put the printing message on the screen if required by the flag, PT. Regardless of the flag, PT, if L% is greater than 50 and we have issued a form feed, we also want to reprint the headings at the top of the next page. This is taken care of by the subroutine at line 4505. Then finally, we go back to line 2515.

That concludes our discussion about printing the budget on paper. If, on the other hand, we were printing the budget to the screen, we would continue on from line 2610. Remember, we get here if we have listed all the data in a budget category or if we have simply listed all the data that will fit on one screen.

```

2610 HTAB 1: VTAB 20: IF R < NS THEN
PRINT "THERE'S MORE";
2615 B = 0: HTAB 1: VTAB 21: CALL - 958:
PRINT "<C> CHANGE; <RETURN>
CONTINUE LISTING <D> DELETE;
<M> RETURN TO MENU": PRINT "<L>
LIST NEW CATEGORY";
2618 INPUT C$: IF T2 = 0 THEN VTAB 10:
GOTO 2620
2619 VTAB T2
2620 CALL - 958: IF C$ = "" THEN 2670
2670 IF R = NS + 1 THEN VTAB 19: CALL -
958: PRINT "END OF LIST";
FOR I = 1 TO 1000: NEXT I: GOTO 1500
2675 L% = 6: VTAB L%: CALL - 958: B = - 1:
GOTO 2600

```

Line 2620 clears the screen from the cursor to the bottom of the screen. We want to clear the screen of any garbage down at the bottom. This is where we use the variable T2, which kept track of L% for us so we would not have to fool with L% at this point. If T2 is 0, we move the cursor below the column headings before clearing the rest of the screen.

If the user simply hits RETURN in response to the choices we provided at the bottom of the screen, the program drops down to line 2670 where we check to see if there are any more records to display. If not, we tell the user so, give them time to read it, and then return to the Main Menu. Otherwise, we reset L%, clear the screen from that line down, reset B, and go back to line 2600 where we will find the NEXT R statement.

I feel I had better stop here. We have used up our allotted space in the Journal for this month. We will see what we can do with the choices we are given here once we have our data listed out when we return next month. Save what you have done by typing "SAVE ENTER DATA".

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BEST OF THE APPLE ITEMS FROM UBBS

by Euclid Coukouma

SUPERSERIAL CARD BUG

FROM TOM VIER ON 06/04

A bug in the Super Serial Card has made itself known through a combination of the SSC, Access// software and the UniDisk 3.5. It turns out that the SSC Pascal entry points do not follow the CLRRROM/MSLOT protocol and can allow contention for the SC800 area by other cards. Apparently, the SSC's buss drivers have overridden other cards until it met its match in the UniDisk 3.5 interface. I have no knowledge of any update for the SSC firmware or Access// (and others?). So software that utilizes both the SSC and the UniDisk 3.5 might bomb into the monitor!

//C DISKS

CHARLES DON HALL ON 06/04

I've been debating buying a 2nd disk drive for my //C...I've seen MicroSci and a couple other Brand X models advertised mail-order for \$150; \$100 less the best price I've seen for Apple's. Has anyone had any bad experiences with the Brand X models, and is there one considered especially reliable?

NICK VELOZ, ON 06/06 TO CHARLES DON HALL/ALL

I have been running MicroSci A40'S for about 5 years. Had one really big problem with them—I pulled the board with power on and wiped out lots of chips everywhere. M-sci sent me two drives and a controller via blue label on AN IN-VOICE (no prepayment) and I had replacements in less than 48 hours. I think M-Sci are great drives, greater support, but unfortunately I think they do not exist now. Why not consider a Uni 3.5? I am impressed with it, and the extra capacity is great. AE has a driver coming out in a few weeks to enable use on the "c" with CP/M. Give it a thought.

NEW APPLE //

KIM BRENNAN ON 06/05

The 65C816 is a real sixteen bit processor, with 16 bit registers and instructions. The address bus is 24 bits. It can operate in several different modes, one of which is a 65C02 emulation mode. Another is a sixteen bit mode but with 8 bit registers! In addition there is a version known as the 65C802 which is a pin for pin equivalent to the 65C02 and can replace same. Its address bus is limited to 16 bits (64K) due to the fact that this is all that can come out of the physical chip. The beauty of these chips is that current assembly language programmers will need a minimum of new instructions to implement current programs on them. (In fact many programs will run as is without any change.) The other nice thing about them is that they offer the 16 bit world to Apple]s without our leaving the old program base.

MIKE UNGERMAN ON 06/07

Heard at a recent PI-SIG meeting from a respected authority figure <hmmmm>: New Apple II series may be called the "GS" (for Graphics & Sound?) Graphics with RGB monitor will be better than anything seen yet on any brand! Major

Software developers are working on programs to be available at the same time as the computer is released (in time for Christmas??). Computer will be 16 bit machine and have internal 3 1/2 drive (capable of reading both Mac and Uni disks??). Liberal trade in will be available at Apple dealers (like maybe \$500 and your old II?) Price of //e will be dramatically reduced coincident with the new computer. All of the above are certified official rumors and as such no warranty is made by myself or the Washington Apple Pi.

COLOR MONITORS

BRETT PARKS ON 06/10 TO FRANK SORNATALE

Frank, yes, RGB is expensive, and you need both an expensive monitor and RGB card. For what you will spend for a single RGB type system, you could probably buy two composite monitors. Now, in the past, the composite monitors did not give enough resolution to do much 'text' work without getting your reservations in on a seeing eye dog. However, Apple has a new composite color monitor out that seems to change that. The test resolution on this new monitor is good enough to do a reasonable amount of work without going blind. If I were in the market for a color monitor tomorrow, that is the way I would go, and it would be just 'plug-n-play', no extra card to deal with. And Frank, if you have a VCR, try plugging this monitor into the 'video out' plug on the back. You'll see color TV like you've never seen it before. Of course, you'll need your stereo or something to give you the sound.

GEORGE KINAL ON 06/10 TO FRANK SORNATALE

The composite/RGB issue is now moot because Magnavox/North American Philips is now marketing a multiple interface monitor, 14", which can accept either type of input. I've seen these selling mail order for \$250 up (there are several versions with different resolutions). It's also true that the new Apple composite monitors are best in class, but still not as good as RGB.

GEORGE KINAL ON 06/16 TO FRANK SORNATALE

The new Magnavoxes come in three different resolutions (in RGB mode). The cheapest one is about like the standard IBM PC monitor and graphics board; the best is like the enhanced graphics adapter. In composite mode, they are all limited by the ability of composite video. (But Apple has done some neat things that makes its monitor better than the usual composite monitor). If you want color text, the RGB is probably the way to go. But the Apple can be switched to one color (green, I believe), for word processing. I guess the bottom line is that you'll have to find a place to compare them side by side. Clinton? The 14" monitors are rectangular screen, with the case only a bit bigger than the screen. I think 14" is an ideal size for non-transportable applications.

WALT MOSSBERG ON 06/12 TO GEORGE KINAL

Also note that the Teknika MJ-22 monitor gives switch-contd.

selectable RGB and composite color for \$255 mail order (Programs Plus). The 80-col text in RGB comes in 4 different colors and is FAR superior to Apple's monitor.

]]+ to //c INTERFACING

EDMON DONNELLAN ON 06/11

My wife lent me a spare //c recently, and I would like to connect its serial port to the serial port of my]]+ (Versacard) to transmit data back and forth. For a hardware idiot like myself, is there a cable available to do this, or can I make one (knowing almost nothing about changing pin connections), or would I have to retain an engineering firm? Any advice would be appreciated.

GEORGE KINAL ON 06/11 TO EDMON DONNELLAN

There are cables available, but you can never be sure they're right until you try them. Lee is correct about needing a "null modem" cable but unfortunately the one you need is NOT a standard product because the //c has a different connector on it. I hope that my discussions in the lap computer series have been comprehensible to non-technical folks. All you need to do is identify the two data lines (send and receive), and ground, on each end, and connect each to each (send to receive, etc). That might work all by itself. If it doesn't, then take ALL the handshake lines (//c only has two) and connect them together on each end of the cable (on the //c end, that's pins 1 to 5; on RS- 232, it's 4,5,6,8, and 20).

NICK VELOZ ON 06/15 TO EDMON DONNELLAN

I have been going back and forth for about 6 months VERY easily. I bought a "Smart Cable" for the c (about \$39). It works as a printer cable OR as a modem cable by flipping a switch—no null modem needed (it automatically becomes the kind of cable you need) and has the DIN on one end and RS 232 on the other.

EDMON DONNELLAN ON 06/18 TO GEORGE KINAL

George, I just successfully made a cable to attach my]]+ to a //c. I wanted to thank you for your advice, and for your excellent series of articles in the WAP Journal on laptop computers—invaluable for a job like this. The experience of seeing both computers talking to each other and running each other is wild.

TRANSWARP ACCELERATOR CARD

STANLEIGH PALEN ON 06/06

I've been thinking of getting a Transwarp card for my]]+. Yesterday I called a dealer and he did not want to sell me one because he had nothing but trouble with the ones he sold. I know they have timing problems on some machines. Does any one have one working on a plus and how is it working out?

DOUGLAS WADE ON 06/08 TO STANLEIGH PALEN

I have a Transwarp card running on an older]]+. At first I had some timing problems, but AE sent me a replacement chip and cleared it up. The original chip worked in a friend's]]+, so it's not all]]+s. AE was very helpful even though I bought the card from VF Associates. The card is working well and I highly recommend it. You can turn off the speed and still get 64K when the card is in slot 0 with a software

poke. I play a lot of copy protected 64K games and have had no problems working at normal speed.

JOHN CONNAUGHTON ON 06/29

I finally got my third Transwarp—the first two were defective—and it is running great. It really tried my patience especially when the second card, a replacement for my first Transwarp, also proved to be defective. AE's tech help was ok and they seem to stand behind their products. I have it in slot three of my //e. Basically don't buy an accelerator unless you have a need for increased speed, ie. spreadsheets, large databases, home accountant etc.

BRETT PARKS ON 06/30 TO JOHN CONNAUGHTON

Yes, those accelerator cards really make games tough to play, eh? Flight Simulator running under my Titan Accelerator card is a real joke. From Cessna 172 to Lear Jet in one not so easy lesson!

ZBASIC

CLIFFORD SAYRE ON 06/03 TO THOMAS VALLEE

ZBASIC is a dialect of BASIC with commands that are common to all of the machines for which it is available. The graphics commands are much like APPLESOFT except that it uses PLOT instead of HPLLOT. A "universal" graphics screen of about 1024x768 is used to define pictures. The interpreter adjusts commands given in that format to scale to whatever size screen is appropriate for the machine on which it is used. The finished program can be saved in OBJECT code (compiled) to be re-executed on the same machine, saved in tokenized form for reuse on the same machine or saved in ASCII for porting to another machine as an ASCII file. It would cost about \$100 per machine, but its worth it if you have to flip back and forth. Many schools have problems with mixed hardware and ZBASIC is better than retyping lots of code.

PHONE LIST HELP

MIKE CLANCY ON 06/11 TO ALL

I am making a program which will hold names and phone #'s. I'd like to find out how I can add new #'s and names while in the program, then have this new data saved to disk for later access by the program. Any help would be greatly appreciated.

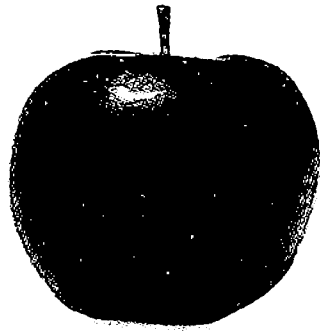
RICHARD ROWELL ON 06/13 TO MIKE CLANCY

Here are three suggestions, depending on which language/environment you have chosen: 1) In BASIC - set up a text file and have the main program APPEND the file with new data. Directions for doing this depend on whether you are using DOS 3.3 or ProDOS. See manual, or give me a call when you are underway. 2) Look at how some iconoclast programmer at Apple did it in the Telephone directory that is on the old DOS 3.3 System Master disk. Uses dummy DATA lines that the program reassigns and RE-SAVES in Applesoft BASIC. 3) Use a Data Base or Spreadsheet: recommendation = AppleWorks. (I have a Mailing List Data Base that includes four telephone numbers per person/record).

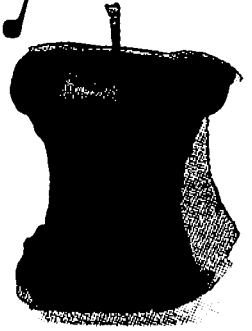
FASTER SORTS

GARY HAYMAN ON 06/16

I had a list of words (1500) that I wanted to put in alphabetical
contd.



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order. I put the words into an array (1500), tested the first with the second—if the second was lower (the "A" end) in the alphabet I had them change places—then I tested the second with the third and did the same, etc. I did the whole procedure again for 1499 more times. All this was accomplished in Applesoft. It worked—but it took 56 hours. (I don't know machine lang.). Does anyone know how I could accomplish this quicker? I believe the above is called a bubble sort. I am not familiar with other techniques and can use some advice.

GEORGE KINAL ON 06/16 TO GARY HAYMAN

I once upon a time converted a special personal mailing list program from a bubble sort to a "QuickSort" algorithm and cut the sorting time down by a factor of 10 or more. I could send you a copy of the code if I can find it, also an article I used to develop the code. The other suggestion is not to sort the data itself, only the pointers to it. The latest BYTE has a good discussion.

RICHARD ROWELL ON 06/19 TO GARY HAYMAN

I have three different sorting routines written in Applesoft and set up as subroutines in my subroutine library. One is a BubbleSort, the second a Shell-Mentzer(?) and the third I forget completely. As you've discovered, the BubbleSort is unbearably slow. The others are faster. Give me a call and I'll put these subroutines on a disk (with a cover note on how to EXEC them right onto your own program ... no typing). BUT my primary recommendation would be to use the machine language sorter called QSORT from the Beagle Bros PRO-BYTER disk. It is the fastest thing east of the Pecos! You add it to your disk and CALL it from Applesoft. I know that it works under ProDOS, and am guessing that it would work under DOS 3.3 as well.

TRANSFERRING PROGRAMS FROM //c TO MAC

KEN KNIGHT ON 06/03 TO KAREN RALL

OK, here goes from //c to Mac. It is fairly painless. Get your telecommunications programs running on both machines. Set the one on the Mac to receive a text file (if it has it, use what is called XMODEM). Set the one on the //c to send the file you wish to transfer over. (If you have XMODEM use it. If you do not then send the file as straight ASCII, making sure that both programs use the same protocol—both are ASCII or both are XMODEM). After you have told your //c what file you want to send, tell the Mac that you want to receive a file and give it a name. Now send the file over. The process is basically the same for the other way. Just reverse sides. The Mac is the sender; the //c is the receiver. After you have the file you will probably have to use a program like PUFFIN (it is on a WAP disk somewhere) to transfer it to a Pascal disk. Hope that helps you somewhat. P.S. With the Mac just run your Pascal and it should work fine with the file that you sent over with no (you hope) problems.

DIFFERENT

RICK JONES ON 06/15

Having just read all the talk on Pascal compilers, I'm compelled to add my two cents worth... I've completed abo

two and a half years of rather intense Pascal coding and have had the pleasure/pain of working with several different compilers. My first experience was with Apple Pascal v1.0 or 1.1 (I can't remember) and I liked it but can't remember why. In the intervening time, I have been writing Pascal programs at CMU in various environments. By far, TURBO (on the IBM) has to have been the worst!! I prefer using Apple's interactive Pascal. TURBO has been the only compiler I've seen in which adding comments has fixed compiler errors! If it does that, how much is speedy compiling worth? The two best have to be the VAX and TOPS-20 Pascals. Even on a TOPS dying under the weight of scores of people doing last minute compiling (of 300 to 1000 line codes) you could compile quite fast. The same has been true with a heavily loaded 785 front ending a CRAY for the entire Naval Research Lab (with help from two other equally loaded 785's). What I would like to know is if there are any people out there using something other than Apple Pascal with their Macs --> how about TML? or (gasp!) even the Mac version of Turbo?

KAREN RALL ON 06/16 TO CHRIS KLUGEWICZ/ALL

Thank you for the compliment. For those who were not at the meeting, the way I learned Pascal was to start on a elementary game program. It became quite enjoyable to work on, so I kept improving it, and learning new techniques as I went along. Recently, I got together with Ron Wartow (of GameSIG fame) and we put together a working copy of Pixel's Revenge. It was great fun showing off my program to such a receptive group! ☺

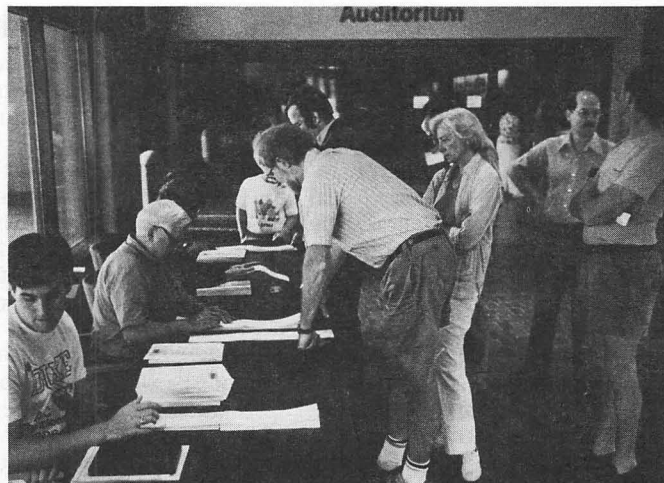


Photo by Wolfgang Wagner

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POOR RICHARD'S ALMANAC:

Hardworks at Last

by Doug Trueman

At last I can publish the good news. I have found a reasonably priced hard disk that runs on the Franklin. I obtained a 20 Meg Hardworks to test on the nastiest Franklin I could find. The drive ran ProDOS and DOS 3.3 fine on the 2 beasts I picked. The worst of the two wouldn't run the hard disk under PCPI CP/M, but the other did fine. This is far better than the SIDER ever did. We couldn't even get the Sider formatted on either machine.

After talking with the distributor it seemed likely that I own the dirtiest Franklin in the country. He said he had tested Hardworks on over 200 machines and this was the first one that had utterly failed to run CP/M. He offered to pay the shipping expense on my computer and either find a controller that was more tolerant of bus noise and timing, or to work on the controller ROMs until it did run. This last offer is the secret to why the Hardworks does so well on the Franklin. This fellow is redesigning the ROMs to be highly tolerant of bus noise and timing problems.

There are three versions of software available for Hardworks.

The base unit is supplied with ProDOS 1.1.1 patched to run on the Franklin and Apple. This is probably the configuration that new 2000 series owners will take.

The second software package allows the use of both DOS 3.3 and ProDOS. If purchased at the same time as the drive it is installed for you.

The third software package, NovaComp, supports DOS, ProDOS, Pascal, Softcard or PCPI CP/M. For any who don't know, the Franklin 80 CPU, Applicard and Star Card all run PCPI CP/M. NovaComp is similar to, but more powerful than, the software supplied by First Class Peripherals with the Sider. You are allowed to partition your disks between operating systems. Unlike the Sider, though, you can delete and add volumes without reformatting the hard disk.

The big problem with NovaComp is that it only recognizes the drive controller in slot 6. This means 2000 series owners and 1000 series owners with the drive controller on the motherboard can't use NovaComp.

The documentation for NovaComp is an example of the old type of documentation. It is both technical and full of holes. This is compensated for, to a large degree, by the friendliness of the software and the phone support provided by the distributor and A.S.C.I.I.

The drive itself runs smoothly. Like many hardware items the best thing to say is it works without calling attention to itself. I am impressed with Hardworks. It provides 20 megabytes of storage and fast disk access at a reasonable cost. I strongly recommend that any of you who have been waiting for a hard disk that's both usable and affordable go out and buy Hardworks. Not only is it a good option, it is for many Franklin owners the only option.

Performance A, Installation A, Documentation D, Ease of Use A, Value to Price B, Phone Support B, General Rating A. A.S.C.I.I., 55 East Wind Road, Tecumseh, MO 65760, (417) 679-3526, modem (417) 869-5294.

(Ed note: This article was written by Mr. Trueman before he became dealer for this drive)



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HardWorks is a 20 megabyte hard disk designed with the Franklin in mind. HardWorks works with ProDOS and DOS 3.3 on all Franklin and Apple II computers, even where Sider can't. HardWorks supports Apple Pascal, Softcard or PCPI CP/M on Franklin and Apple II computers without the drive controller on the motherboard.

