

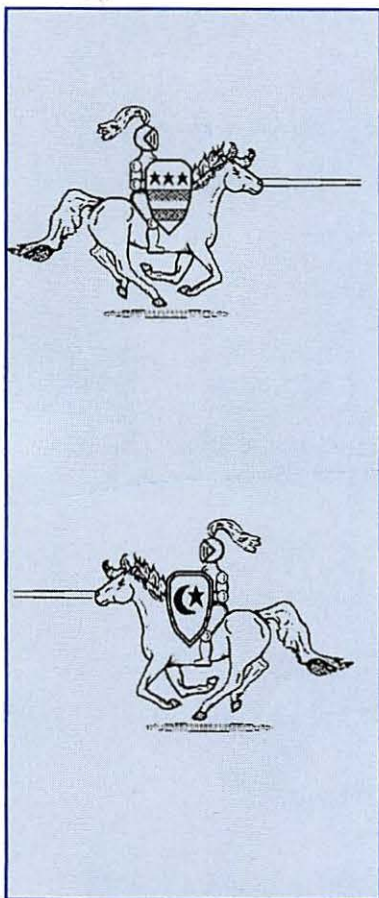
\$2.95

washington pple pi

The Journal of Washington Apple Pi, Ltd.

Volume 12, Number 7

July 1990



← **WAP Artists
in review**

16

**New Wine
in Old Macs**

19

**MacNovice on
Hard Disk Partitions**

22

AppleFest-ivities

52

**Balance of the
Planet—review**

65

And Much, Much More:

Sigs and Slices, 11-12 • HyperCard Stack Designs (finally), 14 • Macinations, 26 • LapLink Mac review, 34 • RGB Circuit diagram, 39 • A plethora of AppleFest reports, 51-55 • Copy II Plus review, 58 • GeoCalc review, 59 • Intro to BASIC (for real, this time), 60 • Publish It! 3 review, 61 • Byts and Pycles, 62 • Quicken and AppleWorks 3.0, 63 • Apple II Forever, 64 • Tele-Foster Grandparent program, 66

and all the regular condiments...



Macintosh™ Business Solutions

We have the Solutions for your Business Needs

301-330-4074 • FAX-590-8142

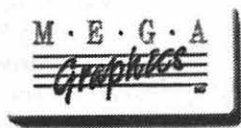
Sales • Service • Support

High Res. Display Systems

from MEGAGRAPHICS Inc. Award winning WYSIWYG big Screens:
"...the best of both worlds: Its darkened-glass screen effectively enhances contrast and effectively reduces glare..." MacUser, April 1990



- 8 Bit Sony Color Trinitron System ONLY. \$3895 (for Mac II's & SE/30)
•19" Mono. Two Page displays for Mac Plus, SE, SE/30 & Intire line of Mac II's for as low as. . . \$1199
•14" Color Trinitron w/24 Bit Card ONLY. \$1199



Upgrades

- Ram (80ns 1MB Simms). \$76
•2MB Ram upgrade. \$150
•4MB Ram upgrade. \$298
•Mac SE to SE/30 upgrade kit. \$1650 (including FDHD Super Drive)
•MacII, Iix to Iifx upgrade. \$2250
•Memory upgrade On-Site installation Special ONLY. . \$30

Accelerators

- Drive your Mac II, Iicx or Iix at 33MHZ. for only. \$1449
•FastCache Iici. \$695
•Radius Accelerator for Mac SE/Mac Plus for. \$590

Telecommunications

- Hayes 9600V-Sereis Modem. \$690
•Smartcom II \$75
•2400 Baud Modem. \$135

Software

- ATM/Type Align Combo. \$94
•Adobe Type Reunion. \$43
•QuarkXpress 3.0. \$475
•Microsoft Word 4.0. \$247
•Microsoft Excel 2.2. \$247
•Sum II/Sam Combo. \$160

Removeable Media Drives

•PLI Infinity 40 Turbo. \$897
This award-winning drive is not just another removable. Built with the highest-quality parts and rigorously tested, it is the most reliable 45MB - cartridge drive. It is also the fastest. Ideal for Mac, A/UX and MS-DOS.



- w/3-44MB Cartridges. \$1065
•Each additional Cartridge. \$98
•PLI-Optical Disk Drive (600MB).. . . . \$3899
•PLI-1.3GB Dat Drive. \$3390 (1.3GB Tape Back-up, bundled together with Retrospect & PLI reliability.)
•1.3GB Dat Tapes each \$32
•Turbo Floppy Enhanced can read 400K/800K & 1.4MB on all SCSI Macs. \$389
•655MB Hard Disk Drive with 16.5MS access time for. \$2690

•You can extend the protection on your PLI Drive for up to 4 years parts & labor

•We carry a full line of internal & External Hard Disks from 20 to 1.2GB starting as low as. . \$225

We carry a full line of Macintosh™ Hardware Software and Peripherals, please call us for further details and prices.

We will gladly accept Government and Corporate * P.O.'s. Prices are for a limited time only (June & July). Most items will be shipped next day for only \$5.00. Please call to make appointment for On-Site Installations. All trade names are the trademarks of their respective holders.

*Credit approval required.

Table of Contents

Volume 12 July 1990 Number 7

Club News

- Editorials7
by Frank Potter/ More feedback
- Letters to the editor7, 79
- Office News8
by Nancy Pochevko/ How it is
- Apples for the Students8
- President's Corner9
- Software and Books Available Today!! 10
- WAP Hotline43, 46
- WAP Calendar44, 45
Coming attractions
- Errata50
- Map to B-CC High School75
- Tutorials for WAP Members76
- Index to advertisers78
- Classified ads82
- Membership application87

SIGs and Slices

- IIGS SIG 11
- WorksSIG 11
- EdSIG 12

General Information

- HyperCard Stack Design Guidelines 14
by Brian G. Mason/ Book review on how to go about the process of designing stacks
- WAP Artists in Review 16
by Nancy Seferian/ Art by Steve Heise

Macintosh Articles

- New Wine in Old Macs 19
by William R. Jensen/ Breathing new life into elderly Macs
- Hard (Disk) Division22
by Ralph Begleiter/ MacNovice tells all about partitions
- Macinations26
by Robb Wolov/ Computer networking

- Bits & Bytes29
by Lynn Trusal/ Gossip and gleanings
- LapLink Mac, Release III34
by Lou Pastura/ Software review about cross-communicating with other life forms

Apple III

- On the Trail of the Apple III36
by David Ottalini/ What goes around...
- A New RGB Circuit for the III39
by D.D. Meisel/ Helping your TV monitor show its true colors

Apple II

- View from the Cat House
by Kim Brennan/ Printers, drivers, scanners and what-have-you
- AppleFest:Keynote Address 51
by Phil Shapiro/ The role of the teacher, in a world where machines are moving in
- AppleFest East '90— 52
the Developers' View
by Ted Meyer and Loren Evans/ Doings at the show
- Pi Reports: APPLEFEST 1990 55
by Kim Brennan and Adam Robey/ More information on new goodies
- Cheap Computing 57
by Ron Evry/ Some basic questions for computer owners: Do we really *need* this?
- Copy II Plus v. 9.0 58
by Bob Oringel/ Software review of an update
- GeoCalc (with geoChart) 59
by Ron Evry/ If you really need a spreadsheet...
- Intro to BASIC60
by Mike Subelsky/ First steps

Publish It! 361
 by Gary Hayman/ A teaser

Byts and Pyces62
 by Gary Hayman/ Odds and ends on the II

Quicken and AppleWorks 3.063
 by Gary Hayman/ How to make it work for you

Apple II Forever?64
 Apple taking the II seriously?

Games

Balance of the Planet65
 by Mary Ann McQuinn/ Chris Crawford goes ecological

TCS (Telecommunications)

Tele-Foster Grandparent Program66
 by Mary Kercher/ Special education and senior citizens

Download City67
 by Paul Schlosser/ Available files on the WAP bulletin board

Disk Library

Apple III Disk Library68

Apple II Disk Library68

Apple IIGS Disk Library69

Macintosh Disk Library70



This issue of the Washington Apple Pi Journal was created on a Macintosh IIx, and printed on a LaserWriter IINTX.

The program used was PageMaker 4.0, the word processing program was Microsoft Word 4.0; the principal typeface is Adobe Garamond for the articles; and Helvetica and Condensed Helvetica for headlines, emphasis, and where it seemed appropriate or like a good idea at the time, or where we ran out of space, which also happens.

The June meeting will actually be in the form of a garage sale, and there is no point in the world discussing it here, since the issue won't be available until that morning. The July and August meetings will be held at the Bethesda/Chevy Chase High School, which is not air-conditioned during the summer, so the meetings may be steamy, or short, or both.

Editorial Staff

Managing Editor
 Frank Potter (703) 620-8886

Graphics Editor
 Nancy Seferian(202) 333-1260

Apple II Editor
 Tim McGraw (301) 585-3289

Macintosh Editor
 Lou Pastura (703) 560-1477

Copy Editor
 David Harris (202) 966-6583

Calendar Editor
 Andy Shaw (301) 595-2539

Deadlines

Writers' submissions
 AugustJune 25
 SeptemberJuly 25

Editors' submissions
 AugustJuly 1
 SeptemberAugust 1

Ad space reservations
 AugustJune 22
 SeptemberJuly 20

Camera-ready ad copy
 AugustJune 27
 SeptemberJuly 27

Postal Information

Washington Apple Pi is published monthly by Washington Apple Pi, Ltd., 7910 Woodmont Avenue, Suite 910, Bethesda, MD 20814.

Application to mail at second class postage rates pending at Bethesda, MD.

Annual membership dues for the year 1990 to Washington Apple Pi, Ltd. include \$24.00 for a subscription to the Washington Apple Pi journal.

POSTMASTER: Send address changes to Washington Apple Pi, 7910 Woodmont Avenue, Suite 910, Bethesda, MD 20814.

Officers and Board of Directors

President	David Morganstein	(301) 972-4263
Vice President—Apple	Sam Knutson	(301) 498-8411
Vice President—Mac	Eric Rail	(301) 596-0004
Treasurer	Edward Myerson	(703) 759-5479
Secretary	Chris Bastian	(301) 907-8187
Directors	Richard Byrd	(703) 978-3440
	Gary Hayman	(301) 345-3230
	Harvey Kaye	(301) 299-8994
	Priscilla Myerson	(703) 759-5479
	Tom Piwowar	(202) 223-6813
	Leon Raesly	(301) 220-0717
	Bob Shaffer	(301) 384-3724
	Tom Warrick	(202) 654-8060
	David Weikert	(301) 963-0063

Office Staff

Office Manager	Nancy Pochecko
Office Assistant	Ambrose Liao

Volunteers

Group Purchases	Rich Wasserstrom	(202) 479-2516*
Head Reading Lib.	Walt Francis	(202) 966-5742
Apple Tea Coord.	Amy Billingsley	(301) 622-2203
Dealer Relations Comm.	John Alden	(202) 686-1656
	Harvey Kaye	(301) 493-6875
	Rich Wasserstrom	(202) 479-2516*
Legal Counsel	Richard Wohltman	
Membership	Dana Schwartz	(301) 654-8060
SIGs & Slices Coord.	Bob Shaffer	(301) 384-3724
Hotline Coordinator	Larry Feldman	(202) 546-9556
Telecom SYSOP	Leon Raesly	(301) 220-0717
Journal Store Distribution	Andy Wallo	(703) 430-1553
Publicity	Joe Chelena	
	Chuck Sicard	774-6721
	Curtis Lauret	
Director of Education	Rob Clark	(301) 937-2672
Community Affairs	Rick Gilmore	(301) 587-6928

*Call only evenings 7:00-9:30, M-F

Washington Apple PI, Ltd.

7910 Woodmont Avenue, Suite 910
Bethesda, MD 20814
Business Office (301) 654-8060
Telecommunications System (301) 986-8085

Office hours: M-Sat. 10-2:30*
Tues. 7-9pm

*The office will be closed for the
1st 2 hours of the general meeting

User groups may reprint without prior permission any portion of the contents herein, provided proper author, title, and publication credits are given, except in cases where the author has reserved copyright permission. In these cases, the author should be contacted directly. Please send a copy to the editor.

