

Washington Apple Pi



The Journal of Washington Apple Pi, Ltd.

Volume 9

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Number 1

Highlights

- The Musical Apple—Iigs and Music Synthesis
- Button-Down Guide to the Apple: Part V
- ☐ Bits and Bytes—Macintosh Home Control
- ☐ Excel'ing On Your Mac—A Gotcha
- ☐ Softviews—Centram's Tops

In This Issue

Officers & Staff, Editorial	3	Warship: A Review	Ben Mangus 36
President's Corner	Tom Warrick 4	Shanghai: A Review	David L. Porter 37
EDSIG News	5	Robot Rascals: A Review	Davy Hakim 37
Event Queue, General Information, Errata, Apple Teas	6	U.S.A.A.F.: A Review	Reid Hutchinson 38
Group Purchase of Tax Templates	Rich Wasserstrom 6	ArcticFox: A Review	Forrest Black 38
WAP Calendar, SigNews	7	Epson Printers Never Grow Old Either	Randy Zittel 39
WAP Hotline	8	Best of Apple Items from TCS	Lou Pastura 40
Classifieds, Commercial Classifieds, Job Mart	9	WAP Acrostic	Professor Apple 47
On the Trail of the Apple ///	David Ottalini 10	Mac Q & A	Jonathan E. Hardis 48
AppleWorks SIG News	Peg Matzen & Bill Burns 12	Macintosh Vaporware Advisory	Ralph J. Begleiter 51
Response to AppleWorks News	Ken Bishop 13	Mac Programming Group News	Bob Shaffer 51
Annapolis Slice News	Claire Johnson 13	Happy New Year from Mac-London	Adrien & Siew Youell 52
Stock SIG News	Andrew D. Thompson 14	MacNovice Column	Ralph J. Begleiter 53
Q & A	Bruce F. Field & Robert C. Platt 16	Frederick Apple Core Slice	56
PI-SIG News	Bob Golden 17	Macintosh Bits and Bytes	Lynn R. Trusal 56
The Musical Apple	Raymond Hobbs 18	Using Excel for Portfolio Analysis	Lynn R. Trusal 60
Music SIG News	Raymond Hobbs 20	Excel'ing on Your Mac	David Morganstein 62
TCS Graphics	Leon H. Raesly 22	Automated Excel Timesheet... ..	David Butler & Audri Lanford 64
Button-Down Guide to the Apple: Pt V ...	Raymond Hobbs 24	View From the Hill	Rich Norling 66
Lists-Lists-Lists	Leon H. Raesly 26	Softviews	David Morganstein 68
Initron-Rinitron-Trinitron: Iigs Review	Leon H. Raesly 29	Pascal News	Robert C. Platt 74
ProDOS Bug Squashed	Tom Vier 30	MapMaker	Jo Ann Goldberg 76
Ohio Kache Systems Kache Board	Kim Brennan 31	Developer's View: Graphics Programs	Jim Lanford 78
Hi-Res to Print Shop	Charlie Brown 32	Letter to the Editor	William J. Hayne 79
dPub SIG News	Steven Payne 33	Get the Picture	Robert C. Platt 80
Views and Reviews	Raymond Hobbs 34	Best of Mac Items from TCS	Bill Baldrige 81
Current Versions of Apple // Software	Robert C. Platt 35	Disketeria Order Form	87
GameSIG News	Steven Payne 36	Tutorial Registration, Index to Advertisers & Authors	88

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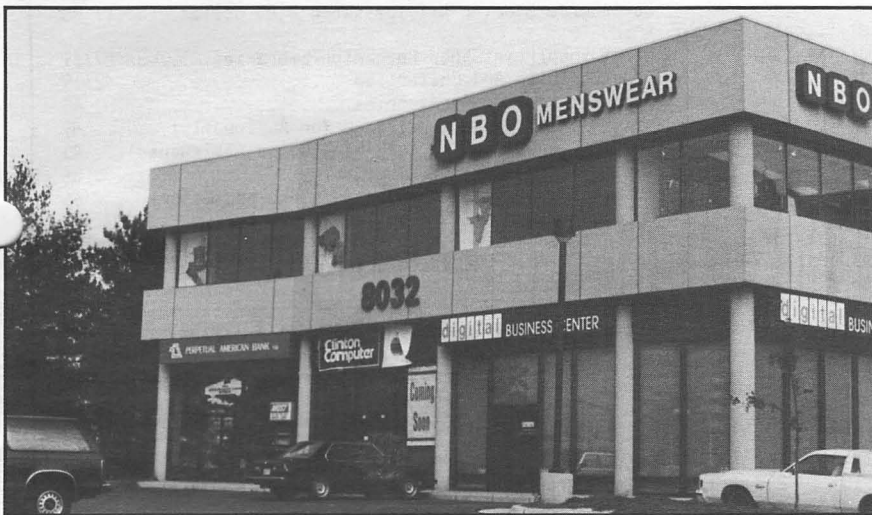
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The company also operates a huge 3600-square-foot service and repair facility in Clinton, with satellite repair shops at the Laurel, Vienna and Alexandria Stores.

Clinton Computer Opens "Apple Only" Store in Vienna, VA

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Smartmodem 300 (300 baud, as above).....	145
Novation Apple-Cat II (300 baud, 1200 upgrade avail).....	219
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CP/M & 6502C SYSTEMS---

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Microsoft Softcard II (includes CP/M 2.2 and MBASIC).....	239
Titan Accelerator J[Ce] (3.6 Mhz 6502C coprocessor).....	229
Speed Demon (6502C high-speed coprocessor).....	159
Applied Engineering Z-Ram Ultra 3 (256K+, clock, CP/M).....	259
TransWarp (3.6 Mhz 6502C, 256K RAM).....	225

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NEC JB-1205 (amber anti-glare screen, 20Mhz).....	145
JC-1216 (12" RGB color).....	339
Thomson 14" composite/RGB color.....	259

INTERFACES & BUFFERS & CLOCKS---

Pkaso/U printer interface (superior graphics).....	129
Quadram Microfazer (8K to 128K parallel buffer).....	139
Grapplet+ printer interface (parallel w/ graphics).....	85
Buffered Grapplet+ (16K to 64K buffer plus graphics).....	149
Practical Peripherals SeriALL (for modems or printers).....	99
Graphicard (parallel w/ graphics).....	69
Printerface (std par w/o graphics).....	59
ProClock (PRODOS compatible).....	109

VIDEO BOARDS---

Videx Ultraterm (up to 160 column/48 line display !!).....	209
Microtek 80-col card (w/64K RAM, AppleWorks-compatible).....	99
Applied Engineering RamWorks III (64K--3 meg + 80 col).....	139
Viewmaster (80 col for II+).....	119

MEMORY EXPANSION---

Microtek 16K RAM card.....	69
Applied Engineering RamFactor (256k--3 meg for J[+]/J[Ce]).....	189

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Word Perfect (new version w/speller).....	95
Wordstar 3.3 (includes 6 mhz Z-80 Applicard).....	159
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MouseWrite.....	95
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Sensible Speller IV (DOS or PRODOS versions avail).....	79

SPREADSHEETS---

Multiplan (state-of-the-art spreadsheet).....	70
SuperCalc 3a (super spreadsheet/graphics for J[Ce]/c).....	135

INFORMATION MANAGEMENT---

dBASE II (the best Apple database, requires CP/M).....	299
pfs: File w/Report.....	79
Thinktank (electronic outliner).....	89

BUSINESS & ACCOUNTING---

Dollars & Sense (accounting w/graphics).....	79
Managing Your Money (accounting + investment mgmt).....	119
Peachtree Back to Basics Accounting (GL/AR/AP).....	115
BPI Accounting (GL/AR/AP/PAY/INVENTORY).....each	225

COMMUNICATIONS---

Ascii Express Professional (best DOS/PRODOS program).....	80
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CompuServe Starter Kit (password & 25 dollar credit).....	25

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Print Shop/Print Shop Companion/Libraries.....	36/29/19
Newsroom/Clip Art Collection.....	42/19
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Infomerge (mailmerge for Applesworks).....	49
Spelling Checker (pops up in Applesworks).....	45
Typing Tutor III.....	36
Kensington System Saver Fan (w/surge protector).....	66
CH Mach III or Kraft 3-button joystick.....	39
KoalaPad Graphics Tablet (with graphics software).....	85
Curtis Emerald Surge Protector (6 outlets & cord).....	45
Flight Simulator II or JET.....	39

M A C I N T O S H

Microsoft Works (finally !!).....	189
Word (what MacWrite should have been).....	119
Excel (best Mac spreadsheet available).....	245
Basic interpreter.....	99
Chart (presentation business graphics).....	85
File.....	119
ReadySetGo! (page processor, new version 3).....	185
Filevision (graphics database system).....	109
Odesta Helix 2.0 (database for the serious user).....	235
Dollars & Sense (accounting w/graphics).....	95
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EDITORIAL

And here we are again, completing eight years of existence as an organization, and going strong... We certainly have come a long way from that snowy day in December 1978 when we met in the basement meeting room of a Silver Spring Bank. Many of our originators are still members and some are still very active—David Morganstein, Dana Schwartz, Bruce Field and Kim Brennan, to name a very few. And so we start a new cycle Volume 9, Number 1 with this issue, and what an issue it is! We had to pare it down by at least a dozen pages. We omitted the last installment of Family Home Money Manager, a most popular serial, but will pick it up next month. (Please excuse the delay, Brian.)

It was rather difficult deciding which articles to delay, a position we are not happy to be in. An embarrassment of riches, as it were.

Where do we go from here? Why, to new articles on the new hot topics of telecommunications, networking, desktop publishing, spreadsheets, data bases, the Iigs and perhaps in a very few months the new Mac. As our needs (and interests) change, so too will the contents of this publication. To paraphrase Pogo, "We have met the interested parties and they are us!"

Happy, happy holidays, folks, from the entire Urban household.



PRESIDENT'S CORNER

by Tom Warrick

This is the season to be jolly and all that, but since this article is being written closer to Thanksgiving than Christmas, let me pause to recognize a group of people for whom we all give thanks: our *Hotline* volunteers.

These selfless people allow us to intrude into their evenings and weekends in order to get us out of some pretty awful scrapes. Access to these

knowledgeable people is one of the principal benefits many of us find in Washington Apple Pi. Thanks, folks!

At the same time, let me introduce *Nancy Seferian*, a relatively new WAP member who has conducted our first official *Hotline* survey. Nancy has put in an enormous amount of work, calling 109 out of 116 listings on our *Hotline*, finding out whether people's phone numbers have changed, how many calls they get, and what ideas they have on how the *Hotline* can be improved. I knew something good was going on when, during my phone conversations with Pi volunteers in the last month, several people said something like, "Oh, and I got this call from this incredibly nice person who wanted to know how things were going on the *Hotline*." Nancy has written her results up in a 24-page report that will be invaluable to the Pi. Excerpts of her report, I am pleased to report, will appear in next month's *Journal*. Thanks, Nancy!

We expect the *Hotline* to pick up in the near future, what with all the new things coming down in the next few months. The *IIGs* is just starting to get into people's hands. A new version of *AppleWorks* is out. The rumors are getting stronger that there will be new, more powerful *Macintoshes* and a couple of new *LaserWriters* in 1987. And just as *Microsoft Word 1.05* was starting to get some competition in the high-end Mac word processor market, along comes *Word 3.0*. *Word Perfect* is still shooting for a First Quarter 1987 release. So these are definitely exciting times. And WAP will be in the thick of it, as usual. (If you think this is a subtle hint to renew your membership, you're wrong. It's an unsubtle hint!)

Another seasonal item of note is another batch of goodies from Apple's User Group Support Program. Even though it's not yet Christmas, we've received a gift box with a videotape of Apple Vice President *Jean-Louis Gassée* (and others) talking about Apple's product strategy. If you've never heard *Gassée* speak, you should definitely check this videotape out. (You can—WAP now has a videotape checkout policy. Call the office at 654-8060 for details.) I've always said that I know of only two people in the world for whom it would be

worth flying across a continent or ocean just to have dinner with—*Gassée* is one of them. (The other, in case you get a phone call, is *Assar Lindbeck*, chairman of the committee that awards the Nobel Prize in Economics.) Although the videotape is not a substitute for an evening with *Jean-Louis*, you can see it and judge for yourself.

Also included in the packet is the *1986 Apple II Products Compatibility Guide*, which lists more than 300 hardware and software products tested by Apple's own Product Testing Group. Not only does the Guide tell you whether something works on a particular model of the *Apple II*, it also tells you whether a product works partially or can be made to work by doing something a little differently. *Apple IIGs* owners in particular will want to refer to this guide before purchasing products that might not work on their state-of-the-art hardware. You can read the Guide at your leisure at the WAP office, 8227 Woodmont Avenue, Suite 201, in Bethesda. I should also mention that your *Apple* dealer should have a copy.

Apple also donated to WAP's hardcopy library a copy of *The Apple IIGs Book* by Apple's *Jeanne DuPrau* and *Molly Tyson*. I opened this book with limited expectations, I must admit, but when I finished I was quite impressed with what the authors have done. To be sure, most of this book is about what you'd expect: reasons why everyone should buy a *IIGs*. There are, however, a few gems in the book that make it worth a look if you happen to be in the WAP office. "Worth a detour," as the *Guide Michelin* might say, is a remarkably candid history of the development of the *IIGs* that will be an invaluable tool to business historians interested in writing about growth pains and success stories at one of the pioneer companies in America's computer industry. If, like me, you wanted *Tracy Kidder* (prize-winning author of *The Soul of a New Machine*) to do the definitive history of *Apple Computer*, you'll find this in the same genre. The entire story of the *IIGs* is told, beginning with *Woz's IIX* ideas, followed by its death, rebirth, renewal and finally, in *John Sculley's Apple Computer*, the success of the successor to the *IIGs*. While I had heard before that *Woz* was the "keeper of the flame" on the new-*II* idea, I did not know until I read *The Apple IIGs Book* that he was stoking the fires with such vigor!

There's also a chapter in the book devoted to the mouse interface that gives, at last, some justly deserved recognition to *Chris Espinosa*, *Scot Kamins* and *Bruce Tognazzini* (of "Tognazzini Chess" fame). While others such as *Andy Hertzfeld* and *Burrell Smith* have achieved celebrity status (at least among the *Macintosh* community), *Chris*, *Scot* and *Bruce* have been the "keepers of the flame" of the *Apple* interface since the *Lisa* days.

And speaking of the *Apple interface*, did you catch the articles in the November 24, 1986 issue of *InfoWorld* that say that *Apple Computer, Inc.* is trying to keep software developers from porting over to other computers the look-and-feel of their *Macintosh* applications. According to

contd.

Alice LaPlante's articles, if you take them at face value, Apple "recently notified its Macintosh developers that it intends to rigorously defend the 'look and feel' and visual interface of the Macintosh from being used or ported to non-Macintosh microcomputers." And in a companion article, LaPlante says that Apple has revealed a year-old license with Microsoft to allow the latter to use the visual copyright and interface of the Mac in *Windows*, Microsoft's MS-DOS Mac-like shell.

You may know that Apple has always been vigorous in defending its intellectual property rights, which is understandable—except for its people, Apple's intellectual property rights represent perhaps its greatest asset. But even so, these stories are hard to figure out, to say the least. We will follow events and let you know what happens.

And finally, there are a couple of other stories I want to mention. First, Washington Apple Pi has a new first lady: *Rochelle Stern* and I were married on November 9. Rochelle maintains that I married her because she could get a Macintosh at a good discount through the University of Maryland, where she's studying zoology. I deny this, of course, but—ahem—it is true that we forced a kindly soul at the Computer Emporium on campus to stay open late one Friday afternoon in August to take our order for a Mac Plus—the day after she got her student ID.

Which brings me to another story. We've been looking around for a place to go on a honeymoon between semesters. I remembered that *Adrien* and *Siew Youell* had spent a recent vacation in Belize in Central America, just before they moved back to England, where Adrien is in the Royal Army Medical Corps. Adrien, you recall, was the Pi's last Vice President for Programs. After he left, it took three people—*Bruce Field*, *Jay Heller* and *John Alden*—to do what Adrien did. Siew, of course, was on our office staff for many months and became one of Gena Urban's right hand people.

So Rochelle and I decided to call up the Youells to inquire whether Belize might make a good honeymoon spot. We had only a hint where the Youells were from a hastily written letter Adrien dashed off while they were on the move (and without a computer) last September. We picked out the likeliest-looking number out of many possible combinations of digits listed in the letter, and dialed it—and Adrien answered the phone. I felt I had just watched the infinite number of monkeys type out "To be, or not to be." When you dial what could well be a list of pseudo-random numbers and a friend across the Atlantic picks up the phone—well, it's a marvellous age we live in.

I must pass on some of Adrien's comments about their trip to Belize. This has nothing to do with computers, mind you, so if you want to, you may now move on to the AppleWorks SIG news. But if you remember Adrien and Siew as fondly as many of us do, you'll appreciate these extracts from Adrien's diary of their trip.

From a post card to a colleague in the United States: "Life here is pure hell. I had to shave my moustache in order to fit my snorkel mask, and even worse I have no underwater camera to film the varied coral and abundant fish of the reef. Undescribable misery last night when I hit my head on the verandah overhang whilst getting a Piña Colada from the cabaña bar, and am blistering from the sun. Temperatures are

an outrageous 85°F [this was in August—TSW]. Patrick [their son] only caught a 20 lb. barracuda and a measley 5 lb. snapper. I seriously regret the continuous sunshine. All in all, we are having a wretched time missing work terribly, so I'll just lie down and let the feeling pass. This is maybe the first time anywhere in the world as a family we have done nothing elegantly."

For a diary entry Adrien wrote: "I am writing our diary to persuade others to think seriously of Belize as a holiday resort. If it all happens to you 'now or yesterday' take the ultimate break in Belize, where in 2 weeks I never heard 'to-day' mentioned and 'mañana' has religious significance." Adrien goes onto describe the geography and some of the early history. "This is the sea coast of shark (we saw some) and wrecked galleons thrown on the reef, so the stories are not wild. Spanish ships would have sailed close by, prime targets for rested looters." On the local fauna: "'When you earn enough to be here you appreciate Windex to spray on skin, to discourage mosquitoes or heal the effects of their biting. 'Off is on, unless you're off, but if you wish to be OK you should have Off on. I put my Off on but had to put more Off on until after a swim I realised my Off was off.' Such was the conversation by an American man to my amazement but I was not switched on. My Off was off, but I wished it had been on. It took me two days to realise Off is a proprietary anti-mosquito spray. I hate these sprays as they smell so dreadfully, and taste even worse!"

It's all just so quintessentially *Adrien!* I've left out a lot of the fun stuff; if you would like to read more, including their adventures scuba diving and driving across country, I will be happy to loan you the full report. By the way, if you wanted to know what made up Rochelle's and my mind about whether or not to honeymoon in Belize, it was this paragraph: "The touristy brochures with their bright and clean (selective) photographs belie the underlying Belezian truth that water is contaminated, smelly or heavily chlorinated, or spasmodic, a torch is a necessity luggage item (against the failed or non-existent electricity). We didn't depend on toilets flushing and were not afraid of vicious mosquitoes, and we are not heroes. It's just that we had more stamina than some Americans, who gave in easily." Rochelle and I plan on giving in very, very easily. ☺

EDSIG NEWS

by Peter Combes

EDSIG Calendar

Thursday, January 22, at 7:30 p.m. - Special teleconference meeting. Attend an EDSIG discussion without leaving home! Call (301) 251-6369 for details.

Thursday, February 26, at 7:30 p.m. - "Educational Technology Theory in CAI Software Design", by Jessica Weissmann.

Thursday, March 26, at 7:30 p.m. - "Educational Computing for the Disabled", by Richard Rowell.

The February and March EDSIG meetings will be held at the Washington Apple Pi offices at 8227 Woodmont Avenue, Bethesda, MD. ☺

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:

- | | | |
|----------|----|--|
| January | 24 | - Telecommunications
(Apple & Mac) |
| February | 28 | - Apple // - AppleWorks
Mac - Accounting Packages |

The Executive Board of Washington Apple Pi usually meets on the second Wednesday of each month at 7:30 PM at the office. However, the January meeting is on the third Wednesday, January 21.

General Information

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

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

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

Current office hours are:

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

Please note that the office is closed on all U.S. Government holidays.

Members are asked to place phone calls to the office during the day hours Monday - Friday whenever possible, since only one person staffs the office during evening hours and on Saturday.

ERRATA

In the article "Unidisk 3.5 Status Bug" by Tom Vier, which appeared in the December 1986 *WAP Journal*, line 305 of the program listing should have read:

```
305 IF CODE = 39 THEN PRINT "I/O ERROR!"  
: GOTO 70
```

GROUP PURCHASE OF TAX TEMPLATES by Rich Wasserstrom

Washington Apple Pi's own Tom Gross has written 1986 tax templates for Macintosh Multiplan and Excel, for which we will do a group purchase. The templates will be available in January 1987 at a group purchase price of \$37 plus tax. Tom's templates include 15 forms (IRS approval is expected shortly) and are ideal for individuals and small businesses. David Morganstein reviewed and liked the 1985 version, and *Infoworld* gave Tom's templates a "value leader" rating.

If you would like to participate, send your check for \$38.85 to the WAP office, attn. Group Purchase.

APPLE TEAS

HELLO OUT THERE! How about starting the New Year off right by attending or hosting a Washington Apple Pi Tea?

What is an Apple Tea? It's a User's meeting, tutorial session, party, all in one. It's an opportunity for Apple users to get together in small groups (from 3 to 12) to discuss a specific area of Apple computing, expand each other's knowledge, ask questions and share tips.

How can you have an Apple Tea?

1. Pick a topic - one that interests you and one that you think might interest others.
2. If you like, obtain a resource person, someone who is knowledgeable in that area. The WAP Hotline volunteers have been very good about agreeing to come as resource persons.
3. Pick a date a month or two in advance to allow for Journal publication and distribution. Pick a suitable time.
4. Plan to host your Tea with refreshments at your home or another suitable location.
5. That's all there is to it. Call Amy Billingsley at 622-2203, or George Sall at 768-0212 with topic, resource person, date and time, place and directions. Start working on your Apple Tea today. It is a great way to share information and learn more about one of your own areas of interest. The following tea is scheduled for January:

Washington Apple Pi
Silver Spring Apple Tea
Sunday January 11th, 2 - 4 PM
Learning Through Games
With the Apple][+ and the Mac
Construction Sets, Puzzle Solving, Fantasy
Character Develop., Adventure Kits, and more
at the home of Ray Hakim

812 Hyde Court, Silver Spring, MD 20902
Refreshments. Bring computer if convenient.

RSVP 649-1891. Directions: Take Beltway to Georgia Ave., North, past Wheaton Plaza to Arcola. Turn right. Proceed 2 traffic lights to Lambertson. Turn Left. Go 2 blocks to North Belgrade. Turn right. Go 1 block to Hyde Road, which is on the left. Make a right turn at Hyde Court. 812 is at the back of the court.

* January 1987 *

SIGNEWS

WAP

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 New Year's Day Office Closed	2	3
4 Dead-line for Journal Articles is January 5->	5 PI-SIG 7:30 PM Office	6 Apple // Beginning Tutorial #1 7:30-9:00PM Office	7 Mac Pro- grms.-7:30 Office; dPub SIG 7:30 Pepco	8 StockSIG 8PM Office; FAC Slice 7:30 MRIID Ft. Detrick	9	10 WordStar Tutorial 9AM-12-Off; Annapolis Slice 10AM
11	12	13 Apple// Beginning Tutorial #2 7:30-9PM Office	14	15 Pascal SIG 8:00 PM Office	16	17
18	19 Mac Begin. Tutorial #1 7-10 PM Office	20 Apple// Beginning Tutorial #3 7:30-9:00PM Office	21 Executive Board 7:30 PM Office	22 EDSIG 7:30 PM (via Tele- confer.)	23	24 WAP Meeting 9:00 AM USUHS (Telecomm.)
25	26 Mac Begin. Tutorial #2 7-10 PM Office	27	28 Apple /// 7:30 PM Ch. of Com. DC	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. The next meeting will be on January 28. See their news elsewhere in this issue.

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 1st Wednesday of the month at 7:30 PM in the PEPCO auditorium at 1900 Penn. Ave., NW. The next meeting is on January 4. See their news elsewhere in this issue.

EdSIG (the education special interest group) will meet (via teleconferencing) at 7:30 PM on January 29. See their news elsewhere in this issue.

Fed(eral)SIG - Call Gordon Stubbs (703) 750-0224 for meeting details.

GameSIG meets on the first Thursday of each month at the office, 7:30 PM. Because of New Year's, the date for the January meeting will be changed. Call the office for details. See their news elsewhere in this issue.

MusicSIG meets on the 2nd Saturday of each month at 1:30 PM. See their news elsewhere in this issue.

PIG, the Pascal Interest Group, meets on the third Thursday of each month at the office, 8:00 PM. New and prospective users are welcome. The next meeting will be on January 15.

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 Wednesday of each month at 7:30 PM at the office. The next meeting will be on January 7.

StockSIG meetings are on the second Thursday of each month at the office, 8:00 PM. The next meeting will be on January 8. See their news elsewhere in this issue.

Telecom SIG is being reorganized. Watch the Journal for news. ☺

* February 1987 *

WA

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2 PI-SIG 7:30 PM Office	3 Apple// Beginning Tutorial #1 7:30-9:00PM Office	4 Mac Pro- grmr.-7:30 Office; dPub SIG 7:30 Pepco	5 GameSIG 7:30 PM Office	6	7
8	9 Deadline for Journal Articles	10 Apple// Beginning Tutorial #2 7:30-9:00PM Office	11 Executive Board 7:30 PM Office	12 StockSig 8PM Office; FAC Slice 7:30 MRIID Ft. Detrick	13	14 Annapolis Slice 10 AM Anne Arun. Comm. Coll.
15	16 Holiday Off. Closed Mac Beginn. Tutorial #1 7-10PM Off.	17 Apple// Beginning Tutorial #3 7:30-9:00PM Office	18	19 Pascal SIG 8:00 PM Office	20	21
22	23 Mac Begin. Tutorial #2 7-10 PM Office	24	25 Apple /// 7:30 PM Ch. of Com. DC	26 EDSIG 7:30 PM Office	27	28 WAP Meeting 9:00 AM USUHS

Due to meetings being canceled or rearranged without notice to the WAP office, we will publish here only those meetings for which we receive written or phone confirmation. This applies no matter how long you have been meeting on a given date.—Ed.

WAP HOTLINE For Use by WAP Members Only

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

General - Apple //	John Day (301) 621-7543	Hard Disks	Tom Vier (BBS) (301) 986-8085
	Dave Harvey (703) 578-4621	Corvus & Omninet	Leon Raesly (301) 439-1799
	Robert Martin (301) 498-6074	Corvus	Jaxon Brown (301) 350-3283
		Sider	Otis Greever (615) 638-1525
Accounting Packages		IBM	Ray Hobbs (7:30-10) (301) 490-7484
Accountant(Dec.Sup.)	Mark Pankin (703) 524-0937		Leon Raesly (301) 439-1799
BPI Programs	Jaxon Brown (301) 350-3283	Languages (A=Applesoft, I=Integer, P=Pascal, M=Machine)	
	Otis Greever (615) 638-1525	A	Louis Biggie (301) 967-3977
Home Accountant	Leon Raesly (301) 439-1799	A	Peter Combes (301) 251-6369
Howardsoft (Tax)	Leon Raesly (301) 439-1799	A,I	Jeff Dillon (301) 422-6458
	Otis Greever (615) 638-1525	A	Richard Langston (301) 869-7466
APPLE SSC	Bernie Benson (301) 951-5294	A	Leon Raesly (301) 439-1799
Apple TechNotes	Joe Chelena (703) 978-1816	A,I,M	Richard Untied (609) 596-8816
AppleWorks	Ken DeVito (703) 960-0787	A,I,M	John Love (703) 569-2294
Communications Packages and Modems-Telecom.		M	Ray Hobbs (7:30-10) (301) 490-7484
Anchor Mark 12	Jeremy Parker (301) 229-2578	P	Michael Hartman (301) 445-1583
Apple Inc. Modem	John Day (301) 621-7543	Forth	Bruce Field (301) 340-7038
ASCII Express	Dave Harvey (703) 578-4621	MS Basic	Ray Hobbs(7:30-10) (301) 490-7484
BIZCOMP Modem	Jeremy Parker (301) 229-2578	Math/OR Applns.	Mark Pankin (703) 524-0937
Hayes Smartmodem	Bernie Benson (301) 951-5294	Monitor, RGB	John Day (301) 621-7543
Robotics Modem	Joan B. Dunham * (301) 585-0989	Music Systems	Ray Hobbs(7:30-10) (301) 490-7484
SeriAll Comm. Card	Joan B. Dunham * (301) 585-0989	Operating Systems	
Smartcom I	Harmon Pritchard (301) 972-4667	Apple DOS	John Love (703) 569-2294
XTALK CP/M Comm.	Bernie Benson (301) 951-5294		Adam Robie (301) 460-6537
Computers, Specific			Richard Untied (609) 596-8816
Apple //c	John Day (301) 621-7543	CP/M	Ray Hobbs (7:30-10) (301) 490-7484
Franklin&Laser128	Doug Trueman (417) 679-3526	MS-DOS	Leon Raesly (301) 439-1799
LISA/Mac XL	John Day (301) 621-7543	ProDOS	Ray Hobbs (7:30-10) (301) 490-7484
Macintosh:			Leon Raesly (301) 439-1799
General	Michael Yourshaw (703) 534-2077	Printers	John Love (703) 569-2294
	Terry Monks (703) 471-4610	General	Walt Francis (202) 966-5742
	Donald Schmitt (717) 334-3265		Leon Raesly (301) 439-1799
Desktop Pub/Graphics	Jay Rohr (301) 655-0875	Apple Color Plotter	Joan B. Dunham * (301) 585-0989
Excel	David Morganstein (301) 972-4263	Apple Daisy Wheel	John Day (301) 621-7543
	Mark Pankin (703) 524-0937	IDS 460	John Day (301) 621-7543
	Jim Graham (703) 643-1848	Imagewriter	Jeff Stetckluh (703) 979-8249
Helix	Jim Berry (703) 662-0640	MX-80	John Day (301) 621-7543
	Harvey Levine (301) 299-9380	Okidata	Jeff Dillon (301) 662-2070
Inside Mac	Jon Hardis (301) 330-1422		Michael Proffitt (301) 874-2270
MacDraw	Tom Berilla (301) 434-3256	PrintShop/Newsroom	Dan Robrish (301) 530-4202
	Tom Parrish (301) 654-8784	Spreadsheets	
MacLion (DBMS)	Mark Miani (202) 333-0098	Lotus 1-2-3	Leon Raesly (301) 439-1799
MacProject	Jay Lucas (703) 751-3332	VisiCalc	Walt Francis (202) 966-5742
MacTerminal	John Hardis (301) 330-1422	Sprdsht. 2.0(MagicCalc)	Walt Francis (202) 966-5742
MS-BASIC & MS-File	John Love (703) 569-2294	SuperCalc Ver. 2.0	Ray Hobbs(7:30-10) (301) 490-7484
Magic	Joyce C. Little (301) 321-2989		Walt Francis (202) 966-5742
Multiplan	John Boblitz (301) 356-9384	Stat. Packages	Leon Raesly (301) 439-1799
	John Love (703) 569-2294	Stock Market	Leon Raesly (301) 430-1799
OverVue	Walt Francis (202) 966-5742	Time-Sharing	Terry Prudden (301) 933-3065
	J.T.(Tom) DeMay Jr. (301) 779-4632	Word Processors	David Morganstein (301) 972-4263
Programming	Tom Parrish (301) 654-8784	Apple Writer II	Robert Wood (703) 893-9591
ReadySetGo	Michael Yourshaw (703) 534-2077		Dave Harvey (703) 578-5621
	Jim Graham (703) 643-1848	Word Processors	Walt Francis (202) 966-5742
	Marty Milrod (301) 464-2154	Gutenberg	Dianne Lorenz (301) 530-7881
Spreadsheets	David Morganstein (301) 972-4263	Gutenberg & Jr.	Leon Raesly (301) 439-1799
Spreadsheets&Graphics	Bob Pulgino (202) 797-0879	Letter & Simply Perfect	Harris Silverstone (301) 435-3582
Sidekick	Ray Hobbs(7:30-10) (301) 490-7484	Magic Window and II	Neil Muncy Can. (416) 298-3964
ThinkTank	Jim Graham (703) 643-1848	Apple PIE	Leon Raesly (301) 439-1799
	Tom Parrish (301) 654-8784	ScreenWriter II	Joyce C. Little (301) 321-2989
Word	Marty Milrod (301) 464-2154		Jim Graham (703) 643-1848
Data Bases		Word Handler	Peter Combes (301) 251-6369
dBase II	Paul Bublitz (301) 261-4124	Word Perfect	Gene Carter (202) 363-2342
	John Staples (703) 255-6955		Jon Vaupel (301) 593-3316
dBase II & III	Ray Hobbs(7:30-10) (301) 490-7484	Word Star	James Edwards (301) 585-3002
	Jim Kellock (day) (301) 986-9522		Henry Donahoe (202) 298-9107
	Leon Raesly (301) 460-0754		Leon Raesly (301) 439-1799
Data Perfect	Leon Raesly (301) 439-1799		Dana Riel (301) 350-3283
PFS	Bill Etue (703) 620-2103		
	Gimmy Spevak (202) 362-3887		
Q-Pro-4	John Staples (703) 255-6955		
Games - Apple //	Charles Don Hall (301) 864-2715		
Games - Mac	Ron Wartow (301) 654-4439		

* Calls until midnight are ok.

Please Note: Thanks to Nancy Seferian, we have been able to update our Hotline this month. If we have made any errors in posting her changes, or if you have any further additions or deletions, please call the office.

CLASSIFIEDS

WANTED: A few good Apple][s, drives, monitors and educational software. For use in school for the disabled. Get a tax break before the GS drives the value of your good old Apple down. Joseph P. Kennedy Institute. 529-7600.

WANTED: Donation of Apple][or][+ for use by pre-school children in a non-profit Child Care Center. We provide a developmental program of education for children of hospital employees, while parents are at work. This could be a valuable 1986 charitable donation for you. We would be most grateful. Contact F.C. Damico at 360-8002.

WANTED: Used Apple //c green monitor and stand. Call Tom, evenings only, 935-5520.

WANTED: For purchase or to borrow, *Compute!* magazine, December 1985 and January 1986. Ell Geib, 948-8316.

WANTED: Apple disk drives for Apple][+. Call Tom Davenport, (703) 592-3701, 9AM-6PM.

FOR SALE: Micromodem II with terminal program—a complete data communications system for the Apple][,][+ and //e computers, like new in original box. Best offer. Pkaso AP12 printed interface for the Apple Dot Matrix Printer (demo disk included). Best offer. Call Len Bodnar, day (301) 568-4545; evenings (703) 960-3680.

FOR SALE: Transtar 120 daisywheel letter quality printer, \$199; ProPrint software for Transtar and other daisywheel printers, \$35; AB Switch box (RS-232), \$45; Microsoft Chart, \$50; Apple numeric keypad for Mac, \$50. Any reasonable offer will be considered. Call Lynn R. Trusal in Frederick, MD at (301) 845-2651 after 5PM and before 10PM.

FOR SALE: Apple //e, extended 80-column card 128K, Apple mouse and card, 1 drive, monochrome monitor, software (PFS File, PFS Write, AppleWorks, Mouse Paint, Roadsearch Plus, Apple Mechanic, Copy II Plus, etc.). \$650. Call Robert Tiger, day 523-9843, evenings 573-8438.

FOR SALE: Apple Writer //, Ver 2.0, ProDOS, brand new in shrinkwrap. Make offer under \$50. Practical Peripherals Microbuffer //S board, used but in mint condition, with full documentation. Make offer under \$50. Call Bob, day or evening, 262-1355.

FOR SALE: Quadlink Board (Apple][+ board, 64K) runs on IBM, COMPAQ and some other compatibles. \$250. Call Steven, (703) 448-9426.

FOR SALE: Apple][+, 2 drives, Gemini Star 10x printer, 80-column card, much software. Best offer. Call Dan (301) 963-8464.

FOR SALE: 400K Mac external drive, \$140. Call Tony at work (301) 993-5945 or home (301) 992-3920.

COMMERCIAL CLASSIFIEDS

FOR SALE: 4 - 400K Mac external disk drives. \$200 ea. or \$600 for all 4. Call Ginger (202) 628-6282.

ORDER NOW! Items are at their lowest prices for the Holidays:

Disks-10 per box: 5-1/4" SS/DD..\$7.95 DS/DD..\$8.95

A-Plus Mouse (for //c, 1 yr. war)..only \$99.95

Modems: Kyocera (300-1200 baud, RS-232)..only \$149.95

Promodem 1200a (300-1200 baud, card w/sft)..only \$199.95

SPECIAL: Ultra HiRes SONY RGB Monitor/TV w/
Remote Control..\$495

Computers: Laser 128.....Call for the lowest price.

Call (703) 476-6547 to order. UPS DAILY. 2-11 PM Mon-Sun.

THE WIZZ QUIZZER, an exciting entertainment/learning program (][,+c,e) packed with songs and sound. 18 quizzes with thousands of questions NEVER EXACTLY THE SAME when replayed. Great for contests, trivia, or just enjoyment. Appeals to young & old. Hours of fun! Quizzes: MOVIES, SPORTS, CARTOONS, INVENTIONS, ZODIAC, PLANETS, NAMES, FAMOUS INITIALS, etc. Written by WAP member. Send \$7.50 (\$7.88 in MD) to GARY HAYMAN, 8255 Canning Terrace, Greenbelt, MD 20770, and enjoy.

FOR SALE: Macintosh Plus Computer. Brand new—unpacked but never used. System includes: Macintosh Plus, hard disk (20 megabytes capacity), speedy Comrex 4 printer (36 cps) with automatic single sheet feeder, some software available. Must sell at bargain price of \$3,000. Call Jim at 745-0771.

JOB MART

HELP WANTED: Weekly newspaper on Capitol Hill seeks production person for ad design and editorial layout. Exp. with Macs, PageMaker and LaserWriter helpful. Contact M. Glassman, 546-3080.

HELP WANTED: Graphics. Large prestigious high-tech firm located in Rosslyn has full-time graphics position available. Applicant should possess the ability to produce "one-of-a-kind" flowcharts, decision charts, statistical number charts, technical logic charts, presentation graphics, etc., be dependable, flexible and efficient with an eye for detail. Minimum of 1 yr. graphic/office experience desired. Must be an experienced Macintosh operator using MacDraw, MacWrite and MacDraft. Salary \$14,000-18,000 to start. Free parking and full benefits package available. Send resume with references to: Code BPG, P.O. Box 9247, Arlington, VA 22209.

HELP WANTED: Washington Apple Pi has two part-time positions open. The first involves answering phones, processing requests, serving members, some routine office work and being a general "person-Friday", 22-25 hours per week, 10-2:30 daily plus occasional evening or Saturday afternoon. \$6.50/hr. The second position is clerical, 16-20 hours per week between 10-2:30 (flexible), assisting in various membership mailings and routine office work. \$5.00/hr. Ideal for parent of school-age children or retired person. Informal, congenial, non-smoking atmosphere. Call Gena at 654-8060 between 10 and 2:30 M-F.

HELP WANTED: Secretary skilled in using Apple //e and AppleWorks for peak load periods during 1987. EEO Employer. Call 547-2271, 9:00-5:00 or 244-0643 after 6:30PM.

ON THE TRAIL OF THE APPLE ///

by David Ottalini, /// SIG Co-Chairman

Well! 1987 is upon us so let's get going before all those potential presidential candidates start popping out of the wood-work...

First Off

As you are aware, On Three's Bob Consorti did not make it to our November meeting as originally promised. He said it was because of problems associated with the programming of a //gs version of Desktop Manager. That version is not scheduled to come out until February. I was especially distressed at the cancellation because this was set up far in advance and Bob himself had chosen November as the best time to come out to the East Coast. In any case, I asked him to think about coming out at some later date, but have received no firm commitment.

Despite the disappointment, we still had an excellent meeting. It included a demonstration of the /// SIG's New Member's Disk now available in the WAP PD Library. It's a double-sided disk packed with a tremendous amount of /// information. It's also self-booting and you can read the text files on screen or print them to a printer with a program provided. Also new is a double-sided disk containing the System Utilities program and on the other side, the Utilities Data disk. This is for those new /// owners who may not have received these tools with their machine. The Data disk contains a number of European character sets and other goodies.

I hope to have an article next month detailing what's on the New Member's Disk and how to get the most out of it. And in the future look for AppleWriter 4.1 with a special WPL startup program just for WAP /// SIG members, including a tutorial for new users.

Both Al Lambert, our Disketeria Chairman and I would like to get your ideas for PD offerings in the future. I personally would like to put together a disk with educational programs. Anyone have any native mode programs they'd like to donate?

Sourceware's New Products

We also had a demonstration of Sourceware's new update of their native mode disk label program. It's menu-driven, unprotected and modifiable. Comes with 20 sample labels and can print both standard or custom labels. Requires Epson MX with UPIC card, DMP or Imagewriter but you may be able to get it to work with compatibles too. Cost is \$24.95.

The company, based in Littleton, Colorado, has some other programs you may be interested in, including TYPE CONV /// which is a Text ASCII file conversion/dump utility. It dumps a file to screen or printer showing control codes and other "special characters" which may be in the file. You must have Business Basic to run the program. Cost is \$21.95.

Sourceware is also offering Data File ///, a simple data base program for the /// at \$21.95 and a collection of public domain software for \$9.95. Their address is : 6899 S. Yukon Ct., Littleton, CO. 80123.

Hot Off the Presses

The latest word on getting our operating system, SOS, released by Apple is "progress is being made." What form

that release could take appears now to be the sticking point and reportedly won't happen until after the first of the year, when Apple announces its next round of new products (which will probably include the long-awaited "Open Mac"). Rumor has it that The Engineering Department could play a part in this, so keep an eye California way.

FORTH ///

Pair Software's Frank Moore has announced a native mode version of the Forth Language. It's based on the FIG standard Forth and is implemented as an interpreter running under SOS. You will have all the SOS calls available to you and it reportedly makes heavy use of the console driver.

Frank says that Forth programs completed under Forth /// will be highly transportable (that means usable on other non-Apple /// machines). It also creates a SOS.Interp file of your application when the code is compiled. Forth /// comes with a sophisticated editor for the development of your programs and will run under Catalyst and Selector ///. Cost will be about \$50.00. And for all you ProDos users, a version will be coming out for you as well.

Pair Software will not include a program manual, but is offering Leo Brodie's book "Starting Forth" for sale to those interested. The WAP PD library includes some Forth programs which could possibly work with this new /// version of the language.

Sources of Apple /// Hardware

I wanted to mention to you a couple of companies that are selling Apple /// hardware components at pretty good prices. These include /// motherboards, 128K or 256K memory boards, Profile cards and other items. Call or write for their latest list of offerings. Both these companies, by the way, are advertisers in Computer Shopper.

Shreve Systems	NDRC
845 Lark Avenue	8511 Manderville
Shreveport, LA. 71105	Dallas, Texas 75231
318-865-6743 4-9pm CST	214-750-9889

I should also mention here that Sun Systems has obtained a load of Quark QC 10 and 20 hard disks. They do not require a controller card, but daisy chain off your external Apple /// disk drive. The QC 10 sells for \$799 and the QC20 for \$899 and includes the correct driver software as well.

Sun Systems is also doing some original design work for the Lisa/Mac XL if any of you own those computers. One upcoming product: a hard disk controller card that is four times as fast, yet uses one quarter the energy.

CMC Computer Systems

Another Apple /// vendor appears to be moving on. Charles McConathy, the owner of CMC recently announced on CompuServe that his company has been bought out by Complete Management Systems, or CMS for short. CMC will now make up CMS's Apple division. Before its purchase, CMS delt primarily in IBM disk drives.

McConathy says, "the future of full height drives for SOS depends on our source of controllers and if we can get a distributor to take on the support, etc. The controller is made

contd.

by Konan out of Arizona and they have almost stopped production on this card." He says he will continue to provide support for ///ers who purchased his 10 and 20 megabyte hard disks, and I believe as long as they are available, you can still purchase SOS-compatible hard drives. The CMS number is 714-549-9111.

McConathy's CMC, by the way, was the company that developed an advanced SCSI card for the // family but was apparently unable to keep the card short enough so it could fit into a ///. Charlie McConathy has been very supportive of the /// community. But this is another example of a vendor not willing to go the little bit extra distance it takes to make a workable product for our machine, a product many have expressed an interest in.

Little Blue Moves Closer to Manufacture

The Engineering Department's Little Blue IBM emulation card for the // family is one step closer to the dealer's shelves. You'll remember TED as the company headed up by the Father of the Apple ///, Wendell Sander. Latest reports (January's A+ Magazine) indicate Applied Engineering has signed an agreement with TED to sell its Little Blue card this coming spring. Dr. Sander has indicated he is very interested in adapting this card for the Apple /// and Sun Systems Remarketing will probably be the vendor to sell it. Bob Cook at Sun says this is a "got to do" project his company "will definitely put together" and indicates that if what he calls "major cost hurdles" are overcome as expected, you could see a /// version of this card by May. The product would include a card, software and IBM compatible drive. Cook says it will be a BETTER PRODUCT than the // version because our machines are simply better and more programmable. Cost? Hard to say, but indications are the // version will retail under \$500.

And on another front, I'm told the Engineering Department is also looking at the development of a controller card for the older-style 400K 3.5 disk drives originally offered with the Macintosh and Lisa. The card would work in all // family computers and the /// and could cost as little as \$99. It's not clear if that would include the drive (which would make it a real bargain) or if it would be offered separately. This reportedly came about because Apple, in switching over to the 800K Unidrives, has a stack of 400Ks sitting around gathering dust. You could possibly see this product by mid 1987.

Manuals from Apple

Ever wish you could purchase an Apple /// manual without having to buy the program? Well now you can, to a point. Apple has announced all of its users can purchase any of their manuals and do it through local dealers. All you need is the correct product code. Supplies are limited, however.