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Franklin 2200 with 2 drives and monitor.	\$999

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RECENT READING LIBRARY ACQUISITIONS

by Walton Francis

Adding books to the WAP library has gotten both harder and easier over the last year. Easier, because having built the core library and dealing with a much lower number of new books (the computer book publishing craze went from boom to bust over a three year period) your librarian can be much more leisurely and selective about new acquisitions. Harder, because the stores carry many fewer books and it is difficult to find the best ones, and the used books stores have dreadful selections, making it almost impossible to find those "oldies but goodies" that are on my buying list. Regardless, there are fewer things more frustrating than reading a column in the WAP (or elsewhere) about the best books on the Apple /// or on computers for the handicapped and being unable to find them anywhere convenient.

Therefore, I have a modest proposition, particularly for those active in the various SIGs. If you run across a key book which the library should have but doesn't, and which is unlikely to be carried in B. Dalton (which has a decent selection and gives the WAP a big discount for books that I buy on the club account), go ahead and pick it up. Drop me a note so that I will know to add it to our computer card catalog, but deal directly with the office staff to get the library

budget to reimburse you. If in doubt (and before laying out any very substantial bucks), give me a call first and I will authorize the purchase. But let's not be bureaucratic about it; an extra copy of a good book helps us to be liberal about loans, and a mistake or two won't break the bank. So if you spot a copy of the classic text on computers in education, or a really good text on Adobe Postscript, or whatever, buy it on the spot and let me pick up the pieces.

Similarly, if you already own a few good books which you don't mind parting with and which will fill holes in the collection (please, no beginner books on "how to buy a personal computer" dated 1981!) donate them or call me to discuss selling them.

Meanwhile, the accompanying table lists by subject the 50 or so most recent acquisitions. These are just to tantalize you—for every book in the table we have 8 more in the reading library, all nicely indexed by subject and author. And, of course, we subscribe to all the major and minor publications of utility to Apple owners of every model. So come in and browse, and if you are very polite to the office staff they might even let you borrow a book on how to how to pluck your Apple, whether it be a Jonathan or a Granny Smith!

Recent WAP Library Acquisitions

<u>Subject</u>	<u>Author</u>	<u>Title</u>	<u>Year</u>	<u>No.Cop.</u>
Apple //	Apple	Apple //c Technical Reference Manual	1985	1
	Lieberman	Introducing the Apple //c	1984	1
Applications Assembly	Nibble	Apple Secrets	1985	1
	Coffron	Programming the Macintosh in Assembly	1986	1
	Malkin	Hi-Res Graphics & Animation Using Assembly...	1986	1
	Williams, S.	Programming the 68000	1985	1
BASIC C	Waite	Macintosh Midnight Madness	1985	1
	Gehani	Advanced C: Food for the Educated Palate	1985	2
	Takatsuka	Using the Macintosh Toolbox with C	1986	1
Directory	Brand	Whole Earth Software Catalog 2.0 for 1986	1985	2
	Gader	MAC Software for Pennies	1986	1
	InfoSource	Business Software for CP/M	1984	1
	McCroskey	The Book of Macintosh Software	1985	1
	DOS	Little	Apple ProDOS: Advanced Features	1985
Manthei		How to Operate the Apple //e Using ProDOS	1984	2
Weishaar		The DOSstalk Scrapbook	1985	1
FORTH	Colburn	MacFORTH	1985	1
	McCabe	FORTH Fundamentals Vol. I	1983	1
FORTTRAN	Kreitzberg	FORTTRAN Programming	1975	1
Games	Gutman	The Greatest Games	1985	1
	Hartnell	Second Giant Book of Computer Games	1985	1
	Schuette	The Book of Adventure Games	1984	1
	Schuette	The Book of Adventure Games II	1985	1
General	Heller	Computer Confidence: A Woman's Guide	1983	1
	Levy	Hackers	1984	1
	Pournelle	Adventures in Microland	1985	1
	Reid	The Chip	1984	1
Hardware	Atwater	First Aid for Your Apple II-//e	1985	1
	Lancaster	Enhancing Your Apple II and //e Vol. 2	1985	1

contd.

Subject	Author	Title	Year	No.Cop.
Integrated	Lancaster	Enhancing Your Apple II Vol. 1 2nd Ed.	1984	1
	Williams	How to Repair and Maintain Your Apple...	1985	1
	Aron	Using Appleworks	1985	1
	Bolocan	Advanced Appleworks	1986	1
	Bolocan	Jazz!	1985	1
	Campbell	AppleWorks	1985	1
Mac/Lisa	Lotus	The Lotus Guide to Jazz in Business	1985	1
	Chernicoff	Macintosh Revealed VII Programming the Toolbox	1985	1
	Lu	The Apple Macintosh Book 2nd Edition	1985	1
	Naiman	MacBook...Guide to Mac... Hardware & Software	1985	1
	Thornburg	101 Ways to Use a Macintosh	1984	1
Pascal	Kronick	Macintosh Pascal Illustrated	1985	1
	Shafer	Pascal Primer for the Macintosh	1985	2
Spreadsheet	Campbell	Using Excel	1986	1
	Cobb	Excel in Business	1985	2
	Loggins	Excel: Business Solutions for the Macintosh	1985	1
UNIX	Thomas	A User Guide to the UNIX System	1982	1
	Word Proc.	Kater	The Printed Word [Word on the Macintosh]	1985

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WALL STREET JOURNAL REPORTS ON THE PERSONAL COMPUTER

by Joseph A. Hasson

The June 16 issue of *The Wall Street Journal* contained a Special Report, "Personal Computing" devoted exclusively to the home computer: how to select one; the extent to which it has been accepted; how owners use them; obstacles which have limited its adoption by larger numbers of potential users, etc. The home computer industry has experienced widespread infiltration among the financially well-heeled sophisticates and 'aficionados'. It has not caught on among the broader public. In fact, during the past couple years, sales have declined from about 4.0 million units in 1984 to slightly more than 3.1 million units in 1985. Projections for 1986 are not upbeat. The Report assesses why this decline is occurring. It points out, too, that this new technology is creating a chasm between the "haves" who can acquire and use home computers and the "have-nots" who lag behind and may never catch up.

It is not possible, given space constraints, to cover all aspects of this special report. The concerned reader can see it at his local library or purchase a copy for \$2.00 by writing: Special Publications Department, Dow Jones & Co., Inc., 200 Burnett Road, Chicopee, MA 01021.

The principal reason for the failure of the home computer to "take off" among the American public is that its effective use "requires far more effort, special knowledge and expense to operate properly than any other popular home technology. And the word is getting around." Moreover, computer owners generally use only a small part of the potential power of their equipment. One must learn much more both about hardware and software than they wish to know. No one needs to join a "user group" to operate a washing machine, drive a car or turn on a micro-wave oven. But with the home computer, the user group performs an essential educational function: this takes added time and money, a small percentage of the initial investment, however.

People who want to own a computer complain about its complexity, high price and problems in comparing alternative models before making a final choice. The Report makes numerous other points that reflect on user and potential user attitudes towards computers, points the industry will have to take into account if it is to thrive. The computer offers the promise of a great technological change, already occurring in sectors of our society. It holds the promise of greatly increasing productivity and permitting the United States to remain competitive in a rapidly changing world.

Turn, now, to more specific points in the Report. The greatest use of the computer in the home is for games. In a six-year period, there has been a 30-fold expansion. Such a use has the beneficial effect of introducing youngsters to the new technology which will serve them well as they grow up. Instructional uses have experienced more than a 100-fold growth. However, the expansion is occurring in more affluent schools, not among the poorer school districts—a real problem. Word processing is next in usage (30X), spreadsheet (140X), data base (120X).

Lotus is by far the biggest software, spreadsheet seller. MacWrite is the biggest word processing program sold. AppleWorks is the most popular integrated package. Fifty-

seven percent of home computer users spent up to \$500 for their equipment; 21 percent, between \$500 and \$1000; and 20 percent between \$1000 and \$3000. Commercial users of PC equipment spend bigger bucks.

One article in the Report is entitled "Waiting for the Future." Future personal computers will have only a screen and keyboard—much like the MacIntosh. Memory will be greatly expanded. By 1990 four to eight megabytes will become the norm and the 3.5 inch disk standard. Optical disks will be taking over. The chip will be reduced in size, contain enhanced circuitry, perform several functions both simultaneously and more rapidly. The computer will become easier to use.

All these changes will result in reduced costs per unit of computer power. The potential for tapping a larger market will increase—a beneficial development. A current issue which will remain with us has to do with costs after the computer is acquired. Considerable out-of-pocket costs are being incurred because of modifications, revisions, other changes—minor and major—that the computer user seeks to keep abreast of. Of course, this implies that a new technology is undergoing evolution; it can mean original purchases are not optimal in meeting consumers' requirements.

A critical problem arises in software. Prices, too high, need to be lowered. High prices contribute to unsavory strategies and circumventions aimed at beating them. The biggest is software piracy which is costing the industry an estimated \$750 million a year. A more honest way of coping with high prices is development of software libraries and user groups. "User-supported" software has increased in popularity, is relatively inexpensive and is propagated through a network of contacts and communication. The modem plays an important role in their dissemination. This innovation is having an impact on the industry and forcing prices down. Primary software companies are now becoming friendly with user groups; their initial reaction was that these were "thieves and bandits". We are witnessing the beneficial effects of competition. The problem remains of writing software so that it is not too technical and difficult to use effectively by the average person who wants mastery with only reasonable effort.

The Wall Street Report ends with an article, the essence of which is the following. To get the most out of one's computer requires concentration, determination and practice, practice, practice. Mastery of the computer so that it is used with optimal effectiveness can be complex for two reasons: the machine is a highly sophisticated piece of equipment; instructions that come with software packages are too often not simple. One needs only to recall the size of the first computers and the sanitized conditions required for their maintenance and use. We have come a long way. But there is a considerable distance yet to go. The Report is well-worth reading even if it only reminds us of some of the frustrating problems we have all experienced. (3)

MULTISCRIBE: MACWRITE COMES TO THE APPLE

by J. W. Willis

I ordered a copy of Multiscribe with the normal trepidation that has been built out of seeing software over-advertised and under-engineered. I am writing this review with Multiscribe and can say with assurance that this is definitely not a case of vaporware. In fact, Multiscribe may be the best program to come along for the Apple IIe/IIc in years. It offers the full range of features that I have seen in MacWrite, including a document window, drop-down menus, mouse-driven interface (with keyboard equivalents), scroll bar, dialog boxes, multiple fonts and typestyles, and format rulers. The various pieces all function together as an integrated whole that is a joy to use. Most of the program is memory resident and fast. The main exceptions are changing fonts which requires a one-time disk access, and redrawing the screen after reformatting or changing fonts. These points are hardly noticeable in comparison to what the program has to offer.

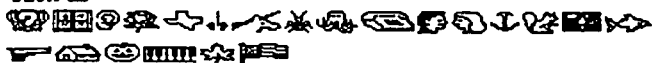
I was the stubborn owner of an Apple II+ up until about one month ago, when I finally surrendered to my lust for a IIe. A part of that lust was the desire to be able to work with Fontrix using a .5 MB Ramworks Ramdrive. I think now that I did the right thing for the wrong reason. Multiscribe does almost all the same things much faster and sooo much more conveniently. And it does all this without making any use of my extra Ramworks memory—yet. According to the folks at Styleware they have noted that people want to be able to make use of all the memory floating around the Apple world now, and an upgrade is on the way.

The program is simply packaged with a two-sided disk and a very complete 260-page manual. Current list price is \$59.95 and worth every penny. Fully in keeping with delivering a quality product at a reasonable price is the complete absence of copy protection. Frankly, anyone who pirates this program should feel thoroughly ashamed.

There are a total of ten fonts that come with the disk:

Hemingway Standard 80 column Wordsworth
Milton Dante Rsimov
Chaucer Shakespeare Mark Twain

and Michaelangelo which is a series of graphic images such as



Because the program is memory resident the manual indicated that only 9-15 pages can be stored in any one file. However, a print merge option allows the chaining of many such files together for printing. A clipboard is used for cutting and pasting and can also function as a means of transferring information between files. Multiscribe also allows the transfer of standard text files to and from AppleWorks so that ordinary AW letters can take on new dimensions.

Printer setup is accomplished via menu selections. A very extensive set of interface cards and printers is supported. The

list includes the Super Serial Card, the Apple II Parallel Card, the Grappler plus, and 35 other interface cards matched to the Imagewriter, the Epson MS/AX/FX, the Okidata 192/193, and 7 other printers. There are high quality, standard, draft, and text print modes. The standard print mode takes about 2/3 as long to print as the high quality mode and I found it quite acceptable.

Those of you who are looking for a new approach to Apple word processing are in for a treat.

Multiscribe, \$59.95, Styleware, Inc., 6405 Hillcroft, Suite 201, Houston, TX 77081 (713) 668-0743. ☺

HOME COMPUTER BANKING by Francis Marburg

Following are some points of information that I gained while trying to find local banks which are equipped to handle banking by modem with a Macintosh.

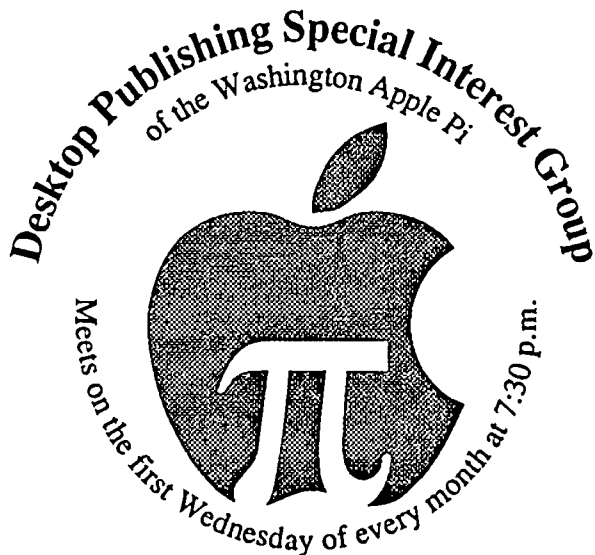
Computerized home accounting should be more efficient if monthly bills are paid with entries into a home accounting program. My search led me to Madison National Bank, 1730 M Street NW, apparently the only local bank currently offering a "Home Teller Service". They also offer On-Line Brokerage. There are connections to Apple II, IBM and Commodore, and this will be extended to the Macintosh later this summer. The subscriber receives special software, instructions and a banking card.

Home Teller offers access to account balances, to a record of account activity, funds transfer between accounts, loan applications and bills payment. Bills payment interests me. It says, "No more check writing ... save postage ... an unlimited number of bills." Well, not quite. You select from a list of approved payees, including utilities, major department stores, credit cards, banks and S&L's.

I see two ways of evaluating this service—one is convenience, the other comparative cost-savings. My initial interest was convenience. Can the effort of keeping accounts be reduced so that balancing a checkbook is no longer the obvious choice? Combining account entry with electronic check payment might accomplish this. It also eliminates time and money spent in addressing and mailing.

In a sample month, I found that I could have paid 8-10 checks electronically. Twice as many checks (over 20) made out at home could not be paid electronically. These were checks for social events, publications, subscriptions, contributions, memberships, cable, tax, insurance, doctor, and drugs. As expected, an additional 12-14 checks were issued away from home for groceries, cash, purchases and repair. No more

contd. on pg 70



The next meeting is August 6

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PostScript program by Tom Piowar with help from Adobe

AN EXERCISE IN POSTSCRIPT

by Tom Piowar

The Postscript code which produced the above announcement was adapted by me from program 10 in the **Postscript Language Tutorial and Cookbook**, Addison Wesley Publishing Co. Postscript is a trademark of Adobe Systems.

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/outsidecircletext
{ circextdict begin
  /radius exch def
  /centerangle exch def
  /ptsize exch def
  /str exch def
  /xradius radius ptsize 4 div add def
  gsave
  centerangle str findhalfangle add rotate
  str
  { /charcode exch def
    ( ) dup 0 charcode put outsideplacechar
  } forall
  grestore
end
} def
/insidecircletext
{ circextdict begin
  /radius exch def /centerangle exch def
  /ptsize exch def /str exch def
  /xradius radius ptsize 3 div sub def

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gsave
centerangle str findhalfangle sub rotate
str
{ /charcode exch def
  ( ) dup 0 charcode put insideplacechar
} forall
grestore
end
} def
/circextdict 16 dict def
circextdict begin
/findhalfangle
{ stringwidth pop 2 div
  2 xradius mul pi mul div 360 mul
} def
/outsideplacechar
{ /char exch def
  /halfangle char findhalfangle def
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  halfangle neg rotate
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  -90 rotate
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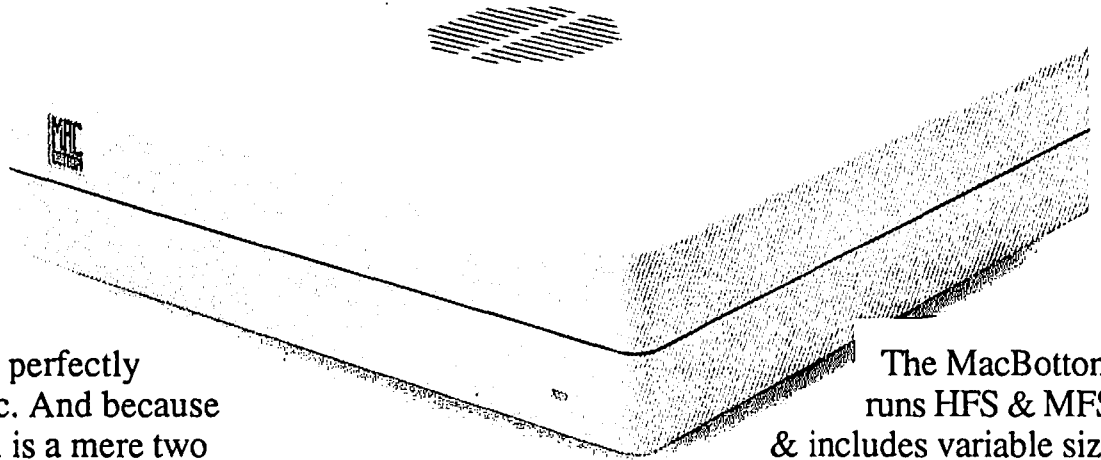
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/Symbol findfont 170 scalefont setfont
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/Times-Roman findfont 14 scalefont setfont
(For information call the Pi office (301) 654-8060)
dup stringwidth pop 2 div neg 0 moveto show
0 -30 translate
/Times-Roman findfont 10 scalefont setfont
(The apple logo is a trademark of Apple Computer Inc)
dup stringwidth pop 2 div neg 0 moveto show
0 -10 translate
(PostScript program by Tom Piowar with help from Adobe)
dup stringwidth pop 2 div neg 0 moveto show
#copies 2 def
showpage

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pounds and fits perfectly under your Mac. And because the MacBottom is a mere two inches high, its a convenient traveling companion-just place it in your carrying case or briefcase.

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*SCSI MacBottom upgrades will be available at MacCorner on 08/86

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A STEP BEYOND MacWRITE -

Professional Writers and the Macintosh

by Patricia Kirby

"Macintosh Writers New Users' Group meeting." So appeared a notice in the Washington Post's Business Calendar for the first time in June a year ago and for several months thereafter. Last week, I realized I hadn't seen it in the Post in some time. Curious, and interested to attend, I found my dog-eared notice and called David Richardson, the contact person.

The originator of the group, Dave turns out to be a noted author, having penned (oops, keyboared!) a recent Book-of-the-Month and History Club selection (Monte Cassino). He explained that the writers' group had met for several months in a local computer shop, but eventually were ousted by their "landlord." In the process of finding out what happened to the group, I also found some fascinating reflections by the group's originator on what a Macintosh can mean and do for a writer, similar to Sherry Turkle's look into computer culture, The Second Self.

"A Mac and a writer go together," he responded, when I asked him what got him interested in starting the group. He backtracked to why he found computers generically helpful in writing. "I think I've always had a problem personally with writing, in that sometimes I'd rather go to the dentist than write. I know a lot of writers go through great agonizing in getting the right words out. Consequently it's always been easier for me to write longhand on a pad of paper than to type."

"Then, too," he added, "the whole correction process just takes an extraordinary amount of time—endless rewriting and revisions. So I've always been fascinated to learn that you could put words up on a screen and make them disappear just as easily—and do instant printing."