Library Volunteers

DOS 3.3 Librarian	Jim Little	(301) 762-3215
Macintosh Librarian	David Weikert	(301) 963-0063
	Martin Milrod	(301) 464-5981
Pascal Librarian	open	
ProDOS-CP/M Libr.	open	
IIGs Librarian	Sam Knutson	(301) 498-8411
	Richard Sanders	(703) 450-4371
Apple II Disks	John Ruffatto	
Apple III Disks	David Ottalini	(301) 681-6136
John Bell	Bob Houts	John Ruffatto Dave Harvey
Gary Hayman		
Mac Library		
Dave Benbennick	Rick Capman	David Condit
Hampton DeJarnette	John DeMarco	Garry Elliott
Ben Frank	Andy Gallant	Gary Grey
Mary Hockmeyer	William Jones	Ralph Mullendore
Fred Rodgers	Tony Salerno	Charles Sicard
Bob Soule	Joe Swick	Bob Vandegriff

SIG Chairs

Annapolis Slice		
President	Ray Settle	(301) 647-9192
V.P./Programs	Seth Mize	(301) 766-1154
Secretary	Kay Cave	(301) 266-9752
Treasurer/Membership	Bill Derouin	(301) 647-0802
AppleWorks	Gary Hayman	(301) 345-3230
Apple IIGS	Gary Hayman	(301) 345-3230
Apple III	David Ottalini	(301) 681-6136
	Jim Jutzin	(703) 790-1501
	Nancy Seferian	(202) 333-0126
AVSIG		
Columbia Slice		
Presidents	Ann MacKay	(301) 740-4482
	Paul Retz	(301) 596-2185
V. Presidents, Mac	Ann Knust	(301) 781-7587
	Pat Cappelaere	(301) 596-3989
V. Presidents, Apple	Tom Cook	(301) 995-0352
	Tom Crowley	(301) 730-2319
	Neil Gordon	(301) 381-5877
Treasurer	Steve Gaston	(301) 992-0480
Secretary	Tim Childers	(301) 997-9317
Apple Ambassador	Jeff Sutton	(301) 587-1122
CADSIG	Eric Gutsche	(703) 379-1265
Database SIG	Jay Thal	(202) 244-3649
DisabledSIG	Tom Piwowar	(202) 223-6813
Desktop Publishing SIG	Phil Shapiro	(202) 686-5465
EDSIG	Larry Feldman	(202) 546-9556
Excel SIG	Jim Manley	(703) 490-1034
Federal SIG	Scott Galbraith	(301) 865-3035
Frederick Slice	Paul Moore	(703) 532-1029
GameSIG	Nancy Wallace	(301) 530-2881
HyperCard	Mark Frazier	(202) 546-8325
	David Mudd	(703) 683-1746
HyperTalk	Nancy Byrd	(703) 978-3440
Mac Programmers	Bruce Jacobs	(301) 439-7812
	Chris Bastian	(301) 907-8187
New SIG	Hugh O'Neill	(202) 328-9510
NeXT SIG	Ted Meyer	(703) 893-6845
PI-SIG	Peter Kasper	(703) 620-4071
StockSIG		

The Dealership others are trying to imitate!

System Design & Integration

Training & Support

Networking

On-site Maintenance

Needs Analysis

Want it done right the first time?



MacInOffice.

When the Best Makes Sense!



Call us!

532-7400

A MicroAge Affiliate

101 W. Broad Street • Suite 400 • Falls Church, VA 22046

MacInOffice

20% OFF!
\$399.00
 6" x 9" model
 Reg.
 (\$499.00)

WACOM PRESSURE PEN

Wireless
 Tablet Sizes
 from:
 6" x 9"
 to
 18" x 25"

Pressure Supported
 By:

- ColorStudio™
- PhotoShop
- SuperPaint
- UltraPaint
- & Many Others

YOU DRAW WITH PRESSURE....

NOW USE IT.... LIKE A BRUSH.

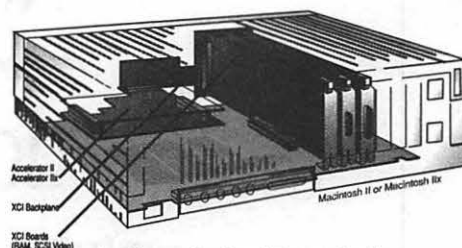


FOR: Macintosh - I.B.M. - NeXT Inc.

Free! System 6.0.5 **Up-Grades** FOR DETAILS CALL
 Finder 6.0.5 (202) 347-7817

The *Fastest* Macintosh System sold by anyone, *including* the Macintosh IIFX!

Apple Macintosh™
 by DayStar Digital
UP-GRADES!



Accelerator IIcx installation varies from above illustration

50Mhz = \$2,100.00

Uses Any RAM Speed!

Daystar's System XCI Includes:
 50Mhz 68882 Co-Processor. Plus
XCI Backplane NuBuss By-Pass for
 optional: SCSI, RAM, Video Cards

Letraset® NEW
 VERSIONS!

- ColorStudio \$1396.00
- FontStudio \$386.00
- DesignStudio \$516.00
- LetraStudio \$297.00

• • P-Serve Print Spooling • •

If you have an IBM AT, put it to use! P-Serve software enables you to use the AT on AppleTalk for Print Spooling by any PostScript printing device on the LAN. Also does job costing! ONLY \$806.00

PRICES SUBJECT TO CHANGE AT ANY TIME
 For Information Call:

Ringmasters Inc.

Federal/MIS Integration & Sales

(800) 878-NeXT

(202) 347-7817

More feedback...

Washington Apple Pi is a large and diverse organization. It members fill a myriad of different roles and positions: engineers, lawyers, doctors, human beings...and communicate with the rest of the world in many different ways. Most of us use computers, and a lot of us use them to stay in touch with friends, here in the D.C. area and elsewhere.

The one things that we all have in common is this Journal, and it is the Journal that tells the rest of the world who we are, what we like (sometimes dislike) and what we want our electronic friends to do for us. What we at the Journal would like to know is a little more about what it is that you want it to be: what are the aspects that you would like to see accentuated and which are the features that you would just as soon see disappear. For this reason, we have designed a short form that we would ask those of you who feel so inclined to look at, make comments on, tear out (or if you can't bear to do that, either make a copy of the form, or just jot down the pertinent bits (tearing out pages seems sort of...sacrilegious, don't you think?)) and send them back to us. Check out page 86...

The programmers and grammarians among you will have noted—nay, marveled at—the fact that the parentheses in the last paragraph worked out properly... the perfectionists among you may be wondering why we put them here in the first place. Hating to leave any question unanswered, we quickly respond—it seemed like the right thing to do at the time.

You don't even have to sign the form, although we will admit that we probably won't pay quite so much attention to the unsigned forms. But what you do need to do is to give us

some feedback. Only if we know what you want in the Journal will it be possible for us to provide it—or at least to come as close as circumstances and our abilities will permit.

More about faxes

In the June issue, we ran a positive review of the Abaton Interfaxmodem. Following the appearance of that review, one of our readers noted that he had experienced some difficulty with this equipment. We therefore asked Abaton to send us one of their packages to check out the problem. They did so, and we are happy to report that the problem appears to have been fixed: the faxmodem works like a champ and does everything we have asked it to do. They have also offered WAP a group purchase price on this faxmodem (\$398 for an item that lists for \$605 and sells at mailorder houses for over \$400). If anyone is interested in finding out more about this program, they should contact the office or Rich Wasserstrom for details.

WAP elections

One of the advantages about running late, as we are doing this month, is that it gives us an opportunity to include late-breaking news. The news that is now breaking is that some of the results of the elections are clear.

The winning candidates for officers of the Pi are... (drum roll, please, maestro)

Eric Rall, President
David Wood, V-P Apple II
Bob Shaffer, V-P Macintosh
Joe Taccino, Treasurer
David Ottalini, Secretary

Sending the election materials in

the Journal may not have been a terrific idea, since less than 400 ballots were received (compared to 1,500 last year). This was no doubt compounded by the short period between the time of Journal delivery and the final date for the receipt of completed ballots, and that could be improved next year—if that is the course decided upon. This year's election/Journal assembly was the stuff that nightmares are made of.

Another factor that probably affected voter turnout this year may also have been the relative civility and low-key nature of the election itself, at least that part that dealt with the officers elected. There was somewhat more heat involved in the election of Directors-at-Large, but somehow that doesn't seem to translate into quite so much excitement as a hotly-contested election for President.

In any case, the election is now behind us, and our members can rally behind the new officers and board as they try to get on with the process of governing this large and intermittently fractious organization.

—fmp

Letters to the editor

After hesitantly spending a substantial amount of my hard earned savings on a Macintosh SE, I was initially disappointed by the intermittent start up problems that it had with the 40MB hard disk.

When I took it in to the service department at Computer Age, I expected a long drawn-out process. Instead, one of the service technicians, John Scribner, read the list of problems I had written and fixed the disk while I waited. In the weeks following I have experienced no further problems. Mr. Scribner is very good with people and with machines. I would recommend Computer Age to anyone who is interested in purchasing Macs. The true test of a business is how well they service what they sell and this company is top-rated by my measure!

—Evelyn Studer

(Continued on page 79)

What's Happening

Office News

by Nancy Pochecko

Well here I am again...with all that boring administration type stuff!! Most importantly, we still need volunteers. There are lots of things to do, many don't require special skills, just a warm body willing to lend a hand!

There are also some projects which we need to have worked on that need the talents of some of you artistic types. We need some things designed, letterhead, labels, publication covers (other than the Journal). *[Ed—which is not to say that the Journal doesn't need help as well, but this is Nancy's nickle]* Washington Apple Pi deserves some classy things, and I know there are members out there that would do a bang-up job, so give me a call!

I want to remind you again to check out the new Apple Series Disketeria listings. John Ruffatto, with the help of Chris Hutmire, Ted Meyer, Phil Shapiro and others

continue to expand and refine the Apple Disketerias. Keep watching, in the next few months, you will see the list grow. Remember, if you bring in a disk of Apple II or Apple IIGS shareware or public domain programs, you may choose to receive a disk from the Disketeria or you can opt to get a blank disk. We still need people to help with the Disketerias and re-doing the Disk catalog.

I know I risked being redundant last month, so this time I'll risk being "threedundant" We still need your help.....

...Contacting stores and vendors to open lines of communication. You would simply need to contact the store, talk to them about who WAP is and what we can do for Apple and Mac owners, and see if they would be willing to carry our brochures and Journals.

...Contacting new members to

welcome them to Washington Apple Pi. This program is still in the planning stages, but we need to organize the base of volunteers that will be helping out. You can help WAP and meet new people all at the same time. The more members we have for this program, the better. Call the office if you can lend a hand!

...Stuffing envelopes. We always need extra hands. WAP does 2-3 mailings a month, even if you can only come in for an hour or two it would be a great help!

...Answering the phones. If you like to talk to people on the phone, answering their questions, or trying to help them with a problem, we welcome your help during the day.

The part-time position in the Business Office is still available, if you are interested in the job, please check the classified section of this issue.

A special note to those members who visit the office after hours or on weekends. The building has a Kastle security system installed. To gain entry pick up the black phone near the main entrance, and a Kastle representative will answer and assist you. 🍏

Apples for the Students

by Chris Bastian

Last month, I received the following letter from Dr. Michela Perrone, President of the Kennedy Institute in Washington, DC:

Dear Mr. Bastian:

We were so thrilled with the news that the Lt. Joseph P. Kennedy Institute will be the recipient of the Giant Food "Apples for Students" receipts Washington Apple Pi's members have collected that we could not wait until we received them to write a thank you letter!

In fact, we are thanking you even before we have looked at the redemption possibilities that \$52,000 to \$57,000 more receipts present us, but I

am sure this will mean that we can get at least a printer and a variety of software packages -- considerably more than we had originally envisioned would be possible.

The students in our Kennedy School will be forever grateful to Washington Apple Pi's members for your generosity. Your donation will make a major difference in their programming.

Thank you so much for caring about and supporting area students with developmental disabilities who are reached by Kennedy School's services.

I am thrilled to be able to announce that, when the dust had finally settled from our collection drive, we had donated more than \$80,000 in receipts; enough for a full computer system and software. In addition, about \$14,000 in Safeway receipts was contributed to REEP, an adult education program in Arlington, VA.