Here is a list of the Apple /// manuals available:

- 030-0662 Apple /// Plus Read Me First Manual
- 030-0441 SOS Reference Manual Vol. 1
- 030-0442 SOS Reference Manual Vol. 2
- 030-0193 Apple /// Monitor Manual
- 030-0143 SOS Driver Manual

WPL Revisited

In last month's column, I included a WPL program for Apple Writer /// that would allow you to catalog a disk and then print it. Needless to say, our resident /// SIG WPL guru, Bart Cable improved it tremendously and I have reprinted below. He also pointed out that my reference to the "Reverse Backslash" might have confused some of you. It would have

been better to say "Control Backslash."

```
p update 12/03/86
p Tom Ostertag
p Adapted by Dave Ottalini and Bart Cable WAP
begin
ny
pnd
pgo start
home
ppr# <--Here's the place you need to change the "#"
to "CONTROL Backslash."

ppr =====
ppr PRINT CATALOG TO MEMORY PROGRAM
ppr =====
ppr
prt
start
psr home
ppr This program will load the catalog into memory
and then print it out.

ppr
pin Drive to Catalog => =$A
OASA#
p
p
p
choose1
psr home
ppr Do you want to print a hard copy of
ppr the catalog? (Y/N)
ppr
pin => =$b
pcs/$b/Y/
pgo print
pcs/$b/y/
pgo print
pcs/$b/N/
pgo choose2
pcs/$b/n/
pgo choose2
pgo choose1
print
pnp
ny
choose2
ppr# <--Here's another "#" to change to "CONTROL
Backslash."

ppr Do you want to catalog another disk? (Y/N)
ppr
pin => $C
pcs/$C/Y/
pgo start
pcs/$C/y/
pgo start
pcs/$C/N/
pgo quit
pcs/$C/n/
pgo quit
pgo choose2
quit
pqt
```

contd. on pg 20

APPLEWORKS SIG NEWS

by Peg Matzen and Bill Burns

Richard Rowell ably chaired both the 8 and 12 o'clock AppleWorks SIG sessions in Ken De Vito's absence. Richard gave the users without modems an attractively packaged sampling of AppleWorks information gleaned from the AppleWorks SIG Bulletin Board, which is part of the WAP Telecommunications System. Richard believes that the information on this bulletin board represents thorough support for AppleWorks. Now everyone lusts for a modem and access to this resource.

Questions and Answers followed Richard's presentation:

Is there a general program to enhance AppleWorks?

Several programs marketed at this time add macro or glossary capability to AppleWorks. The two most popular are MACROWORKS and AUTOWORKS. This means that operations requiring many keystrokes can be reduced to a single keystroke—in combination with the Closed-Apple key—by creating a macro for those particular functions.

For example, a return address is commonly re-used by anyone who writes letters. Instead of having to retype it every time, the entire address can be printed out in full by pressing Closed-Apple-N (for name). Of course, any of the other keys may be used (with a few exceptions)—"N" is simply a mnemonic example. The programs come with "built-in" macros which may be used as is, modified, revised, totally changed, rewritten, or ignored. Documentation is very good for both programs, and both are very flexible. Each has features not included in the other, and the consensus seems to be that preference is most likely based on whichever the user learned first and was most comfortable with. We hope to present an "in-depth" comparison of both programs in a future column.

Why and how does one buy memory expansion cards?

Those who use them offer these pointers:

1. Purchase either RAMWORKS from Applied Engineering; or MULTIRAM from Checkmate Technologies. Support and service is superior from both companies.

2. To save money, purchase the least populated expansion card available (e.g. 64K); buy the RAM chips separately; personally install the chips on the card. Procedure is fairly straightforward, and documentation describes installation graphically. We caution you to protect chips from static electricity and to double check to be sure chips are oriented correctly.

AppleWorks expansion software comes with both cards. This software modifies the AppleWorks program to allow use of extra memory. In addition, the Desktop can be expanded from 55K to multi-meg capability (depending on the size of the RAM card purchased). For example, a 512K RAM card installed in an Apple //c expands the AppleWorks Desktop to 425K. Capacities (that is, number of records in DataBase; number of lines in Word Processor; number of lines in Clipboard, etc.) are also expanded. The REAL BENEFIT of memory expansion is that AppleWorks can be loaded into

memory and run entirely from RAM without accessing the disk drives for program functions. Data loading and saving functions must still be accessed from and to the mechanical disk drives.

An added benefit of the AppleWorks expansion software is a utility allowing creation of a RAMDISK. Think of this as a huge capacity disk drive that can move things at the speed of light. But, also remember that once the power is turned off, anything on this drive is LOST FOREVER—so anything that needs to be kept must be saved to a floppy disk.

We've given you a very brief synopsis of RAM card capabilities. If you want more information on use of memory expansion cards with AppleWorks, COME TO THE APPLEWORKS SIG MEETINGS AND QUESTION OUR EXPERTS. They are more than willing to assist those considering a purchase, or those who have already purchased but need a little extra help.

APPLEWORKS 2.0:

- Does not use the mouse
- Contains MailMerge capability
- Recognizes all Apple memory expansion cards
- "Quicker" switching between DB/WP/SS
- 6,350 DB records
7,250 WP lines
10,000 SS rows
- New functions:
 - @ ROUND
 - @ AND
 - 2 OR

Upgrades to 2.0 will cost \$50.00—distributed on both 5 1/4- and 3.5-inch disks. AE RAMworks software will be upgraded by December 20, 1986 to support AppleWorks 2.0.

APPLEWORKS FOREVER

APPLEWORKS II FOREVER

(Condensed from "Points of Interest," and the best sources known to man—Courtesy Ken De Vito.)

APPLEWORKS Tip-of-the-Month

When creating a new file for the DB, always set up spare fields—name them anything—"A," "B," "Spare," etc. This procedure allows additions to records (by renaming one or more of the spare fields) without losing report formats or screen layouts that occur with "Open-Apple-I." The fields can always be left blank when entering data—and they can be eliminated from screen layouts and report formats, so they won't get in the way—but they will certainly come in handy when changes need to be made to the DB file.

Why don't YOU send us a tip? We'll put it in this column. ☺

RESPONSE TO APPLEWORKS SIG NEWS: Solutions to Gemini 10 Problems

by Ken Bishop

In response to the question regarding the Gemini 10 printer in the December AppleWorks SIG News, I would like to share the following solutions to all who may be using this very popular and capable printer with AppleWorks, but who haven't stumbled across these "secrets" to take full advantage.

Most people with Geminis have probably already discovered that by selecting "Epson MX/Graftax+" they can get the printer to print, but most special commands can't be used, such as underlining, superscripting, etc. The first time I tried to customize a Gemini, I was stumped. The commands from the printer manual just didn't seem to work. What I have discovered through trial and error is that some of the printer commands have to be "translated" into Apple-ese.

For instance, the command from Basic to switch the printer into double width is ESC "W" 1. But from AppleWorks this just prints the number "1" at the left margin. The secret is in realizing that the basic command isn't using the ASCII for the number 1, CHR\$(49), but is in fact looking for the CHR\$(1), which doesn't seem to have a key on the keyboard. Actually, it turns out that "Control A" will do nicely. And where CHR\$(2) is needed, a "Control B" does the trick, and so on. Thus, the following CTRL codes are used in lieu of the numbers:

```
CTRL @ = 0  \
CTRL A  = 1  \
CTRL B  = 2   Please note: Use CAPITAL
CTRL C  = 3   /           LETTERS
CTRL D  = 4   /
CTRL E  = 5   /
and so on.....
```

Some examples (use the exact keystrokes: for instance, don't spell out ESCAPE, tap the ESC key):

```
FEATURE      CODE
DOUBLE WIDTH ON ESC W CTRL A
              OFF  ESC W CTRL @
              (REQUIRES 'SHIFT 2 KEY
              ON //e and //c)
```

```
Chars per inch
10             ESC B CTRL A
12             ESC B CTRL B
17             ESC B CTRL C
Underline  on  ESC - CTRL A
              (that's a hyphen)
              off ESC - CTRL @
Superscript on ESC S CTRL @
              off ESC T
Italic     on  ESC 4 [note this is a real
              "4," not an ASCII CHR$(4)]
              off ESC 5
```

Since Italics isn't an AppleWorks option, I simply used the SubScript mode on my Custom Printer.

The above should get most Gemini owners started. One other thing, the settings under "Printer Info" for the Gemini, surprisingly, aren't the same as those which you see for the

Epson. Use the following settings:

1. Needs line feed yes
2. Accepts top-of-page commands no
3. & 4. are your call

By the way, I'm using AppleWorks V1.0, so the newer versions may have functions I haven't mentioned here. I can't get the later versions to boot on my //e, I suspect my non-standard TEAC drives or my "generic" controller card. Any ideas?

Hope this helps the Gemini owners out there. I was about to give up on my printer until I stumbled on the above. ☺

ANNAPOLIS SLICE NEWS

by Claire Johnson

The Sixth Regular Meeting of the Annapolis Apple Slice (AAS) of the Washington Apple PI (WAP) met in the Science Lecture Hall of the Anne Arundel Community College on Saturday November 8 at 10:00AM. Jim Wint presided.

General Business:

Proposed Charter was discussed. It was voted to accept the amended Charter with the provision further amendments would be entertained at the next meeting on Dec. 13.

Election of Officers: The following slate of officers was duly nominated and elected:

President	Steve Toth
Vice President	Jim Wint
Secretary/Journal Editor	Claire Johnson
Treasurer	Charles Morse
Program Coordinator	Casey Kester

Disketeria: Charles Morse brought WAP disks 50-64 to sell to members for \$8.00 each.

WAP #: Members were asked to supply their WAP number so an updated list can be made for AAS and sent to WAP.

Executive Committee Meeting: An Executive Committee Meeting was called for Tuesday Evening November 18 at 8:00 pm at the home of Steve Toth, 987 Placid Ct., Arnold.

Apple //e Presentation: The members were invited to the computer lab to see a demonstration of software.

Membership: It was announced that we had reached the minimum membership level of 30.

Committees:

The following committees are to be formed:

Program	Help Line & Tutorials
Membership	Disketeria
BBS	

The next meeting will be held January 10 at 10:00 P.M. in the Anne Arundel Community College Science Lecture Hall. ☺

STOCK SIG NEWS

by Andrew D. Thompson

NOVEMBER MONTHLY MEETING

The November 13th Stock SIG meeting began with self-introductions by new members and visitors. Lois Beck, Treasurer of the local chapter of the National Association of Investors Corporation (NAIC), formerly National Association of Investment Clubs, requested and received software recommendations for portfolio management. Ferd Hassler, Vice President of the Washington Chapter of the American Association of Individual Investors referred Beck to AAIL as a resource for software. AAIL's recorded message service (899-4808) gives access to that organization's resources. Information on NAIC may be obtained by calling its President, Anne Uno, at 522-3111.

1. REPORT FROM MUTUAL FUND SUB-GROUP

Thompson summarized the October 30 meeting which included a discussion of market timing, members' methods for selecting mutual funds and the construction of a model portfolio.

A. QUESTIONS PERTAINING TO MARKET TIMING TRENDS:

1) On the national scene, participants noted several experts had been forecasting the market was entering a mini-bear phase. Others were more optimistic. As of October 8, J. Granville projected a DOW rise to 1850 and then a decline. M. Liebovit was tentatively projecting the start of the next leg of the bull market. R. Prechter, as of mid-October was projecting a declining market to bottom toward mid-November. As of October 28, Granville had turned more bullish. P. Eliades, whose recent forecasts were not matching last year's success, now projects 1900 on the DOW.

2) On the local scene, a number of Mutual Fund Sub-Group participants also projected a market downturn and reported that they had sold their mutual funds. Harley Wilbur said his 30-day trin indicator looked bearish. Similarly, John VanHorn saw a decline toward a low in late November.

B. MEMBERS' METHODS FOR SELECTING MUTUAL FUNDS

1) Jerry Dotter reported his findings that the War Machine software program (see November issue of WAP Journal, p.20) had accurately projected buy and sell points for mutual funds. Using input data of 125 daily closing prices, Dotter plotted stochastics, convergence/divergence and relative strength indices (RSI) of the various funds' price moves. In order to identify buy and sell points, Dotter used two oscillators, including the difference between 10-day and 20-day moving averages, in combination with the stochastics, convergence/divergence and RSI. Several sub-group participants who actively work with the War Machine program will now track its use with other funds such as Fidelity's gold and energy funds and an international fund.

2) Harley Wilbur reported his on-going work with 20 Fidelity select funds. The theory he has been currently exploring is that investments can be maximized by generally staying invested in the top four select fund performers. He presented a

variation of that approach using a performance index based on price moves of the past 3 weeks and by noting funds which have rapidly moved upward in their comparative rank. When the trin index projects a broad upward market move, that would be the time, Wilbur theorized, to invest in a rapidly rising fund even though it's not in the top four ranking as determined by his longer term performance index. In sum, Wilbur uses trin as a guide for when an investor should be in or out of the market. When the trin is bullish, then the recent shifts in the funds' performance rankings can be an indicator suggesting which select fund to buy.

C. CONSTRUCTION OF THE MUTUAL FUND SUB-GROUP'S MODEL PORTFOLIO

The sub-group is currently exploring use of the War Machine software as a tool for identifying which mutual funds to incorporate in the model portfolio. This portfolio will eventually include 3 separate types of funds ranging from higher to lower risk. Future Mutual Fund Sub-Group meetings are scheduled for December 23 and January 29, 8 p.m., at the Bethesda library.

2. MARKET TIMING

The November Stock SIG meeting then discussed the continued bearish mood currently espoused by several stock market national gurus. Members said that as of early November, James Dines (The Dines Letter) predicted a 10% downward correction would occur over the next two months only to resume an upward movement in early 1987. Dines looked for that strength to occur among OTC rather than blue chip stocks. As of November 12, R. Prechter (Elliott Wave Theorist) saw the market as technically the weakest he's seen in the past two and a half years. Short-term momentum oscillators and other factors suggest the market is extremely close to a top, said Prechter, and he expects a hard fall. As of November 13, Martin Zweig (Zweig Forecast) identified himself as unenthusiastic about the current market but said odds are 2 to 1 that several months down the road the market will be higher.

Closer to home, Stock SIG member Harley Wilbur reported that his own trin studies continued to give bearish signals. This is consistent with other published studies in Barrons and Technical Trends which report that short sales are currently at a very high ratio. Eventually, when those investors {cover their shorts", that high ratio will contribute to a bullish tendency.

Irv Lowen, using an Apple //e and Basic programming, updated members on his statistical analysis which helps call short-term market turns. By Fourier analysis, Lowen identified that 20, 72 and 100 day cycles dominate or describe historical and recent market price moves. Spectral analysis massaged those components and highlighted a 50 to 4272 day second-harmonic cycle as the more accurate descriptors of market activity. A band pass digital filter further refined that cycle and gave a sell signal on November 12. Lowen projected a dramatic 20-point downturn on the Standard & Poors 500 index over the next 30 to 60 trading days.

contd.

John VanHorn reported his use of Fourier Analysis to identify long-term stock market cycles. Simply put, by examining the wavelengths and amplitudes of market cycles, VanHorn said he found that the most authentic cycle surfaced only after data was systematically refined to the sixth harmonic. Based on this approach, as of early November VanHorn's findings tentatively projected a market decline to start on November 13 which would bottom out near December 5 and rise through late December.

Stock SIG co-chair Ron Grognet demonstrated how exponential moving averages can be used as an early warning system for identifying market turns. Exponential moving averages which assign greater weight to the last trading day, are a significant improvement over simple moving averages which assign equal weight to each day's closing prices. Grognet used War Machine software on the Mac to generate charts which graphically illustrated divergences between various stock market prices and oscillators which technically measured market sentiment. Consistent with the November meeting's other presentations and with many of the above cited market gurus, the War Machine program, as of November 12, was projecting a downward trend in stock market prices. For further information on the use of exponential moving averages, Grognet referred participants to Alexander Elder's article "How To Use MACD To Catch Price Trends Early", which appeared in the September issue of Futures magazine.

Regular Stock SIG meetings are held at the WAP office on the second Thursday of each month. Members who have suggestions for those meetings should contact either Ron Grognet (296-5444) or Ben Fogle (469-5822). ☺

Service

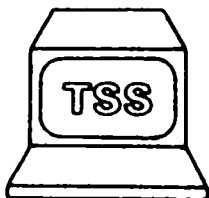
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Q & A

by Bruce F. Field and Robert C. Platt

I would like to welcome a conspirator to this column. Actually starting with last month's column, Robert Platt has been helping me answer questions. Bob's area of expertise is Pascal, so bring on those Pascal questions. I certainly appreciate Bob's help and I think you will too.

Several people have had occasional problems with I/O errors in ProDOS ver. 1.1.1. Upon further inspection they have found track 0 destroyed. Several months ago I received letters from readers who found that replacing the power supply usually solves the problem. Why this worked was not known. More recently Stephen Thomas of MacLagan Wright & Associates in West Heidelberg, Australia identified the source of the problem and published a patch program in Tom Weishaar's *Open Apple* that fixes the problem. (This patch was published in last month's Q&A column in the Washington Apple Pi Journal.) However I recently discussed this problem with Tom Vier locally, and he pointed out that most people are not aware of it but there are three versions of ProDOS 1.1.1. One is dated 5-May-85 (or so), one 25-Aug-84, and one 18-Sep-84. All these versions are listed as 1.1.1, so you have to check the date to be sure which one you have. Tom reports that he has never had a problem with the September 84 version, and believes that no patch is necessary.

Last month I had a question about an intermittent hardware problem that causes the "G" command in the monitor to fail after the computer had been left on for several hours. The reader compared the ROM code to a version downloaded earlier (when everything was working fine), and the two copies agreed perfectly. I suggested that the problem might be an intermittently bad RAM chip. Bob Anderson called and said he had a similar problem and in his case it was a ROM chip that went bad when it was continually accessed. He felt that continuously reading certain address on the chip caused it to heat up and produce errors. Whatever the reason, he found the problem by downloading a copy of the ROM into RAM and then setting the Monitor to continuously compare the ROM and RAM versions until errors were eventually found. (For the non-techie types who were just turned off by all this ROM, RAM, and Monitor gibberish, patience please. Just type in the following stuff to see if you have a problem with your computer.)

To do this test start with the Applesoft BASIC prompt (I) and type:

CALL -151 (to get into the Monitor)

800<F800.FFFFFM (to copy the Monitor

ROM to RAM)

N 800<F800.FFFFFV 34:0 (to continuously compare)

If all the memory locations in the two copies agree, nothing will be printed on the screen. If you have a problem and the memory locations disagree, the addresses and contents will be printed. You will have to press ctrl-RESET to stop the test.

That last line in the program was a new one on me; Bob insisted it was described in the Apple II Reference Manual (which I thought I knew inside and out). Sure enough on

page 56 of the Apple II Reference Manual or page 106 of the Apple //e Reference manual the technique of repeating Monitor commands is described.

Q. Recently I have become heavily involved with IBM PC MS-DOS applications. Is there some way I can run or convert Apple programs to run on the PC?

A. There are two problems to be solved here. First you need a way to move the program or data from Apple formatted disks to MS-DOS format. Matchpoint-PC, \$195 from Micro Solutions, Inc., 125 South Fourth St., DeKalb, IL 60115, (815) 756-3411 is a card and software for the PC that lets PC users read and write Apple DOS, ProDOS, SOS, and CP/M disks. ASKY, Inc. 4320 Stevens Creek Blvd., Suite 287, San Jose, CA 95129, (408) 247-5742, sells a similar product, "Envoy" for \$180.

These products will let you transfer data between machines fairly easily, but usually programs written for one machine will not work on the other. Some Applesoft programs that do not use PEEKs or POKEs may need only minor conversion to run under IBM's BASICA. Most commercial programs and any programs written in machine language for one computer will not work on the other machine. At one time there existed co-processor boards, i.e. boards with another microprocessor chip so programs designed for one machine could run on another. Except for some CP/M boards for the Apple co-processor boards seem to have disappeared from the market.

Q. I recently purchased a copy of AppleWorks 1.3 and also received MacroWorks a few days later. Neither program will boot on my machine. I have an enhanced //e, Teac FD-55A disk drives, and a "generic" disk controller card. I had my drives checked for alignment and speed at a computer repair shop and they tested to specs. I hate to invest in new drives if I don't have to, but will if you think that's the source of my trouble.

A. One of us had a similar problem a while ago. The problem turned out to be the ROMs on the disk controller card. The dealer where we bought the card was able to upgrade to new ROMs and everything worked after that. If you can, get an Apple disk controller card and try that. Then see your dealer about upgrading or replacing your controller card.

Q. I act as consultant to the adviser and staff of a high school newspaper. We currently use a photographic method of printing headlines, and would like to find some way to update our headline printing without sacrificing image quality. We have access to many different computers in the school, including Apple //e's and Mac's, and dot matrix printers, but no laser printer. None of the software we have available does anything like a satisfactory job of printing headlines. Is there any software package available that will allow us to print near type set quality headlines

contd.

using hi-res fonts in sizes up to at least 36 point?

- A. A laser printer is exactly what you need of course, but you can also make good quality headlines with a dot matrix printer. There are several programs available for the Apple //e. The Print Shop by Broderbund Software, Fontrix by Data Transform, and Apple Mechanic by Beagle Bros are some examples. Fontrix (Data Transform, 616 Washington Street, Denver, CO, 80203, (303) 832-1501) produces the highest quality letters. Fontrix prints characters over multiple hi-resolution screens and prints the screens side-by-side on a dot matrix printer. My local authority claims that Fontrix is very slow in scrolling hi-res screens unless used with a RAM disk. Fontrix is advertised by most of the mail order firms for about \$89 or less, plus \$19 for each 14-font font pack.

If you have easy access to a Mac I would recommend you use it instead of the Apple // (sorry // people). There are any number of good fonts in large sizes. One that comes to mind is Click Art Letters by T/Maker Co., 1973 Landings Drive, Mountain View, CA 94043, (415) 962-0195. Click Art Letters contains 24 high quality typefaces in large point sizes (24, 36, 48 and 72 point). Almost any Mac program, MacDraw for example will produce good headlines. Broderbund also has a version of The Print Shop for the Mac and this can be easily used to create personalized cards, banners, letterheads, or signs. If you use MacWrite, install a font in your system that is the same typeface but twice the size of the font you are using. When you pick "BEST" quality in the printer dialog box, MacWrite will scale down the double size font to give you twice the normal resolution.

- Q. How do I configure a DOS 3.3 disk so that it will execute a particular Applesoft program automatically when I turn on my Apple //?
- A. Three different methods are available. (1) Load the Applesoft program into memory, and then INITIALize a disk with the command: INIT HELLO,V100. This will save the program on the disk with the name HELLO, and will mark the disk with the fact that the named program should be automatically run. There is nothing magic about the name "HELLO," any name will work. (2) If the disk was initialized with HELLO or another particular program name as the first program to be run, just save your program under that same name. This will delete the other program that had the name. (3) A disk editor (or zap) program can also be used to change the name of the program that is designated to run first.

Q. Ok, how about a ProDOS disk?

- A. Make sure that your disk has a copy of the files PRODOS and BASIC.SYSTEM. Save your Applesoft program onto the disk with the name STARTUP. No other name will work.

Q. Instead of running an Applesoft program, I want an EXEC file to be automatically executed when the Apple // is turned on. How can I fix my ProDOS disk for this?

- A. The same principle applies. Type in the following program and save it as your STARTUP program:

```
10 PRINT CHR$(4);"EXEC FILENAME"  
20 END
```

This will send the ProDOS command EXEC FILENAME to trigger your sequence of events (which may involve running one or more other programs.)

Q. How about Apple Pascal disks?

- A. The disk must have a copy of SYSTEM.APPLE and SYSTEM.PASCAL. Then copy the compiled .CODE file onto the disk under the name SYSTEM.STARTUP.

Q. How can I automatically invoke a p-System EXEC file upon starting up?

- A. Save a compiled version of the following program as SYSTEM.STARTUP:

```
Program Starter;  
Uses Chainstuff;  
begin  
  Chain("EXEC/FILENAM.TEXT")  
end.
```

The Chain procedure will be the equivalent of typing EXEC/FILENAM.TEXT at the prompt of the Xecute command from the main menu. ☺

PI-SIG NEWS

by Bob Golden

PI-SIG met on Monday evening, December 1, in the WAP Office. Walter Urban chaired a discussion on the Apple IIGS. Apple II predecessors were compared to the GS and it was emphasized that a "mouse" becomes the primary user/computer interface, although use of the keyboard is available. The mouse permits a much larger set of macros/subroutines in ROM "to perform the necessary housekeeping chores." It was emphasized that there is an 8-bit mode and machine language instructions to utilize most existing Apple II software, and a 16-bit mode with its machine level instructions for more sophisticated programs. The challenge posed for the programmer is "to learn what the TOOLBOX utilities (macros) are, and how to incorporate them in any program we may write."

The general nature of these utilities have been described in *The Apple IIGS TOOLBOX Revealed* by Danny Goodman, Bantam Computer Books. *The Apple IIGS Book* by J. Du Pau and M. Tyson of Apple Computer, Inc., also available from Bantam Books, lists resource information. A purchaser of the IIGS receives a set-up guide, an owner's guide, a guide to the system disk, an introduction to Applesoft Basic, and a disk-based training course. These are meant for IIGS users and beginning programmers. *The Apple IIGS Book* also lists some 14 technical books for the serious programmer, covering Hardware, Firmware, Tools Reference (parts 1 and 2), Programmer's Workshops on Assembler, C, Pro-DOS, Human Interfacing, etc. Walter concluded that, "Since the IIGS programming approach is similar to that for the Macintosh, we will have to lean on those who program that computer to guide us in our first efforts."

Our plans are to obtain the TOOLBOX series, become acquainted with the mix of languages and their utilities and start with a simple, concise application program. ☺

The Musical Apple

..... by Raymond Hobbs

The Apple IIGS and Music Synthesis: New Horizons or Old Territory?

The arrival of the Apple IIGS has met with the mixed reactions we have come to expect from the techno-critics, ranging from "If it's not True Blue, it's beneath consideration" to "If it has a multicolored fruit on the front, it's got to be the greatest." By now, we should have also come to expect that the truth (whatever that is) lies somewhere between these views. After all, the Apple II series has always been an excellent implementation of an old technology—good enough to occupy a prime spot in homes and schools, but nothing to make IBM lose any sleep over (but the next generation of Macintosh computers will erode some of IBM's market share). I have my own reasons to rank Apples, Macs and IBM PCs the way I do, but that's fodder for another column.

What is of particular interest to me in this column is Apple's radical innovation in placing a full-blown, 32-voice synthesizer inside the box. This goes way beyond the small synthesizer included in the Macintosh, both in size and in quality. Just how good is the synthesizer, and how do we get it to work?

The Apple IIGS design team which planned for the Mirage synthesizer chip on the GS system board apparently fought quite a political battle to get the chip included in the box (rumor has it that they made an end run around management to make their point—a *fait accompli*). The chip in question is manufactured by the Ensoniq Corporation in nearby Malvern, Pa., and, in their Mirage line of synthesizers, is called the "Q-Chip". The Q-Chip is a VLSI (Very Large Scale Integrated) DOC (Digital Oscillator Chip). I am familiar with the capabilities of the chip because I use two Mirage synthesizers for my own musical composition. Incidentally, the Mirage synthesizers come both with and without a keyboard, costing about \$1700 and \$1400 respectively. Obviously, for Apple to include the heart of a Mirage synthesizer in a \$900 computer is of tremendous interest to computer musicians.

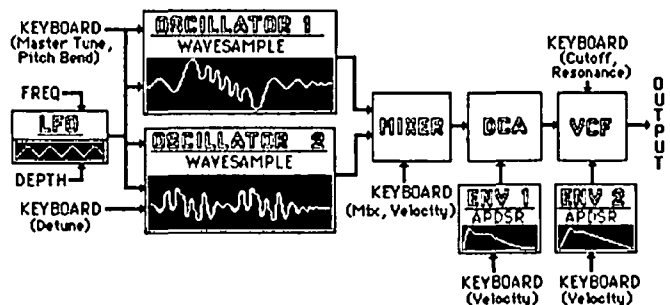
The Mirage's Q-Chip is configured to include eight voices, each of which contains two digital oscillators. This results in 16 oscillators playing eight-voice polyphony (eight simultaneous tones). In order for Apple to double the number of oscillators, the Q-Chip was presumably duplicated and doubled (a possible reason for 15 instead of 16 voices coming from Apple's version of the Q-Chip being that one oscillator pair is used to synchronize the output of the "doubled" Q-Chip, which is pure speculation on my part). The Q-Chip is designed to play wavesamples in lieu of waveforms—that is, whereas a standard oscillator will play a repeated waveform (which imparts a frequency to the waveform), the Q-Chip's oscillators are designed to play a recording of the sound. This recording is called a *wavesample*. The oscillators merely transpose this recorded sound up and down by varying the rate at which the recorded sound is played back. If the recorded sound had a pitch, then the oscillator output will likewise have a pitch. If, however, the recorded sound was unpitched (such as sticks breaking), then the oscillator output will be

unpitched. As mentioned before, two digital oscillators are assigned to each voice, and each oscillator plays back a wavesample. On the Mirage synthesizer, up to 16 wavesamples can be played simultaneously. The IIGS specs indicate that, given the dedication of two oscillators for control, 30 oscillators can play up to 30 wavesamples within the Apple.

The Mirage synthesizer contains 128K memory to hold wavesamples. Presumably, the IIGS needs almost double that amount, or about 225K memory dedicated to wavesample storage in order to match the resolution of the Mirage wavesamples if all 30 oscillators are to be playing different wavesamples. Therefore it is doubtful that the IIGS can make full use of its synthesizer's capabilities without containing a half meg or more of RAM.

The rest of the Q-Chip's design includes a Low-Frequency Oscillator (LFO), a Mixer, a Digitally-Controlled Amplifier (DCA), a Voltage-Controlled Filter (VCF) and two Envelope Generators. The LFO feeds both Digital Oscillators, which then go into the Mixer and on to the DCA and VCF. One Envelope Generator modifies the DCA and the other one modifies the VCF. This configuration is pictured below:

Figure M1



As you can see in the figure above, there are three places that the keyboard input is used. In the Mirage synthesizer, the keyboard provides more input than merely the identity of the note to be played. This input will be explained as we go on, because the IIGS has no music keyboard, and will have to rely largely on whatever external keyboard is hooked up, or on whatever software is used to drive the Q-Chip.

The LFO in the figure above admits detuning input to the two main oscillators—in musicians' parlance, the vibrato rate and depth. The vibrato wave is permanently assigned as the triangle wave depicted in the figure. The detuning control comes from several system parameter settings on the synthesizer, plus spot control from two dials on the keyboard, called *pitch-bend* and the *Mod wheel*. System parameter settings can (presumably) be rather easily set on the IIGS from software, but the two LFO control wheels cannot be easily duplicated. The Mixer controls the relative strengths of the two oscillators in the final sound. This is normally controlled by setting system parameters on the synthesizer, but (again) control of mixing can be passed to the keyboard's Mod Wheel. Moreover, control of mixing can be made dependent on the

velocity with which a key is struck, since the Mirage keyboard is velocity-sensitive.

Similarly, the DCA and VCF respond to velocity information passed from the keyboard. The DCA controls the amplitude of the sound and the VCF serves to: 1) filter out unwanted sounds, such as aliases; 2) filter the shape of the sound as it fades out (which enables the Mirage to simulate both the dull fading of a piano and the bright fade of a trumpet—this control is made possible by the Envelope Generator which feeds the VCF); and 3) provide velocity-sensitive brightness for a sound. Of these three functions, only the first two can be provided for by system parameter settings on the synthesizer. The last one depends on dynamic keyboard input. However, it should also be noted that the Mirage synthesizer can be programmed to accept velocity input from the keyboard to modify the envelope itself! It would be quite a monumental task for the IIGS to duplicate this type of dynamic control without a velocity-sensitive keyboard attached to it and feeding dynamic information to the Q-Chip.

In the above discussion, I have mentioned system parameter settings several times. In fact, the Mirage, like other first-class popular synthesizers, has over 100 different controls, called *parameters*, which may be set from the synthesizer's control panel. My guess is that all of these parameters can be software-controlled on the IIGS with the proper programming. I haven't heard anything about such software being available for the IIGS, though. Simple packages like Concertware or Music Construction Set don't even begin to do the job.

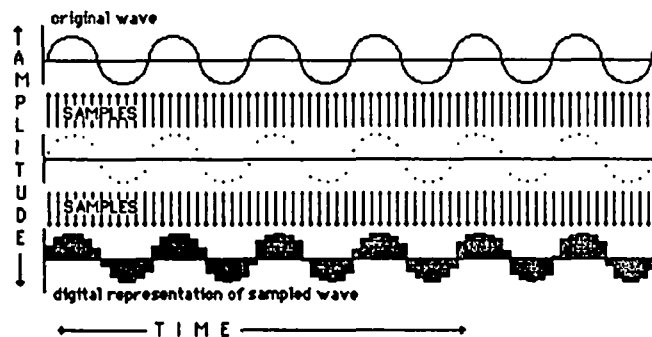
The reader should also keep in mind that the preceding discussion, plus the figure above, refer to only one voice on the Q-Chip. The IIGS has 14 other voices to control in the same way!

Having taken a close look at the Q-Chip, and seen some of the problems that must be overcome before we can make use of it, as well as noting the increased capacity on the IIGS version over the Mirage synthesizer version, I should also give a nod to the precious few performances I have heard on the new Apple. Again, I have run across mixed reviews. Last month in the WAP Journal, I read a glowing, enthusiastic report of sound capabilities that couldn't be distinguished from live, acoustic instruments. Just a week before that, I heard a much less positive report from a group of musicians. My own experience (at the Apple Computer demo a couple of months ago, and later at a monthly WAP meeting) was that the sound capabilities are there, but that the quality of the sound is not as good as that on my Mirage synthesizer. I heard a remark at one demo to the effect that the audible noise level in the music (it was quite noticeable, really) was probably caused by the eight-bit resolution of the chip. In order to address that concern, I must digress a little.

To represent waveforms digitally, the waveform must be maintained as a wavetable. This is accomplished by sampling the waveform at regular intervals and assigning a value to each sample. With eight-bit resolution, a value between -127 and +127 may be assigned. The value that is assigned represents the amplitude of the waveform at the instant that the sample was taken. That process is pictured below:

In the top graph of the figure, we see the waveform to be

Figure M2



sampled. In the middle graph, the samples are taken, and in the bottom graph, the values are represented as a bar graph. As you can see, the bottom graph is not a smooth curve like the top graph, but rather a stepladder representation of it. The digital values that are assigned are the closest values to the actual scaled amplitude. That is, if the actual amplitude were 95.3, the value 95 would be assigned in the digital table. Obviously, if we had 12-bit or 24-bit resolution, then instead of only 256 digital values in our table we would have 1024 or 4096 values. The more bits we have to represent the waveform sample, the closer we can get to a smooth curve in our digital table. Actually, though, the Q-Chip employs an eight-bit sample and an eight-bit volume sample which form an eight-bit floating-point sample. Taken together, a 16-bit resolution table can be constructed. Also, the 16 oscillator outputs are added together to form the final output, which effectively adds another four bits of dynamic range (although not on all 16 oscillators). In any event, the Q-Chip's resolution compares favorably with that of all but the most expensive sampling machines. The IIGS does not suffer from lack of resolution.

What causes the noise distortion, then? My guess is that it's due to the location of the Q-Chip. Remember that all microcomputers put out a great deal of RF interference (that's what the recent flap about FCC certification has been about). Apple has always done a pretty good job of shielding its products by using a special paint to coat the inside of the box. However, the Q-Chip is also inside the box! My bet is that the computer interferes with the output of the Q-Chip. Whatever the cause, the fact is that most synthesists will easily hear the noise distortion. I would hope that a signal filter or an equalizer would be able to get rid of the offensive noise.

So here's my verdict: The Apple IIGS contains a sound synthesis capability which outclasses anything we have heard in a microcomputer in much the same way that a cathedral outclasses a country chapel. The Q-Chip has the capability to reproduce almost any sound ever heard with a great deal of fidelity, but so far I have seen no software to exploit this capability. The Q-Chip is also capable of putting out and accepting MIDI data, so it is compatible with most existing sound synthesis systems. Thus, the IIGS can become a MIDI instrument as well as a MIDI controller. At least theoretically, the IIGS should be able to control itself along with another (external) synthesizer. The IIGS imparts a disturbing level of noise to the Q-Chip output, which should be filtered out before it can be used for serious synthesis. One final

note: The Q-Chip is capable of recording sound samples as well as playing them back. Again, software to control this operation is not yet available.

My decision on this machine? I bought one.



Our November meeting was held at the Dolly Madison Library in Mclean. Gary Larson gave a report on the Sixth Annual Symposium on Small Computers in the Arts, held October 10-12 in Philadelphia. Gary's conclusions supported what we all suspected: For control of music synthesis, Apple computers are far and away the first choice for most musicians! Gary was also able to give us a preview report on a number of new music programs which are or soon will be available for the public.

I discussed the sound generation system on the new Apple IIGS, along with its implications for music synthesis, and some of its drawbacks and limitations. My conclusion was that the system is good—a quantum leap ahead of any other popular micro—but still behind the synthesizers which performers are using today.

Carol-Lee Erikson gave us a demonstration of the KORG DW-8000 synthesizer, along with a special treat: one of her original compositions performed for the first time for our group. The DW-8000 can reproduce some very sophisticated sounds, with a "full body" that Paul Masson would like in his wines. It also sports a very good arpeggiator, which makes live performance much easier. Coupled with Carol-Lee's compositional talent and tasteful selection of voices, it was an enjoyable meeting for everyone.

Our next meeting will be on Saturday, January 10—meeting location is still up in the air, but should be in suburban Maryland. Call me (490-7484) or Gary Larson (337-4267) for information and directions.

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A// Trail contd. from pg 11

Among other comments about the changes he made, Bart said, "Notice that I moved the 'print' section to be right after the first question. Besides being closer to the lines that activate it, it leads right in to 'choose2' so the user can choose to catalog another disk even after printing the previous catalog. It saves having to start the program all over again if more cataloging/printing is desired."

And as Bart also points out, WPL is a very flexible language that can do the same thing in many different ways, as evidenced by both our efforts. Thanks to Bart for his improvements. Anyone else wishing to contribute any WPL programs are welcome to contribute. We could ultimately put together a WPL PD disk with them.

Finally

I'd like to remind all you /// EZ Pieces users that WAP offers an excellent tutorial on AppleWorks, the sister program to /// EZP's. The next one is January 20th in the WAP office starting at 7:30 PM. If you are using this great integrated program and want to learn more about it, sign up by filling out the form in the back of the WAP Journal or calling the WAP office. Since we now have an Apple /// available for /// SIG members in the WAP office, all you have to do is bring your /// EZP's boot and program disks along with an additional blank disk or two and you can take part without any further problems (unless there are more than a couple of ///ers attending, in which case you should bring your own machine). And since the two programs are essentially identical, you'll have no trouble following the tutorial. The fee is \$10.

And please remember as of January, we go back to our regular fourth Wednesday meeting day. Still 7:30 PM at the National Chamber of Commerce opposite the White House.

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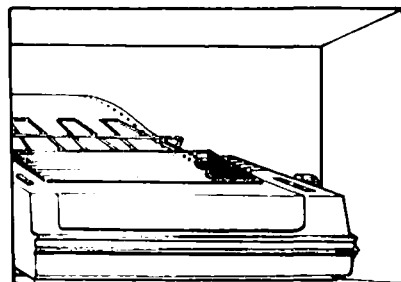
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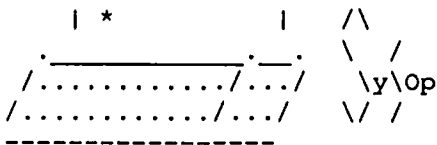
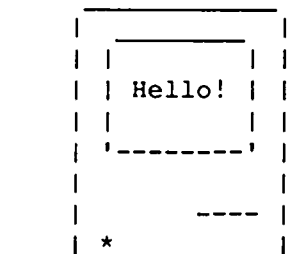
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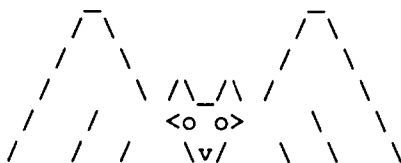
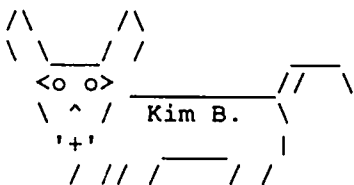
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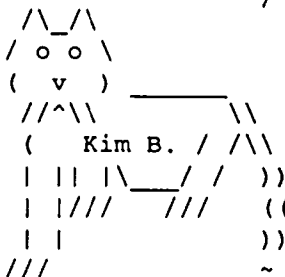
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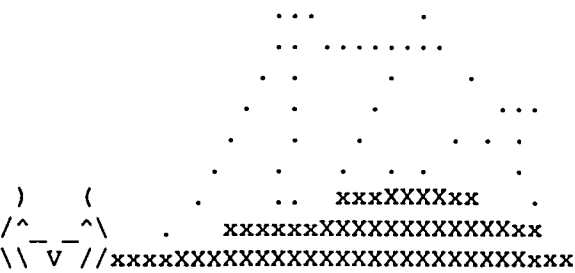
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THE BUTTON-DOWN GUIDE TO THE APPLE: Part V

by Raymond Hobbs

In our continuing odyssey down memory lane in the Apple][, we have seen where the Monitor resides, as well as the Applesoft Interpreter, DOS, the Keyboard Buffer and the System Stack. We'll never be able to give all these areas exhaustive treatment—there are stacks of books written on them which, taken together, do provide extensive coverage—but we won't have the space available here. However, we will continue to snoop here and there, and hopefully have some fun while we learn more about the Apple.

Last month we used a CALL instruction from BASIC to jump into the Monitor. The exact instruction is "CALL -151". With a little arithmetic, we can find exactly what Monitor routine we CALLED. The "minus" tells BASIC to count backwards from the top of memory, so counting backwards from 65,536 (just beyond the top of memory) 151 steps, we get $65,536 - 151 = 65,385$. Decimal numbers are used in BASIC, but the insides of the Apple respond to hex, so the same problem is $\$10000 - \$151 = \$FF69$, which is the location of the Monitor routine "MONZ"—a reset with no beep. Our work in the Monitor last month consisted of executing a disk boot, by entering "C600G", which the Monitor interprets as "GOTO the subroutine at \$C600 and start executing the code there." The subroutine at \$C600 turned out to be the floppy disk driver boot code. That particular code will eventually dump us back in BASIC, if we use a normal DOS disk to boot with, but if our Monitor work doesn't get us back to BASIC, we generally exit the Monitor by entering "3D0G". This is the same type of Monitor command. Execution jumps to the code located at \$3D0.

Well, what is there? Actually, it's just another jump instruction, which sends execution to the DOS subroutines which re-connect whatever we were doing before we entered the Monitor. This is a useful feature when (for one reason or another) a program bombs out and we are either left in the Monitor (or we wish to go into the Monitor) and we snoop around RAM for a while, looking at the program and such. By exiting the Monitor using 3D0G, we can leave our variables and program code intact. These few bytes of memory starting at address \$03D0 are called the "DOS hooks", and are just pointers to where the actual DOS code is located. By using hooks as pointers to code sections, the code may be placed anywhere in memory and, as long as the pointers are updated properly (and at the right times), we can always find that code. Not all code is designed in such a way that it may be re-located to another part of memory, so don't start playing with moving code segments around until we cover that territory in more detail. While we're here on page three, we can note that the locations \$03D0 through \$03FF are used by the Monitor and by DOS as vectors (hooks) for resets, Ampersand andUSR (user) routines, as well as interrupts. Not all bytes are used, but it's safer not to go around messing with this area for a while. On the other hand, there is some "free space" starting at location \$0300 and running up to

\$03CF, unless you are using graphics routines, which use some of the space between \$0320 and \$032B. Later on, we'll get to use some Ampersand andUSR routines, but for now, we're just looking around.

Going back to the Monitor (CALL -151), let's take a few moments to see the kinds of work that the Monitor will do for us. As we might expect, since the Monitor is very closely linked with the Apple hardware, we can do some very down-and-dirty things. First, we can look at memory directly, either one byte at a time (like PEEK), or in blocks of memory. We can change memory; again, one byte at a time (like POKE), or in blocks. We can move blocks of data from one location in memory to another, or compare two ranges of memory. We can even disassemble and list machine language programs residing in memory (including the Monitor itself!). Finally, we can examine and change the contents of the special 6502 registers—the Accumulator, X and Y registers, Processor Status Register and Stack Pointer. All the output will normally appear on the screen, but we can also redirect our output to the printer with a Monitor command.

The first time I used the Monitor on my Apple, I was quite apprehensive, thinking that I might inadvertently damage something. Remembering this, let me tell you right off that you can't do any damage to the Apple from the Monitor (other than wearing the machine out through lengthy "play" sessions). Nothing will suddenly go POP! out of whack because you altered a register or moved some memory around. At worst, the machine may "hang", and you'll have to re-boot, but everything will come back to normal. THE APPLE IS NOT SMART. STEVE WOZNIAK IS SMART. YOU ARE SMART. THE COMPUTER IS DUMB. IT IS LIKE THE FASTEST BUT DUMBEST CLERK YOU EVER SAW. Keeping in mind that you are the boss, let's do a few things with the Monitor.

First, let's look at some memory. If you haven't already entered the Monitor, do so now (CALL -151). We are going to look at the machine code that boots up the system. Enter C600. Simply entering an address causes the Monitor to display that address plus its contents on the screen. You should see C600 - A2 on your screen. Now enter .C67F. The period before the address tells the Monitor to display all the memory between the last address you entered and the address following the period. Your screen will show 16 lines, with the address and 8 bytes of memory displayed on each line. We displayed 128 bytes of memory, or half a page of memory. This display is of the machine code which resides on the card plugged into slot 6 on the Apple (see December's column). It would be more useful, however, to have the code disassembled—to see the assembly language rather than the hex machine code. The Monitor List command will do this for us. Enter C600L, and the Monitor will display 20 lines of disassembled code, starting from location \$C600. Entering another L, without an address, will cause disassembly and

contd.

listing to continue for another 20 lines from where it left off last time. If you want to route the output to your printer, the Monitor command `ctrl-P` (one/control-P) will accomplish this, assuming that your printer is connected to slot 1 on your Apple. Re-routing output is always accomplished by entering the slot number followed by `ctrl-P`. To reset the output to the screen only, enter `0 ctrl-P`. The machine code on the disk drive interface card is 251 bytes long, and we need to list 127 lines to see it all, so enter `c60LLLLLLL`, which will cause the Monitor to list the entire disk boot driver code. Note at the end of the listing (location C6F8 - C6FA) the code `JMP $0801`. This instruction tells the Apple to jump to the code at location \$0801 and start executing it (it's like the Monitor "800G" command). The preceding code is the "bootstrap" driver, which instructs the Apple to load Track 00, Sector 00 from disk into memory, beginning at location \$0801. In other words, to load a program into memory from disk and then start executing it. The program is, of course, the DOS bootstrap program. That program is a three-stage routine (it will "write over itself" twice) which loads the operating system off of disk and into RAM. This process is very interesting and informative, so we will come back to it for a more detailed look later.