Dave discussed his quest for the right computer, not unlike that of a prince seeking the hand of a yet-unmet princess. This was a long process. Ever the aesthete, Dave admitted that one requirement for his computer was that it had to appeal to his senses. "I found I hated the ones with green or amber letters, the sort of business-looking machines you'd find in an office in front of some secretary, or in an airline terminal. Little letters that were hardly legible—in funny colors and on a black screen, of all things! The written word is mostly black on white—and clear quality. I discovered the Macintosh was the ONLY computer that offered this."

The Macintosh body design appealed greatly to Dave. "It looked different—the size, the weight, the keyboard—and the fact that it was easily portable."

"Then one day before I got the Macintosh, it actually spoke to me."

"How's that again?, I asked.

"Oh, yes," Dave continued. "It said 'Hello' as I was going by a window of a computer store. I did a double-take and I couldn't believe it. I think it had a beta disk of one of the 'Smooth Talker' programs. That indicated to me I should have it. I made an arrangement to borrow one and get to know it before buying. That is probably the way to go, I think—just as you should borrow a car and use it before

buying if you can."

Right after Dave got the Macintosh, he was assigned an article by a national magazine, due very quickly. Deadlines usually make Dave very jittery. Yet he polished off the entire 4,000-word article in only 48 hours, thanks to ThinkTank to organize his thoughts and Microsoft Word to write and edit. And this, despite actually learning the two applications at the same time! With that experience in mind, he praised the Macintosh in that, "You can purchase it in the morning and produce your article in the afternoon. I dare anyone to do that with any other computer."

"For me," Dave testified in some awe, "finishing ANYTHING is unique. In fact, that's why I had to get a co-author for my first book. Now I have a computer instead of a co-author. That's not to say I'd never need another human, because I think a good co-author can quadruple the success of a book. But for short articles and short stories, my computer is my co-author."

Despite Dave's great respect for the Macintosh in this role, however, he admitted some trepidation toward the computer controlling his schedule and daily actions, though he was not sure why. "Perhaps I don't want to reveal everything to it. It's still a machine, which I must keep in mind. Sometimes I get so involved in my writing that I feel it's much more than a machine, that it's helping me write."

"I think it is a very compatible, friendly environment—because it's very easy to work with. I think another one of the biggest reasons for the Macintosh was that I didn't have to learn a new language. You don't have to learn a new language or 'speak IBM' or these other technical computer languages. With the icons, you just point to where you want to go without memorizing a lot of codes." Since writers are often not only verbal but also visual and even artistic, the Macintosh can be all the more appealing.

"There's no comparison with the PC," Dave felt, "because the Macintosh is designed for humans. The IBM was designed for business. I think the Macintosh is something that no one would mind having sit on his desk, because it's more of a personal thing. It's more compatible with creativity."

With his new Macintosh, Dave wanted to share his enthusiasm with other writers. That was the main incentive for starting the group. "I thought if I could tell my story to other writers who were in the pre-computer stage, I could answer a lot of their questions and inhibitions, and reduce their fear about computers by introducing the Macintosh as opposed to the other computers they had shied away from."

He shuddered. "I have writer friends still in the quill pen stage, who are just now thinking of getting TYPEWRITERS! I also have friends who are writing on their old Royals and Remingtons, and would never part with them for a million dollars."

In the Macintosh Writers New Users' Group, Dave found that about half the group had no computer experience and came simply because they wanted an introduction to a writer-
contd.

compatible computer from a professional writer, one who makes his living from writing. Others had already had some experience on the Macintosh—like Dave—and wanted to discover more about it. Mutual learning was his second reason for starting the group. He looked forward to sharing information, in particular on what programs helped the writer's thought process, such as Microsoft Word and Think-Tank. "I was convinced that a small, specialized users' group was by far the best and friendliest way and perhaps the most effective way of learning about your computer."

Among the Macintosh-experienced in the group were newsletter writers who wanted to find out more about the different newsletter programs like PageMaker. No doubt some of these have since joined the Desktop Publishing SIG in Apple Pi. Others, like a number of engineers, came in hopes of learning more about writing articles in their field on the Mac. Then there were many demonstrations of generally useful writer-relevant software. One of Dave's favorite demonstrations was a program with the entire Merriam Webster's Dictionary on laser disk, which plugs right into the Mac.

After the computer store no longer offered its meeting space, the writers' group disbanded. Yet members continue to call and voice a wish to get back together. "They loved it," Dave said. "I have letters of appreciation." He read one he got right after the first meeting: "I certainly enjoyed your Macintosh for Writers meeting. First of all it was great to hear your personal feelings about your search for the right computer and program for writers." The letter-writer continued, "In general, people are very confused about personal computers. Many people have thought about the purchase and the software, but the menu of possibilities is just too confusing."

Part of Dave's difficulty in continuing the group has been his own success as a writer. He is presently working on three more books, plus numerous short stories and articles. The time demands involve "studying up" for each meeting and making the presentation, or arranging for others in the group to do so. Then too, he used to provide wine and cheese (as literati are wont to expect!).

"I don't know if I could ever get back to it," sighed Dave. "But if someone else would do it, I would find the time to go to meetings and ask the questions which I still don't have the answers to. I think the idea of writers and would-be writers getting together to discuss writing on the computer is a lovely idea. Certainly they can learn much more about what they are doing, especially from each other."

On his wish list is "someone who had the time as I had planned to do to discuss the pros and cons of different writing aids for the Macintosh, the advantages of new software programs, of new spelling checks, dictionaries, thesauruses, grammar improvement packages, etc. There's such a big field out there that one can specialize in in just that alone."

He went on: "There are tangential possibilities in all fields of the written word—books, publishers, newsletters. I eventually see the computer being programmed so it will give you an example of what you have written in different styles, with the right grammatical input, rules, samples of many styles, a paragraph you have written can be changed by the right program into the same meaning but written different ways so you can select half a dozen different ways of saying the same

thing. That would be your individual choice. I wish the Macintosh had more feedback, and would show me how the plot line can be improved, or if a certain theme line might not work, or if I were saying too much about something when I should say less."

Caught up in a vision of the future for writers with computers, Dave prophesied even further-out meeting topics. "You could even program the computer one day to write something as Hemingway would, or Mailer. I think in the future you could even program your computer so that when you gave it a plot line, it would finish the story for you by tomorrow. I also visualize dictating to my computer and it would write out my story for me."

Though no longer chairing the Macintosh Writers New Users' Group, Dave recently contacted the Automatic Language Processing System (ALPS) of Provo, Utah, with thoughts of sharing Macintosh-related information with his fellow writers. ALPS is a lab to help writers write more effectively on the Macintosh, complementing classroom instruction by tutoring students individually while they are writing and revising. "I was waiting for someone to develop a self-instructional program to improve writing," Dave commented. "All writers need this. ALPS is working on one that will come out some time this winter with a program called MacProof. They are sending me information and a demo disk. This could be a topic for a general meeting for the whole Pi."

What Dave began remains of great interest to the many who took part, and perhaps to other wordsmiths in Apple Pi who did not know of the Macintosh Writers New Users' Group. If you are inspired by his thoughts and work, you may wish to contact him at 759-9255 or 255-2288. Those with interests related to writing—such as software developers, education and training people, desktop publishers, and even artists—might want to discuss how Pi might figure into the future of the Macintosh writers.

"Write on!", in any event, for writers and their Macintoshes. ☺

Got A Problem?

- a. Buying a MacPlus and nervous about getting it all together?
- b. Want to run a different configuration of equipment and not sure it will all speak the same language?
- c. Can't get your modem to talk to you (or anyone else)?
- d. Tired of buying equipment from people who won't promise it will work?
- e. Spouse ran off with a computer technician?

If your answer is any but (c), we may be able to help you. (c) is a little out of our line of business.

Custom Computer Equipment and Cables

Adaptation Electronics

Jay Heller, Owner
20315 Grazing Way
Galtersburg, MD 20879
301/948-7440

PAPER FOR LASER PRINTERS

by H. F. Chevalier

I have not yet seen a description of the specifications for the ideal sheet for reproduction by laser printing. In the absence of such a description, I'll simply list the specifications of the paper used by my company for its Xerox machines, and in the process try to explain some of the often confusing terms used in the pulp and paper industry.

Typically, paper for use in small quantities, as in offices, comes packaged by the ream (500 sheets), with a printed label on each package describing the contents, as, for example, the following (from my office):

"For Xerographic copiers/Offset Duplicators/Laser Printers"

"Hammermill Fore 9000 - DP

8 1/2 x 11 - 10M - S20
LONG WHITE"

The first statement indicates that someone, probably the mill and/or the merchant, and presumably after considerable testing, has determined that this paper works well in laser printers, as well as the other two machines listed. The word "Hammermill" is the name of the mill, or firm, who manufactured this paper. "Fore" is the mill's choice of a name for this particular grade and indicates that it is in the medium price range. "9000" is a class of Xerox machines. "DP" stands for "dual-purpose" and indicates that this paper will run satisfactorily in both high-speed and normal-speed Xerox machines.

We are dealing here with what are known as "fine" papers, which are those grades designed for writing and printing, to distinguish them from newsprint, or specialty grades, such as those for housing construction.

My company happens to buy this Hammermill grade for its copying needs from the Stanford Paper Company, a well-known merchant in the Washington area. Before you rush out to buy your first ream from Stanford, however, a caveat: paper merchants do not sell to retail customers. While they are happy to do an occasional favor, they are organized and staffed solely to serve the users of large amounts of paper, i.e., printers and publishers. As with most manufactured products, the more paper you buy at a time the lower the price gets. I have no up-to-date price lists for paper, and so am unable to list here the quantities at which the prices break. In any case, for a single ream you would go to your local stationer; Stanford would be happy to accept orders for 500 lbs or more.

Owing to the many complications in the manufacture of fine papers, and the consequent difficulty of maintaining consistent quality within a given grade, the reputation of mill/merchant partnerships is of special importance in an industry where so many customers buy on the basis of price alone.

Returning to the ream label, the "8 1/2 x 11" is of course the dimension of the packaged sheets, in inches. The line under the 11-inch dimension, with the word "long" below it, indicates the direction of the grain, i.e., the grain runs parallel with the 11-inch dimension. (It is common practice to put the words "grain long"—or short, as the case may be—in

writing, following the dimensions, as insurance against errors in transcription.)

"Grain" is a direct result of the use of a paper machine, the primary feature of which is an endless wire screen woven of brass or bronze (the "fourdrinier"—from the inventor's name) upon which is flowed the heavily diluted paper stock which is about 99% water at this "wet end" of the machine. The wire is travelling so fast (up to 3,000 feet/minute on modern machines) that the paper fibers are forced to line up parallel to one another and end-to-end in the direction of travel. It is this longitudinal orientation of the fibers that gives paper its "grain". As the fibers are being rushed along, water falls through the screen from the rapidly-forming "web" until, at the precise moment when it becomes able to sustain itself, it leaves the screen and passes onto a travelling woolen felt where more water is removed (the "press section") and then into the driers, where heat and felts remove about 25% of the remaining moisture until at the delivery end the finished paper contains only about 5% moisture.

At a point before the delivery end there is usually a "calender stack"—a vertical arrangement of polished rollers—through which the web of paper passes. Pressure between these rollers may be exerted to smooth the paper surface in varying degrees. Paper with a rough surface ("antique" finish) receives little or no calender squeeze. Increasing pressure produces ever smoother surfaces ("machine finish", "English finish", etc.) until further smoothness cannot be achieved without applying a coating to the paper surface, followed by more calendaring. A coated surface allows a printer to reproduce halftones of finer screens, and it reflects more light from the paper surface, a very important factor in color reproduction.

Grain direction is of concern primarily in binding. Try folding, or tearing, a fairly heavy sheet of paper in two directions at right angles to one another. Against the grain, you meet some resistance; with the grain, much less. A simple test to determine grain direction is to moisten a small piece and watch the direction of curl: the grain lies parallel to the trough of the curl. It is usually, also, immediately apparent when tearing a sheet in that the tear is noticeably smoother and more even when in the grain direction.

Problems arise in printing and binding because paper is "hygroscopic", i.e., it absorbs moisture from the surrounding air. The moisture causes the paper fibers to increase in circumference and diameter, thereby enlarging a sheet of paper in the dimension perpendicular to the grain direction. Such a change in size more in one dimension than another creates difficulties in close-register color printing on sheet-fed presses, and in binding, if the grain is not parallel to the binding edge. In the latter case, the sewing or adhesive along the binding edge prevents the paper from creeping in the direction it must as its fibers increase in diameter, thus causing buckling and gusseting of the paper, which is not only unsightly, but can at times weaken the binding. Books bound with the paper grain in the "wrong" direction are known as "cross-grained".

contd.

The next specification on our little list is "10M - S20" which is a specification for weight. This is the most confusing specification of them all, coming as it does from the days when all printing was done by sheetfed presses, and based upon arbitrary classifications of paper by use. There are 30 different kinds of paper presently classified. Ten of these have arbitrary "basic" sizes and each is made in different ranges of "basic" weights. In our example of Hammermill, the "10M" simply means "10 pounds per 1,000 sheets" of the size already specified, 8-1/2" x 11" or, in other words, that one ream of this size weighs 5 lbs. (the "M" of course being the Latin symbol for 1,000). The "S20" means that the "basis weight" of this particular kind of paper, which is bond or writing, is 20 pounds, which in turn means that in its "basic size" of 17" x 22" (which must be memorized or looked up in a table for this particular kind of paper, which is bond or writing) 500 sheets weigh 20 pounds. The "S" stands for "substance" which has a meaning identical to "basis weight". So much for ancient definitions.

But there is an end to this morass in sight. Europe is, of course, using the metric system and its method of designating weight of paper by grams per square meter (g/m^2) is slowly appearing here. This metric method, based on area, in one stroke wipes out all the old classifications of paper and their arbitrary "basic sizes" along with the time-consuming

calculations required to find the weight of irregular sizes. But the metric method isn't quite here yet, so our printing estimators will have to postpone their vacations once again.

As the 18th century wore to a close, people weren't throwing their shirts and underwear away fast enough, so a larger supply of papermaking fiber had to be found. To compound the problem, in 1814 the first steam-driven rotary press was installed for the *London Times*. The Fourdrinier paper machine, developed in this period, was part of the answer to the ever-increasing demand for paper. The substitute of wood fiber for cloth was another answer, but one with unfortunate long-term consequences. Because mechanical engineering was better understood than industrial chemistry at that time, and because the fastest, cheapest way to make paper was to use the whole tree (except the bark), pulp was prepared by simple mechanical grinding with the addition of water. What was not known until much later is that wood also contains "lignins" that self-destruct upon exposure to light and air. Paper made in this period was widely used in books as well as newspapers. Ask librarians what their major problem is today. Almost all books produced from the early 19th to the early 20th century are self-destructing.

The good news is that the correct chemical answers are now known so that paper can be made today that should last as long as Gutenberg's Bible. ☺

MORE ON PAPER FOR THE LASERWRITER

by Stephen C. Warren

With the power of publishing at your fingertips, Apple LaserWriter users are now finding that there's wisdom in the expression, "The Medium is the Message". Not only is crisp text an ideal we all appreciate, but the type of paper you print it out on is also worth consideration. Here is a brief description of how you might use your LaserWriter with a variety of paper stock:

Camera-ready artwork: for general LaserWriter usage, corporate Apple recommends regular Xerox copier paper (specifically, #4024); it's cheap and easily available. Others in the field may recommend a slightly heavier weight, so long as it is not too heavy and the surface is extremely smooth. One important note: the rougher the paper surface, the worse off you'll be. Definition of images will suffer, including the LaserWriter's ability to produce crisp text without "the jaggies". As a side note, some LaserWriter output can be very light where you have large areas of black. If your printer has trouble shooting such artwork, take your print-out to a quick-print shop and have a darker xerox copy made. One thin dime can still go a long way sometimes!

Overhead transparencies: On the recommendation of Tom Piwowar, of the dPub SIG, use regular 3-M brand transparency material, but stick with the medium-to-heavy stock. He says they come out very nicely on the LaserWriter, without the necessity of the white side-strip used by many photocopiers.

Resumes and Legal Briefs: While many bond papers are manufactured according to their percentage of cotton rag

material, John Topper of Gestalt Services has had some luck with linen stock, but be aware that this is a very coarse stock and can lead to printouts which are not crisp. Many law firms use a vellum paper that has a smooth acid-free surface because of its long archival shelf-life. However, for a quick resume, you can use any bond paper in a pinch with good results—so long as the surface is very, very smooth. The heavier bonds may jam in the printer, so be careful. Piwowar points out that a "well calendered", (meaning very smooth) paper is most important because a rough bond, while feeling impressive to the touch, will only emphasize the defects of your printout. For example, a 25% cotton bond gives poor results, particularly if you incorporate graphics into the text where the printer must accommodate large areas of black.

Paste-up and Mechanical Layouts: If you're still using traditional waxing and paste-up techniques after you typeset with the LaserWriter, xerox copier paper will not work. The wax seeps through and will show up at the printer. Topper recommends a paper known to printers as "moisturite matt", or "patina", which is a competitive stock to moisturite. This paper is sealed in a way that prevents wax seepage, and if you ask your printer about it, you can find out more. If you're not using waxing techniques, try a can of "Sprament" adhesive. The results are pretty good, but you take on two risks: 1) you have very little room for error, as the spray cement dries quickly—and pulling text back up usually damages the paper (try using very light coatings instead of "soaking" the back of your text); and 2) once you get the

contd. on pg 51

The View from Durham

by Chris Klugewicz

This is the one-year anniversary of this column; I can hardly believe it—it seems that the year has gone so quickly! It's been a lot of fun writing this column and hearing from many of you who read it, and though I've missed a deadline here and there, I hope I've provided both information and entertaining reading. Many thanks to all of you who have written—I'd mention names, but I'm terribly afraid I'd forget someone—and I am grateful for all the encouragement you've given. Special thanks to the Editor who gave me the chance to write this column in the first place.

For those of you who have just joined us... A little autobiographical information: I'm a senior majoring in zoology at Duke University in Durham, North Carolina (thus the title of this column), but I live in Bowie, Maryland. I'm a passionate fan of Duke basketball and the Washington Redskins (and I therefore hate the North Carolina Tarheels and the Dallas Cowboys). At school, I'm involved in television and theater. I've been writing as long as I can remember (one of my stories was published in a library journal when I was eight), but I've been around computers only since the seventh grade, when I encountered an HP 2000 which ran a very archaic form of BASIC. Soon after, I was introduced to an Apple][+, and it was love at first sight. Three years later, there followed a temporary defection to Atari—I bought an Atari 800—which was caused by Apple's overpricing and my abject poverty (neither of which, I'm sorry to say, has changed much in the last four years). When the Mac was introduced in 1984, I sold my Atari and rejoined the fold. Two years later, here I am, the proud owner of a Thin Mac (too obstinate to pay Apple's ludicrous prices for a 512K upgrade, I held out till they became reasonable; only they never did, and now the 512K upgrade has been discontinued) without an external drive (disk swapping—I won't tell you what my roommate and I call it—has become a way of life).

More of the same. When I first started writing my views from Durham, I pleaded for mail. It wasn't just that Durham is kind of a technological backwater (although it is), but that I really was interested in knowing what Washington Apple Pi members (a notoriously diverse group) thought about things computerish. Well, all that is still true: Durham is still a backwater, and I'm still interested in what you have to say. You're welcome to write about anything, and I guarantee that I'll put you in my next column (I may even write back, now that the MCATs are over and done with and I have time to breathe again). My address is at the end of this column, and my CompuServe ID is 72437,3267. I'm a member of MAUG's MACUS, MACDEV, and APPUG conferences, so you can leave electronic mail for me there, too. (For those of you who don't have modems or are unfamiliar with CompuServe, MAUG is the Micronetworked Apple Users Group, essentially a giant bulletin board system. MACUS, MACDEV, and APPUG are the Mac Users, Mac Developers, and Apple Users Group forums within MAUG.

Aren't acronyms great?) Finally, I'm SYSOP of the WAP Telecommunications System's Board 6 (Mac Hardware), so you can leave me mail there, too.

By the way... Although I generally lay waste (verbally) to Durham, North Carolina, it's really a pretty nice town. I'm just used to Washington and *civilization*—er, that is, I mean...

Foot in mouth disease (and Consumer Advice).