Far too many WAP members contributed to be thanked by name, but you should all be proud of what your generosity has been able to accomplish. I hope WAP will have other opportunities in the near future to offer its hand to the disadvantaged in our region. 🍏

The view from the... top



*The
President's
Corner*

by David Morganstein

Final Count. When the last Giant Food Store receipt came in, the WAP had collected a grand total of nearly \$80,000—enough to buy a computer for a local school. A hardy thank you to all the *many* people who contributed. A special thanks to Chris Bastian for his efforts to raise the total ever higher. This kind of community help gives the WAP its reputation for having a community conscience. Members have always been willing to help local schools and libraries. It would be nice if we took on one such project every year.

The Journal. Our Journal continues to look very good. Thanks should be given to our Editor, Frank Potter, for his hard work. He relies heavily on you, the membership, for the copy needed to fill the pages. There is, of course, always room for improvement. The Journal needs to be tied more closely to WAP events. Too often, we have printed incorrect information, failed to include a map or just forgotten to mention some activity.

Since the Journal is our primary means of communication with you, we need to make this a priority in the coming year. Also, we have received comments that more care is needed in editing copy. Here again, we can indeed make progress with just a little effort. We welcome your comments and reactions.

Volunteers Needed. The office staff can always use "drop in" help. There are frequently odds and ends (e.g., envelope stuffing) that can benefit from a few extra hands. If

you can give an hour here or there, call Nancy and let her know. She'd like to hear from you!

Future of the Pi. Our future is inextricably connected to that of Apple Computer, Inc. When they are hot, there are many new products, and new owners who need an organization like ours. When they languish, people buy "other" brands and some of our members drift away. Nevertheless, there is much we can do to encourage new members and to retain old ones. Although the results of our member survey are not complete, we know a few things about your needs from preliminary analysis and from several phone call campaigns we have made to members (present and past) to see what they want.

Our Journal articles and tutorials must have more "how to do it" in them. We have many people who are beyond the beginner stage (though we have our share of those as well) and are ready to take some next steps. We know that you want none of the "political nonsense" of the past. You frown on the phony mailings and modem bulletin board attacks. This is first and foremost a computer club and it needs to be fun. You want to see your hardware, no matter which model, receive its fair share of attention. You want to know about meeting dates, locations and topics well in advance (something we have got to do a better job on). Most of all, we know you like the WAP. You like its community service and its sense of comraderie. You like the hotline and the diskette

collection (when it is fairly priced and well documented). Basically we hear we are on the right track—we just have some bumps to smooth out.

Thanks To You. A year ago, I was brought out of retirement. The membership trusted me, again, with an important job. I believe I have not let you down. This does not mean that everything has been done that needs doing. However, the board meetings have been constructive and much has been accomplished. Decisions were usually unanimous after healthy conversation even though a diverse group is involved. You asked that By-Law changes only occur after careful deliberation and public airing. That has happened. The Journal has been filled with excellent articles submitted by people who are proud to be members and willing to offer help.

All this has been accomplished without the need for the President to make unilateral decisions or to serve on (or chair) lots of committees. The precept this year has been to let the volunteers take charge—not tell them what to do. In such an atmosphere, many new faces have appeared to take on responsibilities and to become active contributors. The Board held a Future of the Pi meeting and conducted a membership survey (the results of which should appear in the next Journal issue.) The WAP even held a picnic to remind us all of how much fun the club can be when we don't take ourselves too seriously!

Thanks for trusting me. I can now look forward to having a little more spare time and maybe doing a more regular Q & A column and perhaps even a few more installments of 'Excelling on your Mac' 🍏

Uncle WAP Wants YOU!

The Journal is in need of volunteers to review both Apple II and Macintosh software and hardware. Developers send solicited and unsolicited works to the office for review, and we would like to involve as many members as possible in this activity. We are in the process of establishing a more formal system to track the items that come in and to ensure that all material submitted (within reason) is reviewed. In order to accomplish this, one of the things we need is a list of folks interested in doing a review. If you have decent writing and organization skills please consider participating. There's no need to be Ernest Hemingway—a little editing can cover a multitude of sins. It will require whatever time it takes to put a product through its paces in enough depth for a fair and comprehensive review. The benefits to the writer are the opportunity to learn a great deal about a package and the chance to see your name in print. In most cases (not all) you also get to keep the product after the review is complete.

Help us make WAP and the Journal an even better source of up to date, high quality information. If you'd like more information or you'd like to volunteer, call Frank Potter, Tim McGraw or Lou Pastura or leave a message on the TCS or the Twilight Clone.

Software and Books Available Today!!

by Frank Evangelista

This is the first of what we hope will be a regular column in the Journal that will announce software and books that are available for review by WAP members. The editors are in the process of formalizing the Pi's relationship with software developers and building some organization and accountability into the review process. We will be keeping a database of what is received, what has been assigned and what is available for review. This column will provide a mechanism for obtaining additional volunteers to do reviews.

If there is an item you are interested in trying (or reading in the case of books) please give Tim McGraw (Apple II), Lou Pastura (Mac), or Frank Potter a call to make arrangements. We encourage all members to participate with the understanding that a written review is expected within a reasonable time frame (about 60 days). When the review is completed the software, except in unusual circumstances, becomes the property of the reviewer. Until that time, the software remains the property of the Pi and must be returned, if the review is not completed in a timely manner.

BOOKS:

- The Macintosh Small Business Companion
- Programming in Fractal C
- The PC User's Survival Guide (How did this get in here?)

SOFTWARE (MAC)

- Empower II by Magna (Security)
- Inside Information by Microlytics (Backwards dictionary)
- Personal Phone by Personal S/W Development (Appletalk)
- True form by Adobe (business forms creation)
- Great Gantt by Varcon Systems (Gantt Chart Maker)
- Right Writer by Right Soft (Grammar and Style Checker)
- Shortcut by Aladdin Systems
- Time & Money by Arborworks
- Learn to speak French by HyperGlot

SOFTWARE (II)

- UltraMacros Primer

We expect in the future to have more balance between the two machines but we have no intention of holding anything back because of the appearance of favoritism. ALL material is intended for listing here. What you see is everything we currently have. We will also be developing a list of volunteers who have expressed interest in doing reviews without a specific package in mind. If you'd like to be included on that list, please contact Frank, Lou or Tim. 🍏

[Ed note—Tim has just told us that the pressure of his other professional commitments means that he will no longer be able to act as Apple II editor. His departure will leave a large hole; his efforts have been substantial and have been appreciated.]

Apple IIGS SIG

by Paul Tarantino

The crowd was thin for our May meeting at the National Institutes of Health, probably because we had accelerated our schedule to leave the Memorial Day weekend unencumbered. Doubtless some of us had not gotten the Word. (Handy Hint: check the TCS or the office (or Gary Hayman, or me) to verify IIGS SIG meeting times and places as they are subject to random changes driven by holidays and other quirks of nature.)

If you weren't there you missed an exceptionally interesting evening, courtesy of Jim McCann and his incredible IIGS music machine, festooned as it was with Applied Engineering's Audio Animator card and control box (about \$175 mail order) and connected to a very intimidating MIDI keyboard. The Audio Animator board attaches to the IIGS's Ensoniq input/output connector (on the motherboard) and can occupy any slot, although slot 2 is preferred. The accompanying external audio control box connects to the card via a mounting plate which is attached to the back of the CPU.

This apparatus provides a multitude of GS enhancements for the audiophile, like stereo sound, a one-watt signal for two non-powered speakers (with volume control) and a microphone input jack. With the accompanying software, one can extensively manipulate a digitized sound bite (amplify, echo, fade, reverse, loop, cut and paste). Add a MIDI device like Jim's keyboard (or multiple MIDI devices, if they have MIDI THROUGH jacks, an audio equivalent of a SCSI chain) and one can record or play up to eight tracks worth of MIDI-encoded music and sounds.

Why do both, and what's the difference? Digitized sounds are high-density samples of an audio waveform, which can take up lots of disk space, especially at the sample

rates necessary for music (30 kHz or so). At that sample rate, 30 seconds of music will use up 800K of memory or disk space! Voice recordings can get by with maybe a 7-10 kHz sampling rate (about 10K per second of speech).

MIDI is an industry standard method of digitally encoding instructions for the recording, playback, and manipulation of music. While MIDI music scores can be composed and edited, the sounds themselves cannot be manipulated as much as digitized waveforms can, although MIDI music takes up far less space than digitized sound. SoundSmith and DiversiTune songs both use the MIDI protocol.

Sounds complicated, and it is. Jim admitted that AE's MIDI sequencing software is not very intuitive for a novice. Nevertheless, he demonstrated that it was easy to have a lot of fun with sounds and music with the Audio Animator. When we approached his knowledge limits on this subject (Jim is still on the steep part of the learning curve) we turned to SoundSmith, just to hear how good MIDI music can sound in stereo with good speakers. Even the Audio Animator's one-watt-per-channel output put a lot of decibels into the room. SoundSmith is pretty slick shareware, although nobody at the meeting knew of anyone who had gotten any response from having sent the shareware fee to the author in Spain.

Rumors, gossip, and public domain/shareware disks from AppleFest were freely exchanged, and those who didn't make the trek to the darkest depth of the New Jersey suburbs were able to review about 12 feet of AppleFest notes which Gary had downloaded from the TCS.

Forthcoming meetings will cover a wide range of topics, from calendar and disk label makers (June) to HyperStudio (July). Please join us! 🍏

WorksSIG

by Chris Bastian

May's meeting of the Microsoft Works Special Interest Group was graced by a special guest: the United States Postmaster of Lincoln Park, IL, looking for an evening's excitement at the WAP office. The primary discussion focused on using the Works spreadsheet in conjunction with the macro language, for investment analysis. Macros, as discussed last month, are stored sets of commands which are executed sequentially the same way as when they were written. Some macro languages will allow a pause command to be included, so that user supplied data could be entered into the file in the course of the macro's operation. Works does have a pause option (when RECORD PAUSES is selected, and START RECORDING is turned on, the macro will record any time during which no commands are being entered, and will wait the equivalent period when the macro is replayed.); however data from the keyboard cannot be entered into a Works file while a macro is running, and there is no "pause" option to stop a macro that is being replayed. However, by using the COPY command to create several versions of the same formula, and the macro option to collect the separate results and copy them into a database file, a streamlined process was developed to analyze and rank several investment options at one time. The key, as always, is to think out each step in the process ahead of time, and know exactly what commands and math functions to use.

Our next meetings will be on June 20 and July 18 (Wednesdays) at 7:00 PM in the WAP office. During August we will probably be on summer hiatus. For more information, please call me at 301/907-8187 🍏.

EdSIG

by Phil Shapiro

A small but enthusiastic crowd of people showed up for the May 24 EdSIG meeting at the Pi office. The meeting started off with Lorin Evans demonstrating a language arts/creativity program called Stone Soup. This delightful program allows young children to construct their own scenery, complete with cute animation. After choosing a background, and a menagerie of animals and objects, kids can add their own text onto the screen.

Everything created on the screen can also be printed. The publisher strongly recommends using a mouse rather than a joystick, and a color rather than a monochrome monitor. On the office Apple IIGS, the colors appeared vibrant, without any of the annoying fuzziness of other Apple IIe/IIc programs.

The publisher of this disk is a lesser known company by the name of William K. Bradford. It's surprising that the magazines haven't reviewed this excellent program. The price for the program is \$75 for schools (which includes one backup disk) and \$40 for home users.

Next, computer specialist Grace Gallager discussed the best way to upgrade memory on your Apple IIGS. Apparently Roger Coats' company has the best prices on memory chips. You can buy 256K for \$29. Installation is a little tricky, but there are lots of technically

minded people in the Pi who'd be happy to help out, either for free or a small fee.

Following that, Phil Shapiro demonstrated a program he's written for pre-schoolers which uses the Cricket speech synthesizer from Street Electronics. Using a simple Applesoft BASIC program, this game introduces children to the typing and spelling of simple words. As a reward for typing in the word on the screen, the speech synthesizer speaks a funny little phrase using the word.

Carol Vogel then showed Pow! Zap! Kerplunk!, another language arts/creativity program. We even got the program to talk using the Cricket speech synthesizer. This program, like Stone Soup mentioned above, can motivate even the most reluctant child to get involved in the creative process. And by blending in artistic creativity with verbal creativity, children naturally develop their expressive skills.