Here's a quick list of Monitor commands we can play with in the meantime:

<u>COMMAND</u>	<u>FUNCTION</u>
<code>n</code>	Examine one byte of memory at location <code>n</code> .
<code>.n</code>	Examine memory from last location referenced to location <code>n</code> .
<code>n1.n2</code>	Examine memory from location <code>n1</code> to location <code>n2</code> .
<code>:#</code>	Change last location's value to <code>#</code> .
<code>n:#</code>	Change location <code>n</code> 's value to <code>#</code> .
<code>n:#1 #2 #3</code>	Change memory starting at location <code>n</code> to values <code>#1</code> , <code>#2</code> and <code>#3</code> (spaces needed between values).
<code>n1<n2.n3M</code>	Move memory range <code>n2</code> to <code>n3</code> to new location starting at <code>n1</code> .
<code>n1<n2.n3C</code>	Compare memory range <code>n2</code> to <code>n3</code> with range starting at <code>n1</code> .
<code>nL</code>	Disassemble and list 20 lines of machine code starting at location <code>n</code> .
<code>nLL</code>	Disassemble and list 40 lines of machine code starting at location <code>n</code> .
<code>ctrl-E</code>	Examine 6502 registers (Accumulator, X, Y, Processor Status, Stack Pointer).
<code>x ctrl-P</code>	Redirect output to device connected to slot <code>x</code> .

(THERE ARE A FEW MORE MONITOR COMMANDS NOT COVERED HERE - LATER.)

O.K.—Take a break now (you've earned it). 3DOG gets you back to the Applesoft prompt, and a return to the (more or less) world of sanity. I would like to thank the readers who have written letters to the editor encouraging me to continue this series of articles. I would also like to respond to two of them here:

TO Paul Klepac: Thanks for the support! I started collecting supplementary material on the Apple back in '81, and was fairly loaded down by '83. Here's a list of references that I have used:

APPLE II Reference Manual, Apple II Monitors Peeled, Apple II - The DOS Manual (all by Apple Computer, Inc., 1981, Cupertino, CA)

Beneath Apple DOS, by Don Worth & Pieter Lechner (Quality Software, 1981, Reseda, CA)

Assembly Lines: The Book, by Roger Wagner (Softalk Publishing, 1982, North Hollywood, CA)

Apple Graphics & Arcade Game Design, by Jeffrey Stanton (The Book Company, 1982, Los Angeles, CA)

What's Where In The Apple?, by F. Lucbbert (Microlink, Inc., 1981, Chelmsford, MA)

Programming the 6502, by Rodney Zaks (SYBEX Inc., 1980, Berkeley, CA)

6502 Assembly Language Programming, by Lance A. Levanthal (Osborne/McGraw-Hill, 1979, Berkeley, CA)

6502 Assembly Language Subroutines, by Lance A. Leventhal & Winthrop Saville (Osborne/McGraw-Hill, 1982, Berkeley, CA)

I hope that you continue to explore your Apple and learn more about computers. Don't hesitate to write in with your questions—I'll do my best to see that they are answered.

To Thomas Slifker: I will try to address the mechanics of I/O drivers as soon as I can. As you can see, we're moving slowly but steadily from the general to the specific, but we still have some basics to cover before we get into the necessary elements for I/O drivers—communications, handshaking, timing and (of course) machine language. But your questions are definitely on my list! And thanks for the support!

Next month we'll look at some of the secret parts of the hardware on the SC0 page (Oh, Them Golden Switches). Have fun with your Apple 'till then! ☺

*Wishing you
every happiness
this holiday season
and throughout
the coming year*

LISTS-LISTS-LISTS

by Leon H. Raesly LCSW (Copyright 1986)

ASCII, SDF, Delimited, DIF, SYLK, Lotus, Word Processor (WP), Table, what do all these mean? Especially, if you apply them to raw data, what do they mean as a Data Base (DB) format? These are handy jargon terms for describing a particular way of presenting/storing the data. Each of them can be read by certain programs (usually a Data Base program), and none of them is an inherently superior method—they are just different! Each was devised by the developer of a particular software program, and often became generally used by others of that type of software because they were there. We will look at each, and see how it is organized. In another file, you will find how to change from one type to another, and tips on ways to make it easier.

INTRODUCTION:

The Telecommunication System (TCS) is composed of five telephone lines on an automatic roll-over from C & P Telephone Company linking together one large Local Area Network (LAN) of four Conferences. Each Conference is generally Topic oriented (e.g. General Conference, Apple // Conference, Mac Conference, and The Classified Conference) and is composed of thirty-two Message Bases, or Boards.

Access is gained by calling a single number (986-8085) and entering your password when requested. Within each conference, the Boards are directly readable for messages posted by others on that topic, or as a place to leave your own messages. Each Board has ninety-nine Library files associated with it, on topics related to the theme of that Board.

The TCS has recently added several new Boards, such as Historical War Gamers, The Senior NET, and The Lists Board. It is that Board that we refer to here.

The Lists Board has the usual message base for messages about use of lists, sources, etc. In addition, in the Library are a growing number of actual lists themselves, available to be read, and captured, by users for their own purposes.

Some of the current lists include: States (Giving details such as State Flower, Bird, Capital, etc.), Presidents (similar type of info), Ethnic Restaurants of the Metro Area, Telephone Exchanges and Cities of the Metro Area, Herbs & Their Uses, Public & Private Schools in MD (coded for the difference), All Computer Users Groups in the Metro Area, Apple Users Groups in the U.S., U.S. Senators, U.S. Congressman, MD State Representatives, Seasonal Planting Times for Various Plants, Software Houses in the U.S. for Apple //, and the list is growing!

The first five files of the Library are the Table of Contents to the entire Library for that Board. In each one, information is presented in a directory format about each of the files. This information includes: file number, name, number of blocks of disk space, data format of file (see below), number of fields, number of records, and the field names within the data file. Five additional Library files are reserved for other technical information, such as this article on how to use them, and one Library file contains a VisiCalc spreadsheet to compute the time to capture (read) each Library file based on its length and your Baud rate! This can be directly loaded into your

spreadsheet, whether it is AppleWorks, Visicalc, The Spreadsheet 2.0, Flash Calc, Super Calc 3A, or whatever!

CONCEPTUAL:

Data Bases are very common in the life of most people in this country. The most often used is a Telephone Directory. Here you look up a name, and from it extract a telephone number. (Now that calling Information is 25 cents per call, I suspect that telephone directories will become widely used again!) Other examples of widely used DB's are your Rolodex at the office with people's names, telephone numbers, etc. Even a dictionary (something I should use more often, I was told by the editor!) is a specialized type of data base! Look up a word, and find the correct spelling, or several definitions, etc.

Several concepts are common to all DB's. First is the idea of the Field. This is a specific, discrete portion of data. In the examples we will use (a mailing list) the first field would be the individual's first name, the second their last name, the third their street address, and so on.

The next concept is the record. This contains all the fields that compose all the information of one item within the DB. Thus, the complete name, address, etc. of one person is one record, of the second person the second record, etc.

The third concept is the file. This is the collection of all the records into one storage location; in terms of the telephone directory, a book; in terms of microcomputers, the single file (usually on a disk). So with that in mind, let's look at the types of formats specified above.

ASCII:

As applied to a microcomputer DB file, an ASCII file has the one element that is common to all, i.e. it is written to a disk or other media in straight ASCII (American Standard Code for Information Interchange), or in other words, just the characters are represented, no special page formatting codes (the exceptions are the DIF, SYLK and LOTUS formats). Thus, there is nothing in the files except the standard characters and carriage returns (usually represented by the symbol <cr>).

But there is something special about the format. Each field is followed immediately by a <cr>. Thus, an individual's name (such as used by a mailing list) would be in the following format:

```
Leon<cr>
Raesly<cr>
7411 Riggs Road<cr>
Adelphi<cr>
MD<cr>
20783<cr>
Eve<cr>
Jones<cr>
10 Your Street<cr>
Your Town<cr>
ST<cr>
20954<cr>
..... etc.
```

Looking at the data, several things become evident. First contd.

is that all data starts at the beginning of a line, and ends with a <cr>. It is cumbersome to read, but a requirement for many Data Bases programs, especially on the Apple. Examples of programs that require this format are: Apple Works, PFS File, Simply Perfect, & Quick File.

A convention that has developed among many who share data between different programs (and machine types) is to include an additional field in each record. This is placed at the end of each record, and contains four unique symbols that are not used anywhere else in the file. Most commonly used is four American pound signs (e.g. ####), as well as such symbols as \$\$\$\$, &&&& and others. Thus, the file above would look like this:

```
Leon<cr>
Raesly<cr>
7411 Riggs Road<cr>
Adelphi<cr>
MD<cr>
20783<cr>
####<cr>
Eve
```

..... etc.

with each record ending as an 8th field (in this example) with four #'s. This is done mostly for the convenience of converting to other formats, as will be seen later. For those Data Base programs that require the data to be in ASCII field format before being merged, the extra field is superfluous. This includes Apple Works, as well as others. These extra fields can easily be removed, if desired, which I will discuss later.

SDF:

Standard Data Format. This is actually the older form of the telephone Directory, and is sometimes called a Directory format. Thus, these same two names would look like this in an SDF format:

```
Leon Raesly 7411 Riggs Road Adelphi MD20783<cr>
Eve Jones 10 Your Street Your Town MD20954<cr>
```

..... etc.

Notice several things about it. Each line is now a complete record, with fields separated by spaces (spacebars). Thus, while easier to read, it is difficult to manipulate the data with a microcomputer. Further, merging this into a Data Base program is usually impossible (one immediate exception that comes to mind is dBASE II, which allows this type of merging). But it is in this manner that most of us are used to seeing the final result of a data base—the printout!

A further point—please notice that all data begins at the beginning of a line, and that each line ends in a <cr> .

DELIMITED:

This is also often referred to as COMMA DELIMITED, since the comma is the most often used separator. Let's look at how the same two names would appear in such a DB file:

```
"Leon","Raesly","7411 Riggs Road","Adelphi","MD",
"20783"<cr>
"Eve","Jones","10 Your Street","Your Town","MD",
"20954"<cr>
```

..... etc.

Although much more difficult to read than SDF (columns are not lined-up, and no extra spacing to help them be), it is more readable than the ASCII file format. So it should be

obvious that it, like the ASCII file format, is designed for entry into a microcomputer. Notice that there are actually TWO delimiters used. The first is the quotation mark to (") 'SURROUND' each file, and the second is the comma used to 'SEPARATE' each field. Notice that each line is a complete record, and the each record ends in a <cr> .

You will find this format mostly used on IBM PC & Clones among the various DB's. Programs such as K-Man, RBASE, and the dBASE II, III, and III+ family use them to interchange data. On the Apple, dBASE II is a prime example of a program working well with this format to interchange data.

DIF, SYLK and LOTUS:

These are special formats that carry additional information about the data, and are primarily used by spreadsheets. Although some DB's can import the data (such as Apple-Works DB) most cannot, and have little to do with our discussion of DB file formats.

WP and TABLES Format:

Unfortunately, many people store DB data in WP format with a Word Processor, which makes it very easy to read, but very difficult to manipulate. When entered in columns, with space bars entered and the data starting at the beginning of a line, it is in fact our SDF format we saw earlier. When a WP data base format line begins with spaces, it is usually called a Tables format, and is just as difficult to manipulate. As an example, sorting is limited or non-existent with this type of format.

DB FORMAT CONCLUSION:

Thus, it becomes evident that the two most useful ways to store DB data in a disk file (perhaps when printed to disk to share with another computer) is either in ASCII format, or in Delimited format.

All of the data stored in various list within the Library files of this Board will be in one of these formats, and the type will be indicated in the Tables of Contents files (Files 1-5).

HOW TO CAPTURE:

Securing a copy of these lists within the Library is called "Capturing", since you will actually do the work with your Telecommunications software, rather than the Downloading, which is usually done with certain Protocols, which computer-check the accuracy of received transmission.

Generally, you will want to use a MODEM (MODulator-DEModulator of at least 1200 Baud. With costs of these MODEMS falling so fast (the Pi's group purchase has one for as little as \$87, and a good quality one at that), you can easily add one to your equipment.

I will discuss "Capturing" data in a general way, since each software program will have enough differences to make discussion of particular commands irrelevant on other Telecommunication software programs.

You will want to have your Copy Buffer turned on in your software, and also the Auto-Write (automatically write to disk) feature turned on. Further, it is always best to have extra formatted disks available. Even though you might be using a RAM disk, you will need space to store the data after the session on the TCS. Incidentally, the use of a RAM disk greatly enhances the speed and convenience of either capturing (in this case) or Downloading information.

contd.

Now call the TSC, enter your password; when accepted, enter a B (for BBS); and when you see the list of Boards on Conference 1, enter 23 for Board 23 (The Lists Board). After reading the opening Bulletin, enter an L (for Library) and you will be taken to the Library, and shown the list of Files. Here, you enter an R for read, turn on your Capture Buffer and Auto-Write feature in your software, then enter the number of the file you wish to Read (Capture), followed by a <cr>. That's all there is to it!

MERGING:

Now that you have Captured the data, how do you use it? Well, if your DB Program can use the data directly (such as AppleWorks) you would follow these steps.

Bring up your program, and tell it that you want to create a new Data Base. When it asks you whether from scratch, or an ASCII file on disk, choose ASCII file on disk. It will then ask you how many fields. In the example above you would tell it 8 (you remember the extra file at the end with four #####'s don't you?)

Next, go to the modify file commands, and change the names from Category 1, Category 2, etc. to the actual names used (such as First Name, Last Name, etc.)

The final step of cleaning up the file for your use is to tell the program to delete the eighth field, and Viola! That's it! You now have a complete data base, possibly with hundreds of entries, without your having to enter a single one, and all in about fifteen minutes!

But suppose you are not using AppleWorks, and your DB Program does not want those extra pound signs at the end? Easy, use a WordProcessor that will work with very large files, and is disk oriented, such as ScreenWriter II or Word Star. If necessary, run a convert program to convert from whatever Disk Operating System (DOS - rhymes with BOSS) you have been using with your Telecommunications software to the DOS of the WP. Then load the data file into the WP, do a global Search and Replace to replace all #####' to nothing, and when finished, save to disk and you are now ready to load into your DB (first converting back to your other DOS if necessary).

CONVERTING TO DELIMITED:

Since dBASE II and the other DB Clones on the IBM are widely used, and since most DB formats are actually the ASCII format, I will discuss the particular details of converting from ASCII format (which most of our Library files are) to DELIMITED. The reverse conversion is rather straight forward and can easily be seen once the concept is understood.

When using a WP for this process it is vital that the program be able to search or replace for a <cr>. AppleWorks will not do this, but Apple Writer will. If using Apple Writer, you will need to Load only portions of the file at a time. See your manual for instructions on how to specify only a portion of the larger file.

Wherever I am going to end up with the data, I use Word Star (WS) for my conversions, since the file size that it will work with is limited only to the size of your disk (even 800K 3.5's or 20 meg Hard Drive can be used, as well as 5 1/4 floppies!)

The steps work in the following order:

Specify Search and replace. ^QA then tell it GUN (Global

(the entire file), Unsensitive to Case (Either upper or lower case), and Not to Ask (whether to replace or not)). It will now ask what to look for to replace. You want it to look for carriage returns—in WS that is done by specifying ^N (Control N). It will then ask you what to replace with. You specify "," as what you wish each carriage return to be replaced with. Once it starts, you can greatly speed up the process by turning off the screen. To do this, just depress the spacebar once.

Now wait, and in a few minutes or more, (depending on the size of the file) control of the keyboard will return to you. Do not be surprised, if you are using floppies that are very full with a humongous file, that it takes as long as twenty minutes!

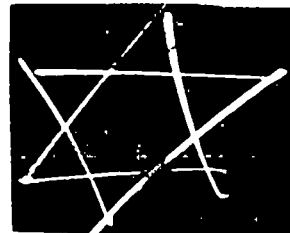
When the screen comes back, you will see a very unusual site! There will be a single line representing the entire data base, starting at the left side of your screen, across to the right, then all the way out the computer, the nearest window, and on down to the Potomac River! And all with not a single <cr> anywhere! (You just replaced them all, remember!)

But all is not lost! To get it back to a more manageable structure, do another ^QA, tell it BGUN (B for Backward. You are now at the end of the file, having gotten there by doing the Global S&R from the beginning, and you end up at the end!

What we wish to achieve is that each record end with the ZIP, followed by a " (to 'Surround' the ZIP data, and then end with a <cr> But what we actually have is ZIP",#####",First Name. So when it asks you what to Search for, tell it,"#####". To the query Replace with, tell it ^N (the symbol for a <cr> in WS, remember?). When it starts replacing, don't forget to turn off the screen with a spacebar.

As before, go get a cup of coffee and relax. This WILL take a long time. Shortly (or longly, as the case may be) the screen will return, and your entire file will now be delimited, with two, easily remedied exceptions. All fields are now separated with a comma, and a <cr> is at the end of each record. However, it is missing the first " mark before the first record, and also after the last record. Since your cursor is now at the beginning of the file, simply enter a ", and then go to the end of the file and do the same. Viola! All is now converted from an ASCII formatted file, to a DELIMITED file! Don't forget to save it, of course!

This file can now be directly entered into dBASE II on an Apple or transmitted by MODEM (or converted using a disk conversion routine) to an IBM PC or Clone to be loaded directly into dBASE II +, K-MAN, or other such program! Apples can talk to IBM PC's! ☺



INITRON-RINITRON-TRINITRON! An Apple IIgs Review

by Leon H. Raesly LCSW (Copyright 1986)

How does an RGB Monitor with both Analog and Digital RGB get you? Oh, not much, huh? How about both digital and analog RGB with composite and 80-column clear display? Still not very much, huh? Alright, then how about a color TV, with cable compatibility, along with cordless remote-control, and 13-inch screen. Nah, didn't make it yet, huh?

Well, how about an analog and digital RGB Monitor (with sound!) with composite color, 80-column clear display, 13-inch screen, with color TV, cable compatibility, VCR input, cordless remote controls, on-screen display of channel, digital display of time, sleep control, an accessory stereo TV sound, and local availability at UNDER \$500, grab you?

Now I got you, huh! You have just been introduced to the new Sony Trinitron, the Monitor/TV that does all the above, and more. Let me tell you some more about it!

I was first introduced to the Sony Trinitron by Chuck Perrelli of Clinton Computers. I had purchased an Apple IIgs, and was planning to use my extra Apple /// Green Screen Monitor with it (no, I didn't get the IIgs from them). I also had a small (read 5") composite monitor, and figured I would make do with both for a while. I didn't know how short that "while" would be!

After just a few days of finding that I was using the 5" composite to see the color, I gave up, and began calling around. It seems that Apple had never expected anybody to have purchased a IIgs without a color monitor, and there was no mechanism by which they would ship a single monitor to a dealer! That's where Chuck of Clinton Computer came in. He suggested the Sony Trinitron (with the comment that it is the one he purchased for use with his IIgs!). It needs a special cable, which he believes Sony will supply for about \$10 to \$15. He made a temporary one for me.

Let's take a closer look at some of its features. The monitor is capable of responding to the entire Apple IIgs 640 x 200 pixel requirements. In 80-column display, the letters are larger than the Apple // or /// Monitor display, and with approximately 98% of the sharpness (to my eyes)—very clear and usable with the analog RGB display. In addition, the connector cable brings the Apple IIgs sound to the monitor, using its speakers to present the sound.

I ran the digital RGB off of my (gasp! sorry to say!) Big Blue monstrosity. Good, clear display with Super Calc 4. It will also work with an Apple //e RGB (digital) display, and quite nicely, thank you! I also ran a composite color program (Mouse Paint), and the colors look fine, as well. Running AppleWorks, the 80-column display was clean and crisp. It was easy on my eyes, and sharp.

Thus, this one device (should I call it a monitor/TV?) will work with a IIgs in color or any combination of colors (it was nice to change from color to green screen!), as well as with an IBM, then switch to a composite color game! On the TV side, just push the button labeled TV, and up it comes! You have all the usual color adjustments (hue, color V-Hold, etc. as well as the ability to connect to cable TV with 125 available channels! The on-screen display shows the channel

numbers, "muting" or "sleep" status for 10 seconds, then disappears. It can be brought back at any time with the remote control.

The remote is operated by two small AA batteries, and will operate at any angle less than 30° from a distance as far as 23 feet (not many dens are larger than that!). It includes channel +, - (up or down), sound +, - (louder, softer) with digital bar display on the lower portion of the screen for 10 seconds before it fades from view. Both channel display and sound level display can be brought back at any time.

The "sleep" option sets the TV so that it turns itself off after one hour. In addition, you can select (from a front panel door) which channels you want to be available—thus the remote unit might be set for VHF channels 4,5,7,9 locally, and the remote "Channel +/-" would advance or descend through those channels only, skipping the ones in-between. These selections can be changed at any time, as you wish.

Now the "OTHER" good part: PRICE. It is a bit pricey, listing at \$625. (Sony just raised it \$25 at the end of November—they know when they have a good thing!). However, Chuck Perrelli told me that he would honor the Apple P member discount of 25%. And, that is not all. This IS a color TV, and most discount TV stores also sell it! So you might even be able to do better there! Shop around, if you're shopping for price.

Where to get it repaired? Any dealer that sells it, of course, BUT, also any TV repair shop! That ought to keep the price down!

Well, as I guess you can tell from this article, I was both very impressed, as well as very satisfied with my TRINITRON Monitor/TV. Now when I get tired of writing these reviews, I can just push a button, and watch my favorite TV program right on my computer! ☺

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PRODOS BUG SQUASHED

by Tom Vier

A major oversight in ProDOS V1.1.1 has been discovered that may put an end to many ProDOS disk trashing. First isolated in Australia by Stephen Thomas, the cure was published by *Open-Apple* Newsletter (P.O. Box 6331 Syracuse, N.Y. 13217) in its November issue. If you aren't interested in all the nitty-gritty details, simply GOTO Listing 1 to correct your startup disks.

Meanwhile, in each copy of the file PRODOS, there is a section of code that is used everytime a 5-1/4 inch "floppy" disk has to be accessed to save or retrieve data. This "driver" takes the block address and command given to it by ProDOS, finds the correct physical track and sector on the disk, and finally reads what is there or replaces it. It does this by direct manipulation of sixteen "soft" switches that control the disk drive mechanism. The gross omission that has existed in all the versions of the ProDOS floppy driver is that, unlike of reliable DOS 3.3, the drive is not empathically set to read mode before any other access to the drive. By not assuring that the write state is off, there has always existed the remote possibility that, under ProDOS, it could be erroneously left in this state upon entry.

What has apparently elevated the probability of destroying data on the disk are four instructions added in V1.1.1 that turn off all the stepper motor phases that are used to move the head assembly across the disk surface. The instructions were added because those phase lines to the drive are used to enable and disable the UniDisk 3.5s in daisy-chain with floppys (Hex Head Trivia: Leaving PH1 on will also cause a falsely true write-protect sense). Apparently, in ignorance of the hardware, these instructions used the STA opcode instead of the LDA opcode. Unfortunately, this causes both the micro-processor AND the controller card to assert themselves on the data bus at the same time. This group of eight lines runs hither and yon all about the motherboard carrying the bits of your valued information to the many places it needs to go. In close proximity are the address lines that choose where those bits go.

What the gentleman from Australia proposes is that the "glitch" caused by this data bus contention can cause a corresponding "glitch" on the address bus, thus causing a chip on the disk controller to falsely decode the address and put the drive in write mode! Then, as the floppy driver spins up the disk to start an access, it's "bye-bye data".

The fix that Stephen Thomas has come up with for these disastrous errors is to change the four STA instructions to LDA instructions and add an extra instruction to put the drive in read mode upon every entry to the floppy driver. The following program will patch your versions of ProDOS V1.1.1 to include this insurance. This should be done to all your backup disks of ProDOS applications, such as AppleWorks. Apparently ProDOS 8, that has been released with the IIGS, has the same bug. It can be fixed by moving all the locations in the program up 512 bytes higher. Hopefully, the release version of ProDOS 16 for the IIGS will have the corrections in place. Meanwhile, most users will

have to patiently wait for an update to be publicized and distributed to the dealers, if ever.

Listing 1

```
10 REM Stop ProDOS track 0 crashing
20 REM patches by Stephen Thomas
30 REM MacLagan Wright & Associates
40 REM West Heidelberg, VIC Australia
100 TEXT : HOME : D$=CHR$(4) : E=0
110 VTAB 12 : PRINT "Now patching ProDOS."
120 ONERR GOTO 500
130 IF PEEK(116) < 96 THEN E=1 : GOTO
    500 : REM Make sure there's room
140 PRINT D$;"UNLOCK PRODOS"
150 PRINT D$;"BLOAD PRODOS,AS2000,TSYS"
200 FOR ADR=22211 TO 22220 STEP 3 :
    REM Change four STAs to LDAs
210 : IF PEEK(ADR) = 189 THEN E=2 : GOTO 500
220 : IF PEEK(ADR) < > 157 THEN E=3 :
    GOTO 500
230 : POKE ADR,189
240 NEXT
300 ADR=20484 : V(0)=189 : V(1)=142 : V(2)=192 :
    REM Change NOPs to LDA $C08E,X
310 FOR I=0 TO 2
320 : IF PEEK(ADR+I) < > 234 THEN E=3 :
    GOTO 500
330 : POKE ADR+I,V(I)
340 NEXT
400 PRINT D$;"BSAVE PRODOS,AS2000,TSYS"
410 PRINT : PRINT "Patches Completed."
420 END
500 PRINT CHR$(7);"Error! No patches were made."
510 ON E GOTO 530,540,550
520 PRINT "PRODOS file not found." : END
530 PRINT "Not enough room to load
    PRODOS." : END
540 PRINT "File has already been patched." : END
550 PRINT "This version of PRODOS not V1.1.1."
```

*Wishing you a bright
and joyful
holiday season.*

THE OHIO KACHE SYSTEMS KACHE BOARD

Or Turbo-Charging Your SIDER

by Kim Brennan

The Ohio Kache Systems (OKS) Kache Board is a high speed SCSI Hard Disk interface board for the Apple II line of computers. The Kache Board replaces your current interface board for Hard Disks like the First Class Peripherals (FCP) Sider. At nearly \$400 the Kache Board would have to offer something special for consideration, and it does. Using DMA (Direct Memory Access) and 256K of cache memory the Kache Board is visibly faster than the Sider using the normal interface board.

What makes it work? Two things: Direct Memory Addressing (DMA) and a 256K memory buffer (cache).

What is DMA? Well, it is a way for outside devices to input data faster than the Apple's microprocessor. Normal disk interfaces for the Apple depend upon the 6502 (the core of the Apple) to retrieve and store the data on a disk (hard or floppy) or put the data in memory. An outside device can do this much faster. Hence DMA.

What is a cache memory? This is a buffer between your computer's memory and the hard disk. Intelligently controlled it acts like a ram disk with the important point that you don't have to worry about losing any data on the ram disk or putting your programs and data on the ram disk. The Kache Board uses a separate microprocessor (a Z80) to see what data is being used the most. That data is then ALSO kept in the cache memory. Whenever you need that data again you ask for it from the Hard Disk BUT it comes from the cache memory. And no matter how fast a Hard Disk you have, a Ram Disk is faster still! Programs like AppleWorks constantly load sections of their program from the disk, especially when you switch between the word processor to the data base or spreadsheet. With the Kache Board those sections are stored in the cache memory. Without your having to do anything other than use the program normally, you gain all the benefits of a ram disk. When you save your information the data is sent to the cache memory and then to your hard disk. But, you don't save twice. The Kache Board handles all of the dirty stuff. This way your data is up to date at all times.

All this adds up to a surprising decrease in disk I/O time. In fact it seems almost like an accelerator board has been added to my system. Better, in fact, since accelerators do not decrease disk I/O time.

How much can it improve performance? Well, I assembled an assembly language program using The Byte Works' Orca/M assembler and recorded the times. This assembler has a large disk based library and also keeps various sections of the assembler on disk for maximum power. I ran the program several times to see if multiple assembly and editing of a file changed how long it took to assemble. My results shown in the table are interesting. OKS claims that the Kache Board offers a 2:1 advantage over the conventional interface board. The table shows a more real world speed increase on the order of 25%. This is because most applications are rarely doing pure disk I/O. Most are doing calculations or memory manipulations at the same time. For

short tasks, though, (copying of 1K files) the Kache Board seems instantaneous.

Disk	Interface	1st	2nd	3rd
Sider	Kache Board	1:36.7	1:32.6	1:33.1
Sider	Sider	1:54.8	1:54.9	1:54.9
Ram	Applied Eng.	1:27.0	1:26.9	1:26.9
Unidisk 3.5	Apple	3:02.8	3:03.2	3:03.2

Notes: I did not compare a 5.25 disk since Orca/M would not fit on a single disk. It would prompt me for the next disk and wait until it was inserted, obviously making accurate timing difficult. Also differences in time of less than .5 seconds can probably be considered insignificant due to the fact that MY reaction time probably plays some role in any inaccuracies.

Now for the bad news. I am unhappy about the documentation. Not enough examples for one thing (Pournelle's Law 'there can never be too many examples'). At one point in the installation procedure the manual tells you that this is the place to hook up the external power supply. It doesn't say that the card will work without it (it does) or why it is needed (large power consumption). It does say to consult the external power supply manual about how to hook it up. But, the big glaring omission is the fact that you will have to reformat your Hard Disk to use the Kache Board. OKS is aware of this omission, however, so perhaps there may be a change in the manual some day. Overall the manual is similar to the original Sider manual. Note: I don't have the newer Sider manual—mine is the one everyone complained about.

Other problems. It will not work with accelerator boards and since it uses DMA it probably won't work in a GS. However, like the PCPI applicard (a Z80 Cp/m card), the Kache Board is physically too large a card to fit inside a GS case.

Is this for you? As a personal computer owner I don't really need the superior performance of the Kache Board, no matter how much I pretend I do. Anybody doing disk intensive operations will see a decided advantage with this board. Programs like AppleWorks and WordPerfect or an assembler like Orca/M make use of disk I/O quite frequently to give the user the best flexibility and power from within the program. Electronic Bulletin Boards with their large message bases are a perfect candidate for the Kache Board. All of these programs work better with the Kache Board. A person dealing with a disk based data base will show a definite improvement while someone with a spreadsheet won't (at least not while working on the spreadsheet). The Kache Board is not an accelerator rather it is an alternative to an accelerator, speeding up your data transfer rate via your hard disk rather than through your microprocessor. In these days of fast microcomputers often the slowest peripheral we have is our disk drives, whether they are hard or floppy. The Kache Board is one way of speeding up data access.

Kache Board, Ohio Kache Systems, Corp., 75 Tahlequah Trail, Dept. 11, Springboro, Ohio 45066-1154. \$395.00 ☺

HI-RES TO PRINT SHOP

by Charlie Brown

I really enjoy my PRINTSHOP and I would use it even more than I do if I only had a larger collection of graphic images. Since I am a graphics klutz, I have yet to make my own picture that looks recognizable. While rummaging the WAP office the other day, I found a program in [Computing Volume 1 No. 3 written by Jon Thomason which converts the Hi-Res screen to a PRINTSHOP graphic. I thought this program was a great idea but found that it had a couple of drawbacks. It takes about a half an hour to convert one screen and the end result, which combines groups of 9 points into 1 to reduce the screen image to about 10% of its original size, produces a graphic which often doesn't resemble the original. Since many Hi-Res pictures contain small sections of images, I put together this program with which you can very quickly convert any 52x88 section exactly as it appears on the Hi-Res screen into a PRINTSHOP graphic.

The graphic images used by PRINTSHOP consist of 52 rows and 88 columns and is made up of 572 bytes from 22528 (\$5800) to 23100 (\$5A3F) each containing 8 bits. There are 11 bytes across and 52 bytes down reading from left-to-right and top-to-bottom. Each set of 8 points in the Hi-Res image combines into one byte, points from left-to-right being converted into bits from high-to-low. The program to accomplish this conversion is as follows:

```

100 REM LOAD SHAPE TABLE &
    CONVERSION ROUTINE
110 GOSUB 1000
120 REM BLOAD HIRES SCREEN
130 TEXT : HOME
140 ONERR GOTO 150
150 PRINT "Name of HIRES image to be converted"
    : PRINT "<CR> = catalog":INPUT "--> ";NMS$
160 IF NOT LEN (NMS) THEN PRINT CHR$
    (4)"CATALOG" : GET AS: GOTO 150
170 PRINT CHR$ (4)"BLOAD";NMS;" ,A$2000"
180 POKE 216,0

```

Lines 100-180 loads the shape table containing the rectangle which is used to identify the section of the image to be converted, loads the machine language conversion routine, and then loads your chosen Hi-Res image from disk.

```

200 REM SELECT PART OF HIRES IMAGE
210 HOME : PRINT
    : PRINT "Use the I, J, K, M keys to move the"
    : PRINT "rectangle over the area which is to"
    : PRINT "be converted.": PRINT
    : PRINT "Press <CR> after you have made"
    : PRINT "your": PRINT "selection.": VTAB 20
    : PRINT "Press any key to continue": GET AS
220 POKE - 16302,0: POKE - 16300,0
    : POKE - 16297,0: POKE - 16304,0
    : POKE 230,32: POKE 232,0: POKE 233,3
230 ROT= 0: SCALE= 4: HCOLOR= 3
240 X = 96:Y = 70
250 XDRAW 1 AT X,Y

```

```

260 GET AS: XDRAW 1 AT X,Y
270 IF AS = "I" THEN Y = Y - 1: IF Y < 0
    THEN Y = 0
280 IF AS = "J" THEN X = X - 1: IF X < 0
    THEN X = 0
290 IF AS = "K" THEN X = X + 1: IF X > 191
    THEN X = 191
300 IF AS = "M" THEN Y = Y + 1: IF Y > 139
    THEN Y = 139
310 IF AS < > CHR$ (13) THEN 250

```

Lines 200-310 turns on the Hi-Res image and places in the middle of the screen a 52x88 rectangle which you may move around with the I, J, K, and M keys. When you have boxed in the section you want, press RETURN.

```

400 REM CONVERT IMAGE
410 SCALE= 1: POKE 1,X: POKE 2,Y: CALL 808
420 GET AS

```

This code calls the machine language routine which was loaded into memory at location 808 for converting the selected section of the Hi-Res screen to a PRINTSHOP graphic. I used machine language rather than Applesoft because it does the conversion much faster.

```

500 REM SAVE PRINTSHOP GRAPHIC
510 TEXT : HOME
    : PRINT "What is the name of this"
    PRINTSHOP" : INPUT "graphic --> "; NMS$
    : PRINT CHR$ (4)"BSAVE ";NMS$;
    ",A$5800,L575"
520 PRINT : PRINT
    : PRINT "Do you wish to convert another?"
    (Y/N) "; : GET AS
530 IF AS = "Y" THEN 130
540 END
1000 REM LOAD SHAPE TABLE
1010 FOR I = 0 TO 39: READ Y
    : POKE 768 + I,Y: NEXT
1020 REM LOAD CONVERSION ROUTINE
1030 FOR I = 40 TO 157: READ Y
    : POKE 768 + I,Y: NEXT
1040 RETURN
1050 REM SHAPE TABLE
1051 DATA 1,0,4,0
1052 DATA 45,45,45,45,45,45,45,45
1053 DATA 45,45,45,54,54,54,54,54
1054 DATA 54,62,63,63,63,63,63,63
1055 DATA 63,63,63,63,39,36,36,36
1056 DATA 36,36,36,00
1060 REM CONVERSION ROUTINE
1061 DATA 169,88,133,5,169,0,133,4
1062 DATA 169,0,133,9,169,0,133,6
1063 DATA 169,0,133,10,169,1,133,11
1064 DATA 32,96,3,160,0,165,10,145
1065 DATA 4,230,4,208,2,230,5,230
1066 DATA 6,165,6,201,11,208,225,230

```

contd. on pg 34

dPubSIG NEWS

by Steven Payne

Despite a shift from the standard "first-Wednesday-of-month" schedule, the November meeting of the Desktop Publishing Special Interest Group on November 14th was very well attended, with nearly 50 people. The meeting began with a question and answer period on such topics as PageMaker 2.0 (Aldus), Ragtime (Orange Micro, Inc.), ReadySetGo 3.0 (Manhattan Graphics), and the comparative merits of FullPaint (Ann Arbor Softworks), SuperPaint (Silicon Beach), and CricketDraw (Cricket Software). Chairman Tom Piwowar then announced the schedule for upcoming meetings (once again on the first Wednesday of each month in 1987); a topic for January will be "The Battle of the Font Makers (Fontographer vs. LaserWorks)," while the President of MacroMind, Mark Canter, is planning to attend in February to discuss the new release of GraphicWorks.

Tom also mentioned that the recent Desktop Publishing Conference co-sponsored by the Washington Apple Pi was a great success, with over 900 attending. The WAP Board has authorized the use of some of the proceeds for the development and mailing of a brochure inviting those at the conference to join the Pi and its dPubSIG. A committee (Tom Piwowar, Terry Monks, Ron Moore, and Nancy Schmitz) has already begun work on the project. Tom also noted that plans are underway for another two-day conference in May, and fielded comments and suggestions for the next conference from the group. Other upcoming conferences in the area include CAP '87 (February 10-12), and PRINTFEST '87 (June 3-4).

Next, Joe Manganello talked about his plan of compiling a DC Desktop Publishing Directory, of people in the area who can offer services or independent consultation of one sort or another. Volunteers were recruited to help with the project. Willy Packard of Freehand Press distributed sample copies of *SCAR [Student Coalition Against Apartheid and Racism] News*, a newspaper he edits entirely on the Macintosh.

In the "Demo" part of the program, Jim Lanford of Micro-dynamics presented the Radius Full Page Display (Radius, Inc.) for the Macintosh, which allows editors to view an entire 8 1/2" x 11" document at actual size while leaving the Mac screen fully operational. In addition, JoAnn Goldberg and Terry Monks gave instructive demonstrations of MapMaker (Select MicroSystems) and Ragtime (Orange Micro, Inc.), respectively.

As indicated above, the next regular meeting of dPubSIG will be on Wednesday, January 7th at 7:30 P.M. in the PEPCO building at 19th and Pennsylvania Avenue, NW. We hope to see you there. Bring questions, ideas, samples of your work or whatever, but come! (And please contact Tom Piwowar if you would be able to help in transporting the projector from the WAP Office and back on meeting nights.)

Smart Computer: More Reasons to Buy Our Generic PC.

by Bud Stolker

In the IBM PC-compatible world there are many kinds of computers. Though they may look alike, they all differ under the cover—in the quality of the components, in the scope and usefulness of software, in the degree of care and foresight with which they're engineered and built. Some are better buys than others. Herewith we present a few criteria useful in comparing PC-compatibles. No matter what you need in a personal computer or where you buy it, you should ensure that the PC comes with the following features:

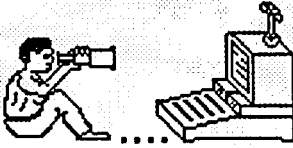
- **Fully IBM-compatible.** We've tested our systems extensively, and have found them to work with all software designed for the IBM PC. Our PCs are strictly compatible with the IBM hardware standard, too. The cheaper clones, though attractive in price, sacrifice full hardware compatibility, in effect locking you out of major future upgrades.
- **Fully equipped.** Even our least expensive models have battery-operated clocks for automatic time and date stamping. They each come equipped with enough "ports" to handle a modem, printer, mouse, joystick, and light pen—all at once. Software installation is complete. We provide 15 or more floppy disks (or 400-500 hard disk program and data files) linked into a menu system that puts all common tasks just a few keystrokes away. Word and idea processing, data base management, spreadsheet, telecommunications, name and address file, notepad, calendar, alarm clock, printer management—all that and more is standard with our Generic PCs. We match software to your needs, and install your own software, if any, at no charge. You get capabilities you'll want, tools you'll like, performance you'll appreciate, and a solid foundation on which you'll build quickly and easily.
- **Well-tuned.** The systems we offer strike a proper balance among speed, storage, and software. They have the good "feel" that only a properly optimized PC can provide. Even our lowest cost systems benefit by intelligent applications of appropriate software. We recently boosted performance of two competitors' PC clones by 75% and 90% respectively just by setting them up properly. They way PCs are built and configured makes a big difference.
- **Carefully performance-tested.** Parts that don't meet our standards wind up in our reject pile, not in our clients' PCs. (Ask about our second-tier systems at scandalous prices. They're great buys if you don't mind a noisy fan, a mushy keyboard, or an out-of-square video display. All are guaranteed to drive you crazy, but they're cheap, and they work. Yes, Virginia, there really is a \$500 PC, but do you really want one?)

The Generic PCs we custom-build for clients seem to be what folks want. Our clients typically stay in touch, and often come back for more equipment as their needs grow. Many send their friends and colleagues to us. We must be doing something right. Give us a call when you're ready for a PC, and let's talk about why a *custom-tailored personal computer from Landmark Computer Labs is the best buy you can make.*

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This month's column takes a look at a graphing package that can be either a standalone or work in conjunction with a database manager or other data generator. Systems like this are becoming increasingly important, due to the greater emphasis placed this year on presentation graphics and desktop publishing. PCs have really taken over the business world, and Apple will not be left behind! On to the review...

GRAPH MASTER (Bridget Software Co., 1309 Canyon Rd., Silver Spring, Md., (301)384-7875, \$35). Review by R. Hobbs

GRAPH MASTER is the second offering by Bridget Software to be reviewed here. Like RECORD MASTER, this one gets good marks. It runs on any 64K Apple II series computer with one or more disk drives.

There are some of us left who still insist that we can get good, quality, honest-to-goodness business productivity on the Apple II series computers—and at a fraction of the cost that others are paying to go True Blue or Mac. RECORD MASTER was a case in point, providing a quick, responsive and flexible database management system for less than half the price of an IBM or Mac package. At \$35, GRAPH MASTER accomplishes the same feat. GRAPH MASTER produces bar, line, scatter and pie graphs of data entered from three sources: online keyboard entry, RECORD MASTER files, or ASCII text files. This compares favorably with other packages such as Microsoft Chart, which has a list price more than double that of GRAPH MASTER.

The system is totally menu driven, and there are some delays when selecting certain memory options, as new program overlays are loaded in from disk. Personally, I do not find these delays annoying, especially considering the fact that the program itself is co-resident with the user's data, thus avoiding disk access for data (which *would* be annoying), but some users are more impatient than I. Menu options lead you naturally to the proper sequence to obtain data (or enter it online), process it, plot it, save it, and print it.

When entering data, the user defines the axes and then goes on to enter values. Only one axis need be defined in a time series, since GRAPH MASTER has an automatic default of a time series (monthly axis). I find this to be a useful and proper choice, since most business data plots tend to be monthly in nature. GRAPH MASTER must be told what type of data to expect, e.g., alpha or numeric, so the user must exercise some thought prior to graphing—don't go entering junk willy-nilly into the system (it won't work). Similarly, data may be retrieved from disk. GRAPH MASTER allows the user to save both data and graphs on disk, so revisions to graphs are easily accomplished. RECORD MASTER or text files can be retrieved from disk and loaded into the system, where they become data points, so that by the time the system goes to plot, files loaded in and data entered from the keyboard will appear the same to GRAPH MASTER.

Plotting is also menu-driven, with GRAPH MASTER

prompting the user to tell it exactly what is wanted, and in what form. Stacked graphs are available through GRAPH MASTER by overlaying one data set onto another—the data sets don't get muddled up with each other, either—just a clean, attractive graph. Plotted graphs are not automatically committed to hard copy. When you want to print, you select the Output to Printer option. Epson printers are explicitly supported, others are not. Since a lot of printers are Epson clones (IBM Prowriter, for example), more than just Epsoms should work O.K., but I suspect that Okidata people will have trouble. However, graphs themselves may be saved to disk apart from the data that generated them. Since all formatting is done prior to saving the graphs to disk, any printer for which you have a graphics dump will be able to generate the graphs from outside of GRAPH MASTER, by loading the graph onto the hires screen and dumping it. This also suggests that these graphs are available for "slide-show" presentations (you supply the routines). The graphs themselves are well done, both on the hires screen and on the printer.

The manual is short (20 pages), concise, and easily followed, in the same type of binder that RECORD MASTER comes in. There is a very short tutorial included. GRAPH MASTER is not copy-disabled, so backups are easily made. The package has numerous other features, such as statistical and mathematical functions, automatic and manual scaling, etc. A good buy!

FAMILY HOME MONEY MANAGER

Due to space limitations the last installment (Part 9) of "Family Home Money Manager", by Brian Mason, does not appear in this issue. It will be published next month.

Hi-Res to Print Shop contd. from pg 32

1067 DATA 9,165,9,201,52,208,213,96
 1068 DATA 169,7,133,12,169,0,133,8
 1069 DATA 165,6,10,10,10,24,101,12
 1070 DATA 101,1,144,2,230,8,170,164
 1071 DATA 8,165,9,24,101,2,32,17,244
 1072 DATA 162,156,160,3,169,0,32,93
 1073 DATA 246,165,234,240,7,165,10,24
 1074 DATA 101,11,133,10,6,11,198,12
 1075 DATA 16,201,96,5,0

Lines 500-540 save the PRINTSHOP graphic and exit or return to convert another screen image while lines 1000-1075 load the shape table and conversion routine.

CURRENT VERSIONS OF APPLE // SOFTWARE

by Robert C. Platt

The Macintosh world is not the only Apple software arena that is constantly improving. Apple has been diligently upgrading its software products for the // family. Here is an official list of latest version numbers and some notes on ongoing upgrades:

<u>Application</u>	<u>Current Version</u>	<u>Date Released</u>
Apple Logo II		
Apple Logo II	1.1	Nov 12, 84
Apple Presents Apple Logo II	1.0	Jan 23, 84
Apple Presents Apple Logo II	1.0	Jan 23, 84
AppleSoft BASIC		
ProDOS AppleSoft Sampler	1.2	Mar 5, 85
ProDOS BASIC Programming Examples	1.1	Oct 26, 84
ProDOS AppleSoft CI (BASIC System)	1.1	Jun 18, 84
Apple Presents Getting Down to BASIC	1.1	Nov 29, 84
ProDOS AppleSoft Programmer's Assistant	1.4	Jun 24, 84
Instant Pascal		
Instant Pascal	1.0	Aug 19, 85
Apple Presents Instant Pascal	1.0	Aug 22, 85
Programmer's ToolKit/Assembler Tools		
DOS Programmer's ToolKit	Rev. B	Oct 20, 83
ProDOS Assembler Tools	1.1	Jun 6, 85
Fortran II	Rev. B	Feb 21, 85
Apple Pascal II		
Pascal Development System	1.3	Sep 3, 85
Pascal Device Support Tools	1.1	Aug 14, 84
Pascal Profile Manager	1.0.2	Apr 9, 84
Pascal Attach Tools	1.3	Sep 3, 85
Pascal ProDOS Access Unit	1.2	Oct 7, 85
ProDOS		
ProDOS Kernel (PRODOS)	1.1.1	Sep 18, 84
ProDOS Exerciser's Disk	1.0.2	Mar 5, 85
ProDOS User's Disk	1.1.2	Feb 5, 85
ProDOS Convert (CONVERT)	1.2	Feb 5, 85
ProDOS Filer (FILER)	1.1	Jun 18 84
Update Utility for ProDOS	1.1.1	Sep 18, 84

Customers take original ProDos disk to dealer to be updated free of charge. This version solves the problem of mousetext characters when running the Convert utility on an enhanced //e.