Profuse apologies to Glen Humphrey, whose letter of February 19 got buried in the papers on my desk and wasn't discovered until I was packing to come back to Washington. Glen reports that he's had generally good experiences with mail-order houses, at least in ordering software (he's ordered about 25 packages through the mail). He writes, "The two retailers I like best are Silicon Express in Columbus, OH and Northeastern Software in Stratford, CT (but see below!!—CJK)—they always deliver within one week. I've ordered a few things from Programs Plus, mentioned in your column. They took a little longer, one to two weeks, but the stuff arrived okay." Glen says that he's not had as good experiences with hardware, however. He had a problem with a place called SGA (which he suspects of having gone out of business since then)—a modem he ordered took two months to finally arrive. Glen would also like the "consumer advisory" section of this column to be a regular feature. I would too! Keep those cards and letters coming in, folks! (If you haven't written yet, now's your chance!)

More mail. The mailbox was stuffed this month, mainly with responses to inquiries I'd sent to manufacturers about their products. None of them were particularly interesting, and some of them (such as a font editor for the LaserWriter) were horribly overpriced. Scott Peters wrote me (twice!) to tell me a little more about the theatrical application he'd seen in *Wheels for the Mind*. This little gem lets you map out and play back (sort of like VideoWorks) blocking for a play. The big difference is that you can synchronize it to a tape! Scott also sent a review of MultiWrite, a word processor with outlining, in response to my criticism that there weren't any real word processors available for the Mac. Also, Ben Frank, a neighbor here in Bowie, called just to say hello and offer some encouraging words about this column. Thanks, Ben!

Caveat emptor!! I have heard absolutely TERRIBLE things about Northeastern Software of Stratford, CT! Most of the mail I've received from readers that's mentioned Northeastern has been highly critical, and I've gotten the same reports from area BBS's. I *strongly* recommend that you do not purchase anything from Northeastern. My suggestion: buy locally or from a well-regarded mail-order house like MacConnection.

Apple // news. The latest word on the Apple // is "don't do anything yet!" Rumor has it that a new "super Apple //" will be released Real Soon Now (maybe by

September). This machine will supposedly be true 8/16 bit, have Apple][+, //e, and //c emulation modes, and a *Macintosh emulation mode as well!* (The Mac emulation mode will allow it to run some Macintosh software; what software, I haven't heard.) I hear this machine will retail at around \$1500, which is quite reasonable, for Apple. With discounts, expect that to be around \$1000. (Can you say, "Watch out, Atari!")

The Mac software mess. What's going on here? The official version of the Mac System software is 3.2, of the Finder, 5.2. However, neither of these is "recommended" for the 128K Macintosh. Thus, we poor 128'ers are using Systems and Finders that are over a year out of date. To make matters worse, HFS (the Mac's new Hierarchical File System) is incompatible with the Mac 128. Great. Worst of all, an "official" upgrade has never been announced by Apple—at least not to the general user. (Reminiscent of the original April 1985 update, isn't it?) Besides the System and Finder, there are at least three "official" LaserWriter drivers (all different) and LaserPrep documents, two Choose Printer (or "Chooser") desk accessories, and two Imagewriter drivers. Various combinations of these are being used unsuccessfully by various people with various configurations, so they're not exactly compatible. WHY DOESNT APPLE TELL EVERYBODY WHICH VERSIONS THEY SHOULD HAVE? Or better still, provide dealers with a disk containing the latest, "official" versions of all of these. The situation as it is now is just plain ludicrous.

The new WAP Telecommunications Systems.

Formerly known as the WAP Bulletin Board Systems, the new UBBS, multi-line, multi-user telecommunications system is up! After using it for three weeks, I've gotten to really like it...for the most part. There are some problems, such as long delays when saving messages and odd errors that throw you off the system, or worse, into BASIC. All in all, however, I enjoy it—there's always something new on at least one of the thirty-two boards, and there's always something interesting under discussion. My personal favorites are Boards 17 (GAMESIG), 22 (Jokes), 31 (Lafayette Park—general discussions), and 6* (best bulletins on the system), though I read just about all of them. I'll say it again: If you don't have a modem, you're missing out on one of the most rewarding aspects of microcomputing—telecommunications. With 1200 baud modems available for under \$100, anyone who wants to do so can get involved. (If you're at all interested, then TRY IT!! You'll love it!)

The New York Times (a.k.a. " * * * "). I have never heard of anything so silly: Infocom (the Zork people) publish a newsletter for registered owners of their games, and it's called *The New York Times*. Well, the latest issue came last week, and its title had been replaced by " * * * "!! It seems that a stodgy, humorless newspaper published about two hundred miles north of Washington objected to Infocom's "misuse" of its name. Infocom is now looking for another name for its newsletter. Is this stupid, or what? Certainly, there is no possibility of confusing the two documents: *The New York Times* was funny and provided much interesting reading. If this pettiness annoys you as much as it does me, then drop a note to the New York Times and tell them so. Let's rescue * * * * !

Please skip this paragraph... if you're as sick of articles about Macintosh Wizardry as I am. (short pause) Since you've gotten to this sentence, you've obviously not had enough yet, so here I go: I got Mac Wizardry recently (three days ago), and I've been playing it almost constantly ever since. It's a really addicting game! I haven't gotten this involved with a game since *Dungeons & Dragons* (which Wizardry resembles very closely) or *Traveller* (a game which has been unjustly neglected—it's superb). I hate for Ron Wartow to be able to say he told me so, but he told me so. All I'll say further on the subject is this: if you've never played Wizardry, try it—you have a very pleasant surprise ahead of you. (And if you have played Wizardry on another computer, you might want to try the Mac version anyhow: there are many new monsters, and the mouse is an absolute JOY to use!)

Last words. Recommended reading: *Gate of Ivrel* by C. J. Cherryh; a fascinating book about honor and courage in a distant and terrible age. Recommended viewing: "Educating Rita," a charming movie about a sodden English university professor who takes up tutoring a lower class woman named Rita. Absolutely recommended.

Next month... A surprise!

* Did I mention that I'm the SYSOP of this board?

my summer address:

12400 Kembridge Drive
Bowie, Maryland 20715

.....
CompuServe ID 72437,3267

More Paper contd. from pg 49

spray on your fingertips, every time you touch your text or graphics, you can pull up toner, or worse yet, later leave smudge marks and fingerprints on your artwork. I've used rubber cement instead, and with great results. The excess glue that seeps out from your artwork can either be "rolled off" with your finger, or taken off with a pencil eraser.*

This is just a beginning. New paper stocks are being developed to accomodate the laser printers that have now become common office machines. For example, one manufacturer, Hammermill, has come out with a stock called "Laser Plus". Others are sure to follow, and in a future Pi Journal, we hope to have more information for you. John Topper, who has very good sources in the paper industry, has promised a terrific article on specific manufacturers, suppliers, prices, and product trade names. Until then, keep experimenting, and if you run into a good tip or two, send it in! There's no cartel in the marketplace of ideas!

* Ed. Note: We have used Dennison Glue Stic's over the years. These do get messy toward the end of the job (and when you are most tired). We are experimenting with cold "Adhesive Wax Sticks" which seem to work fairly well. They are available from The Printers Shopper, 111 Press Lane, Chula Vista, CA 92010, (800) 854-2911.

- Sort in descending order (Z,Y,X,W,V... or ...5,4,3,2,1)

Make the appropriate choices. In the case of the reception guest list, you might want to sort alphabetically in ascending order so the list starts with the Andersons and ends with the Zendas.

Unless you instruct your data base program otherwise, it will sort your information based on the first "field" in your raw data file. If you entered last names first, then your list will be sorted by last name. If you entered first names first, it'll be sorted by first name. But, your software will also give you the opportunity to sort by different fields. When you choose SORT you will be asked to designate the field (or fields) by which to sort. This is when you can decide whether to see your guest list alphabetized by name, or by office, or by title, or even by whether or not the guest has accepted your invitation!

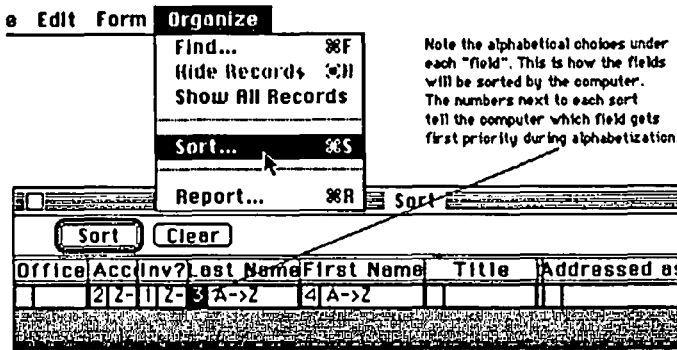


Figure 3 - "Sort"

Now for some more magic. Using another of the commands at your disposal in the data base program, choose REPORT. This is the command which allows you to view on the screen or print on your printer a list containing all your raw information presented in any order and in any format you choose.

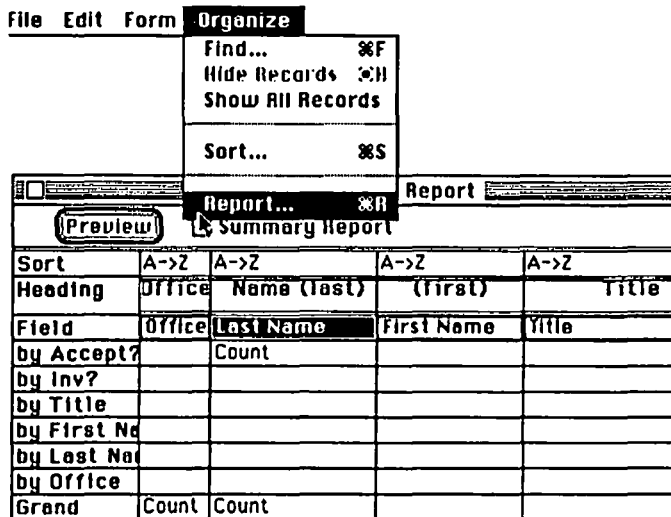


Figure 3A - "Report"

You'll be offered a series of choices again, this time much more complex. You'll be asked to tell the computer which "field" should come first in your report. Which should come second, and so on. It will offer you the opportunity to "hide" some information (in some reports, you may not need to see the telephone number, for instance, or the indication of whether a guest has been invited.) And the computer will ask

you how to sort that information. (The same choices as noted above.)

List of Guests Sorted by Office			
Final List 6/29/86			Reception
Correspondents Association Guest List			
Office	Name (last)	(first)	Title
EUR	Thomas	Mark	Director, Office of Soviet Union Affairs
	Abramowitz	Gloria	Press Officer, Bureau of European Affairs
	Parris	Rozanne	Assistant Secretary for European Affairs
	Redman	Thomas	Office of Soviet Union Affairs
	Ridgway	Tom	Press Officer, Bureau of European Affairs
H	Simons	William	Assistant Secretary for Legislative & Intergovernmental
HA	Switzer	Paula	Press Officer, Bureau of Human Rights
	Bell	Richard	Assistant Secretary for Human Rights & Humanitari
	Kuzmich	Steve	Press Officer, Bureau of Human Rights
INM	Shifter	Jon	Assistant Secretary for International Narcotics Mat
INR	Snow	Morton	Director, Bureau of Intelligence & Research

Figure 4 - "List Sorted by Office"

- You could create a guest list alphabetically by last name.
- You could create one alphabetically by which office the guest works in.
- You could create a list according to which guests have been invited, or which have accepted their invitations.
- You could have a list of paying guests and another of non-paying guests.
- You could create a list of guests by their "addressed as" titles (which would be a list sorted by sex).

And with many data base programs, you can instruct the computer to show you the total numbers in each category. So, by following the instructions in your program, you could show total number of guests who've been invited, or who've accepted, or who've paid.

List of Guests Sorted by Office			
Final List 6/29/86			Reception
Correspondents Association Guest List			
Office	Name (last)	(first)	Title
EUR	Thomas	Mark	Director, Office of Soviet Union Affairs
	Abramowitz	Gloria	Press Officer, Bureau of European Affairs
	Parris	Rozanne	Assistant Secretary for European Affairs
	Redman	Thomas	Office of Soviet Union Affairs
	Ridgway	Tom	Press Officer, Bureau of European Affairs
H	Simons	William	Assistant Secretary for Legislative & Intergovernmental
HA	Switzer	Paula	Press Officer, Bureau of Human Rights
	Bell	Richard	
Count:			Note the automatic "count" of the number of offices and the number of names.
34	131		

Figure 5 - "Data Bases Can Sum Up Totals"

By choosing the FIND command, you can ask the computer to quickly locate individual names, or give you a list of all the guests who work in the same office, or all the guests who have paid, and so on.

The more glitzy data base programs offer even more magic. Some (such as Microsoft File) allow you to create a mailing label using the "fields" in your raw data file. By moving the "fields" appropriately, you could make the program address your invitations, using the "Addressed As" title, first & last names, office location, etc.

You could even create personalized invitations, using the Macintosh's fancy fonts and instructing your data base program to insert a different first and last name on each page! Once you've created the raw information file, data base programs offer you the opportunity to manipulate that information in many ways, making list-making easy and preventing

contd. on pg 56



FREDERICK APPLE CORE

A SLICE OF THE WASHINGTON APPLE PI



OFFICERS & CHAIRMEN

President - Scott Galbraith
 Vice President - John Lee
 Secretary/Treasurer - Bruce Taylor
 Librarian - Tony Svajlenka
 Newsletter Editor - Kathy Kenyon
 Newsletter Chairman - Lynn R. Trusal
 SIG MAC Chairman - Lynn R. Trusal
 SYSOP - Scott Galbraith

HOTLINE MEMBERS

Lynn R. Trusal - (301) 845-2651
 Scott Galbraith - (301) 865-3035
 Kurt Holter - (301) 663-4199
 Bruce Taylor - (301) 371-6181

The above members of the "Frederick Apple Core" (FAC) have agreed to field questions on Apple computer hardware and software for FAC members. Please no calls after 10:00 PM.

The Frederick Apple Core meets the second Thursday of each month in the large conference room of the U.S. Army Medical Research Institute of Infectious Diseases, Ft. Detrick, Frederick, MD 21701-5011 at 7:30 PM.

The SIG MAC of the Frederick Apple Core meets on the fourth Tuesday of each month in the same location and at the same time. Mac owners in the local area are welcome. Call Lynn R. Trusal at (301) 845-2651 for details.

Upcoming Programs

August 14 - Program to be announced
 September 11 - " " " "

SIG MAC Upcoming Programs

August 26 - Boston Mac Expo Discussion
 September 23 - Desktop Publishing

THE MACINTOSH PLUS WITH HYPERDRIVE

by Lynn R. Trusal (Frederick Apple Core)

Several weeks ago, I had the HyperDrive 20 megabyte hard disk installed in my Macintosh Plus. Recently, the price has come down (\$1,695 list) and the wholesale cost is in line with many other Macintosh hard disks on the market. I had gone round and round on the decision of which hard disk drive to buy. The stability of some of the current companies and the smallness of others made me hesitate on one of the new SCSI hard disks. Although AST and IOMEGA are major manufacturers of IBM products, their hard disks for the Macintosh are either too large (megabytes) or too expensive. Therefore, I decided on the HyperDrive from General Computer, Cambridge, MA (617) 492-5500. They were one of the first manufacturers to offer a hard disk for the Mac, but the price clearly made them the Cadillac of hard disks. The introduction of Apple's HD20, lower cost SCSI disks, and other cheaper internal disks has put the pressure on General Computer to lower their internal drive prices.

General Information

The package I received included the manual, manual addendum, warranty card, Hypercare pamphlet, system software 1 and 2, and back-up disk labels. The manual is a slick 138-page publication on the order of most of Apple's manuals. The layout is professionally done, and I found the manual very easy to use. The addendum covered some of the new features related to the hierarchical file system (HFS), and a text file on the disk contained another file discussing differences between software releases V1R5.1 and V2R1. Not all features of the

HFS are fully supported at this time and will be included in a later release. These include back-up and optimization of HFS drawers. HyperDrive now uses System 3.1 and Finder 5.2 and includes DA/Font mover 3.1. I tried updating to System 3.2 and Finder 5.3 but HyperDrive would not recognize my updates. There may have been some resources in the older system that I deleted when I removed the System 3.1. I returned to the original system and the disk booted ok.

Installation

The hardware installation was done by the dealer but once I got the computer home, it was time to install software on the disk. The HyperDrive powers up when the Macintosh is turned on and a start up disk is not necessary. If another disk is used for start up, the Macintosh will behave like a 512 K Mac and not a Mac Plus. The "HyperDrive Manager" allows the user to set up "drawers". Other manufacturers use the term virtual drive or volumes to mean essentially the same thing. HyperDrive allows the automatic or dynamic partitioning of the drawers, which is a feature found in few hard disks for the Macintosh. By this, I mean you do not have to decide in advance how many megabytes you wish to assign to a particular drawer. As drawers are created, the software automatically enlarges or shrinks the size of the drawer, based on how many bytes of data you put into it. Having worked with the Sunold drive, I know how wonderful this feature is. When each drawer is created, you are presented the option of making it HFS or MFS, and assigning password protection. Hyper-

contd.

Drive software also includes print spooling, security encryption, and optimization of the disk organization after file deletions. Files may be backed up by drawer, single file, or only files changed or created since the last backup.

I set up 8 drawers, including ones for MacWrite, Excel, databases, telecommunication, DA's and utilities, Paint/Draw/Draft, and games. Since the current version of the software does not allow the backup of HFS drawers, I set up another drawer as MFS and called it "backup." HFS drawers may be backed up by transfer of their contents to a MFS drawer, which may then be backed up. The next version of the software will correct this problem.

Drawers may be accessed under the desk accessory option called "drawers" or from the desktop by the "HyperDrive manager" found in the "startup" drawer. Only the startup drawer is on the desktop at startup unless the option is chosen to mount all drawers that were on the desktop at the last power-down. The HyperDrive software also allows you to determine the number of files (from 128 to 512) that can be in a drawer. Disk-caching and drawer-mounting RAM allocations are also permitted. Basically, you choose the options that either maximize performance or maximize compatibility with software you are using.

Performance

When the HyperDrive 20 was first released, there were major problems with the hardware, and some dealers discontinued installing the drive until the problem was worked out. This was months ago and apparently General Computer has corrected the problems. Although I have only had the HyperDrive less than one month, I will give you a general idea of its performance and my likes and dislikes. The speed of HyperDrive 20 is one of the nicest features, but the software provided with it clearly ranks as a very important feature. I will discuss each of these items in more detail.

First, I like the self booting feature that allows the Mac to start up directly from the hard disk without having to insert a floppy disk. Once turned on, the Mac boots to the desktop in about 20 seconds.

I also like the print spooling feature of the HyperDrive. It will use the available memory on the hard disk to store your documents to be printed and allow you to continue to work. Occasionally when all the Mac resources are needed, the printer will pause for several seconds before resuming printing. The only disadvantage I have found with print spooling is that if you decide to cancel the print operation, it may have already been dumped to the print buffer before you can cancel it.

I have not found the password or encryption options useful so far because I am the only one with access to the computer. I do feel that these would be very useful where others have access.

I found the back up option not very useful with the current software because there are major problems. The user is given the option of backing up by "drawer," "files by name," or files added or changed since the last backup ("incremental backup"). Although the incremental backup sounds like the best option after the initial backup, it has some drawbacks that make it less attractive. A new disk must be used for this backup even if only one file is to be backed up. There did not appear to be a way to add new files to the existing floppy backup disk

without backing up all the files. When I called General Computer and asked them about this they told me they do not recommend the "existing file or incremental backup" because a new disk must be used each time. I found this to be a major problem but it was not the only one. The "drawer backup" option was speedy and was the method I preferred. The inability to directly backup HFS drawers with the current version of the software is a deficiency that should be corrected soon. In addition, the HyperDrive backup option allows backup comparisons between what is on the hard disk and what you have backed up on a floppy. This verification process is a very useful option to assure backup accuracy. A history of backup operations is maintained and can be displayed on the screen or printed.