A half-time intermission of cookies and juice was cut short to look at a new MECC (Minnesota Educational Computing Consortium) product. Grace Gallager demoed Estimation: Quick Solve 1, a math program for grades 5 to 8. This well done program can be played as a competition between two students, or as a competition between student and computer. It covers everything from whole number arithmetic to fractions, decimals, and percents. A problem appears on the screen from anywhere between 10 and 30 seconds. The first person to arrive at a close estimation of the answer

presses either the "a" or the "l" key. If the estimate is not close enough, the other player gets a chance to give his or her estimate.

A discussion ensued as to the importance of estimation skills in day to day life, and how this program fills a big void in the standard math curriculum.

Grace also showed a speaking word processor for the IIGS, titled Smoothtalker, from First Byte. Anything written on the screen can be spoken at slow or fast speeds, in a low or high pitch, and in a male or female voice. She told of how this program motivates children to write in her classroom.

Bill Wydro talked a bit of the summer camp where he'll be using computers with gifted children. Departing from the set curriculum of the academic year is always invigorating for any teacher. And working with highly motivated children can make for a refreshing change too.

The meeting ended up with a demonstration of Math Blaster Mystery, a new product from Davidson and Associates. This winner of a program gets children to think deductively in working out math problems. One strong feature of the program is the way it does word problems, complete with thoughtful prompting as to the necessary steps. You can also enter your own word problems after exhausting all the ones on the disk.

Parents and teachers who would like to be included in an EdSIG database may call me at my home phone, (202) 686-5465. The purpose of such a database would be to help those interested in educational uses of Apples to link up with one another. This could include software swapping, among other things.


Hope to see many of you at the mid-summer, July 14, EdSIG meeting at Fred Lynn Middle School. For directions and details, please call Grace Gallager at (703) 491-2770. 🍏


Scanning 24-bit 11" x 17"	Slide Output EPSF! Hi-Res (4K) PICT, TIFF	Graphics Design Production
----------------------------------------	-----------------------------------------------------------	-----------------------------------------


SlideShow Presentation Graphics



1100 6th Street, SW - #215
 Washington, DC 20024
 (202) 479-1005

Picture yourself at MACWORLD Expo

There are  good reasons why you should attend the MACWORLD Expo nearest


you. First, attending MACWORLD Expo means you don't have to spend lots of 



and  trying to find the best solutions to your computing problems. Second, you




can  and  the latest Macintosh products . . . demo hundreds of hardware,




software and peripheral exhibits representing the future of  computing. Third,

whether you use your  in the , at  or at  you'll learn how to use

it better. Fourth, if you develop, produce or sell  products, you'll have a unique

opportunity to spot upcoming . And fifth, you'll be able to  your skills,

using one of the many   available, to practice what you've learned. So 

the coupon below,  and  it for more information. And  this is the

original Macintosh-exclusive show. Choose from these upcoming shows:

BOSTON '90
August 8-11, 1990
Bayside Expo Center
World Trade Center

TORONTO '90
October 23-25, 1990
Better Living Center

Just fill in below, clip and mail to: MACWORLD Expo, Mitch Hall Associates, 260 Milton St., Dedham, MA 02026. You'll receive complete information on each show as soon as it's available. No obligation of course.



I want to get the big picture.

I am interested in: Attending Exhibiting

Please send me details about the following MACWORLD Expos:

Boston August 8-11, 1990 Toronto October 23-25, 1990

Name _____ Title _____

Company _____ Street _____

City/State/Zip _____ Phone _____ WAP

MACWORLD Expo is sponsored by MACWORLD, the Macintosh™ Magazine, an IDG Communications publication. MACWORLD Expo is an independent trade show produced by IDG World Expo Corp. and managed

**MACWORLD
EXPOSITION**

by Mitch Hall Associates and not affiliated with Apple Computer, Inc. MAC, MACINTOSH and MACWORLD are trademarks of Apple Computer, Inc. IDG World Expo Corp. is a company of International Data Group.

Book review

HyperCard Stack Design Guidelines

by Brian G. Mason

It was suggested by Dennis Doms in the December 1989 edition of *A2-Central* that one of the most promising areas where we might see the Macintosh and the Apple II computers get together is in the use of hyper-media. HyperCard, which Apple has bundled with the Macintosh computers, caused a sensation among Macintosh computer users when it first came out because it was an exciting way to access information. HyperStudio, which Roger Wagner Publishing, Inc. has developed to run on the Apple IIgs, and TutorTech, which runs on any 128K Apple II, both have provided the same type of excitement in the Apple II world.

Doms talked about rumors that Apple Computer is developing its own version of a hypermedia application for the Apple IIgs. He speculates about what the implications might be of the Apple II version being compatible with the Macintosh's HyperCard so that HyperCard stacks could be read on the Apple IIgs.

It is rather soon, I think, to predict what will be the end result of all this excitement. Hyper-media is definitely a "magical" way of accessing information. If you want to find out about something, you click your mouse cursor on a graphic representation of the object, and the information is presented. Furthermore, this information can be more than just text—it can be reinforced with animation, sound and pictures.

The problem is, if you are going to have access to the information, you need the right kind of computer which can read the "stack" of cards created by the hypermedia program. Also, it is not exactly information you can carry around with you. Once

you print out the information, you have lost the unique presentation of the information. It becomes like any other written text—presented in linear format.

Will we see such a wide-spread distribution of computers among all members of the population that hypermedia will be available to everyone? If not, what will be the eventual distribution of information available only via hypermedia? Who will be the users of information presented in hypermedia form?

HyperCard Stack Design Guidelines is a new book, copyrighted in 1989 by Apple Computer, Inc., and recently added to the Washington Apple Pi library. This book, published by Addison-Wesley Publishing Company, Inc., will be of interest to anyone who is interested in developing hypermedia stacks regardless of the type of computer being used. It tries to provide anyone who would like to do a competent job of creating a hypermedia stack with some useful suggestions about how to do it.

The very first guideline is to decide who your users are. If you are going to design a HyperCard or HyperStudio or some other hypermedia stack, who will be using the stack, now and in the future? This is a question which I will leave to the future and to the developers and promoters of hypermedia stacks to answer. But it is a question that all developers of hypermedia stacks will have to take into consideration.

Apple Computer is very concerned that whatever is presented to the Apple computer user adheres to its "Human Interface" Guidelines. The company devotes chapter nine of this book to an outline of the 10 general design principles presented in

the book, *Human Interface Guidelines: The Apple Desktop Interface*. Apple apparently wants to make sure that any stacks that are developed adhere to certain professional standards, also. Thus in the preface, it's stated:

The power and flexibility of HyperCard allow virtually anyone to become an "application author," creating custom stacks for personal use, for business or education, or for commercial distribution as retail or "shareware" products.

But all stacks are not created equal...

The computer "for the rest of us" creates a state of anarchy in which some sloppy applications could be presented as a professional product. Apple wouldn't want the computer to be blamed for the software's failings. Basically, this book says to the stack author: think about what you are doing. Make sure that the stack works as intended, that users cannot get lost, and that card layouts are not confusing. It presents the stack designer with lots of things to consider and think about before and during stack design. It also offers many suggestions about how to avoid problems.

Just as there are ten general Human Interface guidelines, Apple sets forth nine general guidelines to follow when designing and building hypermedia stacks.

- (1) Decide who your users are.
- (2) Decide what the stack's subject matter is and what it is not.
- (3) Decide how to present the subject matter to your users.
- (4) Make your stack easy to navigate.
- (5) Introduce people to your stack.
- (6) Integrate text, graphic design and audio design.
- (7) Plan on changing your stack several times.
- (8) Test early, test often and listen to your reviewers.
- (9) When you're finished, check the stack one last time.

After covering the first three guidelines in the first chapter, the next six chapters are devoted to hints and techniques for accomplishing the objectives of the next three guidelines. Chapter eight gives guidance on how a person or a group might proceed from conception to a finished product. There are also three Appendices. The first covers building stacks for international audiences and disabled audiences. The second is a checklist, which presents the contents of the book in the form of a list of things to think about as you design and build your stack. The third is an excellent bibliography of recent books which would be of assistance to the stack builder—books on drawing and visual thinking, books on the creative process, books on animation, graphic design and layout, etc. Following the appendices, there is a very short

glossary of terms if you do not know what an XCMD or an icon is. And finally, there is an index.

Overall, the book is very well organized and very well presented. It consciously sets forth at the beginning of each chapter what the chapter is going to cover, then it covers it, then it tells you what it has covered. Despite my cynicism about a need for stack design guidelines, I did find the book to be helpful as a reminder of things to watch out for as a person designs any stack.

Anyone who wants to prepare a stack that is truly useful and friendly to the user needs to be aware of the points presented in this book. If you do not inherently possess the skills and knowledge to do this on your own, you might do well to get this book to serve you as a crutch or as a

reminder of things to think about. You might also find the checklist helpful.

At \$16.95 retail, you will want to be serious about creating professional-looking stacks before buying the book. Better yet, check it out of the WAP library and decide whether you need your own copy. 🍏

HyperCard® Stack Design Guidelines; Addison-Wesley Publishing Company, Inc., 1990

Linotronic Services While You Wait!

- 635, 1270 or 1690 dpi
- Over 300 Postscript Typestyles
- RC Paper, Positive or Negative Film
- Quantity Discounts
- Authorized Apple VAR
- Digital Scanning & OCR
- Complete Camera Capability
- Copying, Printing & Binding

A 10% discount is available to all Washington Apple PI members — just show us your card. A single letter size page, output on RC paper, is \$9.00. Quantity discounts for 5+ pages.

alphaGraphics

Printshops Of The Future

11217 Lee Highway • Fairfax, VA 22030 • (703) 591-1100

Artists on exhibit

by Nancy Seferian

This column will look at the art and artists of Washington Apple Pi and the techniques and tools used to create the art.

Art: *Church* (below), *Space Station* (right), *Charging Knights* (opposite left), *Factory* (opposite right).

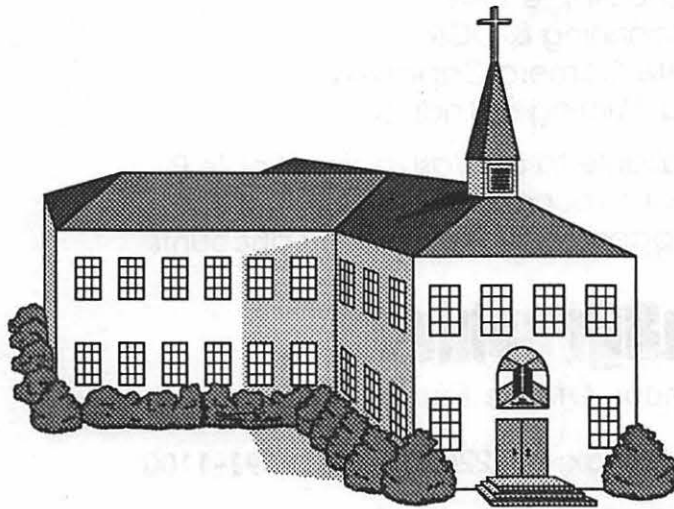
Artist: Steve Heise created the art for this month's *Artists on Exhibit*. He says he doesn't have a graphic background, except for 10th grade art where he got as far as shading (but we don't believe it). He is presently Production Manager at Sumichrast Publications where he does "everything".

How they were done: "The idea for *Church* was from a childhood memory of a Presbyterian church. I created it in *Illustrator '88* beginning with a window. The additional windows were copied and pasted.

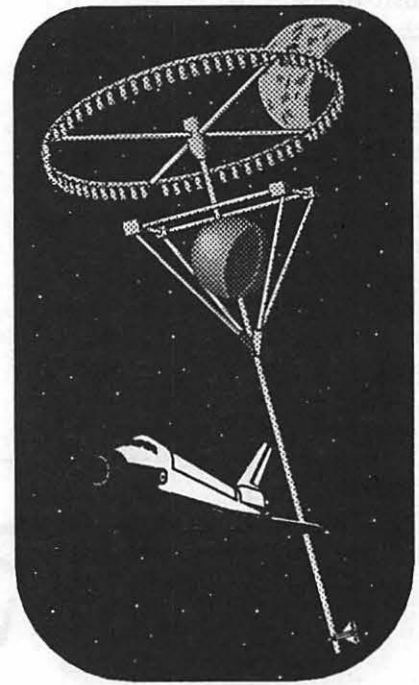
"One problem was to make the front windows appear closer and the

back windows to appear to go toward the vanishing point, or to recede in the distance. I enlarged the front windows by 130% to make them appear closer. Then I took one of the windows and selected the left edge of the box (the window) which included the three horizontal lines on the window. Then I could move the window up or down to get the correct angle to match the roof angle. I then realigned the vertical lines on the window and copied and pasted to get the second window, and reduced by it 10% to make it look like it's going back in distance.