SuperPilot Log 1.2 Jun 25, 84

This version will allow users to use their 80 column card, provides some bug fixes and removes the copy protection scheme.

Access II

Apple Access II 1.2 Oct 15,86

This version of Access // supports the Apple //gs, and is also compatible with the Apple //e and Apple //c. Dealers update their customer's Access // disks by

copying the new software onto their existing disks, or on to a new 3.5-inch 800K disk.

Apple //c			
The Apple //c at Play	1.1		Nov 29, 84
Inside Story, The //c	1.1		Nov 30, 84
Apple //e			
Apple Presents the Apple //e	1.1		Dec 18, 84
Inside Story, The //e	1.0		Dec 17, 84
The Apple Education Classics	1.0		Mar 21, 84
AppleWorks			
AppleWorks	2.0		Sept 15, 86
Apple Presents AppleWorks	1.0.2		Oct 15, 85
Current owners of AppleWorks can upgrade to Version 2.0 from September 15, 1986 to April 30,1987. To order an upgrade, customers complete an AppleWorks Version 2.0 upgrade mailer. All orders must be post-marked no later than April 30, 1987. The upgrade fee is \$50.			
AppleWriter			
AppleWriter II	2.1		Dec 12, 84
Apple Presents Apple Writer II (40 Col)	1.0		May 22, 84
Apple Presents Apple Writer II (80 Col)	1.0		May 1, 84
SANE			
SANE, Apple Pascal	1.0		Sep 22, 83
ELEMS, For A// & A///	1.1		Sep 21, 83
APPL2. SANE	1.0		Sep 21, 83
Backup II	1.1.1		Oct 24, 85
MouseText/MouseGraphics			
MouseGraphics ToolKit-All Pascal 1.2	1.0.0B6		Aug 21, 85
MouseText ToolKit	2.0 (2R)		Sep 27, 84
Pascal MouseText ToolKit	2.0		Aug 28, 84
Pascal Mouse Attach Driver	1.0		Jul 3, 84
File Card Menu Support Library Unit	1.0		Jan 15, 86
Console Driver/User Input			
Console Driver for ASSEMBLER	1.0		Jan 16, 86
Console Driver for BASIC	1.0		Jan 14, 86
Console Driver for Pascal	1.0		Jan 6, 86
Consolestuff Pascal Library Unit	1.0		Jan 14, 86
Dow Jones News & Quotes Reporter	2.0.1		Jan 20, 86
MousePaint	1.2		Apr 10, 85
System Utilities //c & //e	2.1.1		Oct 2, 85

GAMESIG NEWS

by Steven Payne

The regular December GAMESIG meeting began with a demonstration of the Apple IIGS by Tom Lucas, an early member of the original GAMESIG, before it was more recently revived by Ron Wartow. Tom promises to keep us informed of the forthcoming games for this computer. Next, chairman Thomas Johnston introduced Roger Milliken, who works for a company now developing a graphics board for the Macintosh with 1,000 x 1,000 pixels. This was followed by Ron Wartow's monthly report on upcoming software, which included the news that Origin Systems is planning ten additional programs for 1987, while also converting all their current programs for the Macintosh.

Santa has obviously been busy, since Tom Johnston had the following new programs to hand out for review:

KING OF CHICAGO (Cinemaware/Mindscape, for the Mac): "interactive movie" which "pits player against the forces of the legendary Capone mob."

THE PAWN (Firebird, for Mac and Apple // series): Interactive adventure game originally done for the Amiga [the Apple // version lacks graphics].

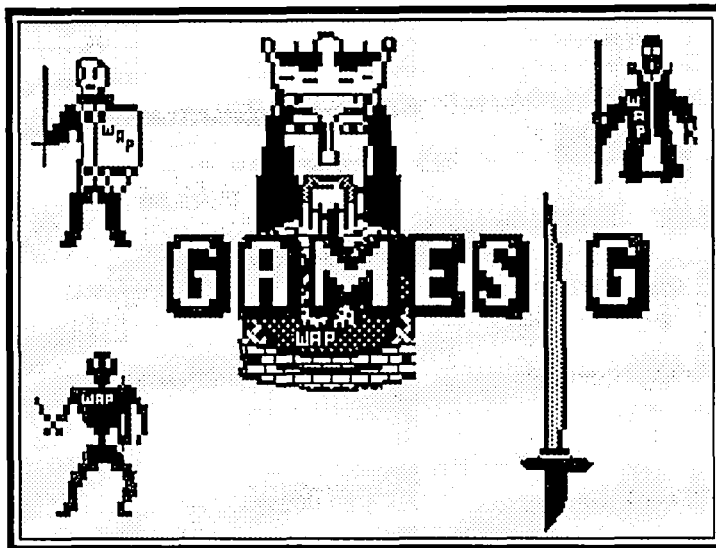
CHAMPIONSHIP WRESTLING (Epyx, Apple // Series with 128K): wrestling simulation.

BOP AND WRESTLE (Mindscape, Apple // series with 64K): wrestling simulation.

REALM OF IMPOSSIBILITY (Electronic Arts, for Apple // series): "Deluxe edition of *Zombies*," allowing 2 players.

LORDS OF CONQUEST (Electronic Arts, for Apple // series): strategy game; "conquer the world by capturing individual countries."

FOOTBALL ON THE MAC (L.C. Associates, for Mac+ or 512K Mac with 800K disk drive or 400K external drive):



football simulation requiring Microsoft Basic.

HARDBALL (Accolade, for the Mac): baseball simulation.

HIGH STAKES (Mindscape, for Apple // series): Dick Francis mystery.

(Recently there have been some questions about which reviews have actually come from GAMESIG, since others are also free to submit material to this journal as they wish. For those interested, the reviews of SHANGHAI, WARSHIP, U.S.A.A.F., ARCTICFOX and ROBOT RASCALS in this current issue are by regular GAMESIG members.)

The meeting concluded with demos of THE KING OF CHICAGO, HARDBALL, and REALM OF IMPOSSIBILITY (though there was also some odd activity around the Mac+ towards the end). Since the first Thursday of January is New Year's Day, the January meeting will presumably be moved to a more suitable time. Please check the WAP Office or Telecommunications System for the exact time and place. Merry Christmas and a Happy New Year to all!!!

WARSHIP: A Review

by Ben Mangus

I would first like to state that although I have played war-games for a number of years, I lack experience in the area of naval simulations. Therefore, when WARSHIP (SSI, Apple // series with 48K) was offered for review I eagerly volunteered. I saw this as a good chance to see what I had been missing, and I was not disappointed.

WARSHIP is a tactical naval game covering the Pacific Theater from 1941 to 1945. There are 79 ships (classes) from the mighty *Yamamoto* and *Iowa* to the smallest destroyer; subs and aircraft carriers are not included. Prior to the game, a player can set up the battle area, where you have a choice of open sea, Salvo Sound, or your own customized map. You can also select and modify your own ships, as well as choosing game length, air control, damage control levels and visibility. In the game itself you can have individual ship control or group ships into divisions of 9 each. Factors which come into play during the game are ranging targets,

ammo use, radar, torpedoes, smoke, movement, and issuing orders to individual ships and divisions.

The play is smooth and speed of play can be determined somewhat by the player. Information about the progress of the battle is constantly updated and available. My only criticism is the lack of color. The overhead view shows ships in white silhouettes on a black background. Color only enters the game when you play a customized game with a land mass or when the Salvo Island scenario is used. Land masses are green but the water remains black. I would like to see the color of the water changed to a shade of blue.

Summing up, I can say that WARSHIP is very easy to play, because the rules are far shorter and less complicated than in KAMPGRUPPE, another SSI game. A "save game" feature is available but I did not use it. If you like naval simulations I would suggest that you try this one.

contd.

SHANGHAI: A Review

by David L. Porter

Every game that has a large number of playing pieces organized in groups or suits has its solitaire version. Most people are familiar with at least one of the many forms of solitaire for playing cards, dominoes, *Hwa To*, etc. Now, B. Lockard has come out with one for Mah-Jong.

SHANGHAI (Activision for the Mac, \$44.95 list) starts with the 144 Mah-Jong tiles stacked in a mountain-like pile called "the Dragon." The object of the game is to remove all of the tiles, pair by pair. Tiles that are under others or otherwise blocked in certain ways can not be removed. You view the Dragon from above and, thus, can see all the faces of the tiles. Each time you start a game the Dragon is stacked randomly. You may save a particular Dragon and attack it many times.

There are four ways the game can be played. In the SOLITAIRE version, you work out the puzzle by yourself. There is TEAM EFFORT, which is nothing more than solitaire where several people sit about the Mac and pass the mouse around. TOURNAMENT is a timed game for one player. Several time settings are available. If you save this game it will remember the top five scorers who attacked this Dragon. The final form is the CHALLENGE where two players compete against each other. Each player has a time limit on his move. He loses his turn if the time limit expires. The winner is the one that has removed the most pairs of tiles.

There are a variety of menus with on-line help, rules, strategy hints, and even an identification guide to the pieces. The HELP menu gives you the option of stepping back one move each time BACK UP A MOVE is selected, starting this particular Dragon over, showing all possible moves at this time, and peeking under tiles. The PEEK is a destructive peek. It removes the tiles you are peeking under. This ends the game. BACK UP A MOVE will not replace it. The timed games have various timing and warning beeps that can be used or turned off.

On the plus side, the game is very simple to learn yet the puzzles are challenging. You will learn how to play in far less time than you can read this review. As for playing well, for a while you must be content with beating your score for the most number of tiles removed rather than counting the number of Dragons you have slain. The graphics for the game are excellent. The pictures on the tiles are some of the best small icon work that I have seen. The game makes excellent use of the Mac interface. To play the game you need nothing more than your mouse. Even the clearly written rule book—a nicely done, 15 page glossy—is superfluous once you have launched the game on your Mac. An important feature for me is the ability to turn all sound OFF! I do most of my game playing after my family has gone to sleep. Any game that can not be silenced is likely to never be played, even if I try to! (I keep a phono jack to hook into the Mac's speaker output for just this problem. It is not connected to anything. However, sometimes I discover that one of the kids has misplaced it after they play their games.)

The biggest fault I find with the game is beyond the power of Activision to do anything about it. I mention it only for those who may have trouble with their eyes. The tiles have to be very small to show them all on the Mac's already small screen. They are also all of the same color. Thus, you spend a lot of time staring closely at the screen. This is very hard on the eyes. Try a game out before you buy it to see if this is a serious problem for you. My other negative marks are all personal preferences. You can not build your own Dragon to challenge you friends. You can not backup your disk or put it on your hard disk. (I especially hate this as a reviewer/player tester. I like to return the reviewed/tested item in exactly the condition I received it. Frequently, testing a stored or demo game to completion deletes it.) When you quit the game it does a system shutdown. I prefer to quit to the finder. I know how to eject the disk if that is what I want to do. I may want to clean up the disk a bit or shift stored games to other disks. Finally, the click of the mouse is just no substitute for the click of a good set of tiles. The sound and tactile feel of the pieces are very important in oriental games. Boards and pieces are often admired or despised because of their feel and resonance.

Overall, I thoroughly enjoyed playing the game. I recommend that anyone who buys it learn to play the game, and then play it with a good Mah-Jong set. Save the disk for traveling or for use at the office.

RATING: (Good/Neutral/Bad)

Mac Interface, Documentation Content, Product Physical Quality, On-line Help, Performance, and Presentation: Good

Price Value: Neutral

Overall : Good

Note: They give a very brief "history" of Mah-Jong in the Shangai rule book. For those of you interested in more information, I suggest reading "Discovering Mah-Jong" by R. C. Bell (Shire Pubs., 1983) or 'Chinese Games With Dice And Dominoes' *Report of the National Museum* (1893). (GAMESIG members that would like to see either can call me before a meeting. I won't lend them but you can look at them during the meeting.) ☺

ROBOT RASCALS: A Review

by Davy Hakim

ROBOT RASCALS (Electronic Arts, Apple // series with 64K, joystick required) is a two to four player game in which each player chooses a robot and takes it on a quest. The quest depends on which object cards you are holding. You must acquire the objects on your cards by finding them or stealing them from another player. You must also take into consideration luck cards which may help or hurt you in your quest.

ROBOT RASCALS is mainly a kid's game because it is limited in size and takes only only fifteen to twenty-five minutes a game. There are many good aspects to this game. It is very easy to learn and open to new ways of play which you can create. There are many ways to play the game. You contd on pg 38

U.S.A.A.F: A Review

by Reid Hutchinson

The dawn skies over Germany are filled with the hum of approaching Allied bombers. The flak has already started its pounding of the invading armada. The Luftwaffe once again rises to meet their foe in this continuing saga of the air war over Nazi Europe, with SSI's game of U.S.A.A.F. (Apple // series with 48K).

U.S.A.A.F. is the strategic game with day-by-day resolution of the daylight bombing campaign over Germany from August 1, 1943 to the end of the war. It also has three one-month short games and three campaign games, beginning on August 1, 1943, February 1, 1944, and October 1, 1944, respectively. The game was designed by Gary Grigsby, whose other titles include CARRIER FORCE, KAMPFGRUPPE, BATTLEGROUP, WAR IN RUSSIA and many others.

The player can play either or both sides or have the computer challenge itself. The 12 industrial targets in Europe are rated for types of target, which include railyards, ball bearings, chemicals, steel, aircraft, etc. Political limitations are set on some targets such as the V-Weapons factories and sites, and the U-Boat pens in Northern France. In mid-1944 in the preparation for D-Day, overlord targets must be bombed. Some of the industries are critical, which means that other industries are dependent on them. For instance, if the ball bearing industry has been reduced by Allied bombing then the aircraft industry will suffer from reduced production.

There are 13 Luftwaffe aircraft types, such as the ME109, FW190, and ME262, and 11 Allied types, such as the P47, P51, and B17. Each type is rated in nine categories including firepower, durability, fuel, speed, climb rate and bomb level.

ARCTICFOX: A Review

by Forrest Black

Where do you sleep when you own a 37-ton tank? Anywhere you want to. This machine goes from 0 to 72 kph in 2.3 seconds, backwards! For those of us who prefer forward, it goes from 0 to 144 kph in 3.4 seconds. The Slys-Hicks MX-100 (codename: Arcticfox) is equipped with two mine dispensers in the rear, a 150mm cannon, 2 forty-ton hydraulic lifts for digging in, a compass, position and oxygen percentage indicators, and guided missiles with lock-on capability. Even if you aren't out to complete the mission ("infiltrate alien stronghold in Antarctica, search out and destroy alien main fortress, terminate alien troops with extreme prejudice") it's a blast to take out for a joyride.

Just the guided missiles alone are worth the price. Upon launch you can switch your monitor to a bird's-eye camera in the nose of the warhead. It runs just like a joystick-controlled flight simulator; you can take it high for a little reconnaissance or low for a surprise kamakazi-style attack. Plus you can lock on to the more difficult targets to ensure a hit.

ARCTICFOX (Electronic Arts, Apple // series, \$39.95 list) comes with complete documentation, including a map of the terrain inside the enemy forcefield. Unlike other tank games you can climb mountains to get a better look at your

Each bomber and fighter group is rated for the number of serviceable/unserviceable planes, pilot morale, pilot experience, and the aircraft type flown by the group.

For the Allies, the day begins with bomber assignments. The target industry and cities are chosen as well as an offset point to feint the enemy. Escort fighters are chosen for either close escort or deep escort into the heart of Germany. Fighter-bombers can also be chosen to attack airfields or railyards. The Allies can attack from England or Italy.

For the Luftwaffe, patrols may be established or the Allied raids may be intercepted as they are spotted crossing the English Channel or coming up the Italian coast. Individual raids can be attacked with the option of assigning fighter tactics. There are 5 different fighter tactics ranging from bounce and direct attack to rocket attack. An aircraft production routine is included to allow the player to adjust his production for various types of aircraft. The Luftwaffe reserves are determined by the number of aircraft factories producing a certain type of aircraft. The Allied replacements are a set amount per day per type. The Luftwaffe player can adjust his routine to allow a possible earlier arrival of various fighters such as the jet fighter, the ME262. If a large amount of jets are in production, they could be available months earlier.

In the game package is a rulebook, an order of battle, aircraft diagrams and two laminated maps with all cities, industries, and airfields marked out. The playing time of the short games can be between 3 to 6 hours, and the Campaign Game from 50 to 200 hours. Yes, there is the ability to save a game in progress.

All in all, this is an outstanding simulation of the air war over Germany in 1944, without the large amounts of paperwork that a boardgame of this type would require. My rating is 9 out of 10. ☺

surrounding dangers, like arctic crevasses and the aliens from STV-7X, who are very well equipped and will prove very challenging adversaries. Tournament mode sets you in one of eight preselected starting places and allows you to choose the enemy configuration or let it choose you. In this mode the enemy are very intelligent and use a tracking device just to make things a little more fun.

I am impressed with this game. It's very well rounded. It has good documentation, a great plot, and graphics to boot. The graphics are reasonably smooth and fairly artistic. The driving capability and firepower make it very enjoyable to play. I feel that it's more than a cut above the likes of BATTLE-ZONE and STELLAR 7. I am pleased to say that I have found few if any flaws. Overall I give it a solid thumbs-up. She's got the ride of a Porsche and the guns of Navarone. The Dynamix motto is, "We build worlds," and they have obviously done so. ☺

Robot Rascals contd. from pg 37

can steal from other players. The music is nice and the ways the robots dance is fun to watch, though after you've seen the robots dance once the fun goes out of it. (If you're not playing by the rules all you have to do is find or steal one item and rush home with it to see the robot dance.) But be careful, for even on your way home "bad" luck cards might lose you the game. ☺

EPSON PRINTERS NEVER GROW OLD... EITHER! ADDING NLQ: A HARDWARE REVIEW

by Randy Zittel

Near-Letter-Quality has been the new buzz word for dot matrix printers to compete against daisy wheels, spin wheels, and "inexpensive" typewriter-terminals which can provide the top quality of text only "Selectrics" used to provide. There are various products on the market which attempt to bring older dot matrix printers up to letter quality standards, such as the "NicePrint Card" by Spies Laboratories, but I found none I was sure were also compatible with my Orange Micro Buffer-board ... until now.

Recently, I noticed another claim in "A+" and "inCider" to make Epson printers NLQ. I'd seen the ad for months offering to upgrade the RX/FX/JX's to NLQ by Dresselhaus Computer Products, but now it also said MX! A quick phone call to Dresselhaus (on their 800 number even) confirmed they had just added a ROM upgrade version for the MX series to their line. I plunked my money down, and 3 weeks later the upgrade kit arrived.

The kit consisted of a one chip replacement for Epson's 3 Grafrax-Plus chips. The chip simply plugged into one socket, and I had EVERY feature of Grafrax, plus a true NLQ mode in my 10 year old MX-80. (My original owner's manual addresses connecting the printer only to a TRS-80 computer!) The nicely printed manual provided excellent installation and operation instructions, a rarity among custom products. The ROM chip adds the ability to change into NLQ by way of the Epson Online/FormFeed/LineFeed switches through a clever and simple code, as well as imbedded software codes or default settings using the printer DIP switches.

The Epson responds with a simple beep acknowledging the function input through the O/FF/LF buttons, and even has a buffer clear function. Those with printer buffers will love this, especially if their buffer is on board the Apple. By pushing 2 buttons at once, the Epson dumps the buffer. It is great to be able to empty the Bufferboard without hitting the Apple RESET when something I print is wrong from the get-go. When you can load over 20 pages of text into the buffer, it doesn't take long at RAM speeds to fill a few pages between pressing the start-print and interrupt-print keys.

So what's this upgrade called? "Dots-Perfect", formerly unknown as "Finger Print LetterWriter", and I love it. Dan Dresselhaus, the inventor, has come up with a limited market item, but enough to put him on the map, considering the number of Epson printers around. He even provides a sticker for the printer to keep the codes handy at all times. I can say that at \$79.95, its well worth it. With AppleWorks running on my][+, this upgrade brings me up to what I need until that far off day I make the plunge to a Mac! All capabilities within AppleWorks are fully supported by "Dots-Perfect". Dresselhaus even got Epson America to accept "Dots-Perfect" without voiding their new printer warranty (when properly installed, the usual caveat).

Finally, Dresselhaus claims up to 160 different print fonts as well as the IBM (dare I use that 'four' letter word in this

hallowed journal?) Graphics Printer character set, the Macintosh text and graphics, and proportional printing (all three available on the FX & JX models only—there are some limitations even in heaven). So, I fully recommend to all Epson owners a look at this wonderful NLQ upgrade from Dresselhaus. Again, the continuing saga of my ol'][+ system just keeps on cranking along—BETTER THAN EVER! ☺



THE BEST OF THE APPLE ITEMS FROM TCS

by Lou Pastura

GS Experiences

BOB RUSK ON 11/01

O.K., guys, here I am trying to figure out how to drive my hours-old IGS. First, the cable pass-throughs on the back are teensy little beggars that you can't slide cables down into, but have to pass them through. Next, the keyboard is built for smaller hands than mine and laid out el-strange-o, so it'll take some time to get used to it. I have my Datamac hard drive, Disk II's and 2 Super Serial Cards running at the moment. The Videx Ultraterm looks like a loser, though, and I miss its clarity. Dinner awaits: more later.

BOB RUSK ON 11/03

Here I am again, having set my GS up on my workdesk in place of my venerable II+ that has served me well for (blush) 7 years. The Datamac Winchester or GS does something strange. First boot after plugging the Winnie into the GS goes just fine. The next boot crashes. I haven't tried spooling the disk down and back up to reboot 'cause it doesn't matter. The only coldstart it'll ever see is after a power failure. I'm still gonna try to figure out how to get the Ultraterm to run on this thing 'cause Apple's ROM fonts still stink, especially on a (very good) color monitor. Monochrome forever!!! The GS is clearly faster than a stock II+, but not as quick as a II with a speedcard, which, of course, doesn't work in the GS. No, I haven't tried the built in serial ports because the cables haven't arrived yet. Super Serial Cards work fine with AE.PRO ProDOS, though. The keyboard here is like an IBM typewriter, but about 8/10ths scale, and with not a lot of key travel and a feel inferior to the old II+ and about the same as a //c. You can get used to anything, right? Disk II controller and 5.25s work just fine and my old color graphics stuff looks neat. I'd like to plug in my Koala Pad, but it looks like I'd have to file a notch in the case to run the cord out through—the connector won't fit through the slots in the case back. I think that the GS supply is REALLY tight! Like my friendly dealer gets an entire two, count 'em, two units this year. More as I try old toys in new toybox.

BOB RUSK ON 11/06

I lost you guys for a couple of days there playing other games on my GS, like my end-of-month bookkeeping. A couple of more notes on what will and what won't: A Koala pad does connect up to the game port, but there is no reasonable way to get the cable out—the pass-throughs aren't big enough. I had to use a port extender with a small connector and ribbon cable. Apple Writer II, DOS version (not ProDOS) won't run. To boot from my Winchester I have to power it down and back up before the GS gets the correct message. No big deal, but I have to be sure to keep my heads parked in case my electricity-thrifty spouse saves more than I had planned. The control panel lets you choose your card or the built in psuedo card. But any change you make does not take effect until you do a cold boot. Makes configuring the ports a pain. I'm still using SSCs for comm and printer, and expect to have to get new telecomm software to use the built in phantom Super

Serial Card. I am getting used to the pygmy keyboard after nearly going nuttier doing my data entry on a dehydrated 10-key pad. MAN, how I HATE to use one size keyboard during the day and another size and layout at night! Like typing QWERTY at work and DVORAK at home. BOOOOO! I have some goodies on order that aren't available yet: fan, 2nd 3.5" drive, official-color cables, memory board etc....Don't expect to get a complete setup soon. Don't even expect to get a machine soon! Gotta run....more as it occurs.

DANIEL HUGHES ON 11/26

What is all the hoopla about the non-availability of IGS machines? I just now got off the phone with HLA computers in Beltsville. They were calling me to tell me that my brand new IGS machine that I ordered 9 days ago has arrived and wanted me to come pick it up! Man, that's service. I think I am getting old because I told them the weather was too lousy and I'd come get it Friday. I assure everyone though that I am REALLY excited. This is the greatest thing since sliced bread. *Darkstar*

KIM BRENNAN ON 11/26

Congratulations, Darkstar. The day before you ordered your GS I was told the same thing you were about being first on the list. Due to insufficient funds I elected to wait for software availability before ordering. Yesterday, at Bethesda Computers I saw Paintworks Plus in stock for the GS. Now if only my rent wasn't due.....

DANIEL HUGHES ON 11/26

My father always told me, don't skimp on the luxuries. If money is no object, people don't object that you don't have money. Credit will do. Banks are practically giving their money away to employed people. Unsecured loans for 10%. Incredible. Get in on it before the economy collapses and they close down the GS assembly lines for the duration. Cheers. *Darkstar*

BOB RUSK ON 11/28

For those who don't have one, here are some comments about the GS. I had a hard time with stuffing cables through the slots in the back and providing strain relief, resorting in one case to a game port extender. GET THE FAN! These things (wonder of wonders) run hot. The fan is nicely designed. Also, if you use the Apple monitor, set the funny little viewing angle changer to lift the front of the monitor a bit off the top of the CPU to allow better ventilation. After some initial problems I'm finally coming to grips with the GS keyboard, which only feels dehydrated and really is full size left to right and fore to aft, but has been shrunken vertically; having stubby little keys with short travel. Sounds tacky though. After some playing around, and having noticed that Apple's photos show white text on a solid blue field, I have decided that they are right. This is the most legible combination; but would somebody PLEASE hurry up and write me a high-resolution character generator? After almost no effort at all I

contd.

still haven't gotten the serial ports to run my printer or modem so Super Serial Cards exhumed from the old II+ are still doing the job. There are some boot-time problems with my Datamac hard drive which are easily solved by leaving the GS on all the time. The 3.25" drive runs neatly from the "smartport" and 2 5.25s run off a controller card in slot 6. These last again extracted from the old machine. Back to the monitor—although it isn't huge the text area covers almost the entire screen unlike the composite monochrome I tried. It's a wash, RGB analog color's lesser resolution and larger characters against smaller monochrome text with better clarity. More later.

DANIEL HUGHES ON 11/29

Hi Bob. Just picked up my IIGS yesterday and a Mac+ cable is running my Imagewriter very nicely from the printer port. Do you have a memory expansion card? I've got mine all hooked up and the control panel shows it's there with 1024K free Ram, but have been unable to get AppleWorks 1.3 to recognize it. Even installing Pinpoint and using the Pinpoint Ram enhancement kit comes up negative, with a message: "Extended Memory Card Not Detected." Any suggestions? The modem cable HLA gave me is obviously incorrect since the outlet looks like it might fit in the joystick port, but definitely not in the modem serial port. Guess I'll have to go out there today and get a new one, but since AE Pro doesn't work and I can't get Pinpoint installed on the Ram card, it's sort of a hopeless quest for this weekend. I'm sending this from my old //c which is right next to the new machine. *Darkstar*

+ LIVES ON!

RAY BIEGUN ON 10/27

I have a 1978 vintage Apple][+ with a Titan Accelerator card, Videx 80 column card, printer card, and a Disk][card. It meets my current needs except that new software is available which requires more than 64K RAM. Also I need more RAM for my spreadsheets (I use The Spreadsheet from Call- A.P.P.L.E.). Any suggestions other than buying a new computer?

BRETT PARKS ON 10/28

Well, if all you need is more RAM for spreadsheets, go out and buy a RAM card. Other than that, if the machine meets your current needs, why mess with it? Sounds like you have a good system there, very similar to one we still use here at work. Our 1980][+ is the first micro this company ever owned. And although we can't run SuperCalc 3a on it, it still leads a happy, useful life with FlashCalc (with a 128K RAM card), LJK Letter & Data Perfect, The Print Shop (we make a lot of signs for the warehouse), and a custom label routine I wrote for it. Runs every day, all day, and should continue to do so for many years to come.

MIKE UNGERMAN ON 10/28

I suggest AE's RAMFACTOR or the new Apple "Slinky" card. Keep that //+ hummin'!

RICHARD ROWELL ON 11/01

Put in a RamFactor card from Applied Engineering (under \$200) and you can run AppleWorks with lots of extra K, speed, and everything.

AppleWorks Stuff!

LOU PASTURA, ON 11/03

The following program is from the November issue of OPEN

APPLE. This program will modify AppleWorks so that "it doesn't stop on the way to the desktop during the startup sequence. These patches will be welcomed by those who have a clock card or who boot AppleWorks off a 3.5 drive or a hard disk."

```
10 FIS = "APLWORKS.SYSTEM" : REM use
    full pathname
20 PRINT CHR$(4);"BLOAD";FIS;"TSYS,AS$2000"
30 A = PEEK(8250)
40 V = (A=202) + 2*(A=169) + 3*(A=180)
    : REM version
50 IF NOT V THEN PRINT "Unrecognized version of
    AppleWorks." : END
60 PRINT "Patching AppleWorks Version 1.,";V
70 IF V=1 THEN A1=13139 : A2=13522 : REM V1.1
80 IF V=2 THEN A1=13135 : A2=13518 : REM V1.2
90 IF V=3 THEN A1=13193 : A2=13855 : REM V1.3
100 POKE A1,44 : REM no spacebar for AppleWorks
110 POKE A2,208 : POKE A2+1,19 : REM no return
    for date
120 PRINT CHR$(4);"BSAVE";FIS;"TSYS,AS$2000"
```

TOM FORD ON 11/09

I have two questions for anyone who can help. Within AppleWorks, is it possible to have spreadsheet column titles (like item, cost, price) automatically printed on every page as in Lotus? Also, can you format a column individually (Open Apple L) to show different decimal places "before" the numbers are typed in and have them appear correctly as they are entered instead of having to go back in and correct the format after you're done?

RICHARD ROWELL ON 11/10

The answer to your Question #1 is, I believe: As the AppleWorks spreadsheet does not have true column headings it will not automatically print "headers" on each page, but it is not too much work to insert these manually. One way ...Choose Apple-O and set up the print page the way you want it, perhaps with TM=1, BM=1, then read the info on lines per page. Now return to your long spreadsheet and locate the page breaks by referencing the left margin row numbers. Apple-I (insert) a few rows for a "page break", and Apple-C (copy) your column titles to the top of each new "page". Procedure is slightly manual, but requires just a couple of minutes. (I normally make about four copies of the column header row, move them to a storage area at the end of the spreadsheet, then Apple-M (move) them to the appropriate places for printouts.) An alternative method is to break your spreadsheet into one page spreadsheets for printing purposes, but as you now lose the ability to Apple-K the entire spreadsheet the former method is better.

LOU PASTURA ON 11/09

Tom—in answer to your first question, although you can't accomplish it automatically, I think you can accomplish what you want by transferring the appropriate rows over to a Data Base file where the fields have been identified by the column headers you wish to use. You can then go to the print options in the Data Base (OA-P then OA-O) and make sure that the response to PH (Print Header at Top of Page) is set for "Yes". You need to further make sure that the column widths in the Data Base match the column widths in the Spreadsheet. In contd.

answer to your second question, if you use OA-L, but identify the area as a Block instead of a Column it will automatically format subsequent data entries correctly.

Speedup

JERRY OPPENHEIMER ON 10/25

I recently got an Applied Engineering Transwarp card. I'd like to hear some ideas on how to get the best use of it with AppleWorks, mainly word processing. Where will I see its greatest benefits, if there are any? Also, is there any way I can take advantage of the 256K of RAM? I also have a RAM II card with 512K. Is there a way to add the two and have AppleWorks' desktop take advantage of it? In general I'd like to hear how all of you are benefiting from Transwarp.

RICHARD ROWELL ON 10/26

You almost certainly will NOT be able to combine the additional RAM from 2 different cards. The TRANSWARP will show its worth on large spreadsheets that were slow in their Apple-<K>calculations, or in large Data Bases that were slow to Arrange or Find. If none of these procedures have bothered you with their slowness in the past then you probably didn't need the TRANSWARP card ... yet. Your Data Bases and Spreadsheets will grow.

MIKE UNGERMAN ON 10/27

In response to the question on how to use the Transwarp in word processing, I can only say that it will speed up your operations! Simple question gets simple answer.....No seriously, it WILL speed up your operations. Compare how your word processor scrolls through the file looking for a particular line both with and without the card. If you have a search and replace function, it will speed that up tremendously. Most word processors I know of take a lot of time for disk access (if they handle large files). Screen Writer uses disk access for virtual memory. My speed up card speeds up all access to the screen and virtual memory for this program.

Latest Versions

KIM BRENNAN on 11/10

The following are the latest versions of Apple][Software:

Pinpoint	2.0
Spelling Checker	2.0
Infomerge	1.7
Point to Point	1.5
RunRun	1.0
Backup2	1.1
Appleworks	2.0
Prodos 8	1.2B1
Prodos 16	1.0
WordPerfect	1.1
WordStar	3.33
CopyII+	7.1
Orca/M	4.0b
Small C	2.0
SuperAWDesktopExp.	5.3.1
MacroWorks	2.3
Format II	1.7

][<--->MAC

EDWARD BARNAKO ON 11/13

I am really eager to use a Mac at work. However, my life is tied up in AW files. Has anyone taken their AW and xferred it

all into a Mac in some database, word processor, etc. Seems to me Microsoft's "Works" might be the ticket, since AW's guys did it I understand. But having no first hand information anyway, I can dream all I want. Any one with facts?

JERRY OPPENHEIMER ON 11/13 & 11/14

It can definitely be done using Microsoft Works. But an even better way—actually use AppleWorks on the Mac. There's a program that emulates the II series on the Mac called II in a Mac...The program costs 89.95, they charge 19.95 for special Mac to II null modem cables if you need them (rather than use a telecomm program) and they even sell Apple public domain software on Mac disks for use in the system...I have not tried this program, but it sounds fantastic. It is distributed by Computer Applications Inc., in Raleigh, N.C. It actually allows you to convert your Mac into a II+, //e, //c. The package contains an Apple II emulator disk for the Mac and a 5-1/4 disk to transfer programs from your Apple. It requires a 512 or greater Mac. You can transfer both ways. AppleWorks will take advantage of the Ram in your Mac, which under the program emulates an Applied Engineering Ram Card. You can even emulate a 3.5 unidisk and just pop your 3.5 AppleWorks into the Mac disk once you get the emulator working. Open and closed Apple keys are emulated, even a joystick is emulated. It all sounds terrific. I have NOT used it, but will as soon as possible. What's incredible is the program claims you can use AppleWorks and also have the complete Mac desktop, too. The phone number for the company is 919-846-1411.

More Power Supply Woes

JOHN MASSEY ON 11/04

The power supply in my II+ pulls the internal 2.75 amp fuse upon turn on. Any suggestions? This doesn't sound like a "C7" problem. This happens with an empty slot system or with the unloaded power supply.

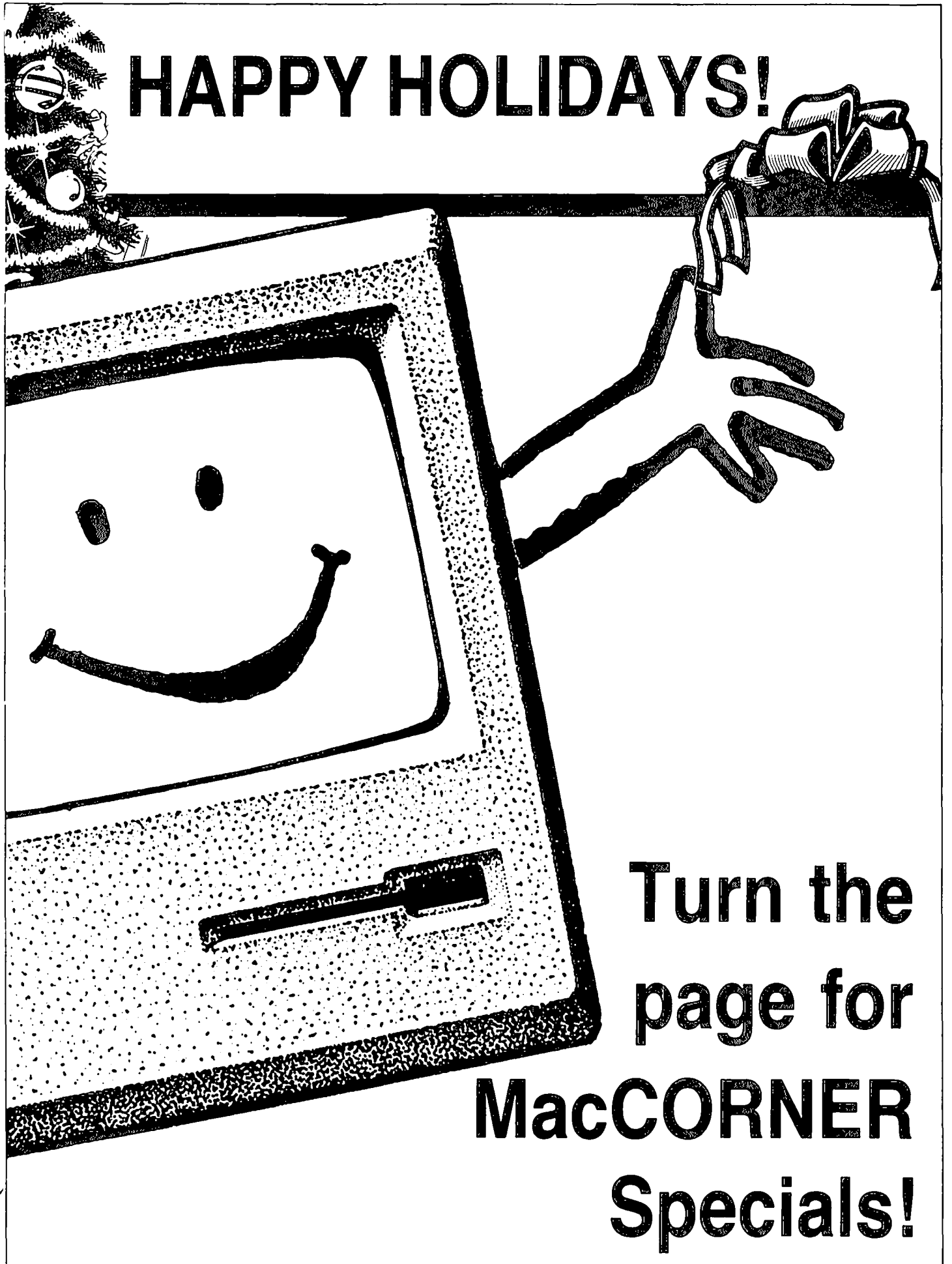
EUCLID COUKOUMA ON 11/05

You probably do not have a "C7" problem. I have seen two symptoms of C7 failure so far in my small sample. 1) The power supply does not start up when power is applied. The wait for it to start up increases as the days pass. 2) The power supply dies after the computer is on for a period of time. The period of time shortens as the days pass. There are many things that might cause the fuse to blow. The problem is probably on the line (power cord) side of the big transformer. I would suggest you check the full wave rectifier and four large capacitors on that side for shorts. You might as well replace C7 while your have the supply apart. It's cheap and it appears to be the most common cause of power supply problems. There are many other things that might cause the fuse to blow. Be careful! Peak voltages exceed 400 volts before the big transformer! If you need help I may be able to take a look at it. Do not try increasing the fuse very much above 2.75 amps. It is probably protecting you from a serious problem! Even if the power supply worked with a larger fuse you might encounter dangerous problems later!

TOM VIER ON 11/05

Don't pay to have the supply fixed. Replace it with a heavy-duty mail order supply. Make sure to call and confirm that the advertised supply has an Apple plug already on the cable. ☺

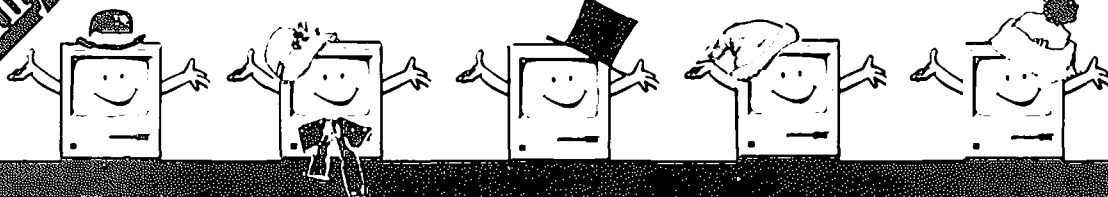
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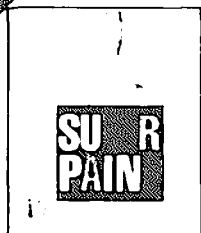
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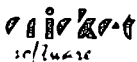


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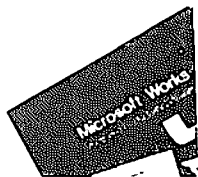
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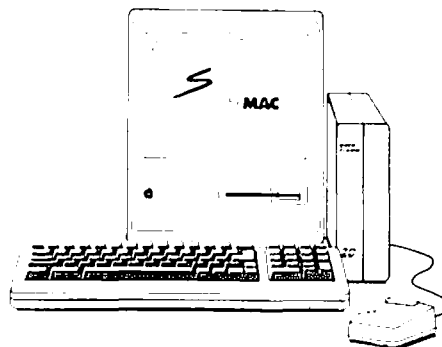
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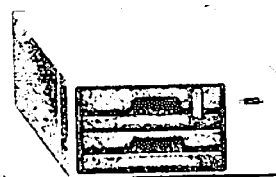
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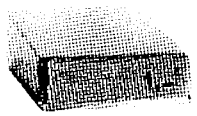
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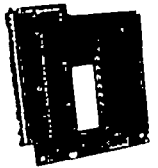
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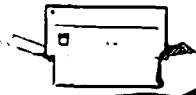
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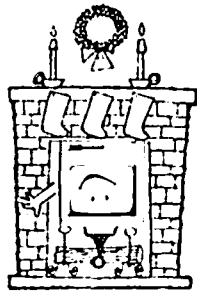
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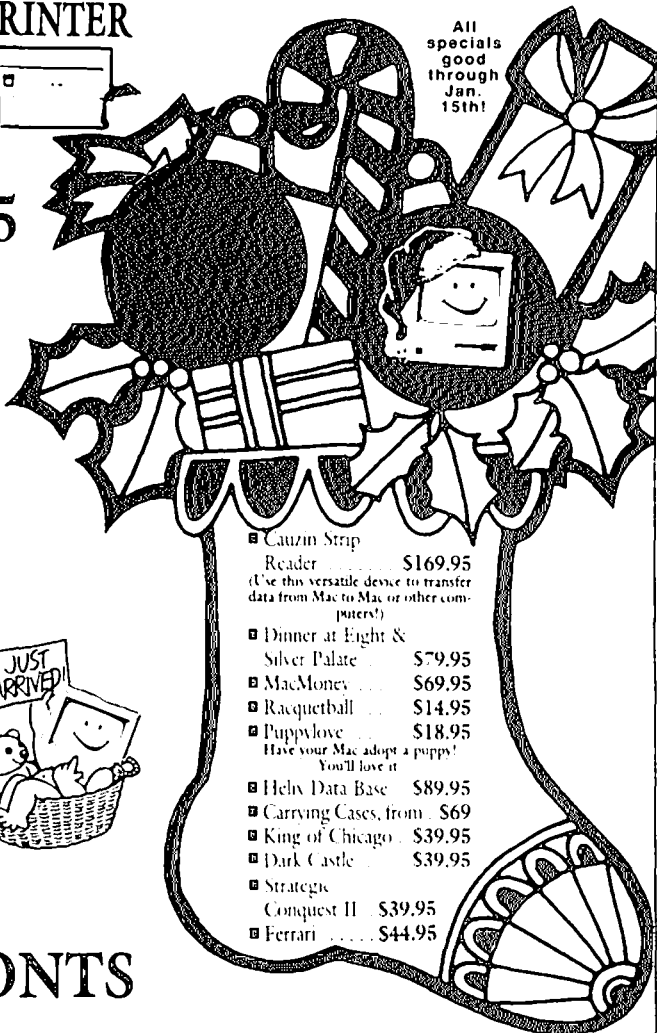
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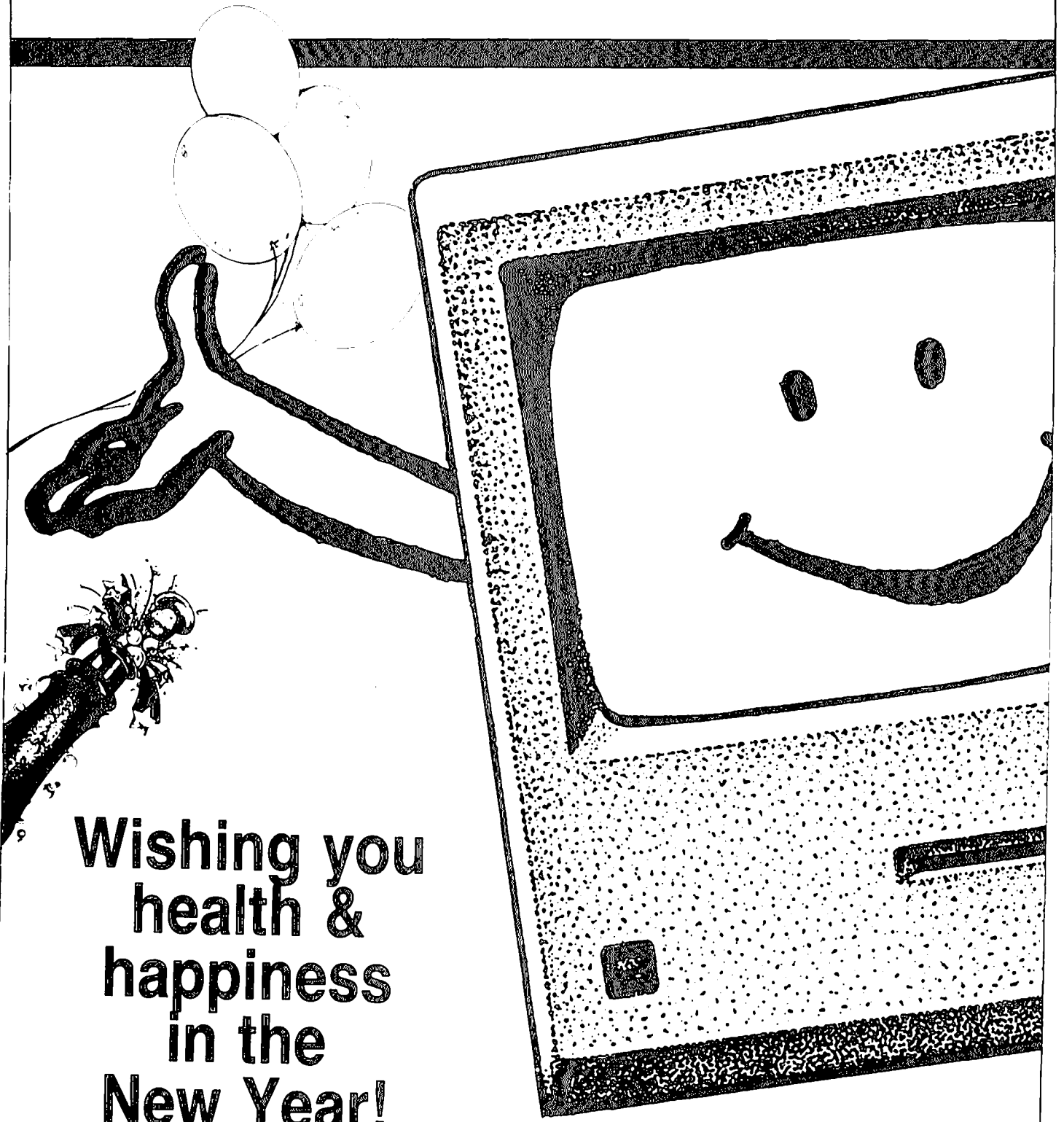
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WAPACROSTIC

by Professor Apple

1	N	2	W	3	Y	4	S	5	S		6	A	7	S	8	R		9	B	10	Y	11	J	12	U		13	R	14	A	15	a	16	E						
17	I	18	P	19	Q		20	O	21	B	22	H	23	V	24	Z	25	I		26	T	27	V	28	K	29	W	30	a	31	C	32	X	33	R		34	T	35	E
		36	V	37	L	38	M	39	T		40	O	41	F	42	Q	43	N	44	M		45	D	46	R	47	K		48	A	49	S	50	M	51	T	52	S	53	F
54	K	55	T		56	O	57	U		58	I	59	G	60	Z	61	E	62	I		63	G	64	W	65	H	66	P		67	a		68	H	69	K	70	X		
71	D		72	M	73	E	74	N	75	R	76	C	77	B		78	B	79	E		80	Z	81	U	82	R	83	F	84	P		85	C	86	F	87	D	88	R	
89	F	90	a	91	a		92	Z	93	O	94	U	95	G	96	U	97	F		98	J	99	N		100	Z	101	Q	102	C		103	Z	104	C	105	J	106	P	
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	143	Z		144	R	145	X	146	L	147	D		148	a	149	H		150	K	151	Q	152	N	153	I		154	T	155	M	156	W	157	J						

Definitions

Words

A. Prosodic Double Foot	117	14	48	118	140	6
B. Pointer	21	116	77	78	9	
C. Whirlpool	85	31	138	102	76	104
D. Atom number 53	45	120	71	136	87	147
E. Awkward Golfer	16	73	79	35	114	61
F. Musical Plays	89	41	86	97	53	83
G. Deliberately Lost	63	95	127	126	59	119
H. Trained	22	65	123	68	130	149
I. Certify	58	25	154	62	153	17
J. Cell Structure Part	11	135	125	105	98	157
K. Bring In	47	54	137	69	28	150
L. Mork's Phrase	146	37	109	141		
M. Chant	155	72	129	50	38	44
N. Oblivion	43	152	74	1	99	

Definitions

Words

O. Excuse	40	20	93	56	134			
P. Essay	66	18	84	106	132	122		
Q. Period of Time	19	42	101	142	151			
R. Partial Entry	33	8	75	13	46	82	144	88
S. Annie's Song	107	4	111	7	49	52	112	5
T. Journeys	26	34	39	108	51	131	55	
U. Lucy's Friend	96	94	81	57	12			
V. Distant	133	27	36	115	128	23		
W. Curley Replacement	29	64	2	156	124			
X. Press	145	113	70	32				
Y. Lubricate	139	10	3					
Z. Most Tidy	100	103	60	80	92	24	143	
a. Hygienic	91	148	15	30	121	67	90	110

ANSWERS TO LAST MONTH'S WAP ACROSTIC

It's true that computers aren't all work and no play, and the Macintosh is no exception. In fact, because of its revolutionary high resolution screen display, the Macintosh is well suited to all sorts of entertainment which require clear graphics.