Another major problem with the backup software occurred when I tried to restore several volumes. The necessity for this came about when I decided to create only two drawers; one for the data and one for programs. In doing so, I exceeded the 128 file limit under which the original drawer was created and this necessitated changing the "preferences" in the HyperDrive Manager. After increasing the limit on the number of files to 256, I found this prevented the drawer from being mounted from the "drawer" option under the "DA menu". It was now necessary to open the drawer using the HyperDrive Manager, but this option did not work either. The error message implied that my "file directory" had been damaged. General Computer offered one suggestion that did not work and I found it necessary to re-initialize the hard disk. Needless to say, my data was lost. No problem, I said, since I had faithfully backed up most of the drawers. Unfortunately, the backup software appears to not be so great after all. When I attempted the backup, things did not go according to plan. I had one master disk and 4 data disks that contained the backup for the "program drawer". When I started the backup process, the screen dialog box started asking for data disk numbers like 7, 8 and 9 when I only had 1 through 4. Nothing I did was able to correct the problem and I was unable to do the backup. They was true for other backed up drawers also. Needless to say I was getting frustrated. Once again General Computer suggested an option to get around the problem. Apparently the "master disk" treats the disks as 400K when they are really 800K disks. I do not know if their suggestion works but I am getting the idea that there are major problems with the HyperDrive software that is supposed to be one of the major selling points.

Another problem developed when I tried to use the clipboard with MacPaint and MacDraw to transfer graphics between the two programs. Not so fast! This didn't work either with messages like "unable to read or write to the scrap" appearing on the screen. Another call to General Computer revealed that both MacPaint and MacDraw had to be in the "startup drawer" for the clipboard to work. I tried it and it did work, but then I didn't want MacPaint and MacDraw in that drawer.

When I tried to set up a HFS drawer that was originally created under MFS I had problems again. To do this, I created a new drawer and made it MFS. I then transferred the data from the old HFS drawer to the new MFS drawer and deleted the old HFS drawer. You can imagine my surprise when I discovered the new MFS drawer was still HFS. All in all, I
contd.

have gotten the impression that HyperDrive software still has many bugs and the problems are not solely related to lack of full support for the HFS. One of the personnel told me that they had written up a report on the MFS/HFS problem and turned it over to the software engineers. When you call General Computer on their free customer support line you get the impression that they are aware of the problems but don't advertise them. If you ask the right questions you get a better picture of what problems exist, the fact that they are aware of most of them and that they are working on them. To their credit, they do offer free telephone support and provide free software upgrades to dealers for distribution to current owners. By the time this article appears in the Journal, they should have released a software update that includes full support for the hierarchical file system, although not all the problems I experienced appeared to be HFS related.

I also attempted to update the System file to version 3.2 and the Finder to version 5.3 but this resulted in problems. The HyperDrive instructions say that System 3.1 and Finder 5.2 or higher must be used, but a call to the company confirmed that only System 3.1 and Finder 5.2 should be used at this time. Are you getting the impression the toll-free 800 number was a good idea?

Finally, the software includes a test program to test for bad blocks on the disk. I did not test the disk before loading it with software but ran the test program after using the disk for several weeks. Although the manual states that HyperDrive can compensate for up to 64 bad blocks (512 bytes each), 10 is considered normal. After running the test, I was surprised to learn that there were no bad blocks. This was also the experience of another recent owner of the HyperDrive 20.

My only dislike with the hardware is the noise of the HyperDrive fan. I find it louder than it needs to be. I have a larger, external muffin fan cooling my Mac at work that is considerably quieter. The HyperDrive 20 fan blows air out the top, back vent on the right side, but not the top vents that normally cool the Macintosh by convection cooling. I don't know if General Computer has tried quieter fans but I think they could get one that does the job with less noise. The HyperDrive during operation is very quiet with an unusual noise for a hard disk, but it is barely audible. It sounds like gremlins are inside the Mac.

After loading about 10 megabytes of programs and data into the HyperDrive, I timed loading applications from the desktop. The following table is a summary of these operations. I haven't run bench mark software to make more accurate calculations, but, since I'm not making drive to drive comparisons, this is a moot point. Compare these figures to your own results booting from 400 or 800K drives.

Application	Time
MacWrite 4.5	7 sec
MacPaint 1.5	4 sec
MacDraw 1.9	9 sec
Excel 1.00	7 sec
Switcher 4.9	2 sec
Red Ryder 9.2	6 sec

I then loaded switcher and configured it with MacWrite (128K), Excel (304K), MacPaint (128K), and MacDraw (128K). It was the first time, I have been able to load four major applications into Switcher. The time required to load

all four applications was 32 seconds. With a 512K Macintosh, I had been unable to load the two applications Excel and Cricket Graph because both require substantial memory. And who said that 512K was enough memory? It was probably the same guy or woman (are you listening Regina?) who said that 64K was enough!

All in all, I am quite impressed with the speed of the HyperDrive 20. My only problems appear to be software related and I have faith that General Computer is serious about working them out. The first time it crashes, you may be able to hear me without the benefit of a Journal article. I like the ability to quickly exit an application and open another one without the use of Switcher. I can hardly wait for "Servant" by Andy Hertzfeld, which should improve both the Finder operation and its incorporation with Switcher-like functions (See A+, July 1986, P.18). I haven't tried HyperDrive with and without disk cache. Both the Macintosh Plus and the HyperDrive contain disk cache abilities in ROM or software, respectively. This may further increase the speed of operation for repetitive functions.

If you are thinking about a hard disk for the Macintosh or Macintosh Plus, you may want to reconsider the HyperDrive by General Computer. With its new lower cost, fast speed, and probable staying power, it is definitely worth considering. I will add more later when I have a chance to evaluate the new software. Are you listening General Computer? ☺

MacNovice contd. from pg 53

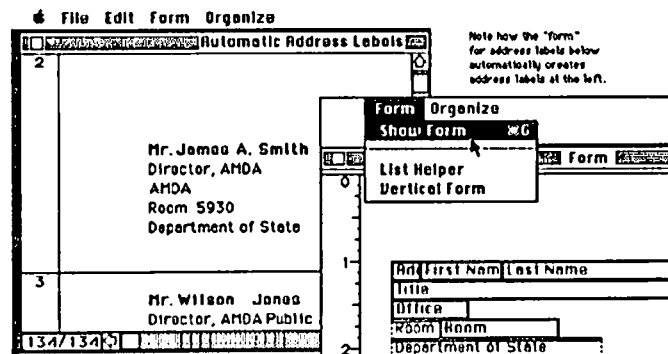


Figure 6 - "Address Label"

anyone from having to retype the basic information for each entry.

If you're now ready to experiment, try making a simple address book using the names of all your friends and associates, compiled from various sources. You could use the data file later to print fancy addresses on holiday card envelopes, or to print lists of telephone numbers sorted by "family", "friends", "business associates", "clients" or whatever categories you include in your list.

Or, go through your record or tape library and record basic information, later creating library lists by artist, style of music, instrumental/vocal, etc.

Or, do the same for your videotape library! Create a movie review list with your own "comments" attached to each title. Sort by title, director, theme, stars.

Or, try a home inventory of valuable possessions, which you could sort by room, value, item or age.

The possibilities are endless, and it's a learning experience just to experiment with "using a data base." ☺

RHYTHMS WITH CONCERTWARE(+)

by Peter Markiewicz (Frederick Apple Core)

Concertware(+) is an outstanding music composition and performance program, allowing the user to write music, as well as modify the sounds of the instruments performing it to taste. The program comes with a set of prewritten songs. Because of copyright limitations, however, none of the songs are more recent than the early part of the century. For those who would use Concertware(+) to sound like Prince rather than Beethoven, this presents a problem. There is no guide to how a modern composition should be written for sound quality. Furthermore, unless you are fortunate enough to have a MIDI connection to synthesizer, you will have to cope with the limits of the Mac's internal sound hardware. What follows is a few things that I have discovered when trying to produce 'pop' music on the Macintosh, using Concertware plus, without an attached synthesizer.

A) Problems with multiple voices and external speakers:

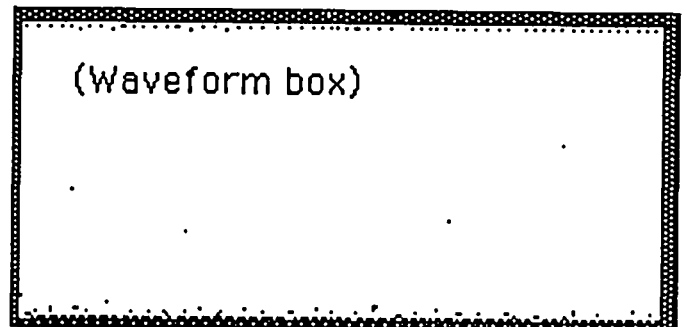
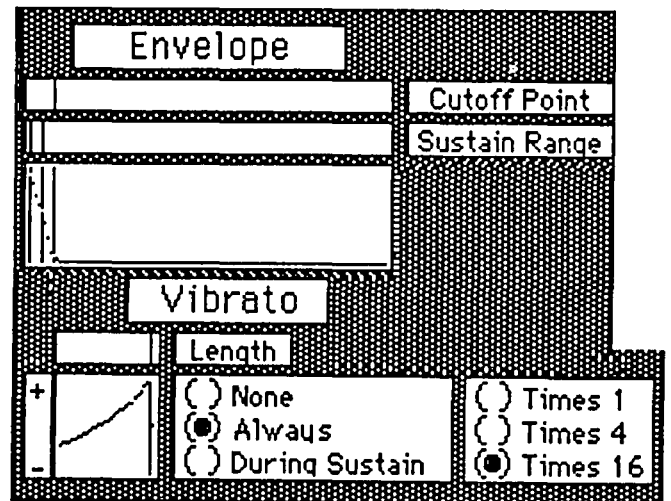
It is quite simple to hook your Mac to your stereo to increase the volume of the performance (a must if you want to imitate noisy bands). Simply connect the sound port on the back of the Mac (marked with a musical note) to the microphone input of the stereo. For a few dollars, your local Radio Shack has a large selection of connector cables that can accomplish this nicely. However, when you play a Concertware composition through the stereo, be prepared for unpleasant surprises. Many songs that sound OK if played on the Mac's own speaker will sound terrible. I am not certain if it is simply a matter of the increased volume or an actual difference in the signal coming out the sound port, but the effect is quite dramatic. Sustained notes, with long decay (like whole notes using the piano sound) sound fine on the Mac speaker, but are extremely fuzzy played through an external speaker. Dissonant bells and chimes sound like piercing electrical static in their upper range (though the lowest notes are usually OK). The situation is even worse because the volume settings in the Concertware program don't seem to work very well when an external speaker is used. Passages marked *pp* (for very soft), nearly inaudible on the Mac's own speaker, will at best be only *mp* (moderately soft) on the external speaker. And finally, the different voices seem to interfere with each other. In Concertware+, up to four different instruments can play separate melodic lines simultaneously, and will sound reasonably good together on the Mac speaker. On an external speaker, some instruments seem to cancel others. The coronet, for example, when played through the external speaker, will knock out any other instrument in its range. On the other hand, the piano produces good chords of two or three notes.

What can be done? Several simple rules can be followed to minimize these problems. First, listen to instruments and instrument combinations you intend to use with the player over your external speaker system *before* actually using them. You should test both high and low ranges. Second, avoid closely spaced chords if possible. The interference problem seems to diminish when notes are of widely differing frequen-

cies. Third, avoid long sustained notes played with several short notes. If this is really necessary, the tone quality can often be improved by adjusting waveforms by using the Instrument Maker program.

B) Percussion Sounds:

The Concertware instrument library provides a 'snare drum', but it is hardly that if played over an external speaker. You will have to design your own percussion sounds. They should have the following properties. First, avoid any type of sine-type waveform. A random scatter of points works well. Second, use an extremely sharp attack and short decay. Useful sounds can be made with just one or two points at maximum volume, and the rest at zero. Finally, use the bottom notes of instruments like the coronet or chimes for the dull boom of a bass drum. Below is an example of a cymbal-like sound, useful in the bottom octave of its range. I call it 'metal', for reasons that are obvious when you hear it:



In order for these instruments to sound percussive, they must be played very loud (*f* or *ff*), using short notes separated by rests. Playing several percussion instruments together works only if they alternate. A good way to organize your rhythm section is to a) designate one voice the rhythm voice, b) lay down a series of sixteenth notes with rests between, and c) fill in the names of the percussion instruments later where appropriate. A useful placeholder is an instrument I call 'tick', similar to a pencil tap. Draw a perfectly flat wave-

contd. on pg 60

'EXCEL'ing WITH YOUR MAC: Part 6

by David Morganstein

Copying a Chart. This month's first suggestion comes from one of those folks who reads the manual! Mike, a co-worker of mine, discovered a "hidden" command no doubt useful to anyone who needs to copy parts of a spreadsheet into another document, such as a report written with a word processor. I call it "hidden" because it can not be found among the Excel menus. Not at least until you hold down the shift key! Up until Mike showed me this one, I used the command-shift 3 key combination to create a "screen shot" in a MacPaint document. (After you strike command-shift 3 you will find a MacPaint file named Screen 0 on your disk. A subsequent strike of the same keys will produce a Screen 1, etc.) A portion of the MacPaint document can then be copied, quite easily with the Art Grabber Desk Accessory, and pasted into your text. This scheme leaves your disks cluttered with Screen 2, etc. files that have to be deleted.

Edit	Formula	For
Can't Undo	⌘Z	
Cut	⌘H	
Copy Picture	⌘C	
Paste	⌘U	
Clear...	⌘B	
Paste Special...		
Delete...	⌘K	
Insert...	⌘I	
Fill Right	⌘R	
Fill Down	⌘D	

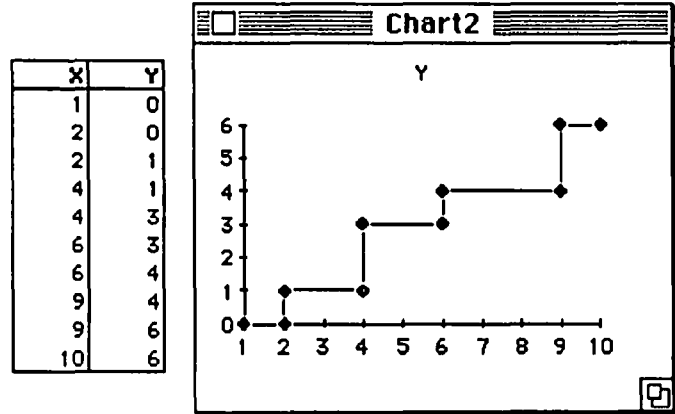
All that is over! Hold down the shift key and look at the Edit menu. What usually reads Copy, now reads Copy Picture. The term picture is a bit of a misnomer. If a portion of the spreadsheet has been selected, by clicking and then dragging or clicking and then shift-clicking, Copy Picture will put that selection in the clipboard in a MacPaint format. If GridLines or Row/Column headings are displayed, they too will appear in or surrounding the copied material. Go

to your word processor and do a Paste. Voila! I find that using this trick in Switcher loaded with both Excel and my word processor makes for easy preparation of articles and reports.

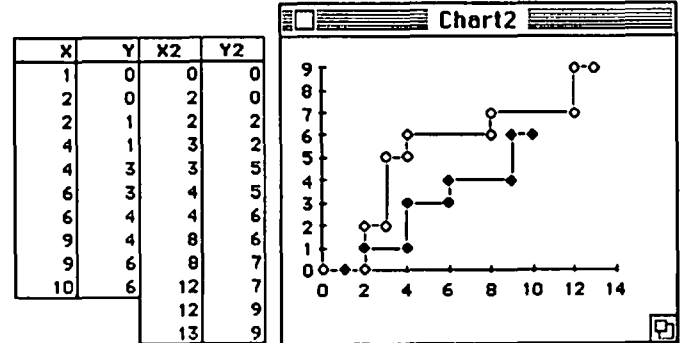
Copy Picture not only simplifies the process but makes the copy and pasting neater. You may notice that the Excel menu shown above, selected from a Screen 0 file with the Art Grabber DA, has "ugly" little pixels around the edges. If you look at the selections below made with Copy Picture, you see aesthetically pleasing displays. (As an aside, to make a screenshot of a pulled-down menu, you may find the Camera DA useful. You open it, set a delay time, and close it. Then pull-down the menu and wait for the Camera to take the picture...)

More Uses of Paste Special. Amazing what you learn when people at work ask you how to do something. By now I've begun to feel that Excel can do almost anything, if you have the patience to figure out how. Another co-worker, Nancy, asked if Excel could plot a Step Function familiar to some as a cumulative distribution curve. Take a look at the data and curve below and you will see what these are. The unique thing about the data is the repetition of a Y value at two consecutive X values to make the "step". The problem was solved by selecting the table, doing a Copy and then using Paste Special with a Scatterplot format. As in previous discussions, when you do the Paste Special you will have the

option of checking the box indicating that the categories (the X-axis values) are in the first column. Be sure to select this option.



Of course my co-worker wasn't satisfied with just this graph! No, Nancy also wanted to overlay several cumulative distributions each representing a different sub-group. Of course each sub-group had its own set of X values. No problem for Excel, even though each curve had a different number of X/Y pairs. By selecting the second X/Y columns and repeating the process, this time using Paste Special on the same graph, new curves were added to the original.



Macro of the Month. This month's macro is taken from a new book, Microsoft Excel with Macros, by D. Hergert, published by Microsoft. This book should be read by anyone trying to learn macros! The program demonstrates that Excel can produce a "mail merged" form letter. First, let's begin with the database. The one below contains six fields describing books which have been loaned out. I have added one field, Subject, to the example in Hergert's book. The purpose of this "mail merge" macro is to print an overdue book notice. The notice will contain the borrower's name, the book loaned and the due date. Excel will be asked to search the database and locate any records with Rtn (returned) equal to False, i.e. the book has not been returned, and due date greater than fifteen days ago. We need three things: the database, the form letter and the macro to select records and paste information into the form for printing.

Next we have a suggested form letter prepared on an Excel spreadsheet. Change it anyway you want. The important contd.

	A	B	C	D	E	F
1	Title	Author	Subj	Borrower	Date	Rtnd
2	C Programming Guide	Purpurn	C	Emdy	9/22/86	TRUE
3	Excel in Business	Cobb	Excel	Bob	9/11/86	FALSE
4	Excel: Business Solutions for the Macintosh	Loggins	Excel	Bob	9/12/86	FALSE
5	Hands on Excel	Goodman	Excel	Sally	9/19/86	TRUE
6	Introduction to C	Chvlian	C	Josh	9/19/86	FALSE
7	Microsoft Excel with Macros	Hergert	Excel	Fred	6/09/86	FALSE
8	Microsoft Word Macro Files	Wittman	Excel	Ed	9/19/86	TRUE
9	Programming C on the Macintosh	Ward	C	Mary	9/29/86	FALSE
10	The Complete Book of Excel Macros	Borjemin, et al	Excel	Jim	9/20/86	FALSE
11	Using Macintosh Toolbox with C	Takatsuka, et al	C	Boisy	9/14/86	FALSE

issues are only the spreadsheet's name and the cell locations for the fields to be pasted, in this case, Title, Author, Borrower and Due Date. These pieces of information as you can guess are needed by the macro which will paste in the values for each overdue book and then print the form.

	A	B	C	D	E
1					
2		Overdue Notice			
3					
4		To: Fred			
5		From: D.Morganstein			
6		Date: 7/3/86			
7					
8		This is to remind you that a book you have			
9		borrowed from the library is now			
10		overdue. The book is:			
11					
12		Title: Microsoft Excel with Macros			
13		Author: Hergert			
14					
15		This book was due on:	6/23/86		
16					
17		Please stop by the library at			
18		at your earliest convenience.			

Finally, the macro. As you can see, it is neither very long being only thirty steps, nor very complicated. Almost every command will be familiar since most can be found in Excel menus. About half of the macro, from B9 to B25, is used to select cells from the database and move them to the form letter before printing. Let's look at it in more detail.

	A	B
1	Command	Overdue
2		command-option-o
3		=OPEN("Notice")
4		=PAGE.SETUP("".0.75.0.75.1.1.FALSE.FALSE)
5		=OPEN("Books")
6		=SELECT("r1c1")
7	firstfind	=DATA.FIND(TRUE)
8		=IF(NOT(firstfind),GOTO(end))
9	title	=ACTIVE.CELL()
10		=SELECT(",rc1")
11	author	=ACTIVE.CELL()
12		=SELECT(",rc2")
13	borrower	=ACTIVE.CELL()
14		=SELECT(",rc1")
15	duedate	=ACTIVE.CELL()+14
16		=SELECT(",rc4")
17		=ACTIVATE("Notice")
18		=SELECT(B4)
19		=FORMULA(borrower)
20		=SELECT(C12)
21		=FORMULA(title)
22		=SELECT(C13)
23		=FORMULA(author)

24		=SELECT(ID15)
25		=FORMULA(duedate)
26		=PRINT(1,1,1)
27		=ACTIVATE("Books")
28	nextfind	=DATA.FIND.NEXT()
29		=IF(ACTIVE.CELL()<>title,GOTO(title))
30	end	=RETURN()

B3 and B5 open the blank form letter and database sheets. B4 does a page setup. If you compare B4 with the page setup dialog box, you will see eight entries that match up. There are two text entries which B4 has set to "". There are four margins, also set by B4. The two "false"s indicate that row and column headings and gridlines are not to be printed. That was easy to understand!