"I used the pen tool to create the cross's points where each corner was, and repeated that process to achieve the shaded portion of the cross. The stained glass window was a compromise (my boss wanted a Catholic church), so I drew a shield and a cross with rays coming out. The words at the bottom say, 'Thou shall not steal.'



Church



Space Station

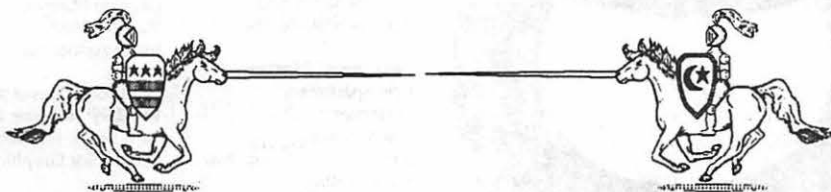
"*Space Station* took two days to do. My source was a picture from a Japanese company of a 14 million dollar space hotel. The basic structures were the cylinders going around the oval. I drew an ellipse (a circle that's squished), copied the ellipse, ungrouped it and cut the bottom half, leaving me with the top of the ellipse. Then I copied that and put it on the top of the real ellipse and made two lines in between. For the cylinder I made a blend from 70%-30% to get the shading on the side of it. Each cylinder connected to the two ellipses, one being smaller than the other.

"The shuttle is from the clip art package, *Images with Impact*. I changed its lines to make it thinner,

and changed the fill from black to 90%.

"*Charging Knights* was created with SuperPaint. It took many hours to finish. I used a stock MacPaint image of a unicorn (72 dpi), and pulled it into laser bits to go to 300 dpi to work the jagged edges off. I changed the horses' head angles by twisting them 30°. Then worked on the legs to make them running instead of pawing the ground. I took the legs that were there and bent and tilted them to different angles. Here I'm talking about the outline of the drawing only. I worked with all the outline parts in this manner. To make the knight the way I wanted, I began working with the opening of the face helmet, and continued with the rest of the armour using circles and lines.

"When I had the completed outlines of the horses and knights, I had to create four files to accommodate the lances and horses because it was so large. I recently made it into one file with the new SuperPaint. One of the best things about SuperPaint 2.0 is that you can take MacPaint images and paste them into the draw layer of SuperPaint and then reduce them to make the image look crisper when printed on a laser printer.

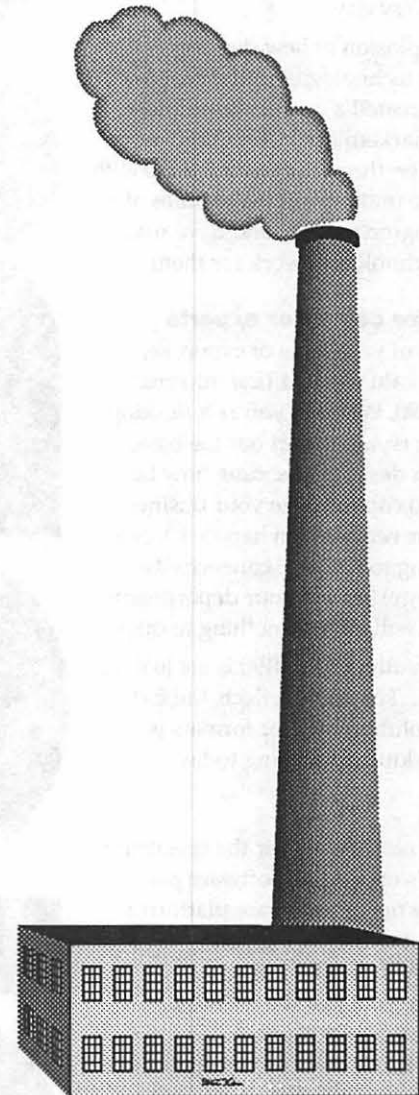


Charging Knights

"For *Factory*, I reused my window from the church. I made the smoke stack by using the pen tool to make the outline. I made the top by creating an oval and cutting the bottom out like I did making the cylinder (above). Then I shaded it 100% to make it stand out. For the cloud I used the freehand tool, and then went back over each point until it looked correct. I copied and pasted that, then reduced it 70% to get the inside part of my blend. But the points were not positioned right so I had to play with them. I then made the inside cloud a 30% shaded .5 line (not fill). The outside cloud was 60% shaded .5 line. I blended the two about 30 steps. Then I selected the inside cloud and did a 20% fill. The smoke stack blend used the same technique, but with straight lines.

"The most important part of blending is that you must use the same object (just reduced), because if the points are different, the computer can't figure out where to blend to. You end up with lines everywhere."

Tools: Mac cx, Radius 2 page monitor with 256 gray levels, Quark Express, Adobe Illustrator, SuperPaint 2.0.



Factory

To submit art by mail, send it to
Nancy Seferian
1425 Foxhall Road, NW
Washington, DC 20007.

To submit art by modem to the
TCS, dial 986-8085. At the Main
Menu select (F) for File Transfer
Area. Then choose area 24 for
Journal Submissions, and upload.

Welcome . . .

. . . to COLOR90 — The Washington Desktop Publishing Conference. Join a thousand of your colleagues in printing and publishing, graphic design, and business communications as you examine new solutions to the problems you face every day.

The explosion of new desktop publishing technologies in the past few years has created a confusing—almost chaotic—marketplace. COLOR90 helps restore order, through conversations with people who understand the realities of the Washington market, and have made the new technologies work for them.

Not just for computer experts

Regardless of your level of expertise, you'll find valuable, *practical* information at COLOR90. Whether you're a desktop novice, just trying to sort out the basic decisions, a designer deciding how far you need to computerize your business (and if your vendors can handle it), or a CEO looking to increase connectivity (thus synergy) among your departments, COLOR90 will have something to offer.

Incidentally, COLOR90 is *not* just for color users. The name reflects the fact that the evolution of color formats is driving desktop publishing today.

Seminars

COLOR90 seminars cover the spectrum:

- How-to's on leading software packages for the major hardware platforms.
- Attention to increasing your productivity through finding the appropriate—not just the flashiest—ways to please your clients.
- Ways to bring designers, printers, and computer people together to raise the level of communication (not to mention improve the end product).

Registration

Pre-registration discount: \$50 for full conference (including seminars) and \$10 for exhibits only. Registration at the door is \$60 (full conference) and \$15 (exhibits only).

For more information and your registration form, call 703/525-8889, (seating is limited). Preregistration must be postmarked by July 2, 1990. Registration materials will be available at the Pre-Registration Desk on the morning of the conference beginning at 8:00 am.



Vendors

No computer conference would be complete without the opportunity to play with some of the software packages and hardware you've heard discussed and have your questions answered by manufacturers' representatives. Representatives of leading software and hardware products will be exhibiting at COLOR90, along with many local servicers and distributors.

When and where

Date: July 12, 1990, from 9 a.m. to 5 p.m.

Place: Techworld, across the street from the Washington Convention Center.

Convenient access from the Metro Red Line, Gallery Place or Metro Center Stations.

Thanks

The staff of COLOR90 express their appreciation to the sponsors — *Computer Digest*, *Capital PC User Group*, *Print & Graphics*, *Software Publisher Association*, *Techworld*, *Washington Apple Pi* — for their generous contributions and encouragement.

SEMINARS

Demystifying DTP

Thomas J. Piwowar,
President, Thomas J.
Piwowar & Associates

AURAS Design
Tom Jones,
Creative Vice President,
Wickham & Associates

Using Color Wisely

Nanette Bisher,
Senior Art Director,
US News & World Report

**NeXT Computer
Publishing in the 90s**
Mary Broyles, *Manager*,
Service Bureau VAR
program, NeXT, Inc.

Coping With

Service Bureaus
Steve Ferri, *Art Director*,
Neighborhood Reinvest-
ment Corp.

File Formats
Scott Gessay, *Senior
Software Engineer*, FGM

Setting Up A First-Class Mac Graphics Dept.

Donna Munari,
Director, Creative Services,
Professional Insurance
Agents

**Fonts and Font
Utilities**
Earl Douglass,
Vice President,
Publishing Solutions

Pre-press Color Production Techniques

Steve Rhodes,
Production Manager,
Wickham & Associates

Power PageMaker
Christopher Macias,
Moderator, Senior Designer,
KPMG Peat Marwich
(Panelists TBA)

Electronic Publishing— A Printer's Perspective

Joe Manganello, *Corp.
Account Representative*,
Arc Publications, Inc.

Power of Ventura
Walter Knorr, *President*
Treetop Publishing

Designers' Stories

Don Sparkman,
Moderator, CEO,
Sparkman and
Bartholomew Assoc., Inc.
Dave Fridberg,
Partner, Miles Fridberg
Molinaroli, Inc.
Rob Sugar, *President*,
Creative Director,

Color Separations
Graham Murray,
Vice President,
Justin Associates

**PostScript Level 2 —
The Key To Color Work**
Paul Beyer, *President*,
Soho Color Graphics

Presentation Pizazz
David Zweigel,
BarneyScan Corp.

New Wine in Old Macs

by William R. Jensen

Question: Who can own a Macintosh for almost six years and still be a novice?

Answer: Someone trying to use a Macintosh 128.

The March 1990 issue of The Washington Apple Pi contained information for Mac Plus and Mac SE owners concerning memory expansion by adding SIMMs, (See Mac Q&A). Yet there are still some near orphans struggling along with 400K drives, disk swapping techniques, and very limited software options. Apple's official upgrade to the Mac Plus costs as much as a new Mac Plus, so it does not make sense to follow the path designated by Cupertino.

After almost six years of using a stifled computer, I purchased a third party upgrade kit-Mac Rescue, the upgrade for Classic Macs of the 128 and 512 vintage sold by Computer Care, Inc., Ford Centre, Suite 1180, 420 North 5th Street, Minneapolis, MN 55401 (1-800-950-2273).

The Mac Rescue kit consists of a piggyback daughterboard, with plug in modules for six SIMMs, and a clip for attaching this board over the original 6800 Motorola processor chip on the motherboard. The new board has a SCSI port, that replaces the battery door.

For the novices out there like myself, a SIMM (single in line memory module) is the way Macs from the Plus on up have their memory configured. And motherboards and daughterboards are the description of the original and any attached circuit boards that contain the central processing unit and memory of the computer.

For \$317 you get a kit that still needs a few extras. Like SIMMs, new

128K ROMs, (the Mac 128 and original Mac 512 had 64K ROMs), and an 800K disk drive for Mac Plus equivalency. All of these extras raised the price of the 2 megabyte upgrade to \$860. SIMM prices have dropped since January, perhaps reducing the cost from \$40-\$60.

The surprise is the \$50 refundable deposit required for ROM exchange (Why Apple thinks 64K ROM are so valuable is beyond me-after all, is someone going to clone a 128 Macintosh?). And if you are going to perform this upgrade, you need to crack your Classic Mac, so spend at least \$15 on tools to open the case. Not a cheap upgrade, yet the result is that I have a reborn Mac, with one 400K drive, one 800K drive, and enough memory to use System 7 when it arrives. This rebirth led me to join WAP, and really discover the joys of home computing.

Computer Care advertises that no modification to the original motherboard is required, nor is any soldering, which is correct. They also claim that the expansion can be installed in minutes. With toll free trouble shooting support from Computer Care, mine was accomplished in approximately four hours. Although the instructions are clear, some the illustrations could be larger, in order to show more detail. Prior to opening the Macintosh case, the power must be disconnected for at least three hours, and you must use anti-static strapping to protect the RAM and ROM chips.

Cracking the case, disconnecting the motherboard from the internal disk drive and power supply, removing the old motherboard, took approximately one hour. Next, I removed the old ROMs, and

carefully installed the 128K ROMs so that I could take advantage of the 800K drive and SCSI port and give it true Mac Plus power.