Author: Ralph Begleiter
 Work: MacNovice Column
 Source: WAP Journal, October 1986, p44

A. Rind	I. Loath	P. Annotate	W. Enchanted
B. Anti	J. Efficiency	Q. Christi	X. Cahoots
C. Limp	K. Iowa	R. Natural	Y. Oil
D. Pretext	L. Talks	S. Ostrich	Z. Lustrous
E. Heartiest	M. Elsewhere	T. Viewpoint	a. Unequaled
F. Bathrooms	N. Repertory	U. Indignity	b. Mullah
G. Enforces	O. Mesh	V. Consult	c. Narcotics
H. Gasp			

MAC Q & A

by Jonathan E. Hardis

As this is the start of a new year, it's perhaps time again to tell new readers what this column is, and what it is not. Mac Q&A started as a way to present in print the Question and Answer sessions held at most monthly WAP meetings. These discussions are rather fast-paced and free-form. And so what appears in print is a semi-fictional Q, which sets the context, followed by information I think would be of general interest.

The major sources of answers are the WAP members in attendance at the meetings, and useful information I glean from CompuServe and similar sources. Therefore, no one pretends that the information in this column is always researched, authoritative, or verified. It's most useful as a start toward getting accurate information. As I look through back issues of the Journal, it is clear that answers get stale within a few months. The reader should be skeptical and seek out current advice.

I lean away from reprinting questions for which I know no good answer, and from repeating the quick critiques of software, stores, and so on offered by the audience at the meetings. When you buy notable software, get especially good or bad service, or have any other experience worth sharing, PLEASE write a one or two paragraph review and send it to the Journal. It's much better that we hear a first person account, rather than relying on hearsay.

Likewise, after you've just solved that mystery that no one had a snappy answer to, let me know about it. It's tough coming up with this material month after month! I know that you all have a great body of untapped, collective wisdom. Share your discoveries with the rest of us!

Sometimes, I have to walk a fine line between relaying information that's potentially as useful at causing mischief as it is in guarding against it. The first question this month is such an example.

Q: Help! My LaserWriter stopped working because the "password" was wrong. My dealer tells me that there is no cure but an expensive board swap. What's going on?

A: More than just a printer, the LaserWriter is a computer itself. Its designers put in a feature to protect critical aspects of its operation in a multi-user environment, requiring a password to do certain things. However, it turns out that the password feature has exactly the opposite effect. Standard Macintosh software relies on the password (actually a 32 bit integer) being the default value of zero. In a shared, "hostile" environment, anyone can change the password and render the LaserWriter unusable. The password is stored in the LaserWriter's non-volatile memory. That is, you can't reset it by pulling the plug.

If the password is altered, and if you don't know the new one, you do have to get a board swap. It is possible that it changed due to random failure, in which case you can hope that only a single bit changed. Try the resultant

32 possibilities, and see if any are accepted as the "correct" password. Then, reset it to zero. If human malice is involved, either find the culprit or your checkbook.

The Adobe PostScript Language Reference Manual, Appendix D, has the details, including information on how to communicate with the LaserWriter interactively. But you are warned—keep LaserWriters away from potentially mischievous people, and be cautious about printing potential "trojan horse" documents containing malicious PostScript.

Q: Well, I want to learn more about honest, wholesome PostScript. How can I keep current?

A: Anyone who uses PostScript on a regular basis should get on Adobe System's mailing list for their free publication *Colophon*. Call Adobe at (415) 852-0271 for details. *Colophon* contains news, graphics ideas, and small sample programs. Each issue also has a corresponding Samples Disk, which costs \$12.

Q: Is it safe to print on both sides of the paper with a LaserWriter?

A: I've done it, and while it seems to work okay, there are indications that it might be a very bad idea. Bill Cook, known to the Mac community as a Sysop on MAUG, has worked on the development of photocopy machines for Pitney-Bowes. (They are a major manufacturer, though often selling under other brand names.) He is afraid that toner already on the underside of the paper will enter and ruin the hot "fuser" section of the printer. The practice in the copier industry, he says, is not to mention two-sided copying unless the machine can safely do it. For desktop publishing, the assumption is that you should produce single sided masters from the LaserWriter, that will later be mass reproduced on some other printer, perhaps in a two-sided format.

Q: How do I use the LaserWriter with a computer that supports only RTS hardware handshaking (as opposed to the LaserWriter's XON/XOFF handshaking)?

A: Garth Cummings reports that the LaserWriter Plus and any new LaserWriter that prints 2.0 on the test page (meaning that it has at least version 38.0 of the PostScript interpreter) can support hardware handshaking and any baud rate up to 57.6 kBaud. You have to write a short PostScript program to enable these additional options, but once you do, the "9600" switch setting on the back will use them. This information is from Adobe's "Update for the Apple LaserWriter and LaserWriter Plus, Revision 2." Handshaking is important when trying to print long documents. Without it, characters or blocks of text will be
contd.

skipped on the printed page. The IBM PC is an example of a computer that only supports hardware handshaking. For people with older LaserWriters and PCs, Apple Technical Communications recommends two work-arounds. First, some external print buffers, such as Quadram's Buffer Box, can convert the PC's hardware handshaking to XON/XOFF handshaking. Use it as an intermediary device between the PC and the LaserWriter. Secondly, some spooling programs on the PC allow for XON/XOFF handshaking. For example, to use Superpool (which comes with the AST multi-function boards) type: superspl lpt1:=com1:/rate=9600,n,8,1 /on=xon/off=dcd,cts,dsr/m=4.

Q: Is Reflex for the Mac the same program as Reflex for the PC?

A: No. Only the name is the same. Borland bought the rights to Interlace and renamed it. Speaking of database programs, at the meeting Jim Russell highly recommended FileMaker Plus.

Q: Help! Sometimes the Mac won't accept my floppy disks unless I try two or three times.

A: First of all, when this starts to happen, make frequent backup copies! As Chuck Yeager says, "Don't wait for trouble." Suggestions offered at the meeting included being careful how you insert the disk. (That is, be gentle.) I think a good approach is to keep track of what combination of things causes marginal performance. Keep track of which disk drive initialized the disk, and which disk drive last wrote to the disk. You may find that one of the disk drives is related to the trouble. (I assume that you are getting disks that can't be mounted by either of the drives.)

Q: After a software failure, my Apple HD-20 hard disk is corrupted and not accessible. How can I fix it?

A: There is no general answer to this—that's why it pays to make frequent backup copies. However, a new weapon in the battle is Apple's "Disk First Aid" program that ships with the SCSI version of the HD-20. Your dealer should give you a copy if you ask. I believe this is the same program as found on WAP Mac Disk 69, though I've personally seen neither. By the way, to view the full status screen and see what Disk First Aid is doing, type Command-S while it is running.

Q: I have both an Apple HD-20 and a SCSI hard disk installed on a Mac Plus. The HD-20 becomes the Startup (boot) disk. How can I make the SCSI the startup disk?

A: Use FEdit to change the first byte of the first block of the HD-20 to a character other than "L". (This alters the "boot blocks". Do not copy System or Finder from the HD-20 to anything else, as you would propagate the bad boot blocks.)

Q: In past columns, you've mentioned different versions of the Mac Plus ROMs. The early

ones had difficulties if a SCSI device was attached but turned off. I have a SCSI hard disk. Can I upgrade to the new ROMs?

A: Yes. Ask your dealer to check section 8.1.4 of the Tech Service Notes.

Q: Can we expect another ROM version for the Mac, or are the ROMs now "mature"?

A: The new Macs, out the first quarter of 1987, will have 256K ROMs, double the present size. I note that the Mac+, unlike the earlier Macs, has been designed to accept ROMs this large. Third party add-ons, such as Hyperdrive and the Radius FPD are specific to the 128K ROMs. Should Apple offer an upgrade to current owners, these products would have to be upgraded in tandem.

Q: What's the latest with Servant?

A: Servant version 0.89 is out and has Andy Hertzfeld's blessing for wide distribution. It is a test version, and many features (such as file copying) aren't implemented. It will stop working when the Mac clock reaches February, 1987. Servant combines the functions of Finder, Switcher, and the Resource Editor, letting windows from different applications share the screen at the same time.

Q: Help! I'm still having HyperDrive trouble.

A: I forgot what symptoms these fixes are for, but the folks at GCC have two field modifications you should ask your dealer about. One is the "zinc creep repair", and the other is a new fan duct.

Q: How do I get Chipwits to work on a Mac Plus?

A: Call Brainpower, (612) 332-8431, and ask about the upgrade. It costs \$15.

Q: Could you elaborate on your November item about Home (Mac) Accountant? What is its status?

A: The name "Home Accountant" is owned by Arrays software, although the program was not. Mike Farmer, the programmer, terminated the contract with Arrays after Chas Haba bought the company. Arrays may rerelease another program under the name "Home Accountant", but an enhanced version of the original program goes by the name "Mac Money". Support, therefore, is divided between Arrays and Survivor Software.

Q: When sending text files with MacTerminal, how can I force it to break lines at word boundaries?

A: You can't. However, when saving the (text only) file from within MacWrite, choose the option to put Return characters at the end of Lines, not just Paragraphs.

Q: I want to send files between the Mac and a NEC computer. What kind of cable do I need?

A: The buzzword you look for when wiring any two computers together is "null modem". That means you are going computer to computer, and not computer to modem.
contd.

The Mac to ImageWriter I cable is a null modem cable which is often useful, although you may need to connect pins 4&5 together at the NEC (ImageWriter) end of the cable. Also, check for the ad in this issue from Adaptation Electronics.

Q: After connecting two microcomputers together, my typing appears on the screen of the other computer but not my own. Why?

A: Your communication software should have a "local echo" option for exactly this situation. Note that it is usually not the responsibility of the other microcomputer to echo what you type back to your screen. (BBS systems are a major exception to this rule.)

Q: What's Micah's current status?

A: Micah declared Chapter 11 bankruptcy after being bought out by Solitaire. They are presently consolidating space with Solitaire in Hayward, CA and can be reached at (415) 487-8300. For the time being, they are not taking tech support calls, nor can they honor warranty claims. Like all creditors, people needing warranty service have to wait in line. Very little new products are shipping. They hope to resume full service in January, and they continue to plan to offer 30 MB drives and upgrades.

Q: Help! My MacDraw has gone flaky. The icons in the pallet are gone, replaced by letters and nonsense patterns.

A: Those icons are implemented within MacDraw as a font, number 36. Should any font install in your System file with this number, you get a numbering conflict. (Hint to those who know enough to object to this answer: MacDraw has no FOND resources in it.) The solution is to use Fontastic to renumber font 36 in the System file to something else, or to use MacDraw with another System file.

Q: Is there a program that figures mortgage payments and related information, such as the remaining principal on the loan?

A: Microsoft Excel does. The mortgage payment for a \$100,000 loan at 8% interest (8/12% per month), with a 360 month term (30 years) would be: $=PMT(.08/12,360,100000,0)$. (Your bank may compute it a bit differently, as this assumes monthly compounding and payments at the end of the month.) If this number works out to be P (taken as the positive number), then the remaining principal after M months would be: $=FV(.08/12,M,-P,100000)$.

Q: I'm a Macintosh programmer. Is there a quick reference for Inside Macintosh?

A: WAP's Tom Piwowar sells such programming aids under the company name Tom Programs. Additionally, Mac-Man is a "user supported" indexing system. It comes with the database, an application to read it, and a desk accessory with some of the features of the application. If you are interested, send a blank disk and a stamped, self-addressed envelope to Abdullah Al-Dhelaan and Ted G. Lewis,

Computer Science Department, Oregon State University, Corvallis, OR 97330.

Q: I've had my Macintosh upgraded. How do you tell if the power supply is correctly adjusted?

A: You can measure the voltages at the external disk drive connector if you have access to an accurate voltmeter. Pins 1 and 2 are ground, pin 6 is nominally +5 volts, and pin 7 is nominally +12 volts. If the "5" volts isn't actually 4.85 to 5.10 volts (it's better to be a bit low than a bit high), or the "12" isn't 11.9 to 12.3 volts, then the power supply needs adjustment. (It's the same adjustment, the control labeled "voltage" on the outer side of the analog board.) I DO NOT recommend that you try to adjust it yourself. Lethal voltages are exposed when the Mac case is open.

Quickies: To count the number of files on a disk, select the disk icon in the Finder and choose "Get Info" from the menu ... Here's a tidbit which may or may not be true. To print bidirectionally on the ImageWriter II, hold down the Caps Lock, Shift, and Option keys when you click "OK" in the print dialog. (It is said to make a permanent change, and I don't know how to undo it.) ... The price of a SCSI HD-20 does not include a cable or terminator, which must be purchased separately. (The HD-20 only needs a terminator if it's the last device on the SCSI chain.) ... Don Henderson suggests that DASCH owners orient the unit with the "right edge" downward (so that the power cord comes out the top of the back). Use the rubber feet to raise that side off the table. This orientation puts the cooling vents at the top and bottom, and the hottest part of the DASCH at the top ... Rod Paine found that Compucable model 106204 was miswired. As this is the second complaint in this column against Compucable, I'd avoid the brand ... If you find any bugs in MDS 2.0, Jordan J. Mattson at Apple would very much like to hear of them ... If you want to sign up for PC Pursuit, contact Marty Milrod. He has a form which is good for a waiver of the initiation fee.



MACINTOSH "VAPORWARE" ADVISORY

by Ralph J. Begleiter

This is a final report about distribution of a Macintosh program called MultiWrite.

Icon Review (Monterey, California), which advertised the new Macintosh word processing program last Spring, has begun distributing it to customers who ordered it months ago. Icon Review has also resumed advertising the product under a new name, "MindWrite". (Advertising had ceased over the summer, apparently because of the program's unavailability. The developers of MultiWrite [MindWork Enterprises] withdrew ads from several major Macintosh publications in recent months.

Although MultiWrite was scheduled to have been available by September 27, the first orders were actually shipped on November 20, 1986. Icon Review, in its shipping paperwork, included no explanation or apology for the delay. However, in an unsigned letter which reveals much about Icon Review's sales techniques, it did explain why customers who ordered "MultiWrite" received "MindWrite" instead:

"To Our Customers:

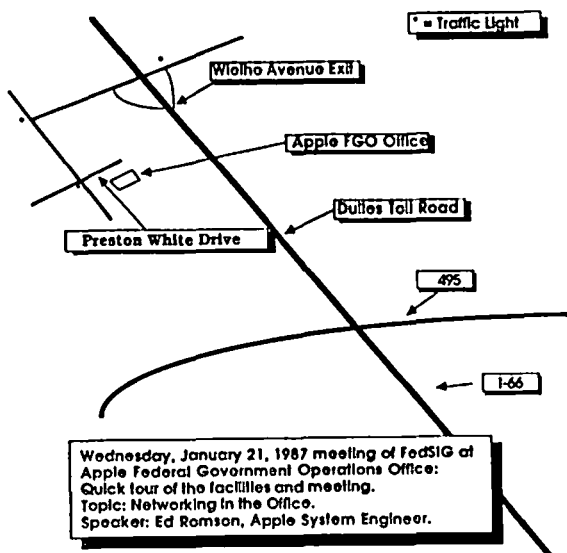
Enclosed please find your copy of MindWrite by MindWork Software. If your order was for Express, Prewriter or MultiWrite, this is the correct product finally released under the name of MindWrite.

Sincerely,

Icon Review
Shipping Department"

Incidentally, a customer letter to Icon Review on October 29, 1986, pointed out that shipment of MindWrite had missed even its delayed target date of September 27 by more than a month and requested an immediate refund under the terms of an earlier Icon Review offer. The customer letter was ignored. The product was shipped three weeks later on November 20. ☺

Directions to Apple Federal Government Operations Office
for
Apple PI Federal Government Special Interest Group



MACINTOSH PROGRAMMING GROUP NEWS

by Bob Shaffer

At the October meeting the group discussed plans for activities and demonstrations at future meetings. Up until that time the meetings have included time for a general discussion/questions and answers followed by a programming product or project demonstration. It was decided that a better way to get a majority of the programming group's members involved in learning the intricacies of programming the Macintosh was to work on a group programming project.

After discussion of more than half a dozen good suggestions for a project it was decided to design a Computer Aided Instruction (CAI) Authoring System. The basic concept for the project is to produce an application which will allow the user to produce a CAI lesson sequence for his/her own area of instructional concern. The system would assist the user in putting together their lesson of prompts, queries and approval/disapproval sequences.

Over the next couple of months the group will be producing a design concept for the System and then allocating various pieces of the design to interested members for coding. It is envisioned that by utilizing a structured design approach we will be able to produce a basic working application in less than a year. After this, enhancements can be added in short order by altering only the affected areas in the structured design.

EDSIG has expressed a desire to assist in the design and testing of the CAI Authoring System. When the system is complete it will be submitted to the PI's Disketeria Library. The Macintosh Programmer's Group meets on the first Wednesday of the month at the office from 7:30 till 9:30 p.m. All interested persons are invited to attend. ☺

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HAPPY NEW YEAR FROM MAC-LONDON

by Adrien and Siew Youell

at 41 Duke of Cambridge Close, Twickenham, Middlesex, TW2 7DG. UK. (01.898.5283)

There you are Bernie and Gena, formatting as per Tom's article in the November Journal. I think the spirit of Tom's advice, both as help to you and encouragement to us *authors*, is so valuable I will save it as a format. I remember once asking if you would handle outliner format (such as ThinkTank). I was writing a point-by-point article for which such a program might have helped organise my thoughts best. Have you had any MORE thoughts?

Flight of the Youells to England. Your retired Vice Pres. Programs (VPP) and WAP office assistant (dare I say VIP?) have joined the London commuter community since September. We miss the thriving WAP gang, and the spontaneous assistance of members who seamlessly helped our efforts seem *so effortless*. Thank you presenters for giving your time often at late notice and thank you also volunteer presenters upon whose services we never eventually called. Thank you one and all for opening doors and helping me unload my car. Sometimes I felt mine was a one-man effort but at every meeting this delusion was dispelled. (On one occasion I calculated I had \$30,000 worth of meeting equipment hidden in my car overnight. It spent the night in my garage, but the burden felt disproportionate!). Also, consideration by members for our hard-pressed work in the Office helped assure the volunteer spirit in WAP. What other society can mix a Roger Wagner and a *Joe Street*, a Jeff Raskin and an *Adrien Youell*? And, wasn't it so vibrant to read the reply by The Woz in the December issue? How many Newsletters can boast of contact with The Great Designer? Dear Apple Inc., This is some club! Listen!

Thank you Dear Editor for printing the vicissitudes of my written skills. It seems anyone can make a place in the Journal! I love reading the lo-tech and hi-tech articles. I enjoy what I understand and I marvel at the exotic. I thank those who said they looked forward to reading my articles; well one Philip actually. Although we read the Journal we miss news of the meetings. Surely there's a Recorder in the Club.

MacPlus For Us. Due to a special friendship in the Club, just before *time-up*, we acquired the HFS toreador, the MacPlus. This is THE machine we all wanted when we pioneers, aided and abetted by Rich Wasserstrom, bought 128K Macs. We 512-ed that machine which Siew now slaves over. Being the master (in the house) I run the Plus. Boy, what a goer. The MacPlus is so fast I rarely use the 512, but have promised a gift of the upgrade for Siew. I know one thinks that one can get along with a reliable (64K ROM) machine, but think of your output. Can you seriously forego this sprinter? Ralph Begleiter keeps us sober by making us remember there are fellow members with 1-drive 128K Macs. I want to tell those people how much you're missing. I'm not an expert but I am a user. When I switch on, after a 'bing' and a 'whirr', all my files are there, and skipping around files is a snap. One so rarely uses alternate applications I wonder now if TEMPO and SWITCHER are worth

serious consideration. With the 800K drive I wonder if a hard disk is relevant, to a home user. There have been only few occasions, (there has only been one), when I wished I could switch readily to different applications quickly. The RAM cache works like greased lightning. The 800K disk is so commodious, as an external drive, I have not even separated my files (or folders) for 'bank', or 'government' or 'family letters'—except for back-up. You do back-up? I read in InfoWorld a charming column in which the interviewee related that his staff backed-up files every millenium, give or take a century! With an 800K floppy drive you have no hard-disk fears.

MacPlus To Go. Or, how does my Mac work in England? All civilised Europe, and that includes UK, Ireland, Holland, France, Belgium and Germany, works (electrically) on (about) 240 volts. (The US/UK cycle rates are 50/60 Hertz, and this sentence is in brackets because HZ is irrelevant). My Macs function exactly as advertised. Our Macs (& printer) are totally US spec. All our software is US origin. I bought three transformers from 'Capital Radio', west off Parklawn Drive, in Rockville. As I do not have access to the full address and Tel # maybe a local member will provide information for the Journal. The transformer I am using now is labelled "Triad-Utrad, Huntington Indiana, N-5MG, Stepdown Autoformer, 50/60HZ, 230 V. in-cord, 115 v. out-socket, 250 VA". The 'G' for grounding is important. I have not found any problems with heating at 250VA rating. My transformer weighs a lot (not a briefcase item) and cost about \$70.

I was suspicious of Radio Shack converters which do not recommend use for 'motors'. I bought one anyway, but I have not used it. This is the "Archer 1000 Watt Foreign Travel Voltage Converter" which recommends "use of 110/120 volt AC non-motorised heating appliances from 220/240 volts AC", Cat. No. 273-1402A. This is a tempting, compact item at \$14.95. Have members any computer experience with this converter? I have not seen Peter Trinder's £14 transformers as I had bought mine before I knew of his offer. Peter is a Pi member at 'Thames Valley (Apple) Systems, 128 High Street, Maidenhead, Berkshire SL6 1PT, England, Tel: From US: 01144. 628. 25361, In UK: 0628. 25361. Peter's US Mac "runs perfectly". For completeness, I have to say that I tried my 600VA transformer (fortunately) with a surge suppressor in line and, the fuse blew with an incredibly nasty burning smell. Needless to say I re-booted using the original transformer, with the spectre of a £500 repair bill waving in my extrasensory retina; it worked!

I have gone to considerable length providing this information to benefit other members in Military service and to reassure 'business visitors' that our US Macs work in Europe. A cautionary line fuse may be advisable. If you are a frequent (MacPacking) EuroVisitor you might like to leave a tried and trusted transformer with a friend, thus preserving that rounded cosy feeling of expectant reliability.

contd. on pg 65



MacNovice Column

by Ralph J. Begleiter

Who's A Novice

The second anniversary of the MacNovice column is a good time to note that there are now two groups of MacNovices: one which began using the Mac during the first year or so of its existence, and a second group just beginning to discover the Macintosh, probably with the higher-powered MacPlus which became available during the past year. The second group probably can't even imagine a Mac with "only" 128K of memory (the description of the first Macintoshes sold less than three years ago).

Each group has slightly different needs. After all, the MacPlusers, in many cases, are just learning many Macintosh basics, such as how to use the "Finder," "System," and "Fonts." The older group of novices has probably mastered those techniques and is working with sophisticated new computer programs which have grown up with the Mac. In future columns, we'll try to take these new MacNovices into account, bringing up to date some of the basic tricks-of-the-trade with which older users have by now become familiar.

Despite the evolution of the Macintosh environment over the past few years, fundamental skills and techniques have only been refined, not replaced. It's still important, for instance, to give some thought to arranging your disks and desktop for the most efficient use, and to organizing your System files to suit your own needs. And despite the truly remarkable flood of software which has become available, it's still time-saving to take advantage of basic tricks such as using "Formats" instead of creating new documents every time you write a letter. These are the skills which bear refreshing—and introducing to the new crop of MacNovices.

"Formats" offer a clear example of a technique novel to first-time computer users. When you typed a letter on your old fashioned (!) typewriter, you were forced to set margins, tabs, spacing and typesyles each time you sat down to work. Unless you're accustomed to an electronic typewriter with even a small memory, you had to recreate the "look" you like for each letter. And when you switched formats (among, say, a letter to your brother, a letter to your clients or an inter-office memo), you had to start all over.

That's the sort of thing you never have to do again once you've established your Macintosh formats. It's worth taking the time to set up various formats now. If you're satisfied with the way they look, you can reuse them indefinitely. Let's start with word processing—the most basic Macintosh application. Create a format for your inter-office memos. Figure 1 is an example:

Open a "new" document in MacWrite or your other word processing program. Display the rulers by choosing SHOW RULERS from the Format menu. Following the instructions for working with rulers, adjust margins, tabs, spacing and justification the way you'd like the memo heading. You might choose to CENTER the heading, for instance or INDENT it.

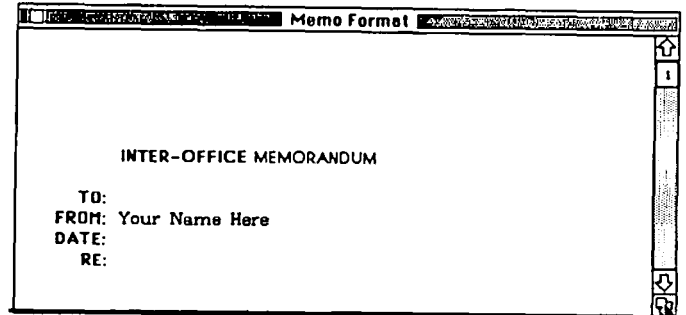


Figure 1

Type your heading: "Inter-Office Memorandum." SELECT the heading and choose the FONT and STYLE you prefer. You might want to boldface the heading. Enter a couple of carriage RETURNS to leave some white space.

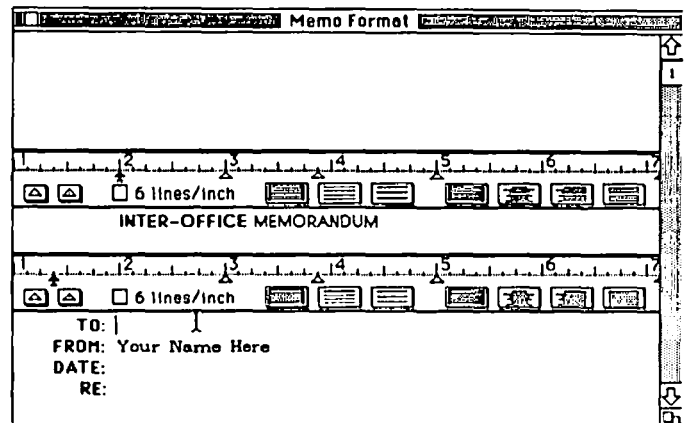


Figure 2

Now, INSERT another RULER. Adjust a new set of margins, indentation and spacing to accomodate the information lines of your memo format. You'll probably want the words "To," "From," "Date," and "Subject" to be flush left. Set them that way. And, perhaps you should boldface them, too, while you set the FONT and STYLE for these headings.

Place your cursor after the word "To." Choose a FONT and STYLE which you'd like to see in the body of your memos. Type ONE BLANK SPACE. Repeat the process adjacent to each of the information headings, remembering to choose your font and style before typing the single blank space. Now type your name after the blank space following "From." Your name should appear in the font and style you've chosen for the body of the memo format.

After the blank space which follows "Date," enter a few carriage RETURNS for more white space. Next, INSERT yet another RULER. Set this one for the standard typing margins, tabs and spacing you'd like to see in the body of your memos. Place your cursor on the line closest to this final ruler. Choose the font and style you selected for the

contd.

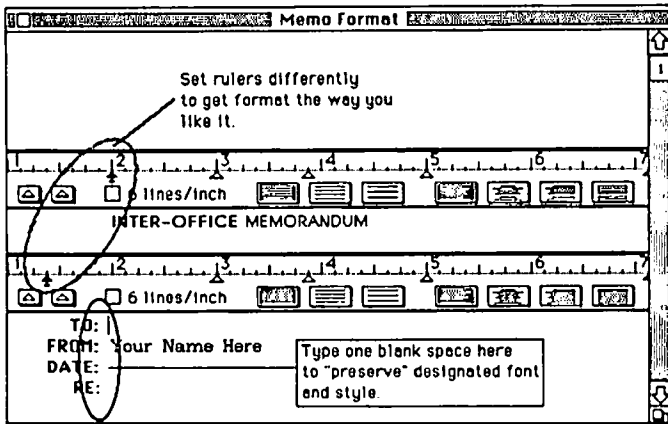


Figure 3

body of your memos. Finally, click your cursor on the "To" line and leave it there. Choose HIDE RULERS from the Format Menu. Then choose SAVE from the FILE menu. When you're asked for a name, call this document "Memo Format," and click SAVE.

When the SAVE operation is complete, CLOSE the document and re-open it by choosing OPEN and selecting the newly created "Memo Format" from the dialog window which appears.

Here's where you'll appreciate the value of the work you've just done to set-up the format. When the document opens, you should see your headings and name all in place, with the cursor flashing in just the right spot to begin your next memo on the "To" line. Go ahead, type a sample memo to someone on your staff. The fonts and styles should be just

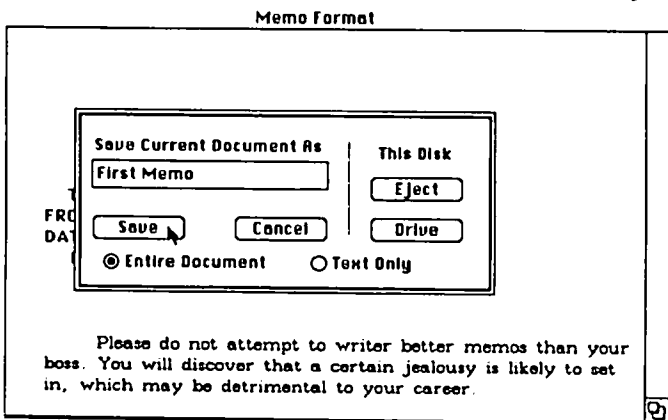


Figure 4

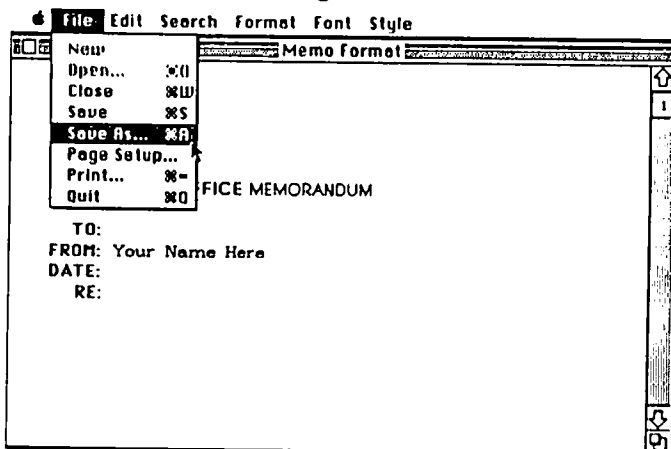


Figure 5

the way you set them, without having to do all that formatting again.

When you're ready to SAVE all or part of your new memo to the staff, DON'T CHOOSE SAVE. CHOOSE SAVE AS... from the File menu. You'll be asked to provide a new name. Call it "First Memo." Next time you need to write a memo, the blank format complete with all your settings will still be fresh and blank and listed as "Memo Format!" The memo you wrote to the staff will be listed under "First Memo." You'll never have to set-up again, if you always choose SAVE AS... when you save a memo. The original format will remain unaltered.

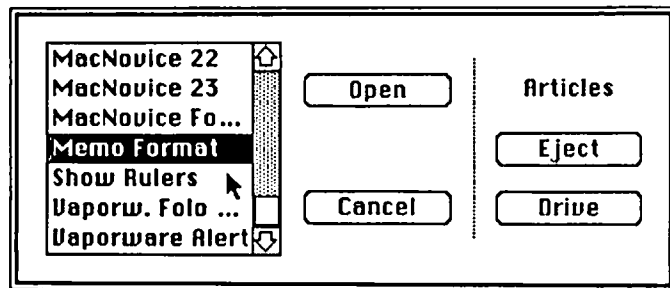


Figure 6

Elementary? Sure! Easy? Yes. But this is a technique often overlooked by anyone new to computer word processing and the Macintosh.

Now, go ahead and create formats for all your correspondence. Create a "Letterhead" format complete with your letterhead in the font and style you prefer. Even include a MacPaint logo, if you like. You can create several different letterheads, for different purposes. For personal letters, set up a cursive font. For letters to someone whose eyesight is poor, set up a LARGE TYPE format.

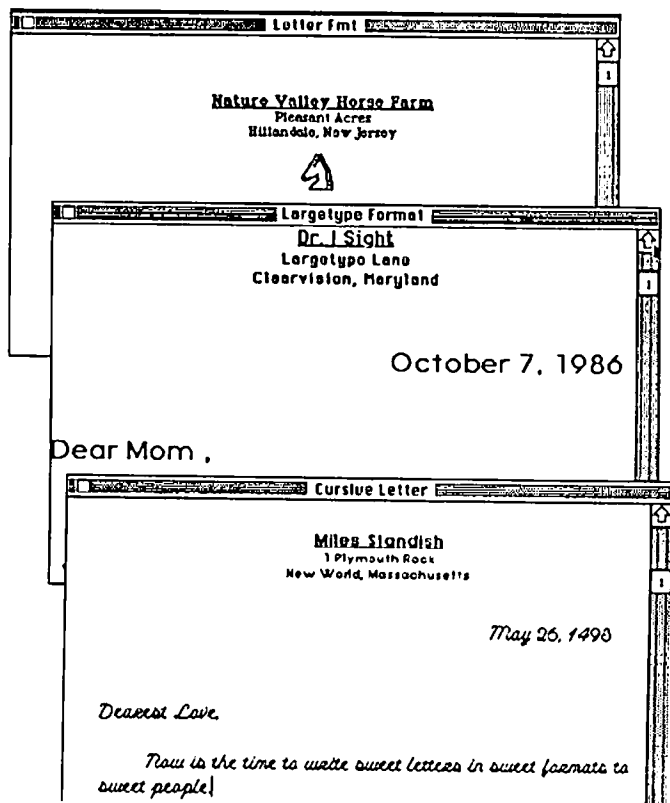


Figure 7

contd.

The Format technique, as you probably realize by now, is not exclusively a word processing idea. It's useful across the board with all kinds of Macintosh applications. Take spreadsheets. You use your spreadsheets to keep track of monthly accounts? Set up a format, with all the standard headings you use each month. Call it "Account Format." Then, when you enter payments and receipts each month, choose SAVE AS... and name the new documents with the name of the month. Always preserve the blank format for the next time you need a new month.

Or take business graphics. Set up the type of charts you like. Or report covers (in a paint or draw program). Or announcement posters. Cover sheets. Almost anything. Set up the formats. Then choose SAVE AS... to create specific documents.

Some of the latest Macintosh programs have discovered that the "format" idea is so useful they've included it in the programs themselves. Desktop publishing programs include provisions for saving layouts as "templates," which may be filled with revised text or pictures each time a new document is created. Living Videotext's MORE outlining/presentation program now includes templates as a separate menu!

There are alternatives to creating format documents. Among them are setting formats to CUT & PASTE into the SCRAPBOOK for reuse. But the SCRAPBOOK doesn't preserve font and style information. And besides, it's not as convenient to scroll through a scrapbook full of formats until you find the right one. It's easier to choose OPEN and select the correct format from the alphabetized list the Mac offers you.

Once you've created your stock of formats, place them all in one folder on your desktop. Call the folder "Formats" or "Stationery" and imagine it as a drawer full of blank, preprinted stationery. Pull out a blank "sheet" to create a new document. Don't forget to copy this folder full of formats onto every disk you'll use to create documents. The formats won't take up much space on the disk, and you'll have them at your fingertips whenever you need them.

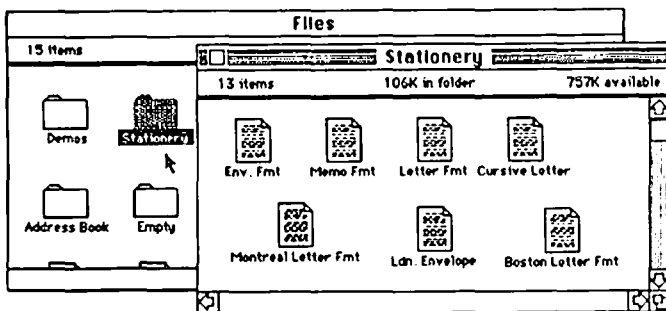


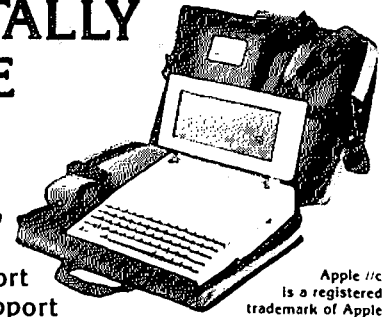
Figure 8

The C-VUE is now compatible with the Laser 128!



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 Kurt Holter - (301) 663-4199
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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 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 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.

Apple // Upcoming Programs

January 8 - Program to be announced
 February 12 - Program to be announced

SIG MAC Upcoming Programs

January 27 - Demo of MegaScreen by Mr. Brucato
 February 24 - Demo of BBS Up- and Down-loading

MACINTOSH BITS AND BYTES

by Lynn R. Trusal (Frederick Apple Core)



Macintosh Home Control

If you are married and own a Macintosh, your spouse may have already accused the Mac of taking over the home, but that isn't the kind of takeover I'm talking about. I have never been one who wants his computer to water plants and take out the garbage, but I have been interested in a program that acts as a poor man's burglar alarm by turning on and off lights in the house. My manual timers have just about seen their better day.

When I got the latest issue of the DAK catalog (yes, that's DAK as in ADC modem) I saw an ad for the X-10 controller which is available for the IBM, Apple II, Commodore, and Macintosh. It consists of a small (5"x7"x1") unit with eight on/off switches. The Macintosh version comes with a serial cable that attaches to the modem port and also includes Macintosh software. Besides the X-10 control unit (\$19.90), it is necessary to purchase lamp modules (\$11.90), wall-switch modules (\$12.90, and/or appliance modules (\$11.90). There is also a telephone responder, and an event clock timer available. What interested me the most was the low cost, and not needing to have the computer turned on in order for the system to function. This last requirement has not always been the case with Apple II-based home control systems.

The modules are very similar or identical to the BSR modules that have been on the market for a long time. Basically, you plug the lamp modules into a wall socket, and the lamp is then plugged into the module. The wall switch

unit is used to replace the existing unit in the wall, and functions to control any light that is turned on by a wall switch. The appliance module is used to control stereos, radios, TVs, or anything with a motor up to 15 amps and 500 watts. Each module is identified by a user-specified code such as A1, A2, B1, etc. The X-10 can handle up to 256 different modules. The X-10 controls the on/off and dimmer sequences of lights by sending a signal from the interface over the house electrical wiring. Figure 1 illustrates assigning a code for a lamp module.

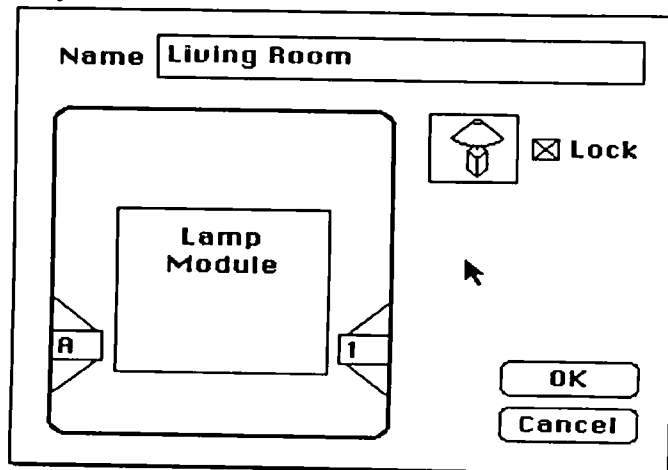


Figure 1

contd.

The Macintosh software makes good use of the Macintosh interface and presents two windows: the "map window" and the "event window" (Figure 2). You may design a layout of your home with Macpaint or use one of four floor/room plans provided with the program. This layout is used to place icons of lamps or appliances in the rooms where they will be controlled. The software permits control for "today, tomorrow, or by the week." The user may even control specific days of the week and set up different control programs for different days of the week. There is even a little "burglar's mask" icon that can be activated to vary the on/off cycle by as much as 1 hour on a random cycle. This is to give the house a "lived-in" look when you are away for an extended time. All of these programming functions are controlled in the "events" window.

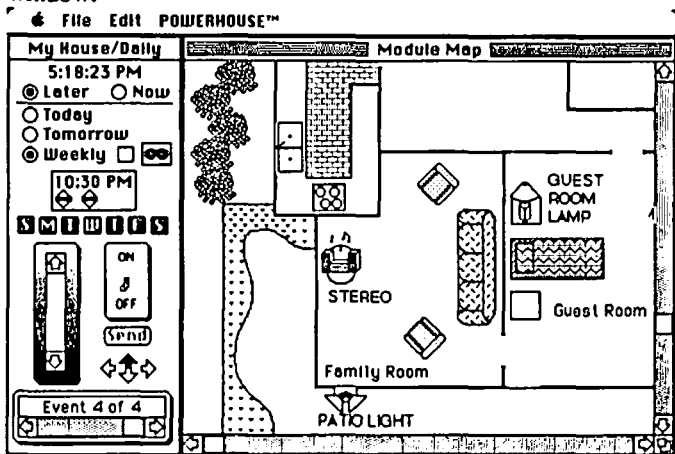


Figure 2

After you have programmed the appliances or lights, they may be saved as a specifically named file and then sent to the X-10 module for later recall. You may also print a list of the events you have programmed. As many as 128 events may be programmed and each event may affect up to 16 modules. You can't ask for more control than that!

Once you have finished the programming and set the instructions to the X-10 control unit, it may be disconnected from the computer. Because it is plugged into an electric socket and contains RAM memory, it is no longer necessary to keep it connected to the computer or for the computer to be turned on. This is a major plus for the overall system. In case the power fails, a 9-volt battery (not supplied) will maintain the memory for up to 100 hours.

Another feature is the ability to install a desk accessory called "instant powerhouse" (Figure 3) which permits instant control of all modules. You can instantly turn on, turn off, or dim any light connected to the system. This requires the computer to be turned on and connected to the X-10, but you also have a manual on/off control for up to 8 modules controlled from the top of the X-10 unit.