B6 selects "r1c1", the first cell of the database. Assuming that you have established a selection criteria, a DATA.FIND is done to locate the first record which matches the criteria. The effect of this command is the same as issuing a Find command from the Data menu. If a record is found that matches, the cell B7 is given the value TRUE. If no match is found, B7 is set to FALSE. B7 is given the name "firstfind". Since this is the "first" look for a match, the name "firstfind" was used.

Before we go on, let's look at an example criterion used to select book records:

	G	H
1	Rtnd	Now()-Date>15
2	FALSE	TRUE

This little two by two table entered in the Books database sheet says to select records where the field Rtnd is False (the book has not been returned) and Now()-Date is greater than 15 days (an overdue book). The Now() function provides today's date. You can make failure sophisticated decisions with very complex criteria. In general, a "criteria" consists of two lines, the first containing statements about the database fields and the second a condition for comparing the statements. Database criteria are a whole subject unto themselves and we'll have to spend more time on them at a later date. To make this two by two a criteria, type it in, select it and choose Set Criteria under the Data menu.

The next command, B8, makes a decision. If B7 is not true (a match was not found), the macro is told to go to "end", that is, we are done. If a match was found, we are ready to copy the entries onto the blank form and issue a print command.

The effect of B9 is to place the contents of the ACTIVE.CELL, which would be the title of the first overdue book, into B9, a cell which has the name "title". B10 moves the selection cursor to the right one column, thereby selecting the author (refer back to the database layout). Obviously, moving one cell to the right is specific to this database. You may have to move a different number of cells to pick up the next field you need. B11 places the ACTIVE.CELL (now the author) into B11. This process is repeated for the borrower and for the due date, taking us to cell B17. This part of the macro picks up the selected fields in the order they appear in the database columns, without regard for where they go in the form letter. It's just easier to keep moving to the right until all the required fields have been copied to the Macro sheet. We are now ready to move the four values from the Macro sheet to the blank form.

contd.

B17 selects the "Notice" worksheet while macro step B18 selects cell B4. Notice the use of the "!". =SELECT(!B4) says to select cell B4 in the currently active worksheet. You may remember from previous columns that cell names contain two parts separated by an "!". The first part, the worksheet name, may be left out when it is not needed. The second part is the row and column denoting the cell. In B19 the FORMULA command moves the borrower's name to cell B4. This is repeated for the other three fields in steps B20 through B25. Notice that the fields are moved in a different order from the one used to copy them from the database. The order here is simply top to bottom in the blank form. Don't let this throw you—it's quite arbitrary.

Finally, B26 issues the PRINT command filling in its five parameters. Select the print command and look at the dialog box to see what each of the five parameters do. The last few steps select the "Books" database worksheet and look for another match. If one is found, the Macro loops back up to "title", the beginning step and repeats the moving and printing of the selected record. When no further match is found, the Macro issues a RETURN().

After entering in the Macro, be sure to use the Create Names command to label the indicated fields shown in column A. When changing this macro to meet your own needs, keep in mind the following things. You will have different field names located in different columns of your database. Your form letter will place these fields in different locations. All of these "labels" and cell locations are very easy to change in the macro once you are clear what each statement does.

Reader Feedback. I received a thoughtful letter from S.C.Kim Hunter from Mission Viejo, CA. He pointed out a couple of techniques related to the March article. First, he wanted to make it clear that several sets of X/Y pairs can be scatterplotted on the same chart using Paste Special as you read in this article earlier. Second, he suggested a way to plot the "Allen-Bob-Fred" data on running times. I arranged the data as three columns, he rearranged it as four series and simply used a line chart format to display them.

Allen	1	1
Allen	1	2.5
Allen	1	2
Allen	1	3
Bob	2	4
Bob	2	3
Bob	2	5
Fred	3	6
Fred	3	9

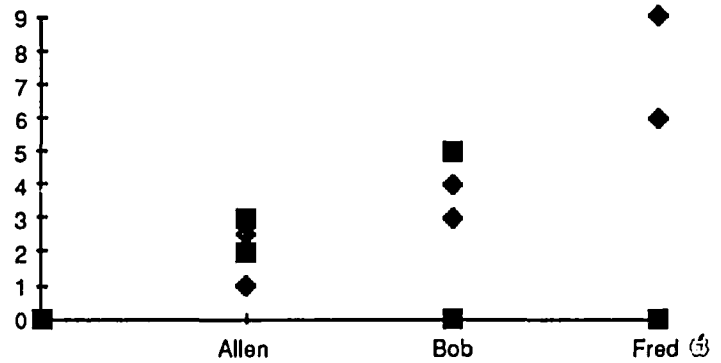
	Series 1	Series 2	Series 3	Series 4
Allen	1	2.5	2	3
Bob	4	3	5	
Fred	6	9		

S.C.Kim's Method

March Article

You will notice the second row contains blanks. S.C. intentionally added this to move the Allen series to the right of the Y-axis. It adds four "blank" points which appear at the origin. However, there must be a bit more to S.C.'s idea. When I tried his suggestion, as you can see below, the missing values for Bob's 4th series and Fred's 3rd and 4th series showed on the chart as zero values plotted on the X-axis. Otherwise, it seems to do the job! Thanks for the suggestions, S.C. Folks, keep those cards and letters coming.

S.C.'s Chart



Rhythms with Concertware contd. from pg 57

form, add some random points, and adjust the attack to maximum on the first point, with a decay to zero on the third point. A fragment of a percussion line is shown below:

Example of Percussion(tick,metal)



C) Melody Makers:

Despite the problems noted above, some Concertware(+) instruments sound quite good over an external speaker. The chimes, for example, make an excellent electric bass, better than the one included in the library. The gypsy violin is good for an upper melodic line, since it seems to resist volume loss when played with other voices. The voice interference problem can actually be turned to good use in some cases. Natural musical sounds vary considerably in tone quality (timbre) from start to finish (which is why synthesizers sound so characteristic, by the way). One can mimic the natural timbre change to some degree by playing two instruments at once, and having one stop before the other. The interference effect causes more timbre change than would be expected from simple superposition, and can be quite effective. It will be necessary to experiment with combinations that are suitable for your compositions.

D) Putting it together:

At this point, we are ready to combine the rhythm and melody to make music. Whenever possible, don't play a loud melody at the same time you 'hit the drum', since this usually converts its tone to static. This may sound like a serious limitation, but, in fact, most pop stuff sounds fine playing the melody, and then stopping it momentarily to hit the drum. If you need chords, use the piano or similar instrument, and don't play them too high (an octave and a half above middle C is about the maximum). Lastly, make low notes like the drum and bass louder than the melody to balance the sound.

If you follow these rules of thumb, and are willing to spend some time experimenting, you should be able to make music over your stereo to wow your hapless friends and family. And who knows, maybe they will be so impressed that they will let you buy a MIDI-compatible synthesizer to make *really* good stuff with.....

ANSWERS TO TWO QUESTIONS ABOUT EXCEL

by Audri Gordon Lanford, Ph.D.

One of my favorite things about teaching Excel classes is that I am constantly asked questions that help me learn new features of Excel. Especially exciting is trying to figure out the answer without the manual, and having Excel perform the way you think it should. Discovering the answer to Question 1 (below) led to this kind of experience for me. Question 2, on dates, is such a commonly asked question (and so few people seem to know the solution) that I felt it would be good to include it in this article.

Question 1: How can you format a column of numbers so they line up properly when you want a dollar sign in the first cell and a dollar sign for the total, but no dollar sign for any of the other cells?

This is an common problem that has a simple, but somewhat tricky, solution. Figure 1 shows what happens when you format a column of numbers using the 0.00 format for cells A8 through A11 and the \$,##0.00;(\$,##0.00) format for cells A7 and A13. (These formats can be selected by choosing Number under the Format menu and then selecting either of the desired formats.) As you can see, the numbers are not properly aligned.

	A
7	\$350.21
8	231.81
9	15.85
10	26.30
11	124.74
12	-----
13	\$748.91

Figure 1

The solution to this alignment problem is to format all the cells (A7 through A13) using the 0.00 format. Then select cell A7. Hold down the Command key as you click on cell A13. Cells A7 and A13 are now both selected for formatting. Now choose Number under the Format menu, and type a dollar sign right in front of the 0.00 at the

bottom of the dialog box to the right of the word Format (see Figure 2). The format box allows you to customize formats. After you click OK, you will have dollar signs in front of the numbers in cells A7 and A13, and all of your numbers will be properly aligned. Figure 3 presents the results.

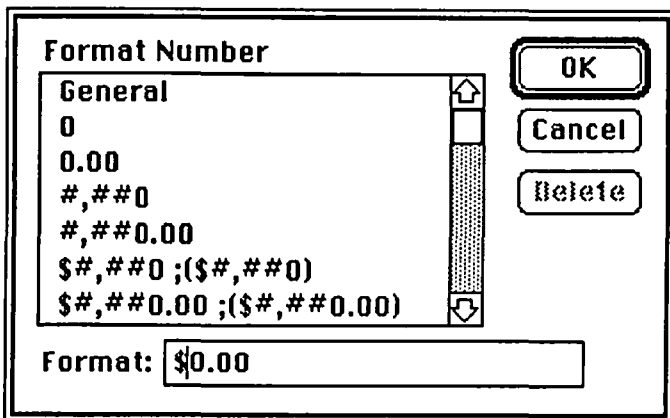


Figure 2

	A
7	\$350.21
8	231.81
9	15.85
10	26.30
11	124.74
12	-----
13	\$748.91

Figure 3

know, but I've heard that this is an important date for Macintosh trivia buffs. Anyway, all you need to do is format the date properly by selecting Number under the Format menu and choosing one of the date formats.

The reason that this method for handling dates is useful is because it allows Excel to treat dates as numbers so that you can calculate the amount of time between two dates. For example, let's say that you are curious about how many days you have been alive. Type the function =NOW() into cell A1. (The NOW function is very useful--it enters the current date and time into a cell.) Next, type your date of birth into cell A2. Select cells A1 and A2 and format them by selecting Number under the Format menu and choosing the m/d/yy format. In cell A3 type: =A1-A2. Now format cell A3 by again selecting Number under the Format menu, but this time choosing the 0 format. Figure 4 shows my results of this exercise-- as of today, I've been alive 12181 days.

	A
1	7/8/86
2	3/2/53
3	12181

Figure 4

Question 2: I typed 6/25/86 into a cell, but the entry in the formula bar was 30126. What happened?

You did nothing wrong. You just uncovered the way that Excel handles dates. Excel starts counting dates with January 1, 1904 (i.e., 0), and converts each date to the number of days since that date. Why January 1, 1904? I don't

know, but I've heard that this is an important date for Macintosh trivia buffs. Anyway, all you need to do is format the date properly by selecting Number under the Format menu and choosing one of the date formats.

Next month I'll discuss the answer to a third question that came up late this month. The question was: How do you plot the results of a regression analysis? Until next month. . .

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Until next month. . .

Audri Lanford is CEO of Micro Dynamics, Ltd., a Washington, D.C.-based consulting firm specializing in Macintosh software development, consulting, and training. ☺

DID YOU KNOW---

that Apple developed a program called "Fishhead"? Apple Marketing said no way can you call it that. So they called it FID (Fishhead in Disguise)... from Bruce Tognazinni at the Midwest Apple Users Group Conference, July 19.

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Softviews

David
Morganstein



This month, we review two packages that work with Appletalk. The first, MacServe, can be used on a single hard-disk-equipped Mac, as well as used to support disk serving over the network. The second program, Mail Center, allows for easy transfer of files between Macs and between Mac and PC compatible when the PC has the proper hardware to link into Appletalk. In a future review, we will discuss InBox, another mail transfer system, and PC Macbridge, the hardware needed by the PC.

MacServe (Infosphere). MacServe will be of interest to any Mac owner who has or is thinking of getting a hard disk, to any Mac/XL owner, and especially to those running an Appletalk network. Now that Apple has reduced the price of their 20 Meg hard disk and SCSI hard disks proliferate, utilities are needed to improve the operation of a hard disk equipped Mac. The folks at Infosphere previously marketed XL/Serve, a utility which many Lisa owners greatly appreciated.

MacServe offers the following functions: volume partitioning, print spooling, disk caching, file archiving and disk serving on a network. First, it allows you to partition a hard disk into as many as sixteen smaller volumes, any of which can be placed on or removed from the desk top. One result of these separate volumes is that the Finder opens and closes programs and documents with greater speed. Second, MacServe provides print spooling to an Imagewriter. That is, hardcopy output is first directed to a disk file and then to the printer. Once the disk file has received the output, you regain control of your Mac and are free to begin other tasks, often before the printer has even begun its work. Third, MacServe provides for disk caching, storage of often reloaded pieces of code. Cache memory reduces the amount of disk accessing the Finder would ordinarily do by retaining in memory pieces of code. Lastly, MacServe allows the archiving of hard disk files onto microdiskettes. It only copies those files whose last modified date has changed. For small businesses with several Macs, MacServe provides a networking system for sharing files on the hard disk and for sharing a single Imagewriter printer.

On the down side, some of the features offered by MacServe have been reduced in utility by Apple's HFS or have restrictions you should be aware of before selecting it. Volume partitioning is needed by networks, but is now of less benefit in speeding up disk access due to improvements added by Apple's hierarchical file system. Before HFS, most hard disk systems used volume partitions (called "drawers" by some) to permit quicker access to hundreds of hard disk files. Its drawback is that some space is lost in setting arbitrary volume sizes. MacServe's print spooling is an effective way to free up time lost while waiting for an Imagewriter. Unfortunately, it does not (nor does any one else, yet) offer

spooling to the LaserWriter. File archiving is an absolute necessity on a hard disk. The MacServe system is currently limited to backing up hard disk volumes which have been formatted as MFS (non-hierarchical). They have plans to add an HFS back-up capability in the future. Let's look at each feature in more detail.

Volume Partitioning. MacServe allows you to partition the hard disk into as many as sixteen volumes, calling to the desk top only the ones you require at the time. Opening and closing a file on one of these volumes occurs pretty quickly. A big part of this time savings is due to the way the partitioning restricts the sectors over which a file may spread. Without the partitions, a single file, as it expands over time, could appear in bits and pieces, all over the hard disk. Even under HFS, MacServe helps to control the proximity of sectors associated with a single file. No doubt, utilities will be developed soon that will collect together all of the pieces into a common disk area, thereby reducing the time required to access a file. As of now, you can only back-up all of your files and then reformat the disk and replace the files. The use of volumes is almost a necessity on a network to give each user private access to certain information stored on their designated volume.

In addition to assigning a name and a size, the features of each volume can be selected. Specifically, MacServe can bring the volume onto the desk top automatically when you boot-up. It can lock a volume so that it can be read from but not written to, or it can assign it to all users of the network. If you want privacy, a password can be assigned restricting access of the volume to those who know the password. In addition, the volume can be formatted as an HFS or MFS volume. The dialog window below is provided by MacServe to create volumes and set their features.

Create MacServe Volumes

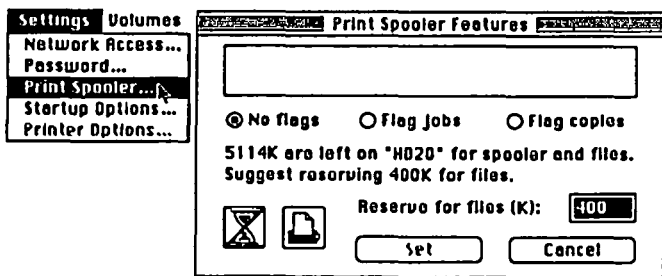
There are 0 volumes and 5003K of free space remaining on drive "HD20".

Name: Size:

Automatic
 Locked
 Network
 Password

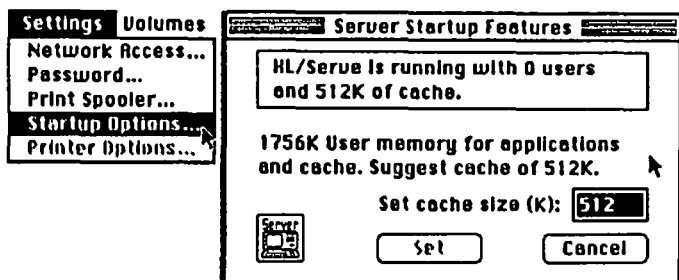
Print Spooling. Anyone who has created a long document on the Mac is aware of the amount of time required
contd.

to translate the Mac's graphics into a form digestible by a dot matrix printer. Apple II owners have enjoyed the benefits of print spoolers containing 64 or 128K of memory. On the Apple this amount of memory can contain many characters of output in a buffer while the printer takes its time. For the Apple's display, a single character takes one byte. A page of 60 characters by 60 lines takes 3.6K bytes. Ten pages of text fit into a buffer of 36K bytes. The Mac is a graphics animal in as much as all output (other than draft mode) is bit-mapped. If you count pixels, you will see that hundreds of K of RAM are needed to buffer a multi-page output. Well, you might ask, if you have a hard disk, why not use some of that space as a spooler? Good idea! That is exactly what MacServe does. As you can see from the dialog box below, you can dedicate as much of the hard disk as you wish for print spooling, that is, storing the information in a buffer while the printer does its thing.



MacServe has "suggested" 400K and I have opted for 1M. The hourglass signifies a time delay is desired (low priority) for a print job. The above window is called from a utility program called the Manager. The manager can find the number of print jobs in the queue and can assign priorities to different jobs. These two features are important to a network where many print-outs may be underway simultaneously with priorities needed for certain jobs. You may insert a "title" page which identifies the job by "flagging" it and its copies.

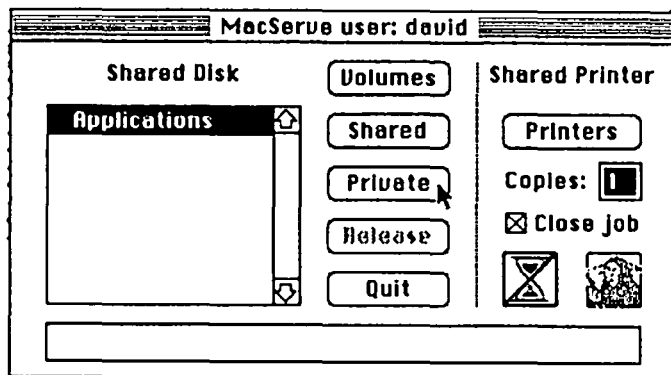
Disk Caching. The disk cache feature is a time saver. As mentioned earlier, a part of memory can be dedicated (by MacServe) to storing frequently used pieces of code. Using the Manager (see below), you can set the amount of memory you want to dedicate to the disk cache.



I have not done any timing tests with and without the disk caching feature but the benefits yielded by the RAM cache option under the Plus' control panel should be similar. (Actually, I have no idea whatsoever what the RAM cache does for you. Anybody out there care to explain it to us?) The first time a file is accessed, there is little speed up demonstrated. However, upon second access when the reading is done from memory rather than disk, however, speed improvements should be seen.

File Archiving. One headache from using a hard disk is the need to do periodic backing up of your files. Since a hard disk can quickly come to contain many person-hours of work, the prudent user will take the time to retain copies on microdiskettes. What is more, data files larger than 800K can not even be written on a single microdiskette. Completely re-copying the hard disk can be time consuming and wasteful since most of the files have not changed. MacServe provides a partial solution to these problems. While it will do a full back-up of all files, it can also copy only recently updated files, partitioning a file that is too large to fit on a single microdiskette into several pieces (which only it can re-assemble back onto the hard disk.) As mentioned earlier, this feature can only be used with hard disk volumes and back-up diskettes that have been formatted as MFS.

Networking. Because the cost to hook several Macs, and an imagewriter into a network is so inexpensive (about fifty dollars per unit plus cable to connect them), many companies with several machines may want to do this. By allowing several Macs to access a single hard disk or printer, the system cost can be cut drastically. While no special software is required to share a LaserWriter or an Imagerwriter II equipped with a network card, it is needed to share other dot matrix printers and to establish printing priorities. A single copy of MacServe allows the sharing of a hard drive by other Macs on the network. The software allows you to assign passwords to different volumes so individual users have access to only their data. A common volume can be read-accessed (called "Shared") so that all users can share the same applications or read/write accessed (called "Private"). However, the package is not a file server and does not permit multiple users to write to the same volume.