The more intricate job was the installation of a special clip, called a Killy clip. This snaps over the old Motorola 6800 processor, the CPU of the Mac 128. It is a careful two step snap-on procedure. It must be seated snugly to allow the daughterboard to function. The daughterboard has its own new 68000 processor.

The old ROMs are easily removed. They must be placed in a static bag and returned to Apple via Computer Care. The new ROMs are also a snap to install.

Popping the SIMMs on the new daughterboard is quite easy. SIMMs come in a 256K or one megabyte variety. I used the one megabyte SIMMs for my upgrade. Having six SIMM slots, the board allows owners of 128K machines the option of moving to 1, 2, or 4 megabytes of RAM, and 512K or 512KE owners can choose 1,2,2.5, or 4 megabytes. Unlike some of the popular Dove expansions, Mac Rescue can be recon-figured for more RAM later on as your needs change. I chose a 2 MEG configuration since the cost difference was minor, and I knew that System Software 7.0 would require at least 2 MEG of RAM. I had been obsolete long enough.

The difficult part of the operation was the mating of the two boards via 64 fragile wire pins on the top of the clip, which attaches to the daughterboard. As it turned out, I bent one of the pins, eventually breaking part of it off. One needs excellent light for this part of the installation, as well as a lot of patience. The pins are delicate, and the instructions direct the use of considerable pressure in pushing the two boards together for a lasting fit. After the boards are linked, it is a reverse process to reassemble the Mac for a test of its function. In my case, I needed help, since the test revealed a problem.

Toll free technical support on a Saturday? Well, a cold Saturday it





was in Minneapolis in January, but even the accountant was able to assist. The aforementioned pin, prior to being broken off, was not making contact, and the reassembled test revealed bars across the screen instead of the smiling Mac face. With the patient guidance of two of their staff, I took apart the two boards, bit my tongue as I broke off most of the pin, and was rewarded with enough of a connection to make my old companion the Charles Atlas of home computers it was longing to be.

The last step, after reassembly of the electrical components, was the installation of the new SCSI port by feeding the wire into the old battery compartment. The port functions as the door, secured by screws.

By using a relatively inexpensive (\$147) Systemgate 800K drive, I now have an upgrade that is partially mobile, when my old Mac succumbs to age and the use of a seven and nine year old. I can take my memory, my 800K drive, and use it on another Macintosh. Yet I have Mac

Plus equivalency, as I can boot from 800K disks or my newly purchased hard drive.

Despite my nail biting session with the stubborn pins (the cost of a new Killy clip from Computer Care would be \$25, so it was not a major problem if I had completely wrecked it), I had a lot of fun performing the upgrade myself. I enjoyed seeing the inside of the computer, including the Mac team signatures. Now I have a part in the team that makes my computer more than just a tool for my family.

I would recommend the Mac Rescue upgrade without reservation to people confident to crack a Mac. To those who aren't, and who still desire such an upgrade, I understand that MacHeaven in Chantilly, Virginia will install a Mac Rescue board for only slightly more than what I paid. It is hundreds less than the official upgrade from Apple.

There are other upgrade options for the Classic Mac owners from brands such as TSI or Newbridge

Systems. They range in price, and can offer paths like a 68030 CPU for increased performance, or video outlets for large monitors. If I had the extra money for large monitors, or needed super speed for difficult math operations, I would have purchased a brand new computer. Mac Rescue fit my needs, and my budget. For a comprehensive review of the upgrade options, Macworld had a cover story in the February 1990 issue (which I read one day after purchasing Mac Rescue).

Stop the Presses!

For just the cost of shipping, Computer Care has just sent an offer to upgrade the Mac Rescue Board with an additional refinement. If I return the motherboard and daughter-board to Computer Care, they will solder a new circuit control chip and return the unit to me. The new chip will allow configuration of a RAM disk from 0.5 to 2 megabytes, even if I have the maximum 4 megabytes of RAM already installed. The RAM disk software costs an extra \$30. I have been told that a RAM disk can cut down on the wear and tear of the disk drives by reducing accesses. What is really impressive is that the labor to add the chip is at essentially no charge. Computer Care will send the package to return the merchandise, perform the upgrade, and return my board, for \$15 shipping if I do not need it overnight.

Apparently Computer Care is not satisfied with helping only Classic Mac owners, as their staff informs me memory extension products are on the way for Mac SE owners on up. For an owner of a near orphan, I sure feel wanted by the group at Computer Care. I hope that any other potential Mac 128K machine owners will consider being "rescued". Recycling has dramatically improved my home (computer) environment.

I work as a Regional Manager for Associated Welfare and Pension Administrators, a benefit administration firm located in Landover.

MacSource
a mostly Mac store...

2121 Crystal Drive
Arlington, Virginia 22202

Where Do We Begin ???

...MacSource has so many new products and services,
we can't find the space to list them all.
But, if you put on your glasses we will list as many as we can!

<p>Hardware</p> <ul style="list-style-type: none"> Monitors (Color/GS/Mono) ...PIVOT by Radius (NEW) CD-ROM Drives Optical Drives Hard Drives Removable Drives External Floppy Drives Fax-Modems DaynaFile Drives Laser Printers Color Printers UniMouse & WIZ Hard Shipping Cases 	<p>Software</p> <ul style="list-style-type: none"> Ultra Paint (NEW) Power Draw Federal Clip Art Fed Forms (NEW) Clip Art ...Naval Art (EPSF)(NEW) Quark XPress ATM & Adobe TypeSet SUM & SAM Omnis 5 Federal Job Link(UPDATED) MacroMind Director Security Programs 	<p>Services</p> <ul style="list-style-type: none"> Macs, laser printers, color printers, & other equipment available for on-site rental by the hour. •OCR scanning •MS/DOS to Mac translation •Clip art downloading •Training (1-on-1) •Consignment jobs •User group meeting •Consulting •Presentation graphics ... and friendly support by Mac-intelligent people
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



call... 521-9292

Here's The Difference

ONE YEAR WARRANTY

Free Federal Express Delivery on These Items

\$335

Computer Eyes

Professional Series Video Capture Board
Single board accepts color video input from any standard video source! Captures and displays 256 colors in 8-bit mode, and 16.7 million colors in 24-bit mode. 32-bit QuickDraw compatible.



The Maya Guarantee

Satisfaction is guaranteed. Maya Computer offers a one year parts & labor warranty on both new and used Macintosh computers. Return any product in saleable condition within 30 days of purchase for a cheerful refund or credit.

One Meg SIMMS

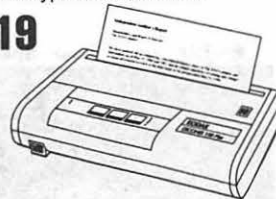
\$69

80ns, Lifetime Warranty

Diconix M150 Plus Printer

Introducing the Kodak Diconix Portable Printer for Apple Macintosh Computers. So small and light it can be carried in a briefcase. So powerful it prints crisp text using Adobe Type Manager software (included) and striking graphics. And the Kodak Diconix M150 Plus printer includes MacPrint M150 Plus driver and ATM w/13 type faces and cable.

\$519



Océ Model 5232 Color PostScript Thermal Transfer Printer

Prints bright permanent Adobe PostScript images on paper or overhead transparencies. And Pantone-certified colors at 300 DPI assure accurate image reproduction. This combination of a precision printer and Océ's unique plastic based ink sheet give unsurpassed color vibrancy, sharp line definition and exceptional media durability.

\$13,650



Abaton Scan 300/GS 8 bit Gray-Scale Flatbed Scanner

Abaton's Scan 300/GS is a 300 DPI 8 bit, flatbed scanner that offers superb clarity of 256 levels of true gray-scale scanning. Includes your choice of Digital Darkroom or Image Studio and Abaton's innovative Pane Scan software which allows you to scan images from a desk accessory without exiting your program. Compatible with Caere's Omni Page OCR software.

\$1,325



Abaton InterFax 24/96

Fax power is now as close as your Macintosh with the Abaton InterFax 24/96 fax modem. The InterFax is a Hayes compatible 2400 bps data modem that also sends and receives faxes at 9600 bps for indispensable communications capabilities. Sends and receives in the background with or without MultiFinder.



\$399

SPECIAL PRICES

Free Federal Express Delivery

Keytronics MacPro ADB Extended Keyboard w/Tempo II: \$119

Mac II CPU NEW! 1 year warranty: \$2650

Micron XCEED 8 bit video card for Mac II or SE/30 13 inch: \$329

Micron XCEED 8 bit video card for Mac II or SE/30 19 inch: \$569

Shiva Netmodem V.32 9600 Baud: \$1479

Mac II fx SIMMS 1 Meg: \$119

Prometheus Travel Modem w/BackFax: \$219

Maya Computer

Waitsfield, Vermont
802-496-6982, FAX: 802-496-8110

800-541-2318



Hard (Disk) Division

by Ralph J. Begleiter

When you first set up your new Macintosh, you found it so easy to start working that you probably began immediately creating files and folders, storing them on your multi-megabyte hard disk drive with little thought to running out of space. You probably gave no thought to the difficulty of *finding* your files on the drive once you've placed them there. "After all," you mumbled to yourself, "I'm giving all my files distinctive and descriptive names, so I won't have any trouble knowing what's what and what's where." And you *certainly* never imagined that your System files might become corrupted and cause a crash at the most inopportune moment.

Now that you've been working for several months or even a year, you seem to find it harder and harder to locate the files you need on your hard disk. There's a jumble in your System Folder. And that folder you've labeled "Files" is enormous.

It pays to give some thought to hard disk organization. And one of the basic steps worth taking is something I'll call "hard disk division." (In computer lingo it's called "partitioning.") It's easy. It's helpful. And it's worth doing.

Let's assume you have a 20MB hard disk drive (but it doesn't really matter *what* size your drive is). You've got a System Folder and a few other folders on your drive. And you've got dozens, literally *dozens* of "loose" files flying around your electronic desktop. Keeping all those files and folders on the desktop causes you several problems:

- It slows your computer whenever you QUIT from a program and return to the desktop. That's because the Mac has to reconstruct

the desktop each time you return to it. That means placing all your files and folders in the same place on the screen where you left them.

- It slows *your* work, because you must constantly search through the rubble on the desktop to find what you're looking for.
- It discourages regular backups, because the backup task is so tedious.
- It can endanger your System software. This is a rare problem, but because your System file shares space on your hard disk with everything else you've got there, it can become badly "fragmented" and can eventually crash.

So... what can you *do* about it? *Divide your disk drive into "partitions."* This is a worthwhile exercise which will help you work faster, help preserve the "sanctity" of your System software and important data files and help you find what you need faster.

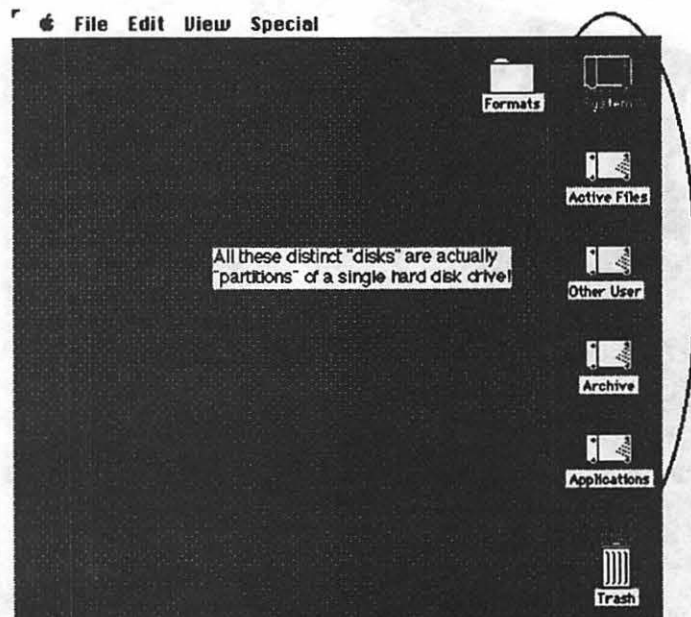
To create "partitions" on your hard disk drive, you'll need the software which came with the drive, or one of several other utilities available for managing hard disk drives. There are lots of options. I've used Symantec Utilities for the Mac™ (SUM) and Silverlining™ with good results. But virtually all software which is packaged with your hard drive can create partitions. (Some partitioning software refers to partitions as "volumes.")