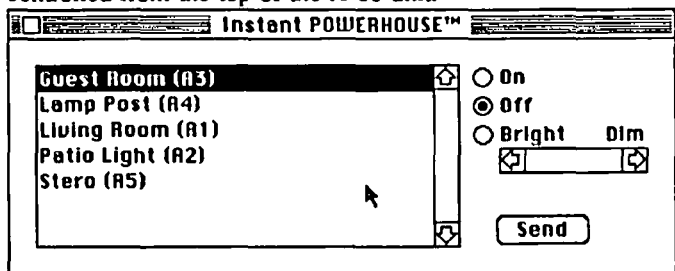


Figure 3

The only drawback I have seen is the means by which the X-10 is programmed. It is easy to change an existing program without realizing that you are changing it. This fact was also mentioned in the November issue of *MacWorld Magazine* (p.137), which has a short article on the X-10 system, for anyone who wishes additional information. This article said that the X-10 interface, software, and cable list for \$80 and each module is \$18, so you can see that the DAK close-out prices are excellent.

If you do not get the DAK catalog, here is the ordering information. The Macintosh X-10 unit is order #4411, the lamp module #9779, the wall switch module #9780, and the appliance module #9781. DAK's order phone number is 800-325-0800, and you will be asked for the catalog version, which is "Early Winter 1987," version #JD99. The prices do not include shipping, which adds \$4 for the X-10 and \$1 for each module. If you want the Apple II X-10 unit, it is the same price but is catalog #4380. The Commodore # is 4378 and the IBM and IBM clones # is 4410. The lamp and other modules would be the same regardless of computer make. Keep in mind that if you have one of the above computers other than a Macintosh, you will need a serial card to hook the X-10 to the computer. If you need more information, DAK has a technical phone line at 800-272-3200, but you have to be patient since it will ring for several minutes until the next person can pick up the phone.

Apple LaserWriter Printers

Last month, I discussed the latest rumor about the new LaserWriters. Further rumor information states that the high-end LaserWriter will use the Canon LBP-20 engine with a 68020 CPU and a custom graphics chip. This chip should speed graphics printer output which is now rather slow. (Writers note: Just ask Bernie!) Apple is stated to be experimenting with 600 dot-per-inch resolution but may have to go with 300 dpi because of problems with the quality of the output.

The "Personal LaserWriter Plus" will be slower at four pages a minute and will not have Postscript built into ROM, which probably accounts for its rumored low price of \$1,995 to \$2,500. (See my discussion in the November WAP Journal, p.56). It will execute Quickdraw commands directly from the Mac ROM like the current Macintosh does. Without the need for Postscript conversion, the printer is stated to print MacWrite and MacPaint output within 5 seconds of activation of the print command. (Source - Robert X. Cringely, *InfoWorld*, October 27, 1986)

Paris Macintosh Rumor Continued

InfoWorld's rumor peddler is at it again. Robert X. Cringely appears to have many inside sources in the micro-computer industry and if he can keep his powder dry, he may live long enough to not be an "X" in the true sense of the alphabet. In the same issue of *InfoWorld*, he provided additional info on the Paris version of the open-architecture Macintosh which will now be released in March-June 1987. The Aladdin may be released in March with the Paris version delayed until June.

The upper-end Mac will have an expandable Nubus cage (See the December WAP Journal) that will hold 6 to 12 add-on boards. A later correction to a previous rumor stated Multibus II cards will not be directly compatible with the

contd.

Nubus slots. Apple is evidently using a smaller Nubus card than the one that Texas Instruments developed. The MS-DOS-compatible card (\$700) will use the Intel 80286 which is now in the IBM AT, and the Paris Mac will run either the Macintosh operating system or the System V version of Unix. Later "Paris" will support multitasking with the Mac operating system running under Unix. The 68020 CPU will run at the astounding speed of 25 MHz (previous rumor was 16 MHz) and processing speed will further be increased by both a 68881 math coprocessor and a special memory management chip that makes the multitasking feature operate faster than it would if it were solely dependent on the 68020. RAM will initially be 1-2 megabytes which will be expandable to 16 megabytes. The final hardware item will be an internal 20 megabyte hard drive.

With the advent of new large screen monitors for the 512K enhanced Macintosh and Mac Plus, the choice of monitors for the "Paris" Mac is also of interest. Again the rumors say to initially expect two 640-by-480 pixel resolution monitors, one of which will be a 12" monochrome and the other a 13" color. A special add-on card will allow the monitors to represent true gray scales. Later in the year, Apple will issue 19" monitors in both monochrome and color.

The price is estimated to be about \$7,500 for the general public but universities may be able to get them for as little as \$3,000 without a monitor (I spent enough years in graduate school, but I may have to go back for that price!?!).

Slices of Washington Apple Pi

The *Frederick Apple Core* was the first "Slice" of the Washington Apple Pi and has recently been joined by the *Annapolis Slice*. After much effort and many revisions, a new by-law amendment was passed to govern the relationship of these and future slices to the WAP. This amendment was published in a recent issue of the Journal. The by-law amendment was accompanied by an "Implementing Resolution" which goes into more detail about the specific relationship between "Slices" and WAP. If other local Apple computer clubs are interested in forming additional "slices," they should contact the WAP office concerning the procedure and rules for doing so.

New Microsoft Word for the Mac(3.0)

On October 27, 1986, Microsoft announced a major update of Microsoft Word which will not be shipped until January. The new version will incorporate many of the features found in the IBM version of the product (which accounts for its version number of 3.0). This new version will retail for \$395 and will include a spelling checker, style-sheets, page preview, index and table of contents generation, hidden text, outlining capabilities, and short menus for beginners and full menus for advanced users. Such style-sheets allow for easy formatting of whole documents. The program doesn't permit on-screen editing of multicolumn text and the procedure for word-wrapping around graphics is described as unwieldy. This version is the first Macintosh application to support the Document Content Architecture (DCA) that will facilitate transport of text files to other computer systems that support DCA. This includes IBM mainframes. In addition, version 3.0 will automatically exchange data with MacWrite, Microsoft Works, and the MS-DOS version of Microsoft Word. It will also support Aldus Pagemaker.

If you purchased Microsoft Word version 1.0 or 1.05 on or after, October 1, 1986 the upgrade is \$50. If you purchased it before that date the upgrade price is \$99. This would have to be considered a major upgrade and if you are already a Word user, you should consider taking advantage of this upgrade. (Source: *InfoWorld*, October 27, and November 3, 1986).

"Beam Me Up Scotty, There's No AI Down Here"

I recently had the opportunity to take a course on "Introduction to Expert Systems." You might say, "What does that have to do with the Macintosh?" and I would have to say very little, except that there are Expert system programming languages available for the Mac. Expertelligence of Santa Barbara, CA (805-969-7874) offers ExperProlog II, ExperFacts, ExperOPS5-Plus, ExperLisp-Plus, and ExperLisp File Compiler for the Macintosh. They recently released Expercommonlisp which is a compiled version of Common Lisp. This software package includes a compiled code, an on-line interactive debugger which uses the Macintosh interface. There may also be other companies, but I am not aware of them. The goal of Expert Systems is to incorporate the knowledge and, hopefully, the wisdom of "experts" in various fields into computer software and hardware. Such an effort is accomplished by using such languages as LISP and ProLog. The goal is more than just incorporation of knowledge but is also the ability to "reason."

It is this ability to reason that makes expert systems stand out from mere databases, which can also be repositories of large amounts of knowledge. Expert systems are a sub-discipline of artificial intelligence. They are expected to "achieve significant actual performance in an area (usually a highly specialized area) which normally requires a human expert for successful performance, e.g. medicine, geology, investment counseling." Expert systems are based on rules which are embodied in the software, and development is accomplished more quickly by the use of software "tools" which serve as shells for software development. A typical expert system may require 3 years of effort, consume 10 person-years of effort, and cost \$1,000,000. Until recently, expert systems had to be developed and run on dedicated workstations from such companies as Symbolics, Xerox, Texas Instruments, and LISP Machine. Such systems use interfaces very similar to the Macintosh and are often based on the Motorola 68000 family of microprocessors. Unfortunately, they often cost \$50,000 or more which has inhibited sales. Now artificial intelligence software is being developed to run on micro-computers and this has slowed the growth and sales of these major AI companies. The first expert system to run on a microcomputer may be Cocomol-1 which will be MS-DOS-based and will help developers estimate the cost and effort involved in developing a software product. I hope I haven't bored you, but I thought you might like a tidbit (8 tid-bits = a tid-byte) about an emerging area of the computer industry. (Sources - *PC Week*, October, 1986; *Business Week*, November 3, 1986, and "Introduction to Expert Systems" by Gordon S. Novak, Jr. of the University of Texas, Austin, TX)

Servant

Well, Servant did cease to function on Halloween, but it wasn't at midnight. When I tried to activate it the following
contd.



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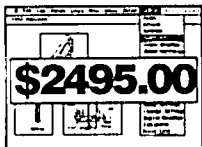
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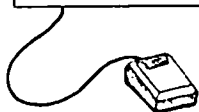
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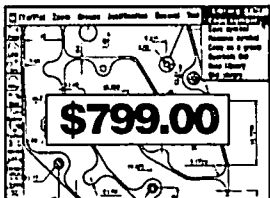


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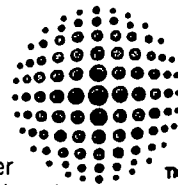
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morning, I was greeted by the following dialog box (Figure 4.) The Servant icon also did not turn into a pumpkin, as stated by Andy in Boston. Maybe we all took him too literally. So far, October has come and gone and still no official version 1.0 has been released. I understand there is a version 0.85 circulating. Andy may be devoting too much of his time to the Radius full-page screen software that he has been working on. I hope he doesn't spread himself too thin to finish the many tasks he is working on.

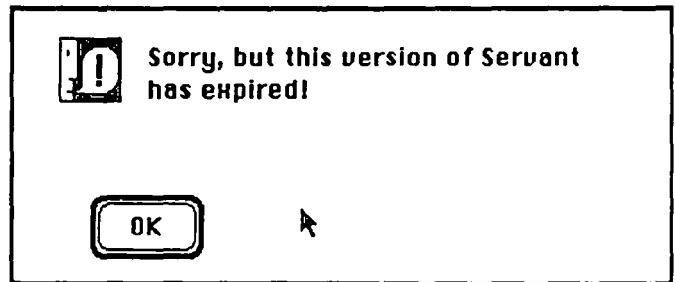


Figure 4

USING EXCEL FOR PORTFOLIO ANALYSIS

by Lynn R. Trusal (Frederick Apple Core)

In the February 1986 WAP Journal I wrote about using Excel to do your federal income taxes. A spreadsheet as versatile as Excel has many uses, and stock or mutual fund portfolio analysis is just one more of those uses.

The first template that I set up was one to track the current value of a stock portfolio. I chose to enter a total of 11 columns as follows:

1. Stock Name
2. Exchange
3. Symbol
4. Purchase date
5. Number of shares
6. Buy price per share
7. Total buy price
8. Sell price per share
9. Sell total price without commissions
10. Plus or minus gain
11. Percent return

All of this information can be printed across a page if stocks names are abbreviated or if you choose one of the 9 point fonts available to you. You can decide if you want to include other information and set up a column for its entry. I then set up totals across the bottom of each column so that columns 5 through 11 are individually totaled. Save this template on a periodic basis (i.e., weekly, monthly); the selling price per share is entered in column 8 for each stock. The "gain or loss" and "percent return" will be quickly computed for each stock and new totals will appear at the end of each column. I did not include commissions in this template because the exact selling commission is not usually known at the time of sell. This template is designed to track stocks that you currently hold. The issue of commissions will be discussed later. The "date of purchase" column can be used to keep an eye on when a stock will become "long term" (i.e., greater than 6 months). Figure 1 is an example of such a template with hypothetical stocks included (I wish they weren't hypothetical!).

A	B	C	D	E	F	G	H	I	
STOCKS	EXCH	SYM	PUR DATE	SHR	BUY \$	BUY TOTAL	SELL \$	SELL TOTAL	
1									
2									
3	AT&T EQ F	AMER	AT&T	JAN 31 84	22	\$67.63	\$1392.50	\$114.25	\$2513.50
4	HEI	NYSE	AT	MAY 17 85	50	\$23.25	\$2325.00	\$74.25	\$1212.50
5	DEC	NASDAQ	DEC	APR 23 84	25	\$25.88	\$647.00	\$54.00	\$850.00
6	DEC	NASDAQ	DEC	DEC 18 84	50	\$27.63	\$1381.25	\$34.00	\$1700.00
7	KODAK	NASDAQ	KDS	MAY 30 85	50	\$30.25	\$1512.50	\$33.50	\$1675.00
8	AMER AL	NYSE	AMR	AUG 1 85	50	\$7.00	\$350.00	\$5.89	\$293.75
9	ENT PR	NYSE	ALK	AUG 12 85	50	\$25.00	\$1250.00	\$15.50	\$775.00
10	CLARES ST	NYSE	CLE	OCT 2 85	75	\$10.33	\$774.75	\$8.88	\$665.63
11	K-MART	NASDAQ	KMRT	OCT 25 85	75	\$13.60	\$1020.00	\$13.25	\$993.75
12	COMAR	NASDAQ	COMR	DEC 5 85	100	\$11.50	\$1150.00	\$3.50	\$350.00
13	AST REG	NASDAQ	ASTA	DEC 11 85	100	\$30.38	\$3037.50	\$9.00	\$900.00
14	SEAGATE	NASDAQ	SEGT	DEC 11 85	50	\$11.25	\$562.50	\$10.38	\$518.75
15	ASH TATE	NASDAQ	TATE	JUN 23 86	20	\$28.18	\$563.50	\$23.75	\$475.00
16	CLOS. T.	NASDAQ	CTHE	JUN 23 86	100	\$22.50	\$2250.00	\$16.25	\$1625.00
17	PERS PUB	NASDAQ	PPBS	JUL 2 86	100	\$30.75	\$3075.00	\$31.25	\$3125.00
18									
19	JULY 25 1986				717	\$311.07	\$15,926.50	\$350.15	\$12,922.88

Figure 1

The second kind of template worksheet that I prepared is one to track Mutual Funds. For this, I use the same columns (4-11) that I used for the stock portfolio, starting with a column for the "current date" and not the date of purchase. Across the top row, I typed the name of the mutual fund. You may wish to type the date of the initial investment in one additional cell of the template, but it is not necessary to have an entire column for this date. As with the stock portfolio, you enter the current selling price on a daily, weekly or monthly basis. All daily newspapers have an area listing the current selling price of each mutual fund. If you check the paper and see both a "selling" and a "buying" price, this is a "load" mutual fund and the difference between the two represents the selling commission. It may range from 2% to 8.5% with the "selling" price lower by the percent of commission. If the same price is in both columns or the letters "NL" appear, this is a "no-load" mutual fund and there is no separate selling commission. Be sure that you put the "selling" price in column 5 of this template. You may wish to enter the "selling price" rather than the "buying price" since this will reflect the the actual gain after the "load or commission" is deducted, in the case of a "load" mutual fund. In the 8th column (% return) you will be able to track the rise or fall of your mutual fund. Regardless of how many individual mutual funds you are invested in, you can use the same basic template. Just change the title at the top and re-save it under a different name. Figure 2 illustrates the use of Excel for tracking mutual funds.

MS 1986								
A	B	C	D	E	F	G	H	I
1	EVERGREEN	SHARES	BUY \$	BUY TOTAL	SELL \$	SELL TOTAL	+/-	% RETURN
2	1986							
3	1/3/86	37.433	\$58.50	\$2189.82	\$57.92	\$2168.12	(\$21.70)	-0.01
4	1/10/86	37.433	\$58.50	\$2189.82	\$57.53	\$2153.52	(\$36.30)	-0.02
5	1/17/86	37.433	\$58.50	\$2189.82	\$57.81	\$2164.00	(\$25.82)	-0.01
6	1/24/86	37.433	\$58.50	\$2189.82	\$57.20	\$2141.17	(\$48.65)	-0.02
7	1/31/86	37.433	\$58.50	\$2189.82	\$58.01	\$2171.49	(\$18.33)	-0.01
8	2/7/86	37.433	\$58.50	\$2189.82	\$58.24	\$2180.10	(\$9.72)	0.00
9	2/14/86	37.433	\$58.50	\$2189.82	\$58.97	\$2207.42	\$17.60	0.01
10	2/21/86	37.433	\$58.50	\$2189.82	\$59.70	\$2234.75	\$44.93	0.02
11	2/28/86	37.433	\$58.50	\$2189.82	\$60.62	\$2269.19	\$79.37	0.04
12	3/7/86	37.433	\$58.50	\$2189.82	\$61.11	\$2287.53	\$97.71	0.04
13	3/14/86	37.433	\$58.50	\$2189.82	\$62.36	\$2334.32	\$144.50	0.07
14	3/21/86	37.433	\$58.50	\$2189.82	\$62.79	\$2350.42	\$160.60	0.07
15	3/28/86	37.433	\$58.50	\$2189.82	\$63.14	\$2363.52	\$173.70	0.08
16	4/4/86	37.433	\$58.50	\$2189.82	\$62.77	\$2349.67	\$159.05	0.07
17	4/11/86	37.433	\$58.50	\$2189.82	\$63.19	\$2363.39	\$175.57	0.08
18	4/18/86	37.433	\$58.50	\$2189.82	\$63.97	\$2394.59	\$204.77	0.09
19	4/25/86	37.433	\$58.50	\$2189.82	\$64.06	\$2397.96	\$208.14	0.10

Figure 2

Another useful worksheet that you can prepare is to record the Stock History of all your transactions. This one can be particularly useful when it comes time to figure your capital contd.

gains or losses to put on Schedule D for filing with your federal tax return. I also use 11 columns for this worksheet but they are not the same ones previously used. The columns are as follows:

1. Stock Name
2. Date of purchase
3. Buy/Stock Split indicator
4. Sell indicator
5. Price per share
6. Number of shares (bought or sold)
7. Buying price minus commission
8. Commission (buy or sell)
9. Total price with commission
10. Capital gain or loss
11. Indicator of long or short term gain/loss

This template serves as a complete record of all stock transactions. Stock splits are registered in column 3 as follows: A 2 for 1 split is entered as "S 2-1" and a 5 for 4 split as "S 5-4". Because a stock split increases the number of shares you own but also decreases the original purchase price or the cost basis, you also need to adjust the figures in columns 5 (price/share) and 6 (number of shares). The rest of the columns on this line remain blank because nothing else

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has changed. An example of this kind of transaction is illustrated in Figure 3.

Figure 3

Stock Record										
A	B	C	D	E	F	G	H	I	J	K
STOCK	DATE PUR	BUY	S	\$ SHARE	* SHR	\$ -COMP	\$ COMP	TOTAL	CAP +/-	L
AMER AL	OCT 18 82	*		\$18.88	50	\$943.75	\$34.33	\$978.08		
AMER AL	NOV 16 82	*		\$17.00	50	\$850.00	\$0.00	\$850.00		
AMER AL	NOV 24 82	S 5-4		\$13.60	12					
AMER AL	JUN 1 83	S 4-3		\$10.20	37					
AMER AL	FEB 20 84	*		\$17.00	50	\$850.00	\$32.75	\$882.75		
AMER AL	MAY 22 84	*		\$17.88	149	\$2,663.38	\$77.54	\$2,740.92	\$737.76	
AMER AL		S 3-2		\$17.00	75					
AMER AL	MAR 1 85	*		\$17.00	75	\$1,275.00	\$46.60	\$1,228.40	\$378.40	
AMER AL	OCT 29 85	*		\$17.00	100	\$1,700.00	\$42.00	\$1,700.00		
AMER AL	MAY 1 86	S 5/4		\$13.60	125					
KODAK	OCT 18 82	*		\$45.50	50	\$2,275.00	\$56.76	\$2,331.76		
KODAK	JAN 24 83	*		\$55.25	50	\$2,762.50	\$44.93	\$2,807.43	\$365.81	
KODAK	FEB 2 83	*		\$54.50	50	\$2,725.00	\$44.93	\$2,789.93		
KODAK	MAR 5 83	*		\$65.75	15	\$986.25	\$33.94	\$1,020.19		
KODAK	MAR 31 83	S 2-1			65					
KODAK	APR 23 84	*		\$12.00	50	\$1,560.00	\$56.85	\$1,616.85	(\$2306.97)	

Finally, any financial information that can be arranged in a "row or column" format and involves the use of mathematical functions is ideally suited for Excel.

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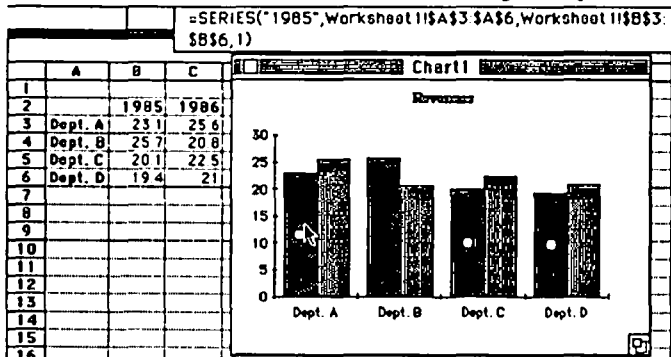
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	A	B	C
1	Exceling on Your Mac		
2	Part 9		
3	by		
4	David Morganstein		

A Gotcha. While I have spoken about Excel with high praise, here is a gotcha you should know about. When you create a graphic, there is a link between the graph and a spreadsheet. While some aspects of this link are dynamic and change as the contents of the spreadsheet change, others are not. Even worse, certain changes to areas of the sheet outside of those graphed can destroy an otherwise attractive chart. To see this link, click on one of the series that appears in the graph. At the top of the screen, in the command edit line, you will see an Excel command. This command, is generated automatically when the graph is created. It is the stuff from which Macros are made. Look at the following example.

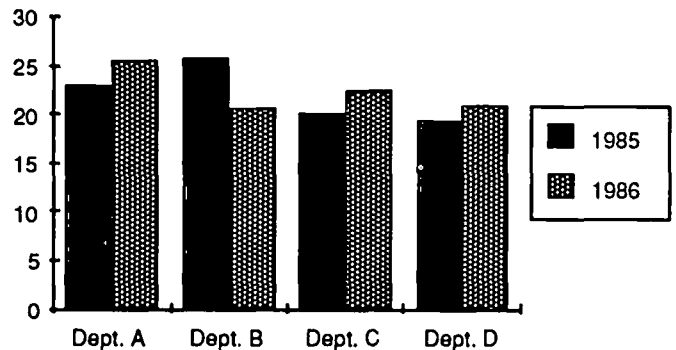


On the left, are data we want to graph. On the right we observe the graph resulting from selecting the cells from A2 to C6 and opening a New Chart window. The column A labels were included in the selection area so that the department names would appear in the chart. These are called categories in Excel. The row 2 labels were included in the selection for use as series labels in a legend, not yet visible.

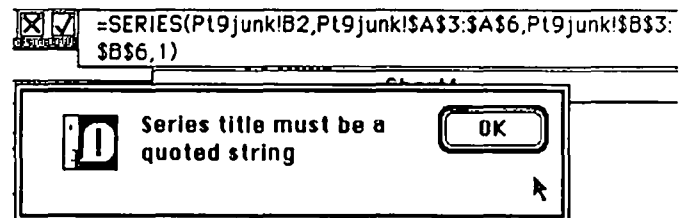
Clicking on a bar in the first series, any of those bars representing the four department values for 1985, at the top of the screen we see the Macro command defining the series for the graphing procedure. SERIES ("1985", Worksheet1!\$A3:\$A\$6, Worksheet1!\$B3:\$B\$6,1). The SERIES command has four parameters. The first is the text "1985". This text appeared at the top of the column in the spreadsheet representing the first series. Notice that it is text, not a cell identifier such as B2. This is the first Gotcha. If you change the data in either of the two series (cells A3:C6) in the spreadsheet, the bar chart will change accordingly. On the other hand, if you change cell B2 containing the text used in a legend, the legend will not change. To see this, select Add Legend in the Chart menu. The Chart now contains a legend, as follows below.

Now go to the spreadsheet and change cell B2 to "1984". Looking at the chart, you see no difference in the Legend. Clicking on one of the bars, you see no change in the first parameter of the SERIES command. Although the data defining the heights and spacing of the bars are dynamically

Revenues



linked to the chart (one changes and the other follows automatically), the legend entries in row two are not. You might think we can get around this by changing the title parameter in the SERIES command to a cell reference. Looking at the second and third parameters of the SERIES command, we see how to reference components of the chart with the spreadsheet cells. If you change the quoted string "1985" to a cell reference like Pt9junk!B2, meaning cell B2 in the sheet Pt9junk, you get the following unpleasant error message from Excel:



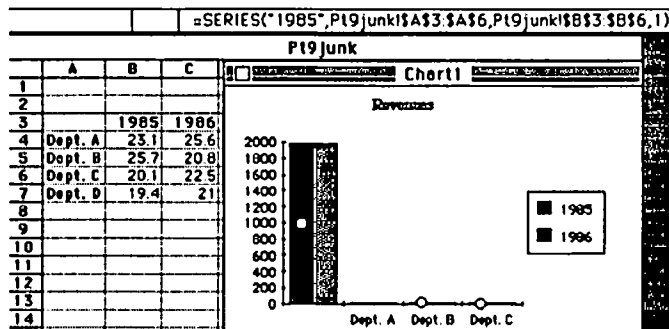
Does anyone know of a solution to this Gotcha? Please let me know so we can share it with others.

Gotcha #2. When working with the spreadsheet, inserting or deleting rows or columns results in automatic updates of cell references. If you delete a row or column used in a formula, you get REF errors. Your only option at this point is to Undo the deletion and re-think why you are deleting a referenced cell. What happens to a Chart when rows and columns are inserted in the spreadsheet? The answer lies in the remaining parameters of the SERIES command we were looking at earlier. The second and third parameters define the categories and the values of the chart. You can see they are absolute references within the spreadsheet.

Absolute reference? What's that? That is when the cell reference has one or two "\$"s in it. The more typical reference has no "\$" and is a "relative" reference. For instance, cell A2 means the first column second row but in a relative sense. Add a column to the left of A2 and all references to A2 become B2. Add a row above the second one and the references to A2 become A3. Relative references provide the contd.

power of the spreadsheet. Absolute references prevent this translation. Cell \$A\$2 means cell A2 no matter what is inserted where. Either the row or the column can be made absolute. The reference \$A2 means column A, no matter what but adjust the row if something is inserted above it. Similarly, A\$2 means the second row, etc. If insertion of a row moves the data you need down to row three, \$A\$2 will now be referring to an empty cell!

You can see the Gotcha coming can't you? Since Excel uses absolute references from the Chart back to the Spreadsheet, insertion of rows and columns above or to the left of the referenced cells wrecks havoc with the chart! In the screen shot below, you see the results of inserting a row at the top of the spreadsheet. The cells we would put into a bar chart now fall in A3:C7. However, the previously opened bar chart uses the same absolute references \$A\$3:\$A\$6 to define the categories and \$B\$3:\$B\$6 to define the values. The effect on the graph of the addition of a row to the spreadsheet is catastrophic!

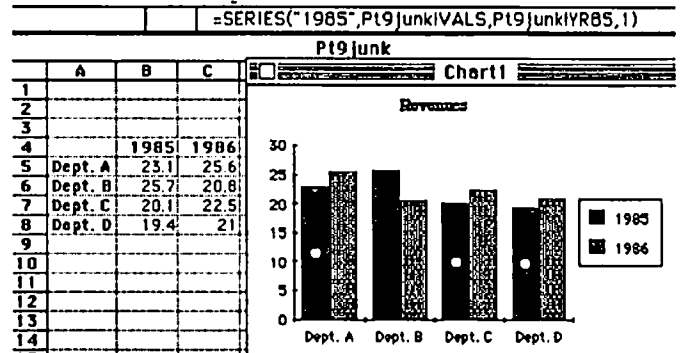


Your first reaction may mirror mine—change the references to relative ones. While this sounds like a good solution, Excel won't permit it. If you manually enter a relative reference, Excel impolitely replaces it with the inadequate absolute reference. Strike one.

How about using array names? We could define cells A2:A6 to have a name, say VALS and in a similar fashion give names to the two series. Select A2:A6 and hit command-L to define a name. Enter the name VALS. Repeat this for B2:B6, naming it YR85 and for C2:C6, naming it YR86. Next return to the chart and change the absolute references making them the array names instead. You do this by clicking on each series in turn and editing its definition appearing at the top of the chart.

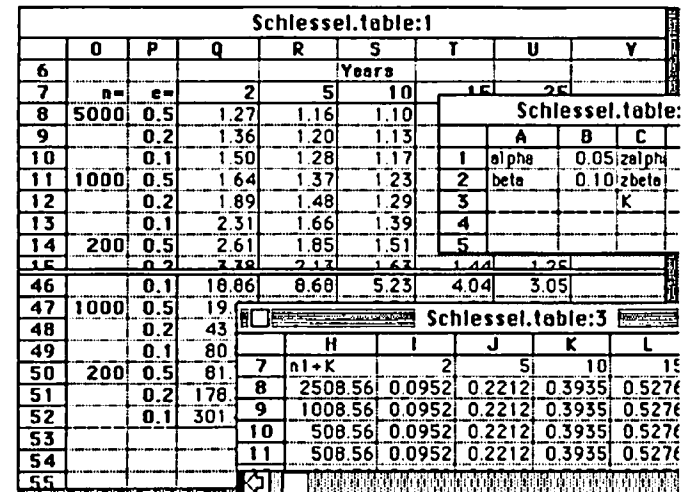
The first hopeful sign we see is that Excel permits this and what is more, the chart looks as it did originally. Now, for the acid test, insert a few blank lines at the top of the spreadsheet. Voila! What they call in computer jargon, a "work around", as you can see below. The SERIES command contains the variable names VALS and YR85 instead of the absolute references, the spreadsheet has a couple of new lines above the series that are plotted and, best of all, the chart looks right! Adding new lines above or to the left of the table will no longer destroy the chart. Sadly, the Excel manual does not discuss this problem or its, admittedly awkward, solution. Let's hope future version of Excel inserts relative rather than absolute references when you create charts.

One last disappointment in the same vein relates to chart titles. They can only be entered from the Chart menu. They



can not be linked to the spreadsheet with either relative or absolute references, nor can they be changed with any current macro command. Microsoft, how about a little help here?

New Window. I just discovered a new command! It was staring me in the face all the time, but I had never used it before. Under the Window menu is the New Window command. What does it do? It gives you additional windows into an already open file. This is easier than issuing additional Open commands and then selecting the same file name. If you have a large spreadsheet with a number of interesting areas in it, you can create several new windows which can be used to display different parts of it. Of course, you can split a single window into two or four pieces but these scroll together and can not give you several completely independent views.



In the screen shot above, you see three windows into a single file. The first view, Schlessel.table:1, is split vertically to permit viewing both the top and bottom rows at once. In this view, we can see cells in the range of O7:U52. The second view has been scrolled to display cells A1:C5 while the third window reveals H7:L11. You can switch between views by clicking on the desired window or pulling down the right-most menu and selecting the view of choice.

Version 1.03. I have sent in my \$25 for an upgrade to the newest release of Excel. According to Microsoft, the new version fixes some problem encountered when dealing with linked spreadsheets. Small irritations such as Excel being unable to find a linked file because it is in another folder have been eliminated. Some might argue that Microsoft should have fixed this one for free!

contd. on pg 65

AN AUTOMATED EXCEL TIMESHEET

by David Butler and Audri Lanford, Ph.D.

This month's article was inspired by a solution to a common office problem: automating timesheet preparation. We thought this example would be useful because it illustrates how to make creative use of Excel's comprehensive date functions. It also demonstrates how the date functions can be used in conjunction with the IF() and VLOOKUP() functions. Although this template implements a bi-monthly timesheet, the concepts can be applied to any timesheet billing period.

In our company, every employee turns in a timesheet twice each month that categorizes his or her hours into separate client billing accounts. There is one row for each billable account, and one column for each day in the billing period. Row and column totals are maintained, as well as the overall total.

Our goal was to use the internal clock along with Excel's extensive date handling functions to create a dated timesheet ready to be filled out. The spreadsheet will compute the billing period based on today's date, and will fill in the appropriate column headings with the day of the week and the day of the month. Figure 1 presents a sample, filled-out timesheet.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1																				
2										Micro Dynamics, Ltd										
3										TIME REPORT										
4										John Smith										
5		Dec-86																		
6		Start @	1																	
7																				
8			Mon	Tue	Wed	Thur	Fri	Sat	Sun	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Mon			
9			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
10																				
11		XYZ	3	2	2.5		2			2	2.5	1		2.5			1			1.9
12		ABC	2	2	4	2.5	4.5	1		3.5	1.5	3	2.5	4			2			3.3
13		ZZZ	3	4		6						4	6	4		4	3			3.0
14		XOX			2.5		2	1.5		1.5	4	0.5		2			1			1.3
15																				0
16		Vacation																		0
17		Sickness																		0
18		Total	8	8	9	8.5	8.5	2.5	0	7	8	8.5	8.5	8.5	4	0	7	0		96
19																				Total

Figure 1

Our two billing periods are the 1st to the 15th of the month, and the 16th to the 31st of the month, respectively. The key was to have Excel automatically fill in the appropriate dates based on Macintosh's internal clock date, and the corresponding day of the week along the top of the columns, as well as perform routine row and column totals.

First we wanted to enter the month in cell B5. This is done using the NOW() function. The cell was formatted using the date format "mmm-yy".

(cell B5) =NOW()

Next, we needed to calculate which of the two billing periods today's date fell into. The following formula in cell C6 returns either a 1 if today falls into the first billing period, or a 16 if today's date falls into the second billing period.

(cell C6) =IF(DAY(INT(NOW()))>15,16,1)

The NOW() function requires no input argument, and returns a number, the integer portion of which is the date, and the fractional portion of which is the time. The INT() function merely discards the fractional portion (the time), which is not needed for this calculation, and leaves us with the integer representing today's date (actually the number of days since

January 1, 1904). The DAY() function in our formula converts this number to a number between 1 and 31, representing today's date of the month.

Now that we know which day of the month today is, we need to determine which half of the month today is in. The IF() portion of this formula in cell C6 does the job. The IF() part of this formula could be stated in English as

If today's day of the month is greater than 15, then return the value 16. Otherwise, return the value 1.

We have used the value returned by the IF() function to identify the starting day of the billing period in cell C6.

If all we had to do was label the columns with the day of the month (in row 9), we'd be home free. We could compute the day of the month for the respective columns in row 9 by adding 1, 2, 3, etc. to the value returned in the first formula above, something like cell C9=C6 for the first column, cell D9=C9+1 for the second, cell E9=D9+1 for the third, and so on. These would return 1, 2, 3, etc. for the first half of the month, or 16, 17, 18 etc. for the second half of the month.

However, we also wanted to include the day of the week in the column heading (in row 8). In order to compute the day of the week with the WEEKDAY() function, we need a date in the Excel internal date format (number of days since Jan. 1, 1904). We therefore created the following formula to do this and used it in row 9 instead of the formulas described in the last paragraph. Although it looks complicated, it is actually pretty simple.

(cell C9) =INT(NOW())-(DAY(INT(NOW())))+C6

Remember from cell C6 that INT(NOW()) returns today's date. DAY() returns the day of the month (a number between 1 and 31). By subtracting the day of the month from the current date, we get the last day of the previous month. For example, 8 days before December 8th is November 30th. 21 days before December 21 is also November 30th. If we add cell C6 (the starting day of the pay period), we get December 1st when the first day of the pay period is the first, and we get December 16 when the first day of the pay period is the 16th.

Now we have the first (cell C9) column's date. The second column (D9) could be calculated using the formula:

(cell D9) =C9+1

You can then select cells D9 through R9 and Fill Right. To format these cells (which are still in the format of the number of days since Jan. 1, 1904), we selected row 9 and specified a custom date format in the format number window. Instead of the usual "dd-mmm-yy", our custom date format is "d" because only the day of the month is needed.

For the experts:

You might wonder why we did not use the Series command (from the Data menu) to generate a series of dates. This is because we wanted these date cells to be recomputed, and the Series command generates simple constants rather than formulas.

We computed the column headings in such a way as to make it possible to determine the day of the week with the WEEKDAY() function. If our first day of the month is in cell

contd.

C9, then the day of the week is easily obtained with WEEKDAY(C9). However, WEEKDAY(C9) returns a number between 1 and 7, and we want to display Sun, Mon, Tues, etc. To accomplish this, we used the Excel vertical table lookup function called VLOOKUP. This formula

(cell C8) =VLOOKUP(WEEKDAY(C9),Y1:Z7,2)

assumes that you have the following table starting in Y1, and that C9 contains a valid date.

	Y	Z
1	1	Sun
2	2	Mon
3	3	Tue
4	4	Wed
5	5	Thur
6	6	Fri
7	7	Sat

Figure 2 The VLOOKUP() function looks up the day of the week (a number between 1 and 7) in the table specified by the range (cells Y1:Z7), and returns the text in the second column of the table. This formula is used in cell C8 through cell R8, with the weekday argument varying from C9 to R9. (Note: You might want to select "Y1" and "Z7" in the formula in cell C8, and make these absolute references using the Reference command under the Formula menu so that you can simply select cells C8 through R8 and Fill Right.)

The rest of the timesheet consists of the simple column summations in row 18, and simple row summations in column S.

More for the experts:

The above scheme allots 16 cells for the timesheet dates to allow for 16 days (16th through 31st) in a 31-day month. However, 16 days are also displayed (in row 9) for the first half of the month when you only needed dates 1 to 15. Also, in the second half of a 30 day month, dates 16 to 1 are displayed. February is even worse with its 28 or 29 days; you get dates February 16 to March 3 in a regular year, and February 16 to March 2 in a leap year.

The problem can be fixed by making further use of the IF() function. By entering the following 6 formulas into their respective cells, Excel will display the correct dates for all the months. Can you see why these formulas take care of all of the irregularities of the calendar?

- (cell P9) = IF(DAY(O9+1)<4,"",O9+1)
- (cell Q9) = IF(DAY(O9+2)<4,"",O9+2)
- (cell R9) = IF(DAY(O9+3)<17,"",O9+3)
- (cell P8) = IF((P9=""),"",VLOOKUP(WEEKDAY(P9),Y1:Z7,2))
- (cell Q8) = IF((Q9=""),"",VLOOKUP(WEEKDAY(Q9),Y1:Z7,2))
- (cell R8) = IF((R9=""),"",VLOOKUP(WEEKDAY(R9),Y1:Z7,2))

Now filling out a timesheet is as easy as making a copy of this Excel template, and filling out how many hours are devoted to each client each day. It would be easy to link employees' worksheets to produce summary reports. The timesheet will automatically adjust to the current pay period!

We hope that this month's column has shown you some of the power of the NOW(), DAY(), VLOOKUP(), IF() and DAY(). For more information about these functions, we recommend the excellent book *Excel in Business* by Douglas Cobb, published by Microsoft Press.

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

Happy New Year contd. from pg 52

British Apple. At this stage in the year I hoped to pass on exhaustive details of computing in Britain, Apple user groups and Apple (Britain) Inc. I actually have very few facts so this section is merely a heading rather than an article. Apparently Apple (and Mac) is very prominent here, but the fact is, it is difficult to see the evidence. I have not met anyone with an Apple computer and no fellow train commuters have commented on my line of morning and evening reading. This latter comment may not be significant in David Morganstein's (statistical) terms because to a London commuter privacy assumes high proprietorial right. Further, in my peregrinations I have actually seen only one dedicated computer shop. Many stores are advertised but they are just not readily evident. I have seen Amstrads, Sinclairs and Commodores on display in camera shops and pharmacies, which are not my idea of *computer shops*. As I know at least one reader is waiting for me to name names, I will say that the one computer shop I found is an Apple dealer in Kingston upon Thames, one Hitesh Shah at Callhaven Computers—he is so clever he even said he had heard of WAP! Actually he's not bad. One of his staff, Mr. Chan, repaired a disk the Mac told me was 'damaged'.

I have only two British Apple-related comments for now. "MacUser" UK, a sister publication, announced in the Sept/Oct issue a peculiar condition known as 'ShareWare Deprivation'. To remedy this affliction the magazine is offering for the price of a disk, public domain and shareware programs, *a la* WAP Mac Disks. For Britain this is Progress. The current issue of the magazine has reviewed five 20Meg SCSI drives; the best value overall to me was the QISK 21, and it happens to be British origin! I too was amazed.

Seasons Greetings. Old friends, like dull pennies, always turn up in the lining! We heartily invite you to keep in touch and offer our services if we can be of any assistance; if Bernie graciously prints our address! Thanks pal. To The Club and all our friends we wish stupendous greetings, a Happy Christmas and a Prosperous New Year.

Excel'ing on Your Mac contd. from pg 63

In preparation for upcoming new Mac machines, Msoft has built into version 1.03 support for the MC68881 floating-point coprocessor. This chip will allow for very high speed number crunching. Also, Msoft has redesigned Excel to work with larger screen displays, I can hardly wait!

Additionally, the new release has no copy-protection. Now you can easily install Excel on your hard disk. Accolades to Microsoft for this forward thinking step. Of course, it presumes that those of us who use Excel regularly are registered, "dues paying" members. If you are as impressed with Excel and what it allows you to do as I am, then you must reward Microsoft for their efforts in developing it and giving the Mac the most powerful spreadsheet in the market. Buy a copy...

VIEW FROM THE HILL

by Rich Norling

This month I seem to have written a lot of comments about the state of the microcomputer industry (I always write this introduction after I have written the rest of the column). Well, you will see this around the end of the year, so maybe that's appropriate. The menu: comments about the industry as a whole, AT&T's withdrawal, and Apple's success; some interesting things I recently learned about power supply sensitivity in the IBM PC/clones family; and an addition to last month's description of punctuation characters on the Macintosh.

Who's Competing?

Try to think back to the state of the microcomputer industry about a year and a half ago. There was a major slump in sales of both hardware and software; computer magazines were much thinner because they contained so little advertising; several computer magazines went out of existence for lack of ad revenues; small publishers of software and computer books were in heaps of trouble.

Some companies went bankrupt, others had cash flow problems and were bought by or merged into larger companies. Even Hayden, one of the most visible publishers of software and books for Apple machines, got into financial trouble and had to sell the company.

In addition to crying about the slump, the pundits were preparing for a battle of the giants between the strong, well-entrenched IBM and the huge new entrant, AT&T. Would AT&T make a frontal attack on IBM's computer business? Would AT&T succeed? Would AT&T form an alliance with Apple (or even buy Apple) as part of its strategy? Well, this turned out to be no War of the Worlds or Clash of the Titans. In case you missed the battle of the marketing giants, it is over.

AT&T recently held a corporate strategy meeting at which the company decided, among other things, to concentrate on those things it knows best, namely communications. What that really means is that they decided to give up, and to write off a big chunk of the \$900 million or so AT&T spent in its efforts to enter the microcomputer market. With AT&T taking itself out of the picture, the industry pundits can now clearly see Apple as the survivor along with IBM. Now the question becomes whether Compaq can create problems for IBM with its 80386 machine...

Why did AT&T fail? Perhaps it was a huge giant having problems learning about competition after running a regulated monopoly for so long. Perhaps their clone had no particular selling points over any other clone. Perhaps IBM still has a lot of marketing and sales clout.

Or perhaps it was just the luck of the marketplace. After all, this is not the first time a major corporation has put a little of its reputation and about a billion dollars of its money on the line trying to start a new business. Remember EXXON's efforts to enter the office automation market a few years ago? I think their write-off was around \$800 million when they gave up. Anybody have a spare \$100 million

Maybe it's just darn hard to start up any new business, even if you are a huge corporation.

So I don't expect any more talk about AT&T acquiring Apple. I think that would have been a mistake for Apple, anyway, because Apple's leadership in innovation and technology depends on freedom for creativity, not the kind of highly-organized atmosphere you tend to find in a world-size, entrenched corporate bureaucracy like AT&T. Somehow I just can't get a mental image of a Burrell Smith or an Andy Hertzfeld making a viewgraph presentation to a roomful of people in suits and ties in order to get permission to try out a new prototype.

Back to the starting point of this little "state of the industry" essay, business has been picking up again. Growth has been more slow and steady than the explosive growth that occurred before the slump, but the companies with strong products are once again doing well.

Computer stock prices have even recovered far enough that pension and mutual fund managers now feel they need to have some computer stocks in their portfolios. Since Apple is one of the two obvious survivors in microcomputer hardware, these staid money managers are buying Apple stock! From a low around \$15 per share last year, Apple's stock has risen to about \$42 per share as I write this column in early December. If you bought Apple stock near the low, you can smile now, and I know you'll have a Merry Christmas and happy New Year.

As the money managers put Apple stock into their portfolios, they help Apple gain increased credibility with big business as a major company that is here to stay with a worthwhile, dependable product. Egads, it's getting so respectable! Do you think some day a pundit will say "Nobody ever got fired for buying from Apple"?

Why Even Individuals Should Care...

What if you are just an individual, not really involved in the computer industry, not owning any Apple stock. You just own a Macintosh or an Apple // and like to use it. Should you care about the health and success of Apple Computer?

Yes, I think you should. You still have a machine made by Apple, and if Apple gets in trouble you may have trouble getting service, parts and add-ons. And, of course, the resale value of used machines drops when the company that made them is not around any more. I have a friend who bought a Morrow Micro Decision 2 several years ago—a well-engineered machine, but hard to find parts and service when the manufacturer fell on hard times. By choosing an Apple machine, you have connected your fortunes to those of Apple Computer, at least in a small way. (Don't worry about my friend with the Morrow. I think I have convinced him to get a Macintosh Plus).

The other thing most people with computers want is software. Some software is written and published by people who just love to do it. At one point or another, however, software authors and publishers become aware that they need

contd.

to eat in order to have the strength to write and publish software. When that self-realization arrives, they start to make wild guesses about which machines will be most popular with consumers, and then write their software to run on those machines.

If the particular microcomputer you own is a very popular one, or one that software developers perceive as the next very popular machine, then you will have lots of new software to choose from. The newest, most innovative software tends to get written for new machines, perhaps because people like me enjoy seeing what kind of performance we can get out of new hardware capabilities. Once it is written for the newest machine, it then tends to get translated to run on other machines.

At the moment, for instance, many writers of computer games are writing games for the IIGS because of its great color and sound. Once those games are written, I can just hear the publishers saying to the authors, "Wouldn't you really like to write a version of Great New Game for the Macintosh, too, so we call sell it to all the people who own that machine?"

The more machines Apple sells, the more software developers will be attracted to write software for them. So once again, if you want a choice of new software, you have an interest in Apple's success in selling new machines.

Power Supplies

Since I wrote last month's column, I had a long discussion with a software developer who works on IBM PCs and their various clones. One of the most interesting things that came out in the conversation was the fact that programmers of business software for those machines have to plan for a restart after the computer has failed because of a little blip in the electricity supply (the kind of thing that makes your lights blink momentarily).