The window above appears when you access MacServe through a Desk Accessory. It will list all volumes currently on the partitioned hard disk that is acting as the manager. To gain access to any volume, you select its name and choose between Shared or Private. If the Volume has been selected as Private by another network user, both the Shared and Private buttons will be dimmed. When you quite the DA, selected volumes will appear on your desk top. To release a volume, you can use the DA again or just drag the volume's icon into the trash.

The MacServe manager provides a handy option to identify all network nodes or all MacServe users.

Installation. The distribution disk contains an installation program. This program modifies the system software on each Mac that is to be part of the network. One Mac contd.

with hard disk, the one chosen to be the disk server for the others, will be made into a "server". After one "server" has been created, all other installations will create only "users". The installation adds a MacServe desk accessory, shown earlier, to each system file updated. On the server volume, it adds a Manager program used to create the partitions, direct the print spooling, etc. The installation can be done to boot diskettes and to hard disks, as well.

Support. The 98-page, spiral bound manual is well-written and easy to follow. It begins with a simple introduction, moves on to using MacServe and managing MacServe hosts. The appendices contain useful reference material including "tips and gotchas", a discussion of error messages, troubleshooting tips and technical notes.

When running the installer, you will find Infosphere's valuable help file can explain questions about the process. When "bugs" were located in their previous product, XL/Serve, as they are with any software product, Infosphere issued technical notes on how to patch in the fix and, in time, sent revised disks which contained all the fixes. I have called them on several occasions to clear up questions and they have always been courteous and accurate. When someone was not available to help, a prompt reply followed. Unfortunately, Infosphere does not provide an 800 number.

Summary. I have two caveats about using the package, the first concerning the print spooling feature. Although I have a limited understanding of the Mac's printing support software, it is clear that applications developers can set up the printing function in different ways. The consequences of this freedom is that print spooling may not save you a lot of time. I have seen substantial reduction in the time it takes to regain control while printing with certain programs, MacWrite and Multiplan, while experiencing no apparent improvement with others, Jazz. This does not appear to be the fault of the MacServe package but purchasers of any print spooler should be aware of this possibility.

The second problem, also not specifically of Infosphere's making, deals with network use of applications. One reason for using hard disks is to gain speed when accessing programs. Unfortunately, the Appletalk network is not terribly fast. For example it takes Excel about 25 seconds to start. However, another rationale for the network is to avoid having to fumble through a box full of disks at each work station. Loading Switcher with just two applications is tedious at best in this regard. By having a single hard disk serving several workstations, you ought to be able to load the same application into each Mac. This generally works out on MacServe when the volume with the applications is made Shared (read-only). Then it can be accessed by several network users. As it turns out, most programs write "scratch" files while they are running. Some developers mistakenly write these files on the volume containing the application rather than the start-up disk. MS Word, does this. Such applications can not be run from "write-protected" disks or MacServe's "Shared" volumes. For these, it is necessary to make several copies each on a different volume. The volumes can then be opened as "Private" for write access. This is wasteful of disk space, but it gets around the problem.

Infosphere, 4730 SW Macadam, Ave., Portland, OR. 97210. Phone (503) 226-3620. Price \$295.

Mail Center (Videx). People using an Appletalk network can print to a LaserWriter without additional software. Beyond this (and playing Maze War), special programs are needed to take advantage of the network (the Omniscience database is reported to support database file sharing). Mail Center (MC) allows users on the net to exchange files. MC is an easy to use system which permits bundling more than one file for the transfer and allows sending to more than one receiver in the same transmission. In addition, Macs receiving files do so in the "background", that is, without having to run a special program to capture the incoming file. The data are stored automatically in a file in the system folder, even if no one is using the computer at the time. When incoming traffic is detected, a flashing icon appears to alert the user that mail has been received. The icon will continue to flash until it has been turned off, thereby notifying a user who may not have been at the keyboard when the files were received.

Another valuable use of MC involves IBM PC compatibles and a hardware product called PC Macbridge. This card when installed in a PC compatible allows it to become part of an Appletalk net giving it the ability to write to the Apple LaserWriter. Using Mail Center on a Mac and Mailbox (another Videx product, supplied with the Macbridge card) on the PC, files can be exchanged between the MS-DOS and Mac operating systems. In another review, I will focus on the PC Macbridge with emphasis on its file sharing ability. For now, I'll just say that the exchange works well. Some kinds of files (notably ASCII text and Lotus WKS files) can be moved with no "conversion" problems. MS Word files can be shared with minimal reformatting using the Microsoft Word Convert program supplied with the Mac version of Word. I'll end this diversion by mentioning that the Mailbox program on the PC does not run "in the background" as does Mail Center on the Mac. To receive mail, the PC user must stop what they are doing and run the Mailbox program to put the PC on the net. Then they must wait until the mail has been received.

The Mail Center software consists of an installation program, a manager and a Desk Accessory. The manager is used to send files and to maintain logs of incoming and outgoing mail. The desk accessory allows you to turn-off and to position the flashing icon used to notify you of incoming mail. There is little to add to using the program, since it is easy to understand.

The accompanying 24-page manual has been supplemented by at least five addenda. (I've received only the first and the fifth of these, although I must confess I have not asked for the others). The folks at Videx have been helpful when I called with a question or two. Unfortunately, they do not offer an 800 number.

While the Mail Center disk is not copy-protected, it is serial numbered. Each Mac on which it is to be installed must use a different serial number. You can buy Mail Center in either a two or a six pack depending on the size of your network. Mail Center is Switcher compatible, making it possible to run other applications and send the results as they are produced, rather than having to leave one program and go to another to make the transfer. As far as I could tell, MC was fully Mac compatible in all ways but one. I had the commonly occurring lack of HFS compatibility problem using
contd. on pg 68

A DEVELOPER'S VIEW

by Jim Lanford

This month the results from the Cauzin Softstrip™ and more about HFS.

Cauzin Softstrip results. Good news. We had no trouble reading the Softstrip that was published in the July issue. We read it from two different copies of the *WAP Journal* and they both read fine. Cauzin has a program called DiBit Test. It verifies any Softstrip and is especially useful in tests like these. The DiBit program grades a strip in five different areas:

0-6	Excellent
7-12	Good
13-20	Marginal
20+	Make a new one
***	Unable to read

The Softstrip I submitted with my article rated a five and the Softstrip in the *WAP Journal* was a six. We received no complaints from anyone so either no one else has a reader (unlikely) or the strips were read without any problems. Since we have now proven that this technology works, I'd appreciate suggestions for the best way we can utilize it in the *WAP Journal*.

HFS Simplified. The new HFS (Hierarchical File System) used on the new Macintosh Plus and Macintosh Enhanced still seems to confuse some people. Some of the articles written about it contain incorrect information. There are two things the Macintosh user should try to do when using HFS.

1) Keep the number of files and folders in any given folder below 100. Twenty files and folders is good choice since it fills a window the size of a screen. Why the small number? To keep performance fast. The finder must sort and display the list of folders and files every time it is displayed. When that list gets too long, the finder slows down.

2) Rebuild your desktop on your hard disk once a week. To rebuild, hold down the option and command keys while quitting an application. If you use floppies then rebuild any floppy on which you have copied and deleted several applications.

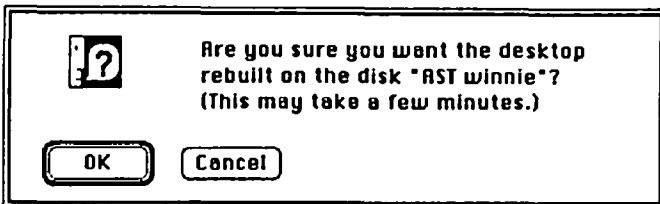
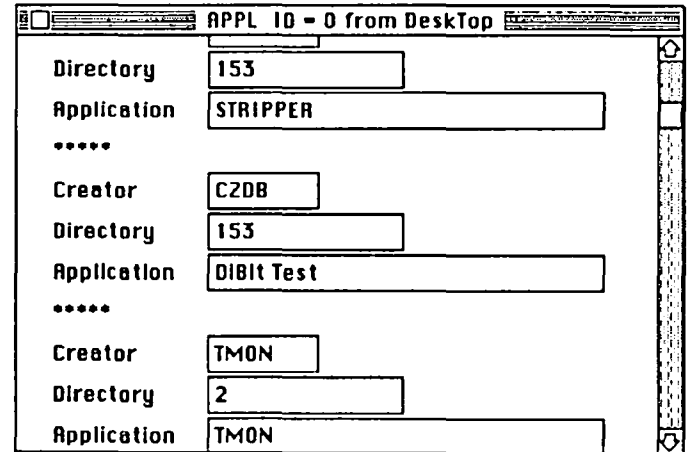


Figure 1

Why Rebuild? The desktop file now has a new resource called APPL. This contains the file name of all the applications on that volume and their directory number. Sometimes when you are adding or deleting applications, this resource does not get updated properly. Rebuilding the desktop file re-creates this resource. The APPL resource file is the shortcut where the finder looks to find which folder an application is in.

For example, when you double click on a MacPaint file

anywhere on an HFS disk, the finder looks in the desktop file APPL resource, finds the directory number where the MacPaint application is, opens MacPaint and the file you double clicked on.



For the more technically minded, here is a more complete explanation. When the finder finds the directory number (ioDirID) which the application is in, it opens that folder as a working directory (openWD). This will assign and return the VolRefNum for that folder. The File Name and the VolRefNum is all that is needed to open any file. Remember that the root directory (ioDirID #2) and the blessed folder (ioDirID #17) are always open. This is why some programs which do not follow HFS guidelines tell you to put some files in the system folder or on the root.

Jim Lanford is President of Micro Dynamics, Ltd., a Washington, D.C.-based consulting firm specializing in Macintosh software development, consulting, and training.

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LATEST VERSIONS OF MAC SOFTWARE

This lister [Princeton Mac User Group (PMUG)] takes no responsibility for boo-boos & typos. Credit—but no blame—must also go to Steve Bobker of MacUser magazine for doing what no other magazine wished to bother with, and to Price Collins for expanding this list greatly with company/author names at a time when I was struggling with the same idea. This listing incorporates Price's changes as well as merging other additions. N.B: It has been brought to my attention that this list has been posted on other (private) BBS's. While PMUG has no objection to that, THE LIST SHOULD BE POSTED INTACT - INCLUDING THIS PARAGRAPH. If you wish to make changes please do so, but better yet, PLEASE note and forward any corrections/additions! It's YOUR list, and is impossible to maintain without input from you.

CIS: 70347,3517—GENie/Delphi: TOMMACKIE; (or to) GENie: PRICECOLLINS

Program Name Version Type Publisher

Accessory Pak 1	1.0	c+	Silicon Beach
Acta	1.0	c+	Symmetry Software
Airborne!	1.0	c	Silicon Beach
Analog Clock	1.1	s	Erez Anzel
Anywhere RamDisk	1.0	s	Larry Robinson
AppleLink	3.1b	c+	Apple
Application Font	1.01	f	Loftus E. Becker, Jr.
Artisto	1.0	s	Tom Taylor
Astronomy	2.8	c	E & M Software
Auto Dial	1.5	s	Scott Zimmerman
Autolog	1.1	s	Steve Fine
Aztec C	1.06g	c+	Manx
Balance of Power	1.03	c	Mindscape
Banner	1.0	f	John Gregory
Basic compiler	1.0a	c+	Softworks
BatteryPak	1.2	c+	Batteries Included
BinHex	5.0	s+	Yves Lempereur
Boot Blocks	1.1	p	Apple
Boston Font II	2.0	s+	Charles E. Maurer
B-Tree Helper	1.4	c	(M)agreeable
Bulk Maile	2.02	c+	Satori Software
Calendar Maker	1.3	s+	CE Software
Captain Magneto	7	s	Al Evans
Championship Boxing	1.0	c	Sierra
Choose Printer	1.5	a+	Apple
Chooser	2.2	a+	Apple
ChipWits	1.1	c	BrainPower
Click Art:Effects	1.0	c+	T/Maker
Click/On Worksheet	1.3	c	T/Maker
ColorChart	1.3	c	Esoft Enterprises
ColorMate	2.1	c+	SoftStyle, Inc.
ColorPress	1.0	c+	Diversions
ColorPrint	2.01	c	Esoft Enterprises
Comet Halley	2.2	c	Great Wave
Communique	2.0		
Compact	1.0	p	Steve Brecher
ConCode	1.3	s	John Stokes III
ConcertWare+	3.1	c+	Great Wave
Copy II Mac	5.2	c+	Central Point
Copy II HD	5.2	c+	Central Point
Cricket Graph	1.0B	c+	Cricket Software
Crunch	2.0	c	Paladin
DA Key	1.6a	s+	
DA Sampler	1.0	s	Kevin Hardman
DataFlow	0.0	p	Gustavo Fernandez
Date Key	2.0	p	Loftus Becker
Day Keeper Calendar	1.55	c+	Dreams of Phoenix

CompuServe: 75216,2100

TYPE:

a = Apple

c = commercial

f = free (but may be Copyrighted)

p = public domain

s = shareware (pay author directly if you use it)

+ = known to be Mac+ compatible

(but absence does NOT mean the program is incompatible)

- = known to be Mac+ and/or HFS and/or 128K ROM incompatible

n/a = announced to be available RSN

= not intended for use on a Macintosh with less than 512K of RAM (only Apple Computer, Inc. apps are noted in this listing)

\$ = copy-protected (not yet implemented in this listing)

Program Name Version Type Publisher

Deluxe Music Const. Set	1.0	c+	Electronic Arts
Desk Accessory Mover	1.4	s	CE Software
Developers Tools	1.0	f	David W. Berry
Diatom	1.0	s	Capener
DiskInfo	1.43	s+	Maitreya Design
Disk Librarian	1.7	s+	Little Bit
Disk Ranger	2.1	c	Mainstay
DivJoin	1.0	a	Apple
Dollars & Sense	1.3	c+	Monogram
DrawPaint	1.0	s	B. Keith McGreggor
Dungeons of Doom	3.0	s	John Raymonds
Easy3D	1.0	c+	Enabling Technologies
Edit	2.0d1	a+	Apple/Consular
Enchanted Scepters	1.0	c	Silicon Beach
Enigma	1.0	s	Joe Sensendorf
Ensemble	1.0	c	Hayden
Epstart	2.0	c	SoftStyle
Excel	1.01	c+	Microsoft
ExperLisp	1.04	c	ExperTelligence
ExperLogo	1.1	c	ExperTelligence
Extras	1.5	s	Bob Luce
Factfinder	1.1	c	Forethought
Fahrenheit 451	1.0	c	Telarium
Fast Finder	2.1	c	Tardis
Fast Formatter	2.0	f+	Beyond
Fedit	3.8	a+	John Mitchell
Fedit Plus	n/a	c+	John Mitchell
File Convert	1.0	f	Galen Babcock
File Diddler	1.0	p	Scott Watson
FileStripper	2.0	s	Jan Eugenides
Filevision	1.0	c	Telos
Finder (MFS-128K)	4.1	a+	Apple
Finder (MFS-HFS)	5.3	a+#	Apple
1st Base	2.6	c	Desktop
FixHex	1.0	f	Carlos Weber
Flight Simulator	1.0	c+	Microsoft
Fokker Tri-Plane	1.0	c	PBI Software
FONTastic	2.7	c+	Altsys
Font/DA Mover	3.2	a+	Apple
Font Display	4.0	s+	Jeffrey Shulman
Font Doubler	1.3	p	William Pugh
FONTographer	1.1	c+	Altsys
Fontsie	1.3	p	Loftus Becker
Forecast	1.1	c	Monogram
FreeTerm	1.8	p+	Dreams of the Phoenix
Frogger	1.0	c	Sierra On-Line
Front Desk	1.0	c	Layered

contd.

<u>Program Name</u>	<u>Version</u>	<u>Type</u>	<u>Publisher</u>
Full Paint	1.0	c+	Ann Arbor Softworks
Gato	1.3	c	Spectrum Holobyte
Ground Zero	2.2	c	General Computer
Haba Word	n/a	c+	Haba
Hard Disk 20	1.1	a+	Apple
Hard Disk Utility	1.21	c+	FWB Software
Hard Save	1B3.2		
Hayden:Speller	1.2C	c	Hayden
Helix	2.0 r5	c	Odesta
HFS Backup	1.0b	c+	PCPC
HFS Directory	0.98	s+	Tom Shaw
HFS Locator Plus	1.0	c+	PBI
Home Accountant	1.03	c	Arrays
Icon Collector	1.1	s	Softcom
Icon Exchanger(BootEdit)	2.0	s	John Holder
Icon Maker	2.0	s	Steve Fine
Index MacWrite	86.02.10	f+	Scott Gillespie
Info+ (Init Rsc)	3.0b	s+	James A. Finnigan
ImageWriter (128K)	1.0	a+	Apple
ImageWriter (512K, +)	2.3	a+	Apple
ImageWriter, AppleTalk	2.3	a+	Apple
Info+ DA	2.0.1	s+	
Installer	2.2	a+	Apple
Script:Ext.Drive	1.0	a+	Apple
Script:MacPlusUpdate	1.1	a+#	Apple
Interlace	1.0	c	Singular
InterMac Bumper Ships	1.1	p	Harry Chesley
InTouch	2.1	c	Palantir
Jazz	1A	c+	Lotus Development
Jump Start	1.0A3	s	Karl B. Young
Just Text	1.1	c+	Knowledge Engineering
Keyboard	0.1	f	Loftus Becker
Klondike	2.0	s	Michael Casteel
Laser Prep	3.1	a+	Apple
LaserWriter	3.1	a+	Apple
LAZlife	2.0c	s	Larry Hutchinson
Legal Billing	1.12	c	Satori
Liberty Spell-Checker	2.0	c+	DataPak Software
Life	1.1	p	David DeMars
Lightspeed C		c+	Think
Lister	1.1	p	Jarvis/Bechtel
Localizer	1.0	a	Apple
Lode Runner	1.0	c	Broderbund
Logo	1.0	c	Microsoft
Mac +][3.0	c	
Mac.68K Assembler	1.0A	s	Cyclan
MacASM	2.0	c	Mainstay
MacAttack	1.4	c	Miles Computing
MacAuthor	1.0	c+	Backa Industries
MacBackup	3.5	c	Practical Computer
MacBase	1.0	c	Eqtron
MacBasic	1.0	?	Apple
MacBillboard	4.01	s+	CE Software
MacBridge	2.1	c	Tangent Tech.
MacBooster		c	Mainstay
Mac C	4.5	c+	Consular
MacChallenger		c	Aegis
Mac Disk Catalog	2.0	c+	New Canaan Microcode
MacDraw	1.9	a/c+	Apple
MacDraft	1.3	c	Innovative
MacGAS	1.0	c+	EnterSet
MacGolf	1.0	c+	Practical Computer
Mac Hangul-III	2.10	s	Kong Keyboard
MacIndex	1.0	c	Boston Soft. Publ.
MacInHebrew		s	MIT Hillel Soc.
MacIntal	1.1	a+	Apple
Macintosh Pascal	2.0	a/c+	Apple
MacLabeler	2.0	c	Ideaform
MacLightning	1.1	c+	Target Software
MacLink	1.14	c	DataViz
MacManager	1.00	c	Harvard Associates
MacMate!	1.0	c	Development Assoc.
MacModel	3.0		Synoptics

<u>Program Name</u>	<u>Version</u>	<u>Type</u>	<u>Publisher</u>
MacModula 2	4.0	c	Modula
MacMusic	0.1	c	Utopian Software
MacNAPLPS	1.4	c	Electrohome
MacNosy	2.1	c+	Steve Jasik
MacPacket/KANterm	1.0		Brincomm
MacPacket/TAPRterm	1.1		Brincomm
MacPacket/TNC2term	1.1		Brincomm
MacPaint	1.5	a/c	Apple
MacPalette	1.0	c+	Microspot
MacProject	1.0	a/c	Apple
MacPublisher	2.0	c	Boston Software Publ.
MacRecorder II	2.2		Berkeley BMUG
MacroMind Utility Disk	1.0	c	Hayden
MacServe	1.7	c+	Infosphere
MacSlots	1.0	c	Soft-Life
MACSnVAX	4.2		Eye Research Inst.
MacSpell+	1.1	c	Creighton Development
Macspec	1.0	c+	LM Software
MacTerminal	2.0	a/c+	Apple
MacTest	7.0		Apple
MacTools	5.2	c-	Central Point
MacTracks	2.0	c	Assimilation
MacVegas	1.0	c	Videx
MacVision	1.1	c	Koala
MacWait	1.1	f+	Bob Finch
MacWrite (128K)	2.2	a/c	Apple
MacWrite (512K, +)	4.5	c+	Apple
Mac Zap	4.1	c+	MicroAnalyst
Magic Digitizer	1.2	c	New Image Tech.
MailManager	1.0	c+	SoftTech Microsystems
Mass Copier	1.2	s+	CE Software
McAssembly	3.1		Signature Software
McBUG	1.1	s	David McWherter
MCS	1.0a	s	Yves Lempereur
MCS Edit	86.03.15	p	Steve Bryan
MegaFiler		c	Megahaus
MegaForm	2.0	c	Megahaus
Megamax C	2.1	c+	Megamax
MegaMerge	3.0	c	Megahaus
MegaTrack	2.0	c	Musicworks
MemTest	1.7	?	Apple
Menu Clock	1.1	s	Mosaic Codes
MicahManager	1.52	c+	Micah
Micro Earth Plot	2.0	p+	Peirce/Gosnell
MicroPhone	1.1	c+	Software Ventures
Micro Planner	1.1	c	Micro Planning
MIDI Composer	1.0	c	Assimilation
MidiMac CZ Librarian	2.01	c+	Opcode Systems
MidiMac Sequencer	2.0	c+	Opcode Systems
MidiWorks	1.0	c	Musicworks
MiniAda	1.0	f	Andromeda
MITE	2.91	c	Mycroft Labs
MockChart	1.0	s	CE Software
MockPackage	4.2b	s+	CE Software
MockPrinter	4.2b	s+	CE Software
MockTerminal	4.2b	s+	CE Software
MockWrite	4.2b	s+	CE Software
MORE	n/a	c+	Living Videotext
Mouse Exchange BBS	4.1	c	Dreams of Phoenix
Mouse Exch. Terminal	1.4	c+	Dreams of Phoenix
Mouse Stampede	1.0	c	Mark of the Unicorn
MS BASIC	2.1	c+	Microsoft
MS Chart	1.00	c	Microsoft
MS File	1.02	c+	Microsoft
MS Fortran	2.1	c	Microsoft
MS Word	1.05	c+	Microsoft
Multiplan	1.1	c+	Microsoft
MultiWrite	1.0	c+	MindWork
MusicWorks	1.1	c+	Hayden
myDiskLabeler	2.0	c+	Williams & Macias
N'cryptor	1.0	c	Mainstay
Namer, The	2.2	a+#	Apple
Neon	1.5	c	Kriya

contd.