Dividing your disk into partitions fools your Mac into *thinking* it has more than one hard disk drive. Your computer *treats each partition as a separate disk drive, even though all your partitions are physically located on the same hard disk mechanism..* So what? Give me a couple of minutes and you'll see the benefits.

You can divide your hard disk into whatever partitions suit you, of course. But let me make some suggestions. Create a few partitions (following the instructions with your software) as follows. Create them *in the order I suggest.* There's a reason.

- System

This partition will contain your System Folder, with all your fonts, desk accessories, utilities (such as



Suitcase™, screen savers, etc.) You might also wish to place a copy of your hard disk drive management software on this partition.

- Applications

This partition should contain all your computer software programs. You can create folders for Word Processing, Publishing, Number Crunching, Pictures, Statistics, Utilities (such as your backup software) etc. Keep your applications (programs) stored in their appropriate folders.

- Archive

This partition is a place for data files which rarely (if ever) change. For instance, the Archive is a good place to store your clip art, logos you create for stationery, large database files used for *reference only*, last year's correspondence, etc.

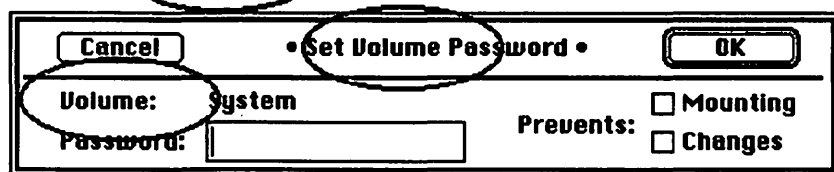
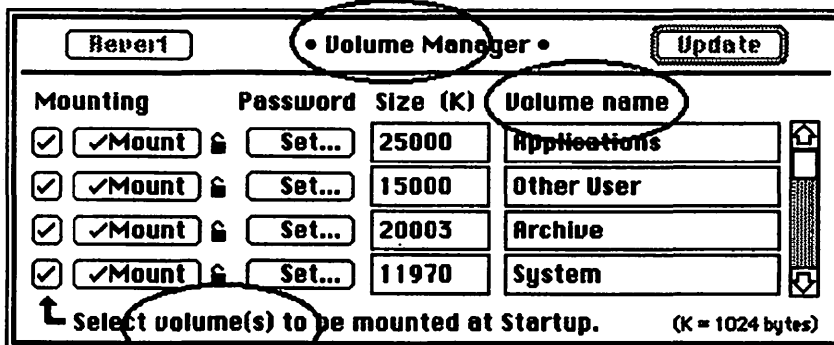
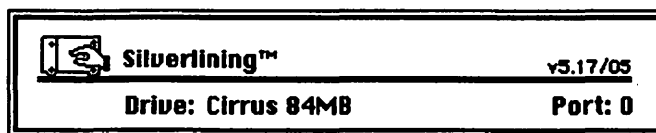
- Active Files

This partition is where you'll create and use most of your active files. This is where you'll do most of your work. Creating new letters. Updating tax files. Creating new artwork and publications. Maintaining spreadsheets which are frequently updated.

- Other User

You might name this partition after a co-worker or your spouse or child, so they can maintain and use their own files their own way, without interfering with *your* work.

Now, here are the benefits. Your System partition is the area of your hard disk drive the Mac needs most often. Every time you start up your computer, it'll look in the System partition for everything it needs. And since you created your System partition *first*, all your System files will be contiguous on the drive—easy for your Mac to find and read. And since you rarely *change* anything in your System partition, its files stand less chance of being corrupted by modifications and fragmentation. (Every time you SAVE a document, for instance, you won't be sending your drive looking for space in the same area shared by your System files.)



Some "partitioning" software refers to partitions as "volumes."

Virtually the same applies to the Applications partition. You'll be adding new applications from time to time, but basically this partition will be undisturbed. Your Mac will *read* from this section of your hard drive, but it will do little *writing* here. That means your applications won't be corrupted and won't be sharing space with other documents.

The Archive partition is similar. Clip art documents are rarely changed, but often used as a source. Keeping them in one place with little *writing* going on means everything in your Archive partition is likely to remain uncorrupted.

The Active Files partition is one area of your disk on which most activity will take place. You'll be creating and deleting files, changing them, copying them. Your disk drive will be constantly searching for new space to record modifications. Occasionally, you'll make a mistake on this partition, deleting something you meant to keep, for example. You'll use file-recovery software on this segment of the hard drive. You'll experiment with many versions of the same document. In this kind of active use, accidents can happen. *But*

accidents won't affect your Applications, your Archive or your System files, because those are all on "different disks" (or so your computer thinks). And finding your files will be so much easier, because they won't be jumbled among all the *other* stuff on your disk (such as System, Applications and Archive files).

The Other User partition is just a second "active files" partition. But it's used by someone else. So *their* mistakes won't affect *your* work. Another safety feature.

And the best benefit of all about partitioning your hard drive? *Making backups is much easier and much less tedious!* Because you already have copies of your application software, you don't have to back up the Applications partition at all. And once you make a single backup of your System and Archive partitions, you'll rarely have to make fresh backups, since those partitions rarely change! You'll be making *regular* backups (probably daily or weekly) of your Active Files partition and your Other User partition. But since those partitions don't contain any applications or system or archive files, they're much smaller than what



Real Summertime Savings From **COMPUTER AGE**



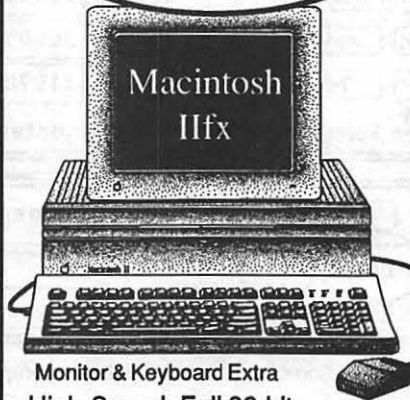
Authorized Dealer

Macintosh IIcx
40 Meg \$3499
80 Meg \$3849



- Monitor & Keyboard Extra
- 68030 Processor
 - Flexible, Modular Design
 - 1 Meg RAM
 - One 1.4M FDHD SuperDrive
 - Quantum Hard Drive
 - 2 Year Hard Drive Warranty
 - Mouse •HD Prepare Utilities

Macintosh IIx
4/160 Meg \$6999
8/160 Meg \$7699



- Monitor & Keyboard Extra
- High-Speed, Full 32-bit 68030 CPU Running at 40MHz
 - 68882 Floating-Point Math Co-processor Running at 40MHz
 - Zero-wait 32K Static RAM Cache
 - Six NuBus Expansion Slots
 - One 1.4M FDHD SuperDrive
 - Quantum Hard Drive
 - 2 Year Hard Drive Warranty
 - Mouse •HD Prepare Utilities

Macintosh IIci
40 Meg \$4499
80 Meg \$4849



- Monitor & Keyboard Extra
- 68030 25 MHz Processor
 - Built-In Video Support
 - 1 Meg RAM
 - One 1.4M FDHD SuperDrive
 - Quantum Hard Drive
 - 2 Year Hard Drive Warranty
 - Mouse •HD Prepare Utilities

Macintosh SE



- Compact, Transportable
- Built-In Expansion Slot
- One 1.4M FDHD SuperDrive
- Mouse

30 Meg SE
1 Meg RAM, \$1959
30 Meg Seagate HD,
1 Year Hard Drive Warranty, and HD Prepare.

2.5/40 Meg SE
2.5 Meg RAM, \$2199
40 Meg Quantum HD,
2 Year Hard Drive Warranty, and HD Prepare.

Macintosh Plus



With 1 Meg RAM \$1149
With 2 Meg RAM \$1259

- 800K Floppy Drive
- Mouse

20 Meg Plus \$1439
20 Meg Seagate Hard Drive, 1 Meg RAM
HD Prepare, \$1549
1 Year Hard Drive Warranty. 2 Meg RAM

Macintosh SE/30



- Compact, High-Performance
- 68030 Technology
- Internal 030 Direct Slot
- One 1.4M FDHD SuperDrive
- Mouse.

40 Meg SE/30
1 Meg RAM, \$2899
40 Meg Apple HD,
Apple Hard Drive Warranty.

80 Meg SE/30
1 Meg RAM, \$3249
80 Meg Quantum HD,
2 Year Hard Drive Warranty, and HD Prepare.

COMPUTER AGE

SILVER SPRING 588-6565 BELTSVILLE 937-0300 ANNANDALE 642-2310

Check Our Weekly Ad In Monday's Post For Late-Breaking Bargains!

COMPUTER AGE Summertime Savings

Check Our Weekly Ad In Monday's Post
For Late-Breaking Bargains!

Radius Pivot Display

w/ Pivot Video Card
For Mac II Family or SE/30

\$1099

Microtek Color/Gray 24-Bit Scanner

For Macintosh

\$1899



With Carrying Case

Macintosh Portable

The Power and Ease of a Mac
In an Easy-To-Carry Design!

40 Meg \$3999

- 1 Meg RAM
- Crisp LCD Screen
- One 1.4M FDHD SuperDrive
- 40 Meg Apple Hard Drive
- Apple Hard Drive Warranty

Silver Spring Service Center

RAM Upgrades

Free Service Center Installation

Macintosh Plus, SE,
Macintosh II, IIx, IIcx, or SE/30

1 To 2.5 Meg \$159

1 To 4 Meg \$349

1 To 5 Meg \$399

1 To 8 Meg \$799

Macintosh II, IIx, IIcx, or SE/30

1 To 2 Meg ONLY \$99



Apple Printers

ImageWriter II \$429

ImageWriter LQ \$999

LaserWriter IISC \$1999

LaserWriter IINT \$3199

LaserWriter IINTX \$3999

COMPUTER AGE

LaserWriter Prices Always
Include A Toner Cartridge!



Internal Drives
Also Available

CAI External SCSI Hard Disk Drives

With Cables, Manual,
HD Prepare Utilities,
True Disk Partitioning.
"Plug-in and Run".

Seagate 1 Year Warranty

20 Meg \$309

30 Meg \$339

45 Meg \$389

80 Meg \$489

Quantum 2 Year Warranty

40 Meg \$429

80 Meg \$619

100 Meg \$689

160 Meg \$999

CAI/Sony 1.4M External Diskette Drive \$299

CAI/Sony 800k External Diskette Drive \$199

2400B External Modem By Cardinal \$139

Universal Security Kit For Apple Computers \$49.95

Ergotron MacTilt For Macintosh SE \$75.95

AppleSC CD Drive

For Macintosh

\$699

SONY® 3.5" Disks

DS/DD-Box of 10 \$8.99

DS/HD-Box of 10 \$19.99

DS/DD-Box of 50 \$34.99

DS/HD-Box of 50 CALL



TEXAS INSTRUMENTS microLaser PostScript Printer



- 35 PostScript Fonts
- 1.5 MB RAM
- Upgradable To 4.5 MB RAM
- AppleTalk Card

\$1999

Apple Scanner

For Macintosh

\$1099

MS Excel 2.2 \$239

MS Word 4.0 \$239

MS Works 2.0 \$199

DiskFit 1.5 \$49.00

Quicken 1.5 \$34.95

COMPUTER AGEsm

"Our Eleventh Year"

9433 GEORGIA AVENUE
SILVER SPRING, MD
588-6565

10606 US ROUTE 1
BELTSVILLE, MD
937-0300

4227 ANNANDALE ROAD
ANNANDALE, VA
642-2310

Service Center
9431 GEORGIA AVENUE
SILVER SPRING, MD
565-9130



Authorized Dealer

SALE ENDS 7-31-90

Apple, the Apple logo, ImageWriter, LaserWriter and Macintosh are registered trademarks of Apple Computer, Inc. AppleCD SC, FDHD and SuperDrive are trademarks of Apple Computer, Inc.



Macinations

by Robb Wolov

Baud to be wild...

I must confess a mild addiction to computer telecommunications. I frequently prefer to use my Mac to access information then use a telephone! Here in the Washington, D.C. area, we are blessed with a veritable sea of privately run public access BBS's (bulletin board systems) and government sponsored public access databases. One of the largest national repositories of Macintosh user supported and public domain software is right here in the greater Washington area in the guise of Paul Heller's Twilight Clone. And, we mustn't forget WAP's own TCS.