Frankly, I thought this guy was grasping at straws. After all, I have run Macintoshes (and Lisas and my old Apple][+) on average about 10 hours a day, 5 or 6 days a week for the last three years, and never once did the computer freeze up or shut down because of a blip in the electric supply. OK, in fairness I should say that I do shut down everything when there is thunder and lightning going on outside, but that is just ordinary prudence. This guy was talking about PCs and clones freezing up or shutting down as a common, every day type of occurrence.

After that conversation, I began asking everybody I met who might have experience with a member of the clone family, and every single one of them has confirmed that in their experience the clone family machines seem much more sensitive than Apple's machines to those common little blips in the electricity supply.

My little sampling of opinions is not statistically or scientifically valid. But I've heard enough to believe there would probably be a noticeable difference between the Macintosh and the clone family machines if an independent testing laboratory were to conduct a comparative test of failure rates.

Why is this important? Because dependability of the machine can be an important decision factor when businesses, organizations and individuals decide what computer to buy. If the difference in dependability can be confirmed in independent tests, than Apple can use that fact to sell more Macintoshes,

and to penetrate some of the last bastions of clonism.

Besides, it would just be nice to confirm that a group of unsung engineers at Apple who design power supplies have done something right. Maybe even make some of those who have joined the Macintosh world a little prouder for making the right choice, and getting such a dependable machine.

Better Macintosh Punctuation (Continued)

In last month's column I mentioned the "real" punctuation characters you can obtain from the Macintosh for that professional look in your word processing or desktop publishing text.

Here they are again if you missed them:

Instead of	Use	
'	'	OPTION-SHIFT]
"	"	OPTION [
"	"	OPTION-SHIFT [
-	-	OPTION-SHIFT - (hyphen)

plus OPTION ; to get an official ellipsis (...) and OPTION - instead of just a plain hyphen when what you really want is a minus sign (-).

What I should have mentioned last month is that these special characters do not usually survive when text is transmitted to other computers. This is because most other computers do not understand the ASCII codes that Apple uses for the real punctuation characters (and for a whole lot of other special Macintosh characters as well).

Also, if the terminal software you use to send the file from one computer to another is set to handle only 7 data bits instead of 8 data bits, the characters get transformed by "stripping the high bit" into meaningless drivel. Here is what they turn into when the high bit is stripped:

Character	Stripped
'	T
'	U
"	R
"	S
-	P
-	Q
...	I

So the bottom line is that you should use the real, professional punctuation characters in text that will be used and printed only on Macintoshes; and use the old, computer-like punctuation in text that will be shared with other brands of computers.

Rich Norling is coauthor of StatWorks™ and Cricket Graph, and is completing a new Macintosh application called Pict-O-Graph™. He wrote the book Using Macintosh BASIC, published by Osborne-McGrawHill. Rich is President of Language Systems Corp. ☺

*Merry Christmas
and Happy New Year.*

Softviews by David Morganstein



This month, we look at two diverse products—yet they have something in common. Tops is a file serving network package. dMac is a database package. The commonality is they both contribute to closing the gap between the MS-DOS and Macintosh worlds. While Tops offers excellent networking features to allow Macs to share files, it also offers an amazing degree of integrations with PC's attached to an Appletalk network. dMac is a very powerful dBase clone which allows access to both programs and databases created with dBase II or III in the MS-DOS or CP/M systems.

Tops. Apple's low cost networking system, Appletalk, has begun to generate a number of excellent choices for connecting Mac's and PC's together to share resources such as hard disks and Laserwriters as well as for the purposes of exchanging information. In a previous review, I discussed MacServe by Infosphere, a Macintosh disk server. When MacServe is combined with Tangent Technology's Appletalk card for the PC and with PC Macserve (Tangent's just released software), both Macs and PCs can be networked. This system will be described in a subsequent review. For now, I'd like to tell you about Centram's approach, Tops.

Let's begin with an overview. With Tops installed on Macs and PCs, a Mac folder or PC sub-directory can be "Published", Centram's word for making it available to all other Tops users. From a Mac you can use the Tops Desk Accessory (DA) to "Mount" any Published volume. When you do, an icon for that folder or sub-directory appears on your desktop. That's all there is to it! At this point, you can copy a file from that icon to your own disk simply by dragging it. Alternatively, you can drag one of your own files to it. Or you can simply open a file on it, modify it and resave it to that Icon just as if it were a volume of your own. Remember, that Icon can be another Mac folder or a PC sub-directory. You can actually use a PC hard disk as your own storage device! The PC sub-directory can hold applications as well as data files. From your Mac desktop you could run MacDraw or Excel stored on the PC's hard disk and you'd never know the difference. Let's make it clear, this does not allow you to run PC programs, just read and write to the PC hard disk.

From the PC screen, a published Tops volume appears as another lettered drive, B:, D: or whatever. Since many of you have never had to contend with MS-DOS "D:/123/PROJECT/PHILE.WKS" notation, I don't want you to have to face it now (right, Ron?). Suffice it to say that to a PC, a published Mac Folder appears as another device which it can use interchangeably.

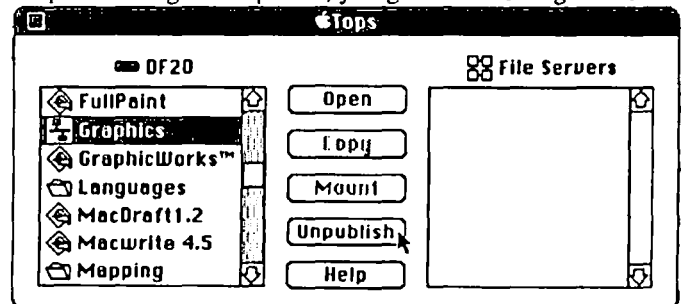
What You Get. You need one Tops package per computer. To Centram's credit, the disks are not copy-protected but they are serially numbered. Each unit on the network must have a unique serial number. The Mac package contains a disk and a manual. The more expensive PC package also

contains an Appletalk interface board. While networking hardware/firmware is built into the Mac, it must be added to a PC. To hook the computers together, you will need one Appletalk connector per machine. These list for about \$75. Although you can buy the Apple version, alternatives are coming on the market. Farrallon Computing [Phone # (415) 849-2331] markets a PhoneNET connector, at \$50 a piece, which interconnects with standard telephone wire attached to modular plugs. In fact, you can create an Appletalk network using the phone lines if the Black and Yellow wires are connected between phone jacks.

Installation. Installation on the Mac is a snap. Tops is installed on your start-up disk. When you insert a back-up of the Tops disk (never work with an original of anything if you can help it!), you will see an installer program. Just launch this program and select the diskette or hard disk containing the system for Tops installation. That's it! When you re-boot, you will see a message asking if Interbase (a Tops record-keeping package for use in a PC/Mac network) should be installed. After responding, you are greeted with a second request for installing Tops. Upon subsequent re-boots, you will not be required to re-answer these questions.

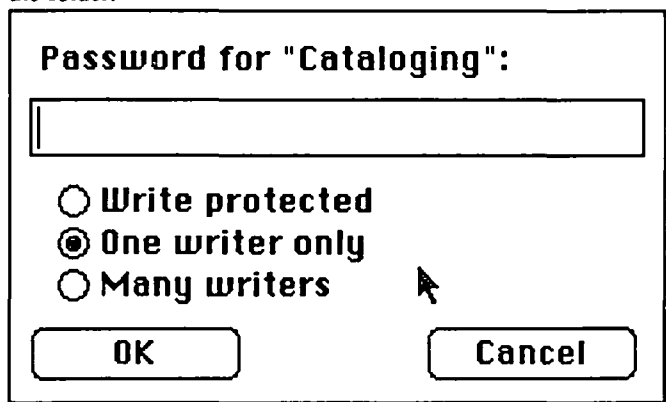
Installation on the PC is a bit more complicated but Centram has automated the process to a substantial degree. To begin with you must open the PC to install the ATalk card. This may take fifteen or so minutes. To install the software, you run a TOPSINSTALL program on the supplied disk. It will create a Tops directory and copy the needed programs to the directory. If you have a lot of cards in your PC, you may find hardware conflicts with the ATalk card. Centram allows you to "reconfigure" the card so that it has a different address, uses a different interrupt and one or two other arcane characteristics. To do these changes requires moving a couple of jumpers on the card and re-writing one or more text files that tell the PC what is where and what it is called. Fortunately, for most users the standard settings will do fine.

Using Tops. To get things working, someone must Publish a folder or sub-directory. From the Mac this is a snap. Selecting the Tops DA, you get the following window:

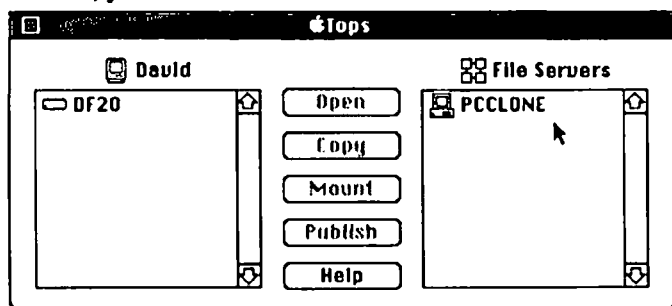


Select a folder and click on Publish. As you can see in the leftmost window above, the usual folder Icon changes to a contd.

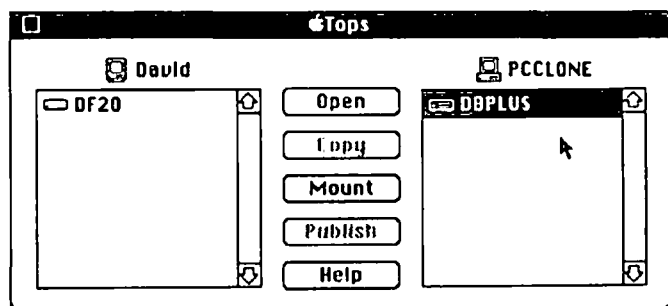
Tops network icon, indicating the Graphics folder will be accessible to other networked stations. If you want restricted access to the folder, just hold down the Option key when you click on Publish. A second window, shown below, appears allowing you to set read only status (Write protected), to allow for one writer only, to permit read/writing by anyone, or to enter a password needed by someone wanting access to the folder.



Mounting a published volume is just as easy. The same DA window appears. The right side contains the names of all devices with published volumes. In the following Tops window, you see that the device PCCLONE is available.



After selecting and opening a device, you see a list of published volumes in the right hand window. I had previously published the PCClone sub-directory DBPLUS, as shown below.

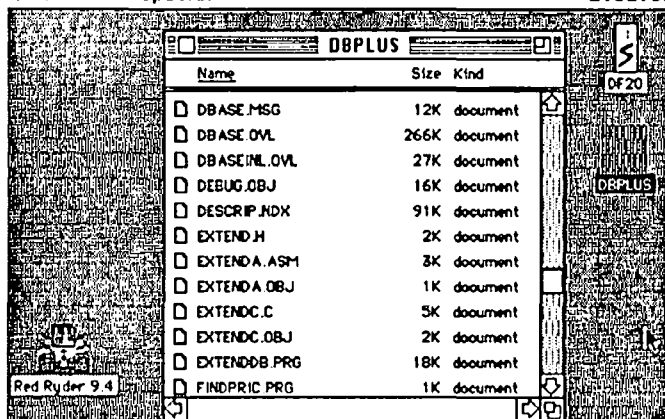


Selecting this volume and clicking on Mount brings the DBPLUS directory on a PC Clone to the Mac desktop! Users of Dbase may recognize a few of the files listed in the DBPLUS directory. Again, you can not run DBase on the PC from the Mac. However, you can run DMac III, a Macintosh program that gives you Dbase functionality, using Dbase programs you find on the PC. You can move them to your Mac hard disk just by dragging their Icons from one window to another. You can open a 123 file from within Excel, edit it

and save it back onto the PC hard disk. You can write a Word document on the Mac, run the Word Convert utility supplied by Microsoft and drag it onto a PC volume directory. The new version of Word, version 3, to be demoed at our December meeting, will allow you to write Word files on either Mac or PC which can be read directly by the other (no more converting).

Edit View Special

2:32:52



Publishing on the PC is a bit more complex. You can use a menu driven program supplied by Centram or you can type in a series of commands which do what the Mac does in a couple of mouse clicks. The first time you publish a sub-directory, you must make it "write accessed". When the directory is opened on a Mac, a "Desktop" file is written to the PC directory. This file is used to hold information needed in the identification of icons and their positions, etc. Thereafter, the directory can be read only or read/write accessible.

To move files quickly between stations, Centram has built a quickcopy option into Tops. If you look at the DA window shown earlier, you will see a dimmed Copy button. After Mounting a volume and opening it and selecting files in it, the Copy button will be darkened. If you click on it, the selected files will be moved from the Publishing station to the Mounting station.

Another nice feature offered by Tops is called Quick-View. From the DA you select a file and click on the Help button. You will be greeted by a view of the first few lines of the file. If it is a text file, you may see several "unprintable" characters. This has nothing to do with the WAP journal being a family magazine. By "unprintable" I mean, control codes that do not cause a letter or number to be displayed but are used for changing fonts, type styles, etc. Tops offers you the option to Copy such files in a filtered way, removing the unpleasant control codes. Of course, if you are moving a word processor document from one machine to another, the preferred choice would be to convert the codes to match the receiving program. For example, if you are moving a Word file from PC to Mac, you want to keep these codes. You need to use Microsoft's Word Convert program to turn the PC file into a Mac formatted one.

Support. The Mac package comes with a 77-page manual while the PC version requires a 133 page manual (what did you expect?) The manuals are easy to follow and contain both a table of contents and an index. They begin with an overview of networking and define terms you will need. The contd.

PC manual has a lot more to explain. It tells you how to install the ATalk board and how to test and reconfigure it.

So far as I can tell, Centram does not offer an 800 number to help with problems. I did call about a couple of things and received excellent help and quick response.

Even though the package is easy to use, Centram has included help files to prevent your having to return to the manual to answer common question. By selecting Help at different stages in the Publishing and Mounting process, a series of scrolling windows appropriate to your situation appear. You can even determine the names of all other stations on the network using your published volumes.

Things I'd Like to See. One area where Centram is a bit weak is PC support for the Laserwriter. If you are going to have PC's attached to Mac's there is a good chance you will also have Laserwriters. If so, you need to offer the PC software which does what the Apple Laserwriter and LaserPrep files do, convert text and graphics to postscript. Centram does include a TPRINT program for the PC which downloads a PostScript file from the PC to the LaserWriter. What they lack is software for creating the PostScript in the first place. If you are using one of the few PC programs that generate PostScript (Microsoft Word does, for example) then this presents no problem. If you don't use such a program, you will need it! Centram has indicated they intend to release a separate, extra price utility (TOPSPRINT) for that purpose.

As far as I can tell, the Tops software does not have a provision permitting a PC to print to an Imagewriter II with an Appletalk card. Centram should include an MS-DOS routine to provide this capability.

Possible Gotcha's. To be candid, I have had several problems using Tops. After the first problem, which resulted in the disappearance of an application, I contacted Centram. They rushed out a revised version of the software. However, with the latest (September) release, I have still seen a "funny" or two. On one occasion I published three folders from Mac A. On Mac B, someone did a copy from one of these folders to their hard disk. Meanwhile, on Mac A I was moving a bunch of files between two diskettes. Suddenly, the names of all the files disappeared from beneath their folders! Closing and opening the diskette icons did not return the file names. After rebooting, however, I determined that the names were not gone. It seemed to be a Finder problem of some kind. There was no damage to any file, just a loss of a little more of my already too scarce hair...

When a client has mounted a volume, the server will find significantly degraded performance. I have seen this with just a single client; I can only guess it would be worse with several clients reading from the server's disk. Things could get so slow that windows would fill in in pieces, a line here a box there. While this does not happen all the time, it is an annoyance. I have only worked with one other competing product, MacServe, and it shares this distracting characteristic.

When constructing a network, you need to consider what happens when the server system goes off-line, due to a bomb or need to reset. With Tops, there is no automatic re-loading of the network as it existed before the server went out. That is, when the server resets, someone must manually re-publish the volumes that were in use before the clients can get going again. With a product like MacServe, this isn't necessary

since their volumes are available from the moment the system re-boots. The Centram folks have talked of an auto-loading option to help the recovery process but it must be a considerable time away from production.

One option for publishing allows several people to write to the same folder at once. In fact, it even lets several people change the same file at once. Of course, the last one saving is the only one whose changes are retained. Needless to say, this can be a problem and you may not want to allow it when deciding what option to use when publishing. (I believe that only Omnis 3+ correctly handles a networking situation with several people updating the same file simultaneously.)

One reason for allowing several people "write access" to the same folder is to let them use a single copy of one application. It is somewhat wasteful of disk space to have to keep multiple copies of a bunch of commonly used programs, just so different people on a network can use them. (Of course, copyright rules require that you buy multiple copies or have a site license arrangement when networking). However, keeping multiple copies on the hard disk does seem wasteful. Unfortunately, some programs (Word and MacPaint, for example) create temporary files on the volume where they are stored. (Other program create these files on the start-up disk, a place that is unique to each user.) You can not use these programs from write-protected disks. For these cases, you must allow people "write access" if they are to share them. While it isn't clear to me how to make this work, it seems possible that one person could inadvertently end up using one of the temporary files created by someone else and losing a lot of work! This is not exactly a Tops gotcha. I am only raising the possibility that the option of allowing many people to write to the same folder could result in problems.

Unfortunately Tops does not allow two users of the same application on a single hard disk at the same time. That is, User A publishes a volume with MacWrite in it and tries to Open it. User B gets a message that the application is in use. This is a critical limitation that you need to know about. It means that you will need to store multiple copies of applications, preferably in different folders, if users without hard disks are to use the Tops file server to access a single hard disk driving the network.

Summary. I am impressed with Tops. I like its ease of use. For people in a PC and Mac environment it seems an ideal way of communicating. The documentation is clear and the programs a snap to use. Centram's upcoming PostScript writing program for the PC will help complete the picture. Centram, 2560 North Street, Berkeley, CA. 94710 Phone: (800) 222 TOPS. Price: \$149 per Mac, \$389 per PC.

dMac III. Although the release of Ashton Tate's long awaited dBase for the Mac is imminent, Format Software has been offering dBase compatibility to Mac owners for some time. Their product, developed in Europe, is a somewhat Maclike clone of dBase. It offers virtually complete conversion of dBase files and programs from other operating systems to the Mac. I have moved a 300K database and several programs to the Mac and found them to run many times faster on the Mac than on the PC! If you need to run dBase programs accessing dBase data bases, you want to know more about dMac.

contd.

This review is written assuming you are familiar with dBase and that you have need to work with dBase files and programs in a Mac. If you are not limited to this alternative, I suggest you consider other, easier to use though almost as powerful, database packages before choosing one. dBase III+, although somewhat more friendly than early incarnations, is very much a command language system. It is extremely powerful. However, in an *Infoworld* review several months ago, the point was made that a package such as Omnis 3 on the Mac will better serve most users than spending the effort to master the more powerful though difficult to learn and use dBase on other machines. If you need dBase power, you may want to examine dBase for the Mac, due out by the time you read this, to see if it is an easy to use alternative.

dMac supports all of the dBase file types (database, index, memo, label, report, format, program, memory) as well as all of the variable types (character, numerical, logical, date, and memo). However, only the database and program files can be ported into the Mac from other systems. The other files must be re-created while running dMac. This is generally not a real problem since the other file types have commands in dMac to create them.

Due to the Mac interface, dMac on the Mac is easier to use than dBase II or III. dBase III+ has incorporated some of the pull-down menu ease. Most of the commonly used interactive commands are accessible from a menu. When a file is in use, the following commands can be issued:

Commands	
Assist	⌘1
Browse	⌘2
List	⌘3
Display	⌘4
Display Structure	⌘5
Display Status	⌘6
Display Memory	⌘7
Append	⌘8
Edit	⌘9
Clear	⌘0
.....	
Last Command	⌘L

If you enter an incorrect command, dMac offers a window which allows you to edit the command line and retry the request. Errors in entering dBase commands can be easily corrected using standard Mac text editing by pointing, selecting and clicking. One pull-down menu option is "Last Command" which (as you can guess) causes the last command given to be reissued.

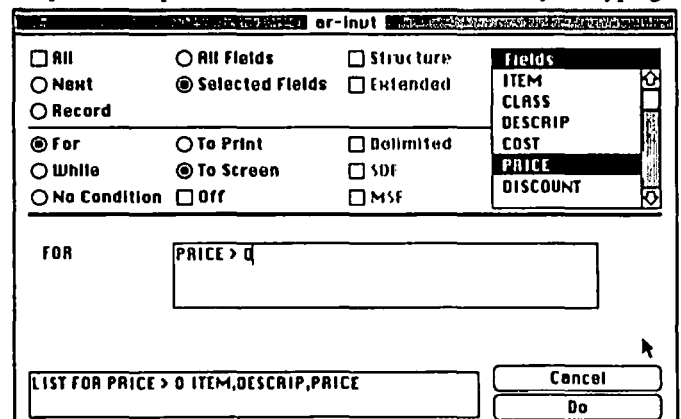
The dBase environment is defined by a series of SET commands. Their status can be determined using the DISPLAY STATUS command. In dMac a pull-down menu allows you to quickly observe or change the status of these conditions.

You can enter and exit the dMac editor very quickly as you create and modify program files. I find the standard dBase editor awkward by comparison. Since both dMac and dBase editors have a very limited capacity (about 32K of code), you will need to use an editor with greater capacity for larger programming tasks. dMac can be run under Switcher, permit-

ting you to use an editor such as Apple's Edit (supplied with the dMac disk) in a separate but instantly available memory partition.

The major difficulty with a command language system, is remembering the names of the commands, their syntax, and the names of the variables going into the commands. To facilitate this, dMac offers its version of the dBase ASSIST command. Most dMac commands can be entered directly from the Assist menu. It contains lists of both commands and of variable names. Assembling a dMac command is as easy as clicking on menu options. In the Assist window shown below, I have selected the List command, clicked on a couple of variables I wanted in my list (ITEM, DESCRIP and PRICE) and selected the FOR option to limit the listed records to only those meeting the FOR restriction,

in this case PRICE > 0. The dMac command appearing at the bottom of the window could be entered directly with the keyboard, but the Assist option greatly simplifies the process and reduces errors caused by mistyping.



One feature which dMac does not provide which would simplify operation is remembering screens for review by reverse scrolling. This capability is provided in terminal packages like MacTerminal and Red Ryder and in the Systat statistics package. It is particularly valuable in a command language system where results scroll off the top of the screen. A list of selected fields for selected records, for example, could be reviewed after it is been completed. Your only option is to stop the listing with a command key or to send the list to the printer.

The MODIFY STRUCTURE command is used to change the definition of a file, the field names, lengths or types. The following window appears for that purpose. In dBase you move through this kind of display, item by item, using the tab key. In dMac, you can click on the field you wish to change and then modify it.

Converting from dBase. A major concern to a dBase user considering dMac is the conversion of existing database files and programs. dBase has other types of files (memory, index, reports, etc.) but these can not be directly converted. Generally, this represents no great problem since databases can

contd.

Fieldname	Type	Len	Dec	Fieldname	Type	Len	Dec
ITEM	C	6	0	PACKING	C	3	0
CLASS	C	1	0	SUGG	N	7	3
DESCRIP	C	25	0	VEND1_NAME	C	12	0
COST	N	6	2	VEND1_DZ	N	6	2
PRICE	N	6	2	VEND1_EA	N	7	3
DISCOUNT	N	6	3	VEND2_NAME	C	12	0
ONHAND	N	5	0	VEND2_DZ	N	6	2
ONORDER	N	5	0				
ORDERPT	N	3	0				
ORDERQTY	N	5	0				
LAST_ACUD	D	8	0				
PCS_ACUD	C	5	0				
ALOC	N	5	0				
YTDQTY	N	6	0				
SUPPLIER	C	6	0				
CODE	C	1	0				
SEQ	N	5	2				
LDATE	C	8	0				
DATE	C	8	0				
UPARTNO	C	8	0				

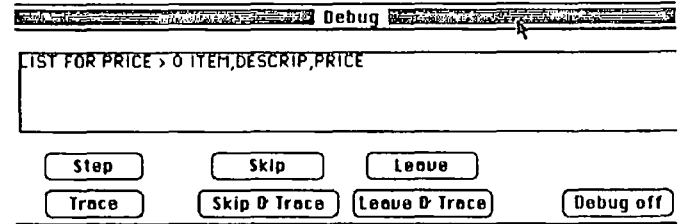
be re-indexed and memory files re-generated. Format has seen to it that program files require no special attention. Move them to the Mac in any convenient fashion (using Tops for example!) and then enter the dMac editor and load in the file. When the dMac editor saves the file, it will modify the files icon to look like a dMac program file. For larger programs that won't fit into the dMac editor, use any SetFile utility to change the file type if you want the cute dMac icon.

Use of dBase data files requires a little more effort since they must be converted. dMac includes an easy to use command for this purpose. You just give the input file name and the Convert command does all the rest, including appending the ellipsis to the end of the file name. A small irritation. Format's Convert command takes the entire dBase file name and appends a "...dbf" to it. Since dBase files already have a ".dbf" at the end, this results in files like "file.dbf...dbf". The documentation does advise you to remove the ".dbf" first; however, they should change their Convert command to eliminate the duplication of the ".dbf". This same command can be used to convert dMac to dBase II or III formats.

Differences Between dMac and dBase. A major difference is in file capacity. dMac allows for files as large as 32 Megs, assuming you have a hard disk of this size. A file can contain 16 million records, each of which can be 32K in size. dBase III can handle a billion records per file each of which is a maximum 4K in length. A dMac record can have up to 2000 fields of a maximum of 253 characters for character data or 63 places for numeric data. A dBase III can handle a maximum of 128 fields per record. Up to 10 files can be open at once. According to Format, the dMac index files are more efficient and take up less space than the dBase equivalent.

Debugging. dMac offers an easy to use debugger. By selecting the Debug switch, a window appears which allows you to step or trace your way through a program. As you can see, the current command is displayed. The results of the command can be seen behind the debug window in the main display window. Clicking STEP takes you through the program one step at a time. Clicking TRACE causes the program to execute continuously while displaying each command. SKIP allows you to execute an entire DO...WHILE loop without having to step through each line. LEAVE

allows you to complete the loop once you have begun single stepping within it. The debug window can be moved behind the main display to allow you to respond to input requests.



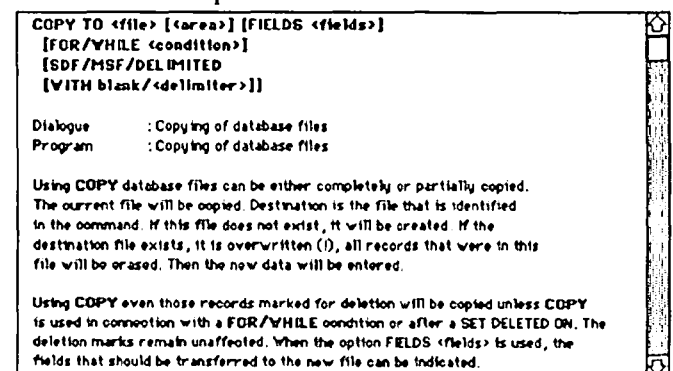
Documentation. Format has gotten some bad press (*Infoworld* and *MacUser*) regarding their documentation. This criticism is deserved, to a degree. You won't learn how to write dBase programs from their 1 1/2" thick manual. There is a Table of Contents and a 14 page index that contains most of the entries you will need when looking up topics. I think section tabs would make it easier to locate specific chapters since the page numbering is not consecutive but restarts at the beginning of each section.

Section A is a Preface while B is a 130 page tutorial on dMac basics, that is, how to create files, enter data and produce reports. It does not teach you how to write dBase programs. Section C is a brief reference section including an alphabetical listing of all commands separated by type. The 252 page section D is a detailed alphabetical compilation of all commands. Each command is described and an example of usage provided. Section E (78 pages) does the same for dMac functions. The appendices cover special topics such as the Assist and Browse commands, the Debugger and the Editor and differences between dBase and dMac.

The page numbering system is a bit bewildering. The basic idea is lettered sections, A, B, etc. with page numbers like A-5, B-10, etc. Unfortunately, section C actually appears as CI, CII and CIII. Section E is followed by Appendix A (page numbered Appendix A-1, etc) through Appendix H. This is followed by the Index, page numbered as if it were section F.

The manual was translated from German and the grammar occasionally makes you chuckle. For example, "Please close every input with 'Return'". This means, when entering data into a field, complete the entry by hitting the Return key. In general, the ideas are clear enough, however.

One thing Format does offer, by way of support, is on-screen help. A scrolling display, like the following, is available by clicking on your choice of command word selected from an alphabetized list of all commands.



contd.

Gotchas. There are a few problems or unusual aspects of dMac you should know about. First, just like the dBase built-in editor, the dMac editor only handles program files of about 32K of text. This is adequate for many problems but not for all. Fortunately, dMac works with Switcher and includes the excellent Apple editor, Edit. By running dMac with Edit in a second Switcher partition, you can quickly make changes to the largest of programs, then return to dMac to try them out.

For some inexplicable reason, the dMac authors choose to use the ellipsis ("...") as a part of their file names. This awful choice is a throwback to MS-DOS which uses file names with an eight character prefix, a period and a three character suffix. Not only do they use the ellipsis, it must be typed as Option - semicolon, not as three dots! This is just awful and should be eliminated with extreme prejudice. If you forget to use the ellipsis when renaming files, you will be confused! It won't recognize the file...

Since dBase and dMac are command language systems, you need words to identify the folder in which a file is located. The MS-DOS words for doing this are retained in dMac. You need to use SET PATH TO and then use a file name beginning with the volume name, a colon, and any folder names also separated by colons. Unfortunately, the SET PATH doesn't always work the way I thought it would. If you do a COPY command to copy a file, the copy always seem to end up in the dMac folder regardless of where the original was or the SET PATH has been set.

dMac does not support mixed fonts in its output. Of course, only monospaced fonts like Monaco and Courier are needed to assure that output lines up within designated columns. To obtain a hard copy, you use the SET PRINT ON command. After activation of this option, all output goes to the printer as well as the screen.

Summary. Do you need dMac? If you have to shuttle between Mac and PC and you need dBase compatibility, dMac provides it. It does so with some ease of operation over the PC environment. If you have never used a database and are choosing one on the Mac, you may want to consider more Mac-like alternatives first. While dBase was an advanced program several years ago, the Mac's easy to use interface has been translated into other relational database programs such as Reflex, Overvue, Omnis or Helix.

At \$495 dollars, I have to consider dMac a bit pricey for a product, admittedly quite powerful, from a small and more or less unknown company. To their credit, Format has recently offered substantial discounts to users' groups. The real thing from Ashton Tate costs about the same for the Mac. What's more, a \$295 alternative, Dbman from Versasoft, was recently announced with claims of dBase file and program compatibility. The competition can only help the consumer. Format Software, Inc. 11770 Bernardo Plaza Ct., #208, San Diego, CA. 92128 Phone (619) 487-6946.

(Ed. Note: Dear David, what are gotchas? Something one wears in winter to keep warm?)

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PASCAL NEWS

by Robert C. Platt

November meeting. The topic for November was Object Pascal. Mike Hartman demonstrated MacApp which uses the Lisa Pascal version of objects to implement an automatic application generator. Object Pascal is also implemented by TML Pascal Version 2.0. However, the MacApp class library is specific to Lisa Pascal and does not appear to be usable directly in TML. Remember that the Pascal Interest Group (PIG) meets on the third thursday of every month in the WAP office. The next meeting is at 8 p.m. on January 15. Be there!

TML Pascal Upgrade. TML has once again "improved" its Mac implementation. The latest version is 2.0.2. TML offers free upgrades to those who send back their 2.0 disk. Also see the companion article for a nifty example of using procedure variables in TML Pascal.

The case statement. Several begining Pascal programmers have asked a number of questions regarding the *case* statement. *Case* is a control structure that diverts the program along one of many possible paths depending upon the value of an expression. The expression does not have to be an integer. It can be any scalar type, including a character or an enumeration.

The following program illustrates a *case* statement that is based upon a character expression. The program turns your computer into a piano keyboard. Depending upon which key is pressed a different note will sound. A series of alternative statements appears between the keyword *of* and the keyword *end*. These statements specify what action is to be taken for different expected values of the expression. Each expected value of the character variable *ch* is represented by a constant. When the value of *ch* matches that constant, the statement following the colon on that particular line is executed. For example, when *ch* equal the letter a, the computer will play a note of frequency 131 Hertz.

Notice an important difference between MacPascal and Apple // Pascal: When *ch* has a value which does not match any constant, MacPascal will terminate execution with an error. However, Apple // Pascal will continue execution by skipping to the statement following the *end*. To avoid an error in MacPascal, the statement *otherwise ;* was added to say that nothing should be done if *ch* does not equal any of the above-listed values.

If you want to learn more about generating music on the Mac or Apple, see Ray Hobbs' Musical Apple column which appears regularly in the WAP Journal.

```
program Piano; {MacPascal Version}
{Illustrates case statement - Washington Apple Pi, Ltd}
var ch : char;
    savevol : integer;
begin
    getsoundvol(savevol);
    {remember the volume setting from the control panel}
    setsoundvol(7);
    writeln('play keys -- type / when done');
```

```
repeat
read(ch);
    case ch of
        'a' : note(131, 255, 5);
        's' : note(139, 255, 5);
        'd' : note(147, 255, 5);
        'f' : note(156, 255, 5);
        'g' : note(165, 255, 5);
        'h' : note(175, 255, 5);
        'j' : note(185, 255, 5);
        'k' : note(196, 255, 5);
        'l' : note(208, 255, 5);
        ';' : note(220, 255, 5);
        "" : note(233, 255, 5);
        otherwise ;
    end; {case}
until (ch = '/');
setsoundvol(savevol) {restore old volume}
end.
Program Piano; {Apple // Pascal}
var ch : char;
begin
    writeln('play keys -- type / when done');
    repeat
        read(keyboard,ch);
        case ch of
            'a' : note(20, 30);
            's' : note(21, 30);
            'd' : note(22, 30);
            'f' : note(23, 30);
            'g' : note(24, 30);
            'h' : note(25, 30);
            'j' : note(26, 30);
            'k' : note(27, 30);
            'l' : note(28, 30);
            ';' : note(29, 30);
            "" : note(30, 30)
            {otherwise clause is not available in ver 1.1
            of Apple Pascal}
        end; {case}
    until (ch = '/')
end.
```



MAPMAKER: A Review

by Jo Ann Goldberg (with a few comments by David Morganstein)

Do you remember the map of United States that hung over the chalkboard in everybody's grade school classroom? The teacher would pull down the map like a window shade, covering that endless long division assignment, signaling the start of the geography lesson. It was a beautiful map, a pastel patchwork of America. States were labeled in clear and unpretentious letters. Our nation stood out, bordered by bland and colorless countries to the north and south, and featureless blue oceans to the east and west.

It was an abstract and effective view of an aspect of geographical reality—rid of distracting details; a simple and significant visual statement dismissing the incoherence of political events, facts, and ideas. To this day, memory of that map fills me with a simple and pleasing image, a picture of America—an idea portrayed in a glance.

Thus, I was especially intrigued by the possibility of creating my own maps of the US as well as 176 other countries using MapMaker 1.1. The program was developed by Daryl Scott and is sold through Select Micro Systems, of Yorktown Heights, New York. Mapmaker requires a Macintosh or Macintosh Plus computer with a minimum of 512K RAM and a single disk drive. (List price for a set of 4 disks is \$295. Additional data disks of zip code, marketing areas, and census tract data are also available.)

MapMaker offers an extensive set of map files—similar to clip art files—including individual maps of the US 50 states. Individual states can be depicted by county as well. The program also includes maps of ninety Major Metropolitan areas, map files of 176 world nations, and 169 of their capital cities.

You create maps in one of two ways. First, you can use a Mac painting consisting of outlines of areas. You can use MacPaint or FullPaint to create this outline image and then use MapMaker to assign labels and values to the areas for shading and printing. Second, you can select from among the boundary files included in MapMaker. You can pull boundaries from files describing counties, states or countries. Again, after the outline is complete, you can add text labels, assign values and shade the map. Third, you can use pre-drawn maps and incorporate new variables of interest to you.

Once you have created a map, you can then use a wide range of 1980 US Census data (in such categories as household income, population density, and labor force distribution) and world population statistics to express data relationships in the maps. Or, you can enter your own information about the individual states, counties or countries. For example, selecting the US State map file, gives a map of the country with each state labeled. There is also a legend which can be modified. By selecting a US Census population density file, population differences can be depicted through map shades and symbols. With MapMaker you can also create your own data base or use preexisting data bases from other programs. The program is like other graph programs. But, here instead, data categories are represented by differences in shades or symbols.

The MapMaker program is fun to play with. The concept is intriguing. But it has not yet been fully realized. I have several concerns. Some of my concerns have to do with the program itself: others with the current state of computer art. Here's what I mean:

A map program is foremost a collection of pictures and must be judged on its graphics. A picture summarizes a bundle of information or a complex idea through visual shorthand. It works well (or poorly) when a viewer can easily grasp this summary in a glance. Simply stated, ugly pictures are too hard to "read." They are unpleasant to look at. They repel the eye while we try to find the important information. The beautiful maps of our elementary school classrooms and the vivid weather maps of USA Today are easy to "read." They invite us to gaze upon lively and pleasing shapes. We quickly and easily digest large concepts and small details.

The maps produced by MapMaker provide us with the concept of effective pictorial representation but not the reality. Country, state, and continental borders printed on an Image-writer or a LaserWriter tend to be jagged and thick edged. State labels, two letter abbreviations, stuck onto the states like postage stamps, do not contribute to a coherent picture. The shades, symbols, and textures used to represent state population differences clash and make the final picture difficult to read.

This problem is not with the program but with the technology. We cannot yet create and print pictures equal to the typographer's output on our Macintosh or LaserWriters. In time, the technology will permit us to create aesthetically effective maps. Still, MapMaker should be held blameless for the limits of existing hardware. There are problems with the program as well which should be pointed out and corrected.

It needs to be emphasized that while the program problems are many, the concept of a map making program capable of all that MapMaker provides is superb. It is, thus, well worth an indepth discussion of MapMaker in this and in my next review. However, let me now take you through the steps of creating a map.

The underlying procedure is fairly straightforward. Once having opened the program, you select "Create Map From Boundaries" from the main menu. You are then asked if you wish to choose maps of continents, countries, or subsets (states of the US, or contries of individual continents) from each. If you select a subset of US states, you will be shown a list of states and asked to select those you wish to display.

At this point, the procedure can be unnecessarily slow. For each choice, you must click on the state name and then on a select button. The process must be repeated for each state you identify. That means, 30 actions are performed to select 15 states.

Having selected the states, you size the map. Maps can be displayed at full page or reduced to any size less than full page. You are then presented with the selected set of states, labels and a legend. The legend can be resized, reconfigured or contd.

completely eliminated. The procedure of editing the legend seems unnecessarily complicated: some editing procedures are classified under the edit heading while others are classified under the display heading of the main menu.

Another problem I would like to see eliminated in a later version of the program has to do with the map sizing feature. If you make a map of the US, for example, at 2/3 reduced size, our nation will appear buried under a jumble of 12 point size state names (the point size used for full page display). If you forget to change the fonts or their sizes before creating the map, the labels can be resized only one by one. A tedious process for our continental 48. The program needs the text editing option—"select all" to eliminate an otherwise tedious task.

After a map has been drawn, you may need to move it around to see various parts of it. MapMaker does not use MacPaint's grabber or MacDraw's scrolling elevator bars to do this. You must select a window which identifies the new center of the display. After this selection, the map is redrawn, centered at the point you select. This redrawing can take as much as ten or fifteen seconds. Increased speed and a more traditional approach to moving a graphic would be helpful

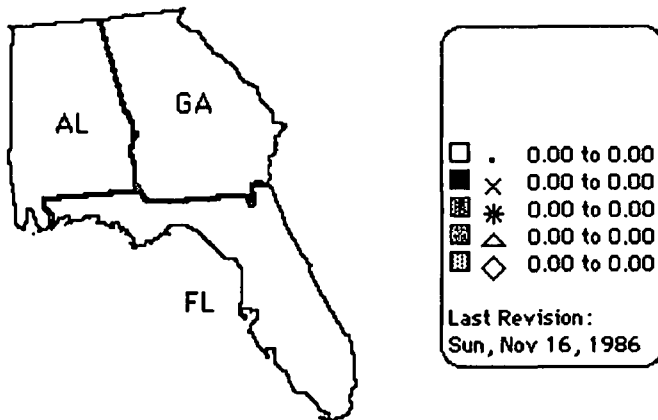


Figure 1
MapMaker Tutorial Map

Figure 1 depicts the map created in the tutorial. The ragged and uneven outer edges of the states are pretty unappealing. The map can be saved as a MapMaker as well as a Macpaint file. You can then close the MapMaker program, open up Macpaint, call up, and then modify the map using Macpaint tools. Figure 2 depicts the tutorial map modified in Macpaint. Creating the more pleasing effects of Figure 2 took about 45 minutes. The next generation map program should eliminate this tedious step.

A better approach to the creation of a graphic would have been to use the PICT format for the maps instead of the bit-mapped MacPaint image. The edges of objects would then appear smooth when printed on a LaserWriter. In addition, the graphic would print out more quickly. As it is, a map can take as much as ten minutes to print on a LaserWriter.

Here are some comments on the manual: In addition to the online assistance, the 63-page instruction manual includes a logically written tutorial. But, information embedded in the tutorial is left out of the technical part, and vice versa. It might be better to have the tutorial and the technical sections be complete and functionally independent. Finally, the

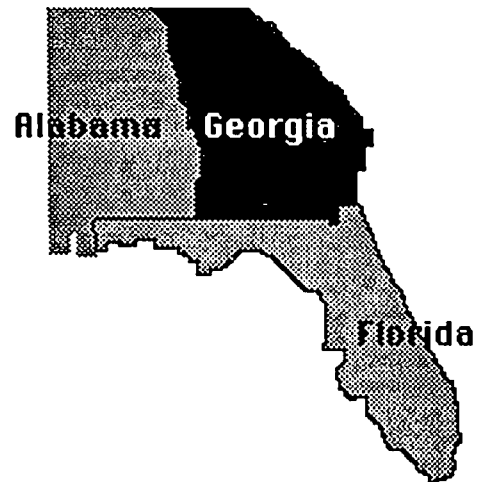


Figure 2
Map Modified Using MacPaint

section on importing and exporting data files is too sketchy and needs fuller development. At this time, it is not possible to easily import boundaries of objects in any form other than a MacPainting. Since boundary files are available from a number of virtually free information sources it would be nice to be able to translate these into MapMaker boundaries.

While the information is presented logically, a non-technical reader may encounter difficulties. In identifying some of the key ideas, it would be useful if MapMaker relied less on precise logical concepts and more on vernacular speech. For example, a selection called "Make a Map" is far easier to grasp than the program's current phrasing, "Create Map from Boundaries." Boundary is a logically inclusive term, covering the impressive range of applications the program can manage. It is an unnecessary terminological hurdle for the neophyte.

Mapmaker is a very interesting and powerful program concept. It is fun to learn, and play with. It is filled with attractive features. But, for now, I hesitate to recommend it. Despite the rough edges, however, I would like to continue to discuss some of its other powerful features in my next review. MapMaker is a program which requires the combined skills of a graphic artist, a typographer, a manual writer and editor, as well as the many computer skills of Daryl Scott. It is the combination of all these talents that will make MapMaker reach its full potential. I await that with interest and enthusiasm. ☺

HOLIDAY GREETINGS

DEVELOPER'S VIEW... Graphic Programs ...

by Jim Lanford

In the beginning there was MacPaint™. Then came MacDraw™. Many of us did not find MacDraw indispensable until the LaserWriter was introduced. MacDraw's objects are displayed at 72 dpi on the Mac screen and 300 dpi on the LaserWriter. MacDraw is probably one of the most widely used but least talked about "desktop publishing" programs.

The Macintosh owner now has several choices for graphic programs: FullPaint™, GraphicWorks™ (ComicWorks™), SuperPaint™, and MacDraft™. I have played with them all, but none has everything I would want in a graphics program.

I would like bit mapped graphics programs to have a 300-dpi mode. Although it would be slower, it is necessary using the LaserWriter. Last January at MacWorld Expo in San Francisco, everyone was promising a 300dpi mode by summer. If I had known there would be such a long delay, I would have written one. DigiBase™, one of the packages we wrote, stores and retrieves 200dpi and 300dpi bitmaps complete with scrolling and CCITT group 3 compression.

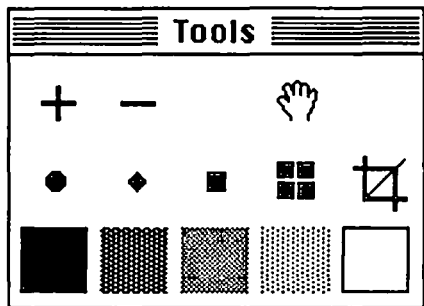
FullPaint (v1.1) is a very nice program. Because of the similarity to MacPaint, I have never needed to look at the manual. The program needs a 300dpi mode and the ability to use an enlarged window on the Radius Full Page Display™ or Magascreen™.

GraphicWorks does work with the Radius FPD. Its ability to keep text as an object is nice when using the LaserWriter. I also like the multiple bitmaps objects. A 300dpi mode in this program would make it a winner.

SuperPaint seems to contain all of the features found in MacPaint and MacDraw in one program. SuperPaint looks excellent. It works nicely with the Radius FPD. Only time will tell, but it might be the Graphics program that I use most. SuperPaint has a 300dpi mode called LaserBits, but it currently only allows a small image to be edited at one time. If this feature is expanded, this program will become a hit in the desktop publishing area as well as a general graphics tool.

MacDraft. Some of our customers swear by MacDraft, others swear at it. Since we do not own it, I won't comment further except to say it is evidently an enhanced Draw type of program.

MacScan™. New Image Technology, Inc. includes software with their MacScan scanner. There are a few graphic tools to manipulate a 300 dpi image.



Programmers can get the source code for the MacScan SCSI/Scanner driver. There are rumors that there is a 300dpi

paint program which will be compatible with this scanner.

C-Scan™. Abaton has finally shipped version 1.0 of their C-Scan to owners of the SCAN-300 scanner. If you haven't received yours yet, call them. It seems to work well, and also has some 300 dpi tools. We have not used it much because the 90 seconds (or longer) it takes to scan an image seems like forever compared with the 15 seconds that MacScan takes.

LaserServe™. I mentioned in my last article that Infosphere had just shipped LaserServe, a desk accessory print server for the LaserWriter. It works with every piece of software that I tried which uses Apple's standard LaserWriter driver. Unfortunately this does not include PageMaker or Just Text. It does include Ready-Set-Go 3.0 and RagTime. I recommend LaserServe if you are tired of waiting for the LaserWriter. It does not make the LaserWriter print any faster, but it gives you your Macintosh back while your LaserWriter is printing.