<u>Program Name</u>	<u>Version</u>	<u>Type</u>	<u>Publisher</u>
NetCheck	1.0	a+	Apple
Omnis III	3.1	c+	Blythe
Other DA's...	1.6b	s+	Loftus Becker
OverVUE	2.0d	c	ProVue
PacPaint	1.0	c	Mainstay
PackIt II	1.0	s+	Harry Chesley
PageMaker	1.2	c+	Aldus
Paint Cutter	1.0	c+	Silicon Beach
Paint Mover	0.03	p	Bill Atkinson
Paint Scroll	1.0	f	MacPoint
ParameterRAM		s	Ken Winograd
Patch Disk	1.0	p	George Cossey
Pensate	1.1	c	Penguin
Performer	1.0	c	Mark of the Unicorn
pfs: file	A.03	c	Software Publishing
pfs: report	A.03	c	Software Publishing
PictureBase	1.1	c+	Symmetry
Power Cache	1.9	c	MacNifty
PowerMath	1.0	c	Brainpower
PosterMaker	1.0	c+	Strider
Princeton Font	3.0L	s+	Harvey Lam/Princeton U.
ProCom-M		c	Prometheus
Professional Composer	2.0	c	Mark of the Unicorn
Quartet		c	Haba Systems
QUED	1.4	c+	Paragon Courseware
Quest		c	Penguin
Quick & Dirty Util. 1	1.6	c	Dreams of Phoenix
Quick & Dirty Util. 2	1.0	c+	Dreams of Phoenix
Quickfile	0.5	f	Bill Steinberg
Quickset	2.0	c+	EnterSet
Rags to Riches	2.6	c+	Chang Labs
RamStart	1.22	f	George Nelson
RamStart	1.22+	f	(modified by ...?)
ReadMacWrite	86.03.15	s+	Reed College
ReadySetGo	2.1	c	Manhattan Graphics
Record Holder	2.1	c+	Software Discoveries
REdit	1.2	a	Apple
Red Ryder	9.3	s+	FreeSoft
Red Ryder Host	1.01	s+	FreeSoft
Redit	1.2	a+	Apple/Europe
ResEdit	1.0A2	a+	Apple
Right Word, The	3.0	c+	Rio Grande Software
Rogue	1.0	c	Epyx
Run for the Money	1.0	c	Scarborough
Sargon III	1.0	c	Hayden
Screen Edit	1.0	f	George Cossey
Screen Maker	1.0	f	Bill Steinberg
Scriptor	1.0a		Screenplay
Scroll Paint	1.0	f	Roy Harvey
Search & Destroy	10/84	f	Daniel Stavnick
Servant	n/a	?+	Andy Hertzfeld
SideKick	1.10B	c+	Borland
Silicon Press	1.0	c+	Silicon Beach
SkipFinder	6.1	s+	Darin Adler
Slide Show Magician	1.3	c	Magnum
Smartcom II	2.2B	c+	Hayes
Sony Test	4/85	?	Apple
SoundCap	1.0	c	MacNifty
Sound Level	1.3	f	Steinberg/Brecher
Speed Disk	2.0	?	Apple
Speller	1.2C	c	Hayden
Spellswell	1.2	c+	Greene, Johnson
Star League Baseball	1.0	c	Gamestar
StatView		c	Brainpower
StatWorks	1.2	c+	Cricket
Strategic Conquest		c	PBI Software
Studio Session	1.0	c	MacNifty
SuperCopy	1.1	s	Ron Gibb
SuperPaint	n/a	c+	Silicon Beach
Switcher	5.0B1	a/c+	Apple
System (MFS-128K)	2.0	a+	Apple
System	3.2	a+	Apple
Chooser	2.3	a+	

<u>Program Name</u>	<u>Version</u>	<u>Type</u>	<u>Publisher</u>
Control Panel	2.0	a+	
TabUtil	1.1		Chet J. Graham
Telescope	1.0	c	Mainstay
Tempo	1.1	c+	Affinity
TermWorks	1.28	s+	Horizon
The Namer	2.1	a+#	Apple
Think Tank 128	1.1	c	Living Videotext
ThinkTank 512	1.2	c	Living Videotext
Three-D Edit	1.5	s	Colin Olson
Through Looking Glass	1.0	c	Apple
Throw Paint	1.0	f	Strider
Thunderscan	3.1	c	ThunderWare
TimeBase	1.6	c	
TinCan	2.0	c+	Yale University
TK!Solver S			Software Arts
TML Pascal	1.1.	c+	TML Systems
TMON	2.585	c	TMQ Software
Top Desk	1.2	c+	Cortland
Transylvania	1.0	c	Pengiu
TurboCharger	2.0	c+	Nevins
TurboDownload	1.0	c	Mainstay
Twelve-C Financial Calc	1.4	c	Dreams of Phoenix
Typemasters	1.0	c	Adobe Systems
TypeNow	1.0	c	Mainstay
Typing Tutor III	1.1	c	Simon & Schuster
Utilities	0.18	s-	Gil Beccher
Vco	1.3	s+	Harry Chesley
VersaTerm	2.1	c+	Peripherals, Supplies
Version Checkr	1.2	f+	Daniel Stavnick
ViewPaint	1.1	s	Steve Dagley
Videoworks	1.1	c+	Hayden
VMCO	1.5c	f+	Bob Perez
VUWTerm	0.17	f	U.of Wellington
Water	-	s	Robert Martin
Waystation	2.3	s+	Steve Brecher
WillWriter	1.0	c+	Nolo Press
Word Count	3.0	f+	Steven Martin
Word Handler	1.	c+	ALS Systems
XLisp	1.6	p	David Betz
Xyphus	1.0	c	Penguin
Yapu	3.	f+	A. O'Brien/D. Sachs

Softviews contd. from pg 64

Mail Center. The first version was MFS only. This seemed a bit strange in that most networks would be expected to have a hard disk on it. After a call to them about the problem, Videx sent me the HFS version as soon as it was released. I am pleased to report that the current version works fine! I have transferred both data and application files on the network with no difficulty.

Videx, Inc., 1105 NE Circle Blvd., Corvallis, Oregon 97330.
Phone: (503) 758-0521.

DISKETTERIA DISPATCH

by Jim Little

Apple /// disks this month start the library for the newly rejuvenated /// SIG.

Disk 1001, *Three.SIG.one*, includes two sides of games, a mental exerciser (Eliza work alike), various music programs, clock, calendars, etc. Documentation of these programs is mainly in the REM statements or in help files. These disks are self booting to a menu. Enjoy... its been a long wait.

Disk 1002 is *Three.SIG.two*. Utilites include printer controls, listers, file comparison, search, catalog manager, menu control, and a mortgage program. Again it is a menu-directed self-booting disk with every block used.

Disk 1003 is *Three.SIG.three*. A second volume of utilites that continue from the preceding disk. Included are renumber, loan payback, reminder remover, cipher utility, text file scroller, an area calculator, disk drive cleaner, etc.

MAC DISK NEWS

by Martin Milrod

This month we have seven new disks for you, more than we've ever had before in a single month. This amazing work effort has been produced by our new Disk Librarian, Larry Halff, to whom we are all indebted. Keep up the great work, Larry, and thanks! Between last month's 7 new disks and this month's 7 new disks, over 25% of all Mac Disks produced by the Pi, were introduced.

The seven new disks are:

Mac Disk 50 - Paintings III

This contains a variety of Paint files, some of which are spectacular. See especially Hands of the Artist, Cheeta, Tiger and Grey Otter. Also Another Spock, Betty Boop, Heavy-metal, Howdy Do 2.3, Joker, Meryl (yes, Streep,) and Mr. Spock are also here.

Mac Disk 51 - Telecommunications II (no system)

This is a telecommunications disk containing some of the most important and valuable communications shareware available for the Mac. Included on this disk are Freeterm 1.8, FModem 0.91, Termworks 1.28 and the latest version of Kermit. In conjunction with Red Ryder, contained on Mac Disk 17.2a, these constitute some of the best Mac telecommunications software.

Mac Disk 52 - Utilities V

This disk contains several hard disk backup shareware programs, a MacID program that lets you know the latest version of your Mac and a program that lets you adjust your parameter RAM. The XL Backup program only works on the Mac XL.

Mac Disk 53 - Utilities VI

Fast Formatter 2.1 is a mass initializer utility for 400K and 800K disks. RamDisk+ is the best RAMdisk setup

A more complete description of these disks may be found in the Apple/// column of the July 86 Journal on page 12. Thanks are due to the hard work of Al Lambert for this set of disks.

Help Wanted!

We have disks in the library that are, for example, printer dependent. While I have a Prowriter™ and an Imagewriter™, this is not enough to help the users of Epson MX™ or Citizen™ or whatever. Would some of the expert users of printers, modems and other attachments be willing to create or adapt the command strings necessary for operational tasks on their hardware? Messages for me may be sent to the Bulletin Board, by phone, or left at the office, and would be appreciated. Let me know what you can convert, and how much time you might have for the task. ☺

currently available for the Mac+ and the new System/Finder. Weinberg 5.2 is a great math/science font "program", and there are excellent word processing utilities such as SLICER, ReadMacWrite, Version Reader 1.1 and Writestream. Also, useful Pattern Librarian and Front Man programs are available.

Mac Disk 54 - Games VI

This disk contains a rather new programming facility for the development of game programs. Advint, its document and samples are available here, together with considerable documentation. All you GameSIGer's (Wartow's Wantons) will be interested in this one.

Mac Disk 55 - Games VII

This disk contains what many of you have been waiting for—Daleks and Megaroids which run on the Mac +. In addition, there are several other games/demos such as Killer Kalah, Window Blaster 1.0, Icosahedron6 and Moire. (Make sure you turn off your RAM cache when running Megaroids to avoid bombs.)

Mac Disk 56 - Games VIII

Still want more games, eh? Well here's a collection which includes OfficeAttack™, Vanlandingham, Cheaptalk and a Point Symmetry Demo. Check out the really charming (all right, interesting!) new System icons used in this wild and weird disk.

About Shareware

While some of the programs on our WAP disks are public domain or public-use, and are absolutely free of cost to you beyond the disketeria price, much of the software contained in these disks are generically called "shareware."

Shareware, also known variously as MacHonorware, Freeware and (horrors) Teaseware, is a relatively new market.

ing device which permits you to try out software for a reasonably long period of time in your home—normally 30 to 45 days. At the end of the tryout period of time you are honorbound to pay to the developer the fee amount requested, usually \$5 to \$40, if you are going to keep the product. Shareware is not free! At the end of the trial period if you decide not to use the product (and not pay anything) you are asked to destroy it or give it to someone else while emphasizing the shareware nature of the product. It's a great alternative to high-priced commercial programs which can usually only be read about or tested in a retail sales store environment for a few minutes before you decide whether or not to purchase the product. The Pi supports the concept of shareware, and reminds you of your obligation to "pay up if you keep it" after a 30-45 day trial period. We all have a vested interest in supporting developers who produce good shareware and this can only be done by sending your bucks to the person(s) who took the time and effort to produce the product which you, hopefully, find to be useful. It deserves your support!

About Software That Doesn't Work

If you haven't found out yet, a considerable amount of the WAP Mac disks contain products that do not work on your Mac. Howcome? Is it a "rip-off"? Well, the facts are that due to recent changes in the way the Mac works and for other reasons as well, a lot of the software developed earlier in Mac's history doesn't work with the later versions of the Mac. (Yes, Matilda, that's why Megaroids and Daleks on SigMac Disk #16 doesn't work on your Mac Plus!) Some of these changes are:

- Newer 128k ROM instruction set
- Hierarchical File System (HFS) (instead of the older, Macintosh File System (MFS))
- Larger RAM capacity.
- Finder 5.3/System 3.2

In addition, software producers are constantly adjusting their products to fix bugs and add enhancements or improve-

ments.

Disks #45 and higher generally used the new ROM (128K) instruction set. Disk #50 and thereafter, also generally use the new (Finder 5.3/System 3.2,) in Beta and full release versions, unless otherwise indicated. Since we have well over 1,000 entries across all Mac disks, with more coming out daily, it's just not possible to keep you up-to-date on what won't work on which Mac version. So be patient with us and with yourself. Try the earlier versions (Finder 4.1) if you have the "unenhanced" Macs in either 128K or 512K versions. Everything that we place on Mac Disks is checked out on the Mac Plus; obviously we are not so confident in other Mac environments.

Lastly, in our rush to get new products into your hands as rapidly as possible, we are plagued by the problem of newer versions coming out frequently. While this creates duplication in terms of product name and purpose across Mac Disks, we would rather err on the side of calculated duplication rather than delay getting the latest product to you. We hope you agree with this position. If not, please let us know and we'll change our approach. (Ed note: An example of newer versions coming out while we are issuing the "most recent version" is that of Red Ryder 9.4. The Mac librarians have it but did not have sufficient time to get it into the production pipeline.)

One of WAP's constant problems in producing disks for our members and others, is letting people know what's on our disks so that they can decide whether to purchase it. We hope to produce a printed version of our disk contents 1-2 times a year which we will sell in order to defray printing and administrative overhead costs. I estimate that this would cost in the \$2 - \$3 range, and would contain three items:(1) a number/name listing of all disks; (2) an alphabetic listing of programs across disks, and; (3) an alphabetic listing of programs by disk. Hopefully, we'll have this out for the August meeting. We're using the program MDCII to produce these listings. If you have suggestions about what else should be included in such a catalog, please let me know. ☺

Home Computer Banking contd. from pg 43

that 1/4 of my checks could have been paid electronically, probably less. Of checks paid at home, 2/3 of these would still need to be issued and mailed. (Since writing this I have been informed by Madison that you can add to the electronic payee list any recipient of a regular monthly payment, so this might increase my list by 1 or 2.)

Home Teller costs \$8 per month. Given 10 electronic transfers, this amounts to 80 cents per transfer. Savings in postage and stationery are almost 25 cents per transfer. If most of the checks made out at home were electronically payable, the cost per electronic transfer would be 30 cents and the net cost would be 5 cents after savings. Time and convenience would then be important. Few checks would remain. If these estimates are correct, the convenience is not now worth the cost. Nor is it an inducement to maintain accounts, since check payment and accounting remain separate entries.

These conclusions probably also apply to others of you. Those who use fewer checks probably have even less to gain.

Those who issue more checks probably could not now pay many more electronically. Persons with large checking balances might benefit by keeping deposits in savings until needed for payment. Home Teller permits funds transfer. The interest earned will likely be only a few dollars monthly. It would help pay for Home Teller. To avoid check overdrafts, it is necessary to pay close attention to balances, an added inconvenience.

The attractiveness of Home Teller increases to persons who make out a comparatively large number of checks at home when they can pay most of them electronically. If the number of electronically-payable checks were to double to 20 a month and the cost of Home Teller to drop to \$6 monthly, the service could be cost effective and convenient. Citibank will soon be represented in Washington, Maryland, and perhaps Virginia. They are said to provide effective computer banking in New York for computers, using "Dollars and Sense" software. Perhaps this too will be an option in the near future. ☺

WASHINGTON APPLE PI DISKETTERIA MAIL ORDER FORM
Software for Creative Living

This form is only for ordering disks that you want mailed to you.
 5 1/4" DISKETTES: - Members \$ 5.00 each; Non-members \$ 8.00 each, Plus \$1.00 each postage up to a maximum of \$ 5.00.
 3 1/2" DISKETTES: - Members \$ 6.00 each; Non-members \$ 9.00 each, Plus \$1.00 each postage up to a maximum of \$ 5.00.
 A \$1.00 per disk discount on the above prices is offered for orders of 5 or more disks. Postage remains as above.

DOS 3.3 Volumes	DOS 3.3 contd.	Eamon contd.	Apple ///
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INDEX TO ADVERTISERS

Adaptation Electronics	47
Anderson Jacobson	Back Cover
A.S.C.I.I.	39
Clinton Computer	1
Coit Valley Computers	16, 17
Computer Den Ltd.	25
Computer Ware Unlimited	9
Landmark Computer Laboratories	33
MacCorner.	Inside Back, 45
MacWorld Expo/Boston	36, 37
Micah	Inside Back
Nexo Distribution	41
Operant Systems	31
PC Resources	65
Technical Sales & Service	23
Tyson's Corner Center	9
VF Associates	2

INDEX TO AUTHORS

Apple, Professor	26	Marburg, Francis	43
Bedrick, Barry & Ben	11	Markiewicz, Peter	57
Begleiter, Ralph J	52	Mason, Brian G	28
Blass, Mark	24	Milrod, Martin	69
Blazina, David	14	Moore, Paul	12
Chevalier, H F	48	Morganstein, David	58, 62
Coukouma, Euclid	34	Ottalini, David	8
Dannenberg, Micha	5	Piowar, Tom	44
Francis, Walt	40	Sperber, Ray	20
Greco, Philip	13	Stickle, Rick	11
Hasson, Joseph A	42	Trueman, Doug	39
Kinal, George	18, 22	Trusal, Lynn R	54
Kirby, Patricia	46	Ungerman, Mike	21
Klugewica, Chris	23, 50	Warren, Stephen C.	49
Lanford, Audri G	61	Warrick, Tom	4
Lanford, Jim	65	Wartow, Ronald	10, 12, 14
Little, Jim	69	Willis, J W	43
Mangus, Ben	10	Zittel, Randy	27

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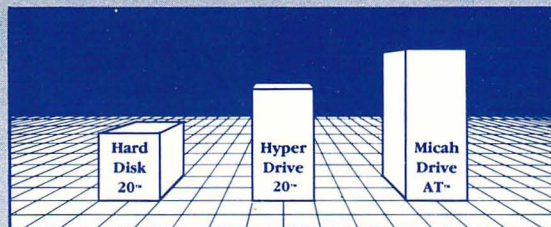
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