Don't you think that their Icon looks more like a tractor than a dragster?

TOPS®. We hooked Centram's TOPS to LaserServe™ our AT "Klone" which we have interfaced to a 68020 based single board computer for one of our customers.

All of our programmers prefer the Macintosh as their workstation. With TOPS, we can publish the Directory with the source files, using ResEdit, fill in the file creator, and double click the document for editing on the Mac. The InterBase program hides all of this from the AT. Now only compiling and linking are done on the AT for this project.

More Cheap Hard Disks. Several WAP members started calling around looking for \$300 Tecmar hard disks. I did not mean to imply that they would be in large supply. At Micro Dynamics, we can often spot a trend before most WAP members, and I wanted to alert everyone to falling disk prices. In the first quarter of next year, we should see 40Meg SCSI drives in the one thousand dollar price range. This will put downward pressure on the current crop of 20Meg drives, and the \$300 Tecmar drive I was offered was just the start of the bargains you can expect to find on the older, non-SCSI, hard disks.

Companies Mentioned:

FullPaint: Ann Arbor Softworks 313/996-3838

GraphicWorks: Mindscape 800/221-9884

SuperPaint: Silicon Beach Software 619/695-6956

MacDraft: IDD 415/680-6818

C-Scan: Abaton 415/463-8822

MacScan: New Image Technology 301/464-3100

LaserServe: Infosphere 503/226-3620

TOPS: Centram 800/227-3900

Jim Lanford is the architect of MacLabeler™, DigiBase™, PostHaste™, and other "yet to be announced" software for the Macintosh. He has implemented ground stations for Spartan 1 and other real-time 68020-based testing systems for various satellites. Jim is president of Micro Dynamics, Ltd., a D.C.-based consulting firm specializing in custom Mac software and advanced training. (301) 589-6300. ☺

LETTER TO THE EDITOR

Dear Editor,

I have been a "remote member" of WAP for over two years, and I have enjoyed the information and services that it provides. I am sending this letter to pass along to the other members some of my experiences with the Mac and its peripherals and software.

I started with a 128K Mac. I use the Mac in my work: report preparation, data analysis with spreadsheets, simple file-keeping, communications. These are some of the products I've used and my opinion of them.

- Super 5 external 400K disk drive by Ei-En Electronics, Ltd. - This was a "cheapie" external drive. It sounded like a threshing machine and sometimes performed like one. I vowed I'd never buy a "cheapie" anything ever again.

- ADC 1200-baud Modem (from DAK) - I then bought this "cheapie" modem, and it has worked faultlessly. I bought it based on the reviews in the WAP Journal—good move.

- Levco Monster Mac 2-megabyte upgrade - This was the best move I ever made. Working with the system folder and the application programs in RAM disk is fast and effective. The hardware is reliable.

- Mac Inker from Computer Friends - Don't buy this to save money (although you may); buy it so your printed material will always look sharp. I don't have to decide whether a particular letter or report deserves a new ribbon. I have three ribbons, and I re-ink them regularly.

- MicroSoft Word - I had a hard time learning this program, but it is so much better than MacWrite that I've never looked back. Learning how to use the "Running Heads" is a test of character, but the multiple windows and glossary make learning Word worth the effort.

- Boston II font - I was really sold on Geneva until I printed a report in Boston II font. If you don't have it, get it; if you have it, pay the \$10.50 shareware fee.

- Microsoft Multiplan - My spreadsheet needs are fairly simple. I once coded a discrete Fourier analysis on MultiPlan; most of my other spreadsheets are smaller and less complex. I've worked with Jazz and Excel, but MultiPlan is "good enough."

- Microsoft File - This is the only database program I've used. It is so simple to set up a new data base that it's criminal. Every time I do it I think of those poor slugs on IBM PCs who are counting characters for their field widths. "Are 15 characters enough for the middle name?"

- MCI Mail - This is an electronic mail service that I started using three years ago. It is straightforward and reliable, it provides all the service I (and the company I work for) need, and the cost is reasonable. The menus may test your patience, but you can count on the service.

- Red Ryder communications program - This program does everything that I need, well worth the \$40 shareware fee. The documentation is poorly organized and hard to piece together. The Macro Keys are so convenient that I've never bothered with the Procedures.

- Mac.Transfer by Southeastern Software - I used this to transfer files between my Apple II+ and the Mac. It worked as advertised once I shifted the Mac printer cable to the modem

port. It was very useful as I made the transition from the Apple II+ to the Mac.

- MacLightning spelling checker - I use the interactive mode when I'm typing up material that I've already hand-written. Otherwise I use it to check an entire (selected) document. The procedure of correcting spelling errors through the Word's Search...Change window is inconvenient but workable.

- TopDesk:BackPrint print spooler - This desk accessory works surprisingly well. It has some limitations, but with a little planning you can use it to advantage. It's easy to install and the documentation is well written.

- FullPaint - I just got this one. It is a "souped up" version of MacPaint. I am sending along a list of the many "options" that are available in this program. (Ed. Note: Those interested in a list of these options may obtain them from the office.) Good documentation—much better than that for MacPaint.

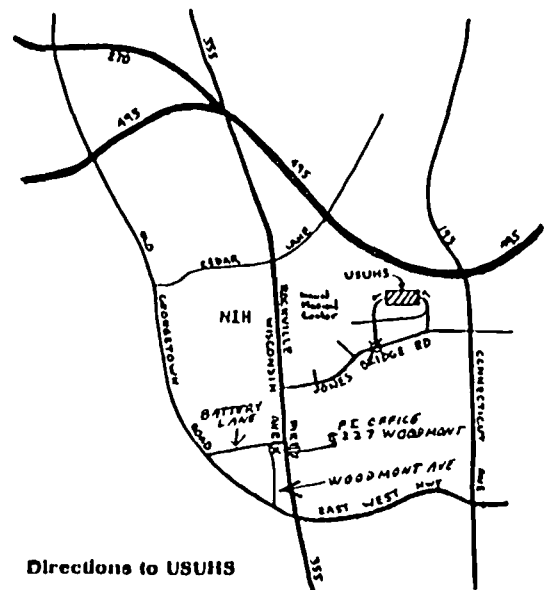
- MacForth Level 2 - I played around with this for a few months. Lots of fun, some frustration. FORTH is a fascinating language, and the folks at Creative Solutions really try to support you. I'm not a software developer, but I'd recommend this at least to casual programmers.

- MacConnection mail order house - The prices are reasonable, the order-takers are knowledgeable and honest, and the service is prompt. If I order on Monday, I get it on Thursday or Friday. I'm sold.

- Byte, MacUser and MacWorld - MacUser is the best Mac magazine. Byte is the best technical-level small computer magazine. Mac World is OK.

- Washington Apple Pi - What can I say?!? Truly a world-class users' group. I always enjoy the Journal; I wish I could attend the meetings. Keep up the good work.

Sincerely,
William J. Hayne ☺



GET THE PICTURE?

by Robert C. Platt

By now, most Macintosh programmers have at least played around with calling quickdraw routines from MS-Basic or MacPascal. Fundamental routines for drawing rectangles or text are usually given in the back of the manual and can be used without mastering the mysteries of *Inside Macintosh*.

However, curiosity eventually leads exploring programmers to question how the macintosh stores the graphic elements that are displayed in the "drawing" window of MacPascal or on the screen of MS-Basic. After all, the stuff on the screen seems to be able to be written out to disk in a consistent way when you (1) save it on the clipboard, (2) print in "standard" or "final" mode or (3) use MacDraw.

The MS-Basic manuals give a hint that something is going on when they allow things called "pictures" to be saved in string variables to be redrawn at a later time. I decided to explore pictures in depth as a part of the SigMac Programmers Group's efforts to write a lesson authoring system. The authoring system has to store screen displays for later use, and I wanted to use the Mac's ROMs as much as possible to store and retrieve the lesson screen displays. Pictures are a natural way to do this. In addition, by using the system's standard picture format, graphics could be imported from MacPaint and MacDraw through the clipboard.

A drawback in using pictures in the lesson authoring system is that the displays sometimes require action in the middle of drawing a picture. For example, all or part of the screen needs to be erased, or the display must pause for a student input. Picture *comments* can be used to meet these needs. The sample program below substitutes my action routine for processing comments in place of the standard routine used by the system. (The system's routine ignores all comments.) Every comment has a code number called its *kind*. My sample used the numbers 254 and 255. However, if you are going to use picture comments in a production program, be sure to register your comment kind codes with Apple to avoid numbers already in use by others.

Installing my custom routine required two steps. First, I placed a pointer to my comment processor into the variable *MyQDProcs.commentProc*. Then, I placed the pointer to my customized list of quick draw processing routines into the *grafProcs* field of my *grafport*. Because this field is local to each window or *grafport*, using a customized routine in one window does not affect quickdraw's behavior in any other window. I hope that this program is a useful departure for your own experiments with quickdraw routines and procedure pointer variables.

```
Program pictdemo(input,output);
(Copyright 1986 by Washington Apple Pi, Ltd.
illustration of TML Pascal 2.0 Procedure variables)
uses MacIntf;
var MyQDProcs : QDProcs;
    MyWindow : WindowPtr;
    MyPict : PicHandle;
    MyRect : rect; {rectangle of MyPict}
```

```
Procedure MyComments(kind,dataSize: Integer;
                    dataHandle:Handle);
var saveloc : point;
    savetx: integer; {save text transfer mode}
    s: string;
    {comment 254 erases window, 255 displays msg and
                                         waits}
begin
  if kind=255 then
    begin
      saveloc:=MyWindow^.pnLoc;
      savetx:=MyWindow^.txMode;
      MoveTo(1,saveloc.v+10);
      DrawString('Press RETURN to
                                         continue');

      Readln(s);
      TextMode(srcBic);
      MoveTo(1,saveloc.v+10);
      DrawString('Press RETURN to
                                         continue');
      TextMode(savetx);
      MoveTo(saveloc.h,saveloc.v)
    end
  else if kind=254 then
    EraseRect(MyWindow^.portRect)
end; {MyComments}
Procedure FillPict; {load up a sample picture}
begin
  DrawString('This is the first line. ');
  PicComment(255,0,nil);
  Moveto(1,25);
  DrawString('This is the second line. ');
  PicComment(255,0,nil);
  FrameRect(MyRect);
  PicComment(255,0,nil);
  MoveTo(1,50);
  DrawString('Get ready for full screen erase');
  PicComment(255,0,nil);
  PicComment(254,0,nil);
  DrawString('End of Test')
end; {FillPict}
begin
  SetStdProcs(MyQDProcs);
  MyQDProcs.commentProc:=@MyComments;
  MyWindow:=FrontWindow; {use TML's window}
  SetRect(MyRect,20,20,200,200);
  MyPict:=OpenPicture(MyRect); {record following
                                         quickdraws in picture}

  FillPict;
  ClosePicture; {stop recording}
  Writeln('Your picture is ',GetHandleSize
          (Handle(MyPict)), ' bytes long. ');
  MyWindow^.grafProcs:=@MyQDProcs; {install
                                         custom comment proc}

  DrawPicture(MyPict,MyRect);
  KillPicture(MyPict);
end.
```

THE BEST OF THE MAC ITEMS FROM TCS

by Bill Baldrige

Accessories

BILL BALDRIDGE ON 10/16

What a mundane term—ACCESSORIES. Is that anything like a handbag or a watch? Or maybe an air conditioner or cruise control? A more COMPUTER term would be "peripherals" or "hardware". Phooey. Anyway, on the assumption we're talking peripherals here—BCE just knocked \$100 off their price on the 5Mb Bernoulli box for the Mac—now \$499. I was so excited I drove down to 3233 K Street (during RUSH HOUR traffic) only to get the cold shoulder. Seems they don't like ALIENS in their midst, and ONLY will accept MAIL ORDER. So if you REALLY want one, either charge it or send a check. I can understand this—not only is the place like an adventure game to find, but it's a real RAT's Nest!

DAVID GURSKY ON 10/16

No Bill, we're not talking about peripherals that have their own board, like hard disks (okay, Bernoulli Boxes are technically floppy disks, but they're really in league with the hard disks). This board is designated for peripherals and other such things that can't be categorized anywhere else. This means mouse movers, carrying bags, tilt/swivel doohickies, etc. Peripherals like optical mice, trak balls, digitizers, etc., would go under "Other Hardware".

BOB MASSO ON 10/17

I am looking into the TRS/NEC portable computer, with the thought of using it as a data-entry device in places where carrying my non-portable MAC would be cumbersome. I would appreciate any comments from current owners of these little "accessory computers" as to how well you think they would serve in this function. (or HAVE served already).

RICK ROBINSON ON 10/25

The TRS model 100 series seem to make very good portable "data-entry devices." A friend of mine is a writer and uses a model 100 all the time to enter articles, etc. He is quite pleased with it, but uploads to a !#& compatible at home. I personally feel the Model 100 series computer would do well in the capacity you described. Go for it!

BILL BALDRIDGE ON 11/09

For lack of a better board to put this on, here's a short review of the happenings at the recent Micro Flea Market at the New Carrilton Sheraton yesterday (8 Nov). As usual, the place was packed to the gills, but with a little patience one could navigate the herd and catch a glimpse of the mostly IBM related displays—TONS of 'em. But there were small islands of Apple related products—expansion boards, modem boards, etc. Software was in abundance for most micros; I even copped a couple of cassette based games for my old TRS-80 Model I for \$2 apiece (and I got what I paid for. . .). The two highlights, for me (and why I'm posting this), were the tractor-feed Xmas cards and a bounty of Hayden software at fire-sale prices. The Xmas cards were in a variety of styles, and were \$7 for 20, which included tractor feed envelopes. Just before I exited, I happened upon the highlight of the Fair—vendor had a box full (about 500 disks) of Hayden software for the Mac at \$4/disk or \$7 for two. I thumbed through and found for myself Sargon III, Hayden Speller (spelling checker), Ensemble &

Ensemble Guided Tour (necessary seeing as there were no docs for anything, just bare diskettes). I stopped at four as I found the whole thing rather dubious, and didn't want to get burned. But upon arriving home, I found all, with the exception of the Ensemble master disk, booted and ran fine. The Ensemble disk was frozen, but I disassembled it (it was full of grit of some sort), washed the disk and brushed out the insides, and got it clean enough to make a copy. The main reason I mention any of this is there is another Flea Market scheduled for the Springfield area in January, so keep your eyes peeled for the announcement. Definitely worth the trip!!

Business Accounting

MICHAEL HARTMAN ON 10/30

Anyone have any thoughts on a double-entry system for a small business? It doesn't have to be powerful, but should let you edit transaction entries, graph trend lines, and list reports to the screen as well as the printer. I've been thinking about either BPI General Accounting, Rags to Riches, or Strictly Business (have not confirmed each meets all the criteria I mentioned). Thanks for any comments.

DEACON MACCUBBIN ON 10/30

I don't know a lot about accounting but two programs that I've heard praised recently are Turbo Maccountant and Insight. I'd suggest you check them out, too.

BILL BALDRIDGE ON 10/30

The Oct 20th issue of InfoWorld gives INSIGHT an 8.1 (out of 10). Ratings broke down as follows: PERFORMANCE: Excellent; DOCUMENTATION: VGood; EASE OF LEARNING: Satisfactory; EASE OF USE: VGood; ERROR HANDLING: Excellent; SUPPORT: VGood; VALUE: Satisfactory. The Satisfactory in VALUE came mainly from the high price (\$595 per module!), but if price is no object the reviewer considers this the best accounting package available for the power user. Of interest was the test performed for error handling—the Mac was SHUT OFF in the middle of accessing a data file(!), and when powered back up and rebooted, there were no problems with the file.

MICHAEL HARTMAN ON 11/04

From seeing and hearing about Insight, I would agree that it is the best on the market for the Mac. However, it is a real powerhouse, and we really don't need that. Buying one of the less powerful packages will save a couple of hundred dollars and learning time. But thanks for the response.

LLOYD SWIFT ON 11/06

I use Dollars and Sense for my personal (fairly complex) accounts and see no reason why it wouldn't work for a small business. It is double entry, graphs various things (I'm not sure just what 'trend lines' are) and allows reports to screen as well as to printer.

DEACON MACCUBBIN ON 11/08

I've never used Dollars and Sense because I've seen many people (mostly on CIS' MAUG) complain about crashes and the frustrating copy protection. Glad to hear it's working well for you, though. I'm afraid it lacks some features that my own business requires (payroll, for one).

contd.

MICHAEL HARTMAN ON 11/10

Dollars and Sense recently released a new version without copy protection.

MICHAEL HARTMAN ON 11/10

My first inclination was Dollars and Sense, but heard some complaints from users of the Apple // version. The graphing capabilities did seem good. Trend lines are projections of how much you'll spend by the end of the year if you keep going at the current rate (I think; that's what I want anyway).

Data Bases

DAVID GURSKY ON 10/29

Well guys, as you all may (or may not) know, I am an avid fan of Helix and today my fanaticism was rewarded! Currently, there are three power databases on the market: Helix, Omnis, and DBase Mac. Honorable mentions also go to OverVUE, and Business Filevision. But there are two things that set Helix (and its successor Double Helix) apart from the competitors: (1) Unlike, say DBase Mac, there is no procedural language associated with Helix. The entire business of creating relations between data records is done with icons and "tiles" that represent programming constructs. Consequently, Helix offers a much more Macintosh like environment that is easily mastered and VERY powerful. (2) Odesta. Today, I received in the mail (much to my surprise and delight) Double Helix version 1.35. This latest version of Helix came about as a response to the user community, and was disseminated at Odesta's expense. Furthermore, any registered Helix owner can call Odesta during their normal business hours, and get FREE technical help. Even the phone call is free, as there is an unlisted 800 number for owners only!

Typically, there are three complaints leveled against Helix: It's slow, the data files are easily corrupted, and it's difficult to use. Well I'm pleased to announce that Double Helix is as fast as any of the other data base packages on the market today. And while I haven't tested to see if I can shut down my Mac while entering data into a Helix relation and see if the file survives, there is now a utility to repair damage caused to a Helix relation! Finally, Helix is no more difficult to use than the Macintosh. The difficulty people have is that unlike other packages on the market, there is no programming language for Helix. Relations between sets of data records are created in the same way forms are, and data fields, and indexes. Using a particular index with a form is a simple point and click! Searching for records based upon the values of one or more fields are also just a matter of pointing and clicking! Difficult! Hah! If you want difficult, go try using INGRES on a VAX. Helix is child's play. I rate it and Odesta 5 mice out of five. And by the way, unlike some of those other Mac databases, Odesta does not copy protect its software!

FRED SEELIG ON 10/31

Filevision: Stinks. I loved the concept. Absolutely loved it. Then tried to do some fancy stuff with it to help out around work here, and it was difficult, slow, made mistakes, was frustratingly dependent upon the exact order of commands to achieve a particular effect. . . I hope BF (Business Filevision - ed.) is better, because I really want a graphically oriented database to happen. The business community needs such a product. But FV's lack of success was due to its awkwardness of use. Ever wonder why no one writes about FileVision like they do about EXCEL? There's a good reason. But like I said, I hope that BF is better. If I tried it and convinced myself that BF is all that it promises to be, then there would be no louder advocate for the software than me. But I haven't seen a

copy yet, and therefore haven't been able to stress it to see its limitations. So the jury's still out.

MARK OSTROFF ON 11/04

I am currently going over all the hoopla about the different Mac Databases. My basic problem is that I really like the Mac interface vs. MS-DOS, but my only database experience is with packages such as dBASE III, etc., which are based around a procedural language. I have had to resort to using the procedural language on the PC's at work, since the dBASE Assistant is not smart enough to do the complex relationships and reporting necessary to accomplish the task. Maybe I'm just feeling the same kind of fear as when, after I had taken 1 semester of programming in BASIC, my next instructor told us that we were going to use a language that did not have a GOTO command at all. Do I just need to re-adjust, or are complex reporting formats still a problem with a non-procedural database? Also, what about the package that Borland just purchased? It was originally called Interlace, and is now known as Reflex for the Mac. Anybody had any experience with THAT non-procedural database? P. S.—I have a copy of MacLion that I have never even booted up. Got it, not because it was a great package, but because I got it at a great deal (\$29—ORIGINAL package, not used; sugg. retail \$395).

BOB MASSO ON 11/06

Fred, I just bought REFLEX at B. Dalton last week, after trying it out on their Mac there. Designed & input data for a 2-record-type database within 15 minutes, but of course not being a DB neophyte, didn't have to scan manual for meaning of basic terms. I plan to give it a real workout next weekend, and post my findings here afterwards.

BILL HOLE ON 11/10

Did you pay for the upgrade to Double Helix from Helix 2.0, or are they now offering it gratis to all users? If the latter, how do I get my upgrade? I have used Helix (at home) and Double Helix (at work) and agree with you as to their quality and Helix's support. But I think that procedural languages have their place: I cut my teeth on a Britton-Lee IDM-500 relational database machine, and I miss the full SQL-like relational calculus. and the interface to procedural programming languages. There's a lot you can do with a system like that that you can't do easily in Helix. I want a Mac-ish DBMS with a full calculus, programming language interface, and point-and click operations all integrated into one coherent package. Maybe someday. . .

Desk Accessories

BOB MASSO ON 10/17

OK, here's a question to start us off—whatever happened to the flood of public-domain calculators we were told to expect after the release of two separate calculator construction set programs? Are the programs so limited that they turned out worthless calculator DA's?

DOUGLAS BOWERS ON 10/24

As a follow-up to Bob Masso's question, does anyone know of any public domain calculators that include a "tape" feature, ie. something that stores a series of calculations for printing or cutting to the clipboard?

MARTIN MILROD ON 10/26

IF you are talking about the Calculator Construction set—the commercial program, there have been numerous PD templates to this application on MAUG. However, because Larry and I

contd.

feel that it is of such limited general value, I have not downloaded it. If you have this Application, you may wish to get on MAUG (Go MAUG) and download the templates. How come the manufacturers have not been in touch with users concerning templates?

Desktop Publishing

TOM PIWOWAR ON 06/04

One of the useful hints revealed at the DPub SIG meeting is that Hammermill has just introduced a special paper for the LaserWriter that produces very nice looking output. Its' called "Laser Plus. " Since it is new it's not widely available. But we can order it by the crate and get it now and get it at a good price. So here is DPub SIG's first Group Buy. I expect the cost to be around \$7 for 1000 sheets (2 packages). If you are interested reply to this message.

NIR WICKRAMASINGHE ON 06/05

Gestetner is an Apple VAR (Value Added Reseller - ed.). They demoed GDS (a program integrator—switcher in disguise, with on-line HELP) which enabled MacWrite/Paint/Draw/Link/Pagemaker/Versascan to be effectively and easily used together. The Capital Computer Digest was included in the literature, and the editor gave the usual glowing testimonial. The demo of the pagemaking itself was done quite smoothly by 2 ladies with a graphic arts background. A 'desktop' offset duplicator was also displayed, together with a small, fast, paperplate maker (that took l/w output) to feed it. Now for you folks who have access to Gestetner electronic scanners, remember that those stencils can come out at 650 lines/in resolution—non-screened photos & all. Stencils have lots of tiny dots for ink (or light) to pass through! Which means, a Xerox of a photo scanned this way, should come out on a reduce/enlarge photocopier quite acceptable & manipulable into the size slot on the final copy. So that the 'camera room' can be bypassed completely. Daguerre and Eastman produced some masterpieces—why not U? Seen pro photographers stretch nylon hose across their lens ever??

TOM PIWOWAR ON 06/12

Which stores are charging \$20/hr for lasering. What is their per page charge?

STEVEN C. WARREN ON 06/12

It's one of the Apple dealers near International Square. I'll get back to you as to the store's name. (I suffer from the "You've seen one, you've seen 'em all" syndrome). By the way, I want to ask you why the PROAPP 20 "Stinks", and I quote a quote from the Mac Hardware board. Is there something rotten in Denmark, or is it just a personal opinion (the latter of which is okay, but needs some specifics). Thanks!

STEVEN C. WARREN ON 07/23

Two new books are out on the subject of Desktop publishing. One is called "The Art of Desktop Publishing" and is very thorough in its approach to design, page-buggering, and general aesthetics. I only thumbed through it during lunch hour. The second is called "Desktop Publishing from A-to-Z", and touches on a much wider range of items such as copyright registration, financial considerations, distribution and mailing list upkeep. I thumbed through this one, too, and cannot provide author information (hey, I burned out my memory circuits long ago in public school). I saw them on display at Crown Books in downtown D. C. at the corner of 20th and M?—somewhere around there—next to the new Businessland. While I cannot actually review these books

without closer scrutiny, I was a little let down by their brevity and high price tag. For the absolute beginner, they're great, but for those of us who already have experience in this area (graphics, newsletters, etc.), there was more to be desired.

EDWARD BARNAKO ON 09/06

I would like to get a Mac and get into DTPub, specifically for a newsletter my business sends each month to 15,000 people. Right now, it's typeset and looks great. Big stumbling block is a salesman's apparently honest statement that anything below 9 pts typeface can't be reproduced on an Imagewriter, or anything else than a laserprinter. Since I'm not ready to spring for the laser printer, and really prefer to proof in my office rather than running six times a day to a laser service, I wonder what I can do. Is the sales guy right? Is there an alternative solution?

BERNIE URBAN ON 09/08

Use your imagewriter to proof your material prior to switching to <9 points, then switch and run to your friendly lwtr service. As you get more experience with the output (and its problems) from the lwtrr you will be able to eventually do it with one or two trips to the service.

BILL BALDRIDGE ON 09/11

Found an interesting way to do cheapo Cut & Paste between MacWrite & MacPaint that may be useful to peeps doing occasional layout work—it assumes the ability to run Switcher. First, set up a disk with Write, Paint, & Switcher with the required fonts and with a Paint Cutter DA. Enter Switcher and set up Write(128K), Paint(179K), and Finder (96K—allows you to trash Screen shots). Set up your text in Write at the column width you want for your Paint doc. Write allows both margins to be justified, Paint doesn't. Once you have the required text on the screen just snapshot it with <SHIFT><CTRL/DAISY>+3, then SWITCH to Paint, open your Paint Cutter accessory and cut the text from the SCREEN 0 file, and then paste it into your Paint document. This may sound tedious, but it allows more flexibility in margins, line spacing, and text control than Paint, and is a LOT cheaper (FREE! - for most of us) than any DPub software.

BILL BALDRIDGE ON 09/13

O. K., Folks. From Don Lancaster of SYNERGETICS, as published in the COMPUTER SHOPPER (Aug 86), I herewith provide the following 'Hints & Tips' on the use & abuse of LaserWriter cartridges. Don feels there are definite quality control problems with the cartridge, some refusing to give decent blacks, especially over large areas. He categorically states one cannot use ordinary copier toner cartridges due to laser printers use of "negative acting" toner, whereas copiers use "positive acting" toner (I guess if you wanted to do negative layout from positives this might be useful). AVOID storing cartridges in areas prone to heat—the 104 degree warning means what it says! Clean the corona wire inside the cartridge, and also inside the printer, every now and then (how often is that? once a season? whatever) either with the little green wiper tool (cartridge) or Q-tip (printer)—take care not to stress the wire when doing this. Keep the fusion wiper pad clean—lightly scrape with a knife every 500 copies or so, and change it when you change the cartridge. He gives more tips like rocking the cartridge "every now & then" (maybe I should make a macro out of that), keeping two cartridges handy—run the first until it starts putting out solid blacks & then switch to second for any rough copying work, contd.

switching to the first for finish work. On the subject of paper, plain xerox paper is OK, but "for the blackest black on the whitest white", Classic Crest Avon Brilliant White is recommended (made by Neenah Paper—check local paper distributors). He states about 1 in 6 cartridges will fail in some way (drum scratch, ghosts, gray-out), and apparently recommends holding on to a good old cartridge which ran out of toner, to which one can transfer the toner from the bad one. He does recommend returning defective cartridges. . . On to refilling. . . Toner reloads (\$20) and new wiper pads (\$1.50) are available (if not locally obtainable) from Laser Printer Products, 11 Freeman Street, Stoughton MA 02072 (617-893-9000). Don states there is a refill hole in the cartridge, but it's not worth the hassle getting to it, and instead recommends the following: Remove the large cardboard label, popping it off from the middle with a dull knife. Scrape a 5/8" hole in the top end of the inside toner tank using a plexiglass cutting tool (I don't see why one couldn't DRILL a hole if one has the appropriate bit). Pour the toner into the tank using a plastic funnel, shaking gently as you go. Then tape the hole shut. Don asks people to write with any "Horror Stories" of problems with toner, cartridges, or the like. Don Lancaster, SYNERGETICS, Box 809, Thatcher AZ 85552.

ALLAN BALLIETT ON 09/13

Thanks for putting this up. Hope I have better luck with this operation than I had refilling Scripto cartridges in high school!

PAUL CHERNOFF ON 09/13

I was told by an HP laser repair person to never reuse a toner cartridge. It seems that no one knows much about laser printers (too new) but that there is a worry that a refilled cartridge might break in operation. In other words, trying to save a few dollars (OK a lot of dollars) can end up costing you a lot of money, or some time if you have Applecare. The cartridges are not designed to last forever, only for 2000-3000 copies.

BILL BALDRIDGE ON 09/15

I disagree, though I understand your sentiment. These cartridges must be designed to meet a minimum use of 2-3K copies standard, but with the understanding that some users have gotten up to 5K copies from them. Any cartridge should be able to be reused at least once, and maybe twice, if it has only seen 2000 copies (in the case of heavy graphics output). P. S. This is ASSUMING, of course, that the person doing the re-use did not damage the cartridge, and followed the instructions properly.

CHRIS WESSELMAN ON 09/18 (Via Pi Office)

Does anyone know of any Cyrillic or Eastern European fonts which are downloadable to the Laserwriter? One of our members is in Desktop Publishing. His company has a client who would like to do a fair amount of laserwriting in Russian, Polish and (I think) Czech. I am aware of most of the Imagewriter fonts that might apply, but have found little on how these can be used on the LW. I have a masters degree in Russian/Slavic Studies (which is somewhat dormant at this point), so I am also interested. Any Slavists out there?

MARTIN MILROD ON 09/19

There was faculty member at the U. of Maryland (Dept of History) who is a Slavist. Unfortunately, I can't recall his name. In any case he was interested in a specialty program called SIGNIFIER which converted Cyrillic to Greek and vice versa. IF anything has been designed for the LW, the

SIGNIFIER group (Apple University Consortium), would know of it. Alternatively, try calling the U Of MD History Dept and ask for the Prof who teaches Russian History who has a Mac. Sorry, I can't be more specific. One other possible source is Wayne State University (Detroit), who produced a very esoteric disk of largely slavic language fonts (Kuiv, Ukranian, Yerevan(Armenian), Polish and Russian. Once again I don't recall the name, but I have the disk and will try to look it up. A call to WSU would probably reveal the hero however. Hope this helps.

BILL BALDRIDGE ON 09/20

Fluent Fonts from Cassidy claims their fonts to be LaserWriter compatible. I use their cyrillic on the ImageWriter with good results, and the two disk set includes Czech and Polish fonts as well. I don't remember if Greek is included, but a check of their ad should verify this.

ALLAN BALLIETT ON 09/22

Bill, What do you mean "Fluent Fonts—LaserWriter Compatible"? The difference between explicitly downloadable fonts and those that seem to work as well (such as Monster!) is driving me nuts! So. . . Thanks.

BILL BALDRIDGE ON 09/23

I'm no expert on LaserWriters, but my understanding is that "downloadable" fonts are those "postscript mapped" fonts (generated by applications such as LaserWorks from EDO Communications (see Sept MacUser review - 5 mouser!)). All other fonts are mapped by the Macintosh prior to printing, so though the quality may not be as good as postscript fonts, the quality should still be a quantum leap over the Imagewriter output. P. S. With LaserWorks one can take an existing font and use it as a template of sorts for a final 300 dpi LaserWriter font. Another alternative is Fontographer from Altsys—though it is \$395 to LaserWorks \$295.

BILL BALDRIDGE ON 09/27

In the October Computer Shopper, Don Lancaster has more tips on the LaserWriter cartridge (see above message) to whitt: Instead of scraping or drilling a hole in the cartridge, use a low-wattage pencil soldering iron to melt a hole by "sawing" (his word) a half-inch hole in the area mentioned in the above message. Stop 9/10ths of the way around, and pop the remainder out with a pair of small pliers. After filling, tape up the hole with masking tape. On the subject of fonts and typefaces he points out an "interesting book" published by the government titled "National Bureau of Standards Special Publication #424. " That's the GOOD news—the BAD news is it is no longer being printed, but Don recommends checking local BIG libraries for a copy—seems we have a pretty BIG library here locally called the Library of Congress, which should have it somewhere. Lastly, he points out that people are apparently having problems finding Adobe's two Postscript books, so they (at Don's business address) are stocking these books, or I guess one can write Adobe Systems at 1870 Embarcadero S120, Palo Alto, CA 94303 (or call (415) 852-0271 for information on where to obtain them).

BILL BALDRIDGE ON 09/27

I found the name & address for Don Lancaster's firm: SYNERGETICS, Box 809-CS, Thatcher AZ 85552 (602) 428-4073. The prices for Adobe's Postscript manuals: Post-script Reference Manual - \$21. 50, Postscript Tutorial - \$16.50. Don also has a LaserWriter demo pack that he throws in
contd.

FREE on request.

Entertainment Software

DEACON MACCUBBIN ON 11/08

If you love action games, get Dark Castle from Silicon Beach Software. This is the best arcade-type game yet for the Mac. The animation and graphics are stunning and the sound effects are stupendous. Rabid rats and bats attack you as you search for the keys and dreaded Knight. It is incredibly difficult to master—the first few games will be very frustrating as you learn the coordination necessary, but the game is positively addicting. It is a six mouse game (on a five mouse scale)! Get it!!!!

DAVID GURSKY ON 11/08

I made a terrible mistake today. I went to MacCorner. My wallet may never be the same. First off, the selection has grown from okay to mindboggling. Second off, I got to play a new game from the people who brought you 'Fokker Triplane' (an excellent WWI aerial dogfight simulator). Its called 'Ferrari' and it is F1 Formula Ferrari simulator, down to the prancing horse on the steering wheel. I didn't stay long enough to make a full fledged review (I had already bought 'Balance of Power', 'Deja Vu' and 'The Uninvited' and had no desire to lighten my bank account further!) I do have a some general impressions: 1: It is significantly cheaper then the real thing. Operating and Insurance costs are negligible. 2: Good use of Mouse and Mac interface, in an extremely unMacish environment (driving a car). 3: Infinitely safer as well. Ramming walls, barricades, other cars, rocks, etc. produce far less spectacular results than in the real world. My advice: If you can find a better built car for less, buy it! Oh what a feeling!

Graphics & Design Software

DAVID GURSKY ON 10/15

Has anyone heard anything about SuperPaint lately?

BILL BALDRIDGE ON 10/16

I called Silicon Beach last week, but was so intent on Dark Castle I gerfot to inquire as to when/if SP would be released. Thinking back, seems the person I spoke with seemed a little anticipatory (where's my 50 cents?), as if she was expecting me to ask about SP. In a similar vein, I just received the upgrade to FullPaint, under very suspicious circumstances. I never did send in any registration card for FullPaint (in fact I sent the WHOLE thing back!—due to the copy protection). I waged a vicious campaign against FP in both the media (InfoWorld) and in any computer store carrying FP, and sent several quasi-nasty (though helpfully suggestive) letters to A2S (Ann Arbor Softworks). To top it all off, they misspelled my name, and used an honorific which I usually see on junk mail. Weird... Should I KEEP IT? Can I? Honestly? Any lawyer will tell you unsolicited material is YOURS! Naw...I'll send it back with a snotty letter...but FIRST I'll copy it...HAH!

DAVID GURSKY ON 10/16

Don't knock it! Until SuperPaint shows up, FullPaint is the best. It certainly corrects MacPaints deficiencies (few they may be).

TOM PIWOWAR ON 10/16

Have you looked at GraphicsWorks (aka ComicWorks). It supports object oriented graphics and rudimentary page composition within an environment that is a souped-up version of MacPaint. See recent reviews in current issues of Personal Publishing or MacTimes. You can also read my

review in last months DCAF/MUG.

BILL BALDRIDGE ON 10/17

I still think the LASSO in FullPaint stinks. And WHEN is someone gonna come out with a Paint application which allows one to work in LANDSCAPE orientation?! I get awfully tired of cranking my head to try and get a perspective on those sidewize docs—presently about 1 in 10 of my over 400 paint-type documents.

DEACON MACCUBBIN ON 10/17

If you've got a couple grand lying around you could buy a Radius full-page screen and lay it on its side. Of course, it would be cheaper to lay yourself on your side.

BILL BALDRIDGE ON 10/26

Yeah, I knew that...also realized that clover/control+T also removes them, even in text mode. On top of that, I might have to revise my opinion of the lasso tool, as I was playing around with it tonight, and discovered that double clicking on an object with it will lasso that, and only that, object—pretty slick! It really is a shame someone doesn't get all these goodies together in ONE application—though I will admit that FullPaint comes the closest I've seen. Other gee-wiz features needed: 1) ability to do scaling by user-selected value (50%, 75%, 125%, etc.); 2) Reverse rotate (how many times have YOU had to rotate an object 3 times to get this); 3) Draw a circle/line/box bigger than the screen. I'm sure I could come up with more, but will wait until SuperPaint is available to continue.

Hard Disks

ALLAN BALLIETT ON 10/16

Gosh, what a privilege this is. I can start out the new hard disk database by squawking about the Dataframe XP20 upgrade. Oct 15 has come and gone. MacCorner sez they never heard of a \$99 upgrade—SuperMac sez they offered one, but put it in DEALER control rather than USER control ("We don't have a database. We may get one soon") Does anyone know how to get the upgrade without getting the same treatment traditionally reserved for camels? And what about all of you that bought your Dataframes through WAP? How are you getting the XP20 upgrades?

ALLAN BALLIETT ON 10/19

The poop from SuperMac is that the XP upgrade for the Dataframe20 has been available for some time. Some dealers have chosen to place the upgrades in a drawer until after the Oct 15th price hike, when the price jumps from \$99 to \$200. If you bought your DF from a local store and have not been contacted by them to come in for the \$99 upgrade, then you best call SuperMac and ask for Stacey. Stacey is sickened by the major local vendor of her product and will intercede when necessary to insure the upgrade will be mdae available for the pre-Oct 15 price. She will do this up to Oct 31. MacCorner presently contends that they have not been sent ANY XP kits. In the meantime, does anyone know if the upgrade is WORTH having ham hands intruding into the back of my pristine Mac+? Also, does anyone know if WAP is going to upgrade the group purchase units?

RICH WASSERSTROM ON 10/20

All those who have purchase Dataframe 20's from the Group Purchase program can get XP upgrades from WAP. I have had 6 XP upgrade kits on order for some weeks now and they have not been shipped. I have been told by SuperMac that these

contd.

kits do not yet exist. I don't know if the upgrade is worth having. Maybe another member can help with that question. (Please note that the above three messages are "past history"—Ed.)

KEVIN NEALON ON 10/22

It seems that many DataFrame 20 Hard Disks (I don't know about other models of DataFrames) start making a high pitched sound after a short while. The problem (I've been told by a technician at SuperMac) is a static electricity brush that rubs up against the armature of the hard disk. The simplest and easiest way to fix the problem is to remove the brush, as it is a superfluous part. To remove the offending device complete the following procedure. 1. You will need a medium sized Phillips, a small blade screwdriver and a small pair of wire cutters 2. Undo the 1 bottom screw and 2 back screws that hold on the cover. 3. Remove the cover and lay the Disk on its side so that the side with the cables and ICs is face-up and the SCSI ports are on your left side. 4. Undo the 4 machine screws you see on that side. 5. Lift up the circuit chassis from the plate that holds the SCSI connectors so that it swings up as if hinged by the 2 ribbon cables on the right. 6. You will see a small hole in some cardboard shielding underneath. In the center of this is a small square about 1/4" on a side. Bend this up with the small blade screwdriver (don't worry if it breaks off as this is what needs to be removed) and snip off the 2 copper wires that hold it in place. Be careful not to get any dirt on the armature underneath. 7. Reassemble! Congratulations, you just gave your DataFrame a Tonsillectomy. Note that the sound in no way hurts the Disk, just your ears. And my last suggestion is that if it ain't broke, don't fix it.

ALLAN BALLIETT ON 10/23

Thanks for the tip, Kevin. My DataFrame has a whole range of squeals, some of them sounding pretty close to a circular saw. If I ever get this XP upgrade, I'll get this done at the same time. Wrong board, wrong time, but COMPAQ portable's harddisks also develop a squeal after a few thousand revs and that can be fixed by removing the drive and, ON the bottom of it, locating a small spring tap with a hole in it that the spindle of the disk rides on. Just flex this tab, without distorting it, put the drive back in the box and it works quietly again. I think the tab must be a static drain.

ALLAN BALLIETT ON 11/03

The DataFrame20 backup software released to *Dealer's Only* by SuperMac Tech a few weeks ago is now available on Maucus through CompuServe. It's MacDev DL1 but <sorry> I don't have the name. Do a key search on "dataframe" The print spooler and head parker are also out there. Will save you a trip to Gaithersburg or Bethesda.

DAVE GIBSON ON 11/03

I purchased a copy of Microsoft Word about a year ago. I then purchased COPYII MAC in the hopes of installing Word on my HD20. COPYII MAC makes outstanding "MASTER" copies of Word on floppies but not on the HD20. Am I missing something about hard disk install ?

MARTIN MILROD ON 11/05

Just downloaded version 2.1 of the Superspool initializer from MAUG. The comment was that you should re-initialize your DataFrames using the new initializer. Anyone know how

come? I'll leave a copy of it with Bernie Urban at the Office because WE DON'T HAVE A DOWNLOAD FUNCTION ON THIS (blankety-blank-blank) BBS. (Yelling intentional.)

ALLAN BALLIETT ON 11/07

So how did the new Superspool initializer work out? Did you get the XP upgrade? I decided to pass because I couldn't (can't) believe how fast the DataFrame is already!!!

ALLAN BALLIETT ON 11/07

I don't know if anyone remembers my pleas on the old board for an explanation for why my software (especially RR92 and MacTerminal, but eventually System(often)) was degrading on my DataFrame20, but the erstwhile solution was to throw out EVERY piece of Borlands Sidekick from the disk. Seems that especially NotePad was clobbering resources (closing a file would bomb me on a System 02, leaving the keyboard for a few moments would lock the screen/board—closing ANY file, not just a Borland file). I work on IBM during the day, and we have found that Sidekick can clobber Lotus (after a Q cmdnd the file just disappears—totally). The sad thing is, I really miss the notepad—I mean, isn't that what hard disks are for, being able to find stuff you would lose on your desktop (especially diskettes!) The phonebook/dialer (through the earphone jack) was wonderful too. Does ANYONE know how to fix this problem or know of appropriate substitution software?

KEVIN NEALON ON 11/08

I just got a Download from Marty Milrod at the office Thursday, and called SuperMac concerning the version I should use. The technician that answered said that version 2.1 of the driver is the proper version to use on all DataFrames. The technician said that it would improve the through-put by 50%. The reason for this is that the new drivers let the Mac talk to the Disk every 2 clicks of the clock (not his words, but I can't remember just what he said—not that I'd understand it any way) as opposed to every 3 clicks of the clock. This technician also said that the XP would talk with every tick of the clock. And best of all he also said that the XP's and upgrades were starting to ship. Finally he mentioned that there was a read/write problem with the 1.5 drivers. I have installed the 2.1 driver, and have used the back-up utility. The DataFrame is definitely going faster and the back-up utility is very good too. I can't comment on how well the print spooler works as it doesn't work with printers on AppleTalk. One last utility was a head-park program that parks the head and holds the Mac from rebooting. This makes the dirve safer to transport, though slower to start up.

DEACON MACCUBBIN ON 11/08

I wouldn't be too quick to blame Borland's Sidekick. The problem might be with the DataFrame. There are new software fixes just released by SuperMac (and available on CIS' MAUG, Genie and elsewhere) that may solve your problem. I find it difficult to believe that a program I have used for over a year with never a problem on various hardware configurations (Sidekick) is to blame in this case. You might also give Borland a call to see if they can offer a solution.

(To be continued next month.)

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- Monday, January 19 and 26
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INDEX TO ADVERTISERS

Adaptation Electronics.....	73
Anderson Jacobson.....	Back Cover
Clinton Computer.....	1
Coit Valley Computers.....	Inside Back
Computer Den Ltd.....	15
Computer Ware Unlimited.....	23
Coral Software	75
Family Computer Center.....	Inside Front
Kinko's Copies.....	73
Landmark Computer Laboratories.....	33
MacCorner.....	43, 44, 45, 46
MacTography.....	54
Micrographics Images Corp	61
Nexo Distribution.....	20
Operant Systems.....	2
PC Resources.....	51
PLS Inc.	20
QuestBusters	29
Roger Coates.....	55
Technical Sales & Service	15
VF Associates.....	21

INDEX TO AUTHORS

Apple, Professor.....	47
Baldrige, Bill	81
Begleiter, Ralph J.....	51, 53
Bishop, Ken	13
Black, Forrest	38
Brennan, Kim	31
Brown, Charlie	32
Burns, Bill	12
Butler, David	64
Combes, Peter	5
Field, Bruce F	16
Goldberg, Jo Ann	76
Golden, Bob	17
Hakim, Davy	37
Hardis, Jonathan E.....	48
Hayne, William J	79
Hobbs, Raymond	18, 20, 24, 34
Hutchinson, Reid	38
Johnson, Claire	13
Lanford, Audri G.....	64
Lanford, Jim.....	78
Mangus, Ben	36
Matzen, Peg	12
Morganstein, David.....	62, 68
Norling, Rich.....	66
Ottalini, David.....	10
Pastura, Lou.....	40
Payne, Steven.....	33, 36
Platt, Robert C.....	16, 35, 74, 80
Porter, David L	37
Raesly, Leon H	22, 26, 29
Shaffer, Bob	51
Thompson, Andrew D.....	14
Trusal, Lynn R.....	56, 60
Vier, Tom	30
Warrick, Tom	4, 25
Wasserstrom, Rich	6
Youell, Adrien & Siew	59
Zittel, Randy	



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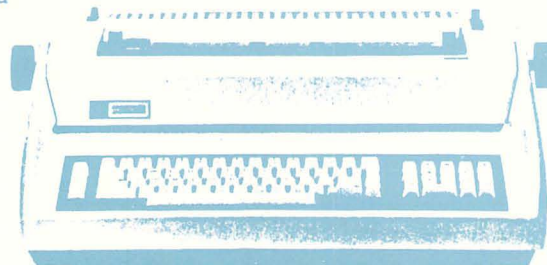
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