If you are fortunate enough to have access to a university or commercial mainframe account, you may access the InterNet, a nationwide umbrella of multiple computer networks and systems on which electronic mail can be exchanged, newsletters on just about every conceivable topic delivered and public domain software exchanged. More about the InterNet later.

...continued from page 21

you're backing up on an unpartitioned disk, so backups will go more quickly and use fewer disks!

One cautionary note: be sure you back up your *entire* hard disk drive *thoroughly* before you embark on the partitioning endeavor. Creating partitions erases your data. Once you've created your partitions, you can restore your files from the backups onto their appropriate disk partitions.

In my travels I've had the pleasure of meeting with countless computer users and Mac lovers in particular. I've been able to drop a handy tip here and there, but usually I'm the one that learns the most. It does surprise me that for all the folks that are older hands than I at computer telecommunications, so many still have not yet discovered this means of opening their Macs to the world. All you need are two things, a modem and a telecommunications program of your choice.

A modem (MODulator-DEModulator) is nothing more than a device which converts the digital signals from your Mac to a form that can be sent over the telephone lines.

A modem (MODulator-DEModulator) is nothing more than a device which converts the digital signals from your Mac to a form that can be sent over the telephone lines. The computer that you are "talking

It goes without saying, of course, that you can partition your hard disk drive any way you like. Devise your own format if you prefer. But basic divisions like the ones I've outlined will help you work faster, safer, more efficiently. 🍏

to" has a similar device at the other end to translate back into digital. That's it, that's all. The current telephone system has been set up as an analog system for people* to speak to people. When the job of installing fiber-optic cables across country is complete, a nation-wide ISDN (information services digital network) will be initiated where *all* data (telephone, television and computers) will be piped directly into and out of your home in digital form. At that time you'll no longer need a modem, but that's several years away.

Telecommunications programs, such as White Knight 11.0 and Microphone 3.0 (commercial) or Zterm (shareware) do such house keeping chores as dialing into a system (logon), handling transferring files either *into* your computer (downloading) or *out of* your

computer (uploading). Just about any telecom program worth its salt can automate logging on through the use of macros. You don't have to be a programmer either. Most will record your key strokes as you logon to a system so that you won't have to repeat the procedure.

The *baud* rate, the rate that data can be transferred across networks is limited by the speed of the slowest modem of a linked pair. As prices have steadily fallen, the industry has standardized around faster and faster modems. First 300 baud then 1200

* Carbon based, analog processing and storage devices with a bandwidth of approximately 50 bits per second. "People" excel at pattern recognition but are notoriously slow at sequential calculations.



and now 2400 baud. The faster your modem (assuming that the computer you're calling can match your speed) the less time it will take you to transfer files.

Most BBS's have settled around 2400 baud, but increasing numbers are supporting 9600 baud. As files such as HyperCard stacks and color computer graphics grow larger and larger, the speed of your transfers becomes a factor. If you're logged on to a commercial data service such as CompuServe, GENie or (if you're a physician) AMA Net, and are paying by the minute, you become very much interested in rates of transfer! Most files on BBS's today are compressed, encoded with a program called Stuffit by Raymond Lau. They become smaller, thus taking less time to transfer. You then decompress them at your end.

As I mentioned, there are pages and pages of public and federal BBS's only a local phone call away. However, these are only the tip of the iceberg. If you are lucky enough to have a commercial mainframe or university computer account, then you can tap into InterNet (for those that do not, I understand that there are commercial access systems that charge some nominal monthly fee).

The InterNet is a partially federally funded electronic umbrella which links numerous computer networks over the entire country. As more and more universities, corporations and government agencies established their own computer systems and local networks, it became obvious that linking computers to each other created a powerful tool for researchers, educators and businessmen to communicate with each other. As networks of minicomputers and mainframes proliferated there became a need to link the networks. This is the InterNet, an umbrella network which links all the other networks. Other countries have their own equivalent to InterNet: NorNet in Canada, Earn in Europe all interconnected, crisscrossing the planet electronically! Even the newly emerging Eastern Bloc countries are

linking up in order to conduct commercial business with the West.

The electronic account to the computer which serves as your gateway to the InterNet, gives you a unique electronic address. Since ultimately every computer on a network linked to InterNet can reach out to any other computer on InterNet, you can send electronic mail to anyone in the world. They in turn can send mail to you. If you wish to send a letter to a *particular* individual and only that individual, no problem, merely address it to their unique electronic address. The computer systems have been set up on the network to do the appropriate routing. Mine, for instance, is WOLOVR@GUVM.BITNET. Only your addressee will get the note.

There are mailing lists on the network, moderated exchanges for people interested in similar topics. If you address your message to the listserv for your topic of interest, then everyone registered with that list will get the message. The moderators of these lists will frequently combine and edit threads of topics together into electronic newsletters which are sent out on an irregular basis. There are a few for the Mac, the best known being, "Info-Mac" which comes out of Stanford University (a.k.a. sumex-aim.stanford.edu). In addition, sumex-aim serves as a large repository of Mac shareware (though again, Paul Heller's Twilight Clone BBS has it beat).

Another powerful capability of InterNet is allowing "Anonymous FTP" (file transfer protocol). Mainframe/minicomputer systems have been specifically set-up to allow remote logons through the Internet with the user ID of "anonymous" and the password "guest". These systems serve as software and data repositories. For example, I'm doing research in cellular image analysis in order to measure DNA content. One of the best image analysis programs was created at the National Institutes of Health under public funding

(which meant that it was released to the public domain). I was able to download *Image 1.29K* directly from one of the NIH computers by this method. After all this is what the system was created for.

InterNet is a loosely organized system, and sometimes it does weird things. One day, one of the routing computers was down, so that electronic mail coming to me locally from a colleague at the University of Maryland at College Park was routed to me by way of Ireland! My mail is better travelled than I am!

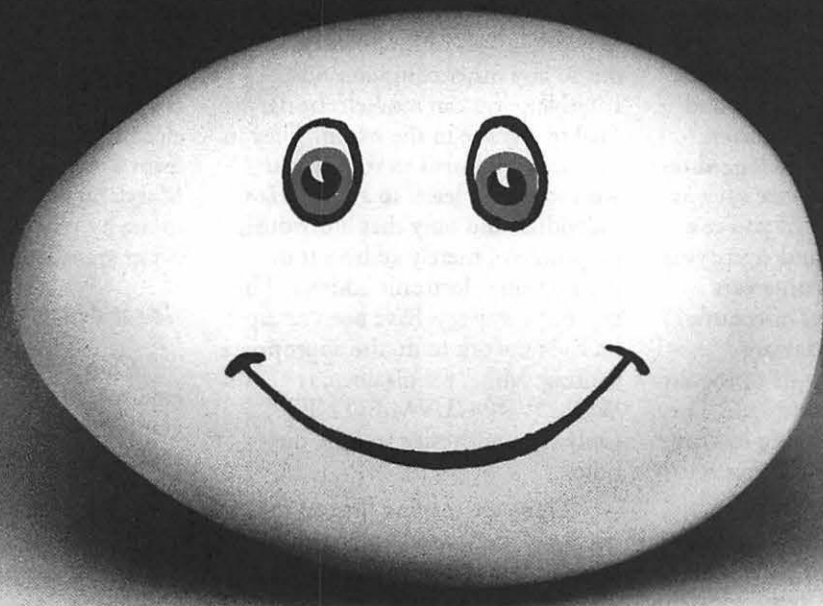
It's a Matter of Image...

One of the best kept secrets amongst Mac'ers who do a lot of graphics work, especially in grayscale is Wayne Rasband's program *Image* (see above). While it was designed to do calibrated image *analysis* it's a dynamite program for graphic image *manipulation*. It has many of the features of the commercial application *Digital Darkroom* from Silicon Beach Software plus more than a few unique to itself. What is best is that it is FREE! If you think that you have a need to manipulate color and grayscale images you may wish to give this one a try before going the commercial route. You don't need an InterNet access for ALW.NIH.GOV to get *Image*, though Wayne does keep the latest *Beta* version there for those that like to hemorrhage on the bleeding edge of technology. The latest release version can usually be found on the Twilight Clone or the WAP's software library.

Until next time... 🍏

Robert Wolov, M.D. is a pathology resident at Georgetown University School of Medicine. His areas of interest, besides molecular and orthopaedic pathology, are digital microscopic image analysis and writing medical education software. He can be reached via InterNet at WOLOVR@GUVM.BITNET

In a field of unfriendly communication interfaces,



enter a new face.

Modems, wake up. Macintosh users take heart. MicroPhone II 3.0 is about to brighten your day.

Using Color Icons, Superior Text Editing and Custom Dialogs, MicroPhone II 3.0 lets you design your own custom front ends. Suddenly, hostile remotes are on

speaking terms. And clumsy chains of commands are reduced to effortless clicks and keystrokes. You communicate more easily than ever before.

Whether for mail, teleconferencing, on-line research or bulletin boards, MicroPhone II 3.0 is helping everyone put on a happy face.



SOFTWARETM
VENTURES

2907 Claremont Avenue Suite 220 Berkeley CA 94705 Tel: 415-644-3232 In Canada, call 1-800-268-1220.
MicroPhone is a trademark of Software Ventures Corporation. Copyright © 1990 Software Ventures Corporation. Includes Dialoger for MicroPhone II.
Available at your local Businessland, Egghead, ComputerCraft, Computer Factory and Software Spectrum.

Bits & Bytes

by Lynn R. Trusal

New Screen Technologies

Many people have heard of the CRTs, super-twist liquid crystal displays, electroluminescence displays and active-matrix liquid crystal displays now that Apple has incorporated that technology into its new portable. What are the other new screen technologies coming down the pike?

Two new ones are *vacuum microelectronics* and *deformable mirrors*. In conventional TV's a single electron beam continually sweeps across the tube to keep the phosphors refreshed and the image on the screen. With vacuum microelectronics many micro-electron beams are used to refresh each pixel. Just when you thought vacuum tubes had gone the way of dinosaurs, they surfaced again.

The micro-vacuum tubes emit electron beams that refresh individual pixels. This is similar, in one sense, to the Mac portable that has a single transistor controlling each pixel on the display. Vacuum microelectronics is being developed by Coloray Display and Thomson in the U.S.

The second new technology is called *deformable mirrors*, in which hundreds of thousands of electrically controlled mirrors are mounted on a silicon wafer with their angle of reflection controlling the pixels. Texas Instruments is pursuing development of this technology and has obtained a 16,000 mirror prototype based display but estimated it will be 3 years before one with a million elements is fabricated.

The article also pointed out that American companies are at the forefront of much of this new screen technology. Even the Japanese agree

that Photonics (U.S.) gas plasma displays (60 inch) are the world's best. (Source - *Business Week*)

Ehman vs. Mirror Technologies Monochrome Monitors

In the May column, I discussed buying a large screen monochrome monitor and said I would give you my opinion of both the Ehman and Mirror Technologies. I was unable to compare them side by side but do have personal experience with both monitors.

First, what are the similarities? Both monitors are advertised to have a 72 dpi resolution with a screen refresh rate of 78 Hz, both of which are good numbers for a monitor, since 72 dpi matches the Macintosh screen and ImageWriter output, and 78 Hz is fast enough to ensure a flicker-free display. Both monitors also include the 1-bit video card and have tilt and swivel bases.

Both monitors use the Apple cdev to control both screens active, movement of the menu bar between monitors and which application is displayed on which monitor.

Ehman Monitor

The Ehman monitor is made by Hyundai and arrived safe and sound. It was missing the instruction manual, which finally arrived after two telephone calls, although the quality of the manual left much to be desired. I also found the width of the monitor cable to be too large for the opening in the back of the Mac II. Forcing it a bit did the trick but that should not have been necessary.

The screen phosphor of both monitors was white and appeared to be the same one used in the Apple

monitors. This may be important for eye strain if you are going to use two monitors side by side.

I was pleased by the overall image quality of the Ehman. The only drawbacks were a slight non-linearity on the left edge of the screen and slightly worse focus at the periphery than the center of the screen. This focus problem is common with large-screen monitors.

There was no special software for the monitor except for an "INIT" that had to be placed in the System folder. The lack of a "odev" to customize monitor functions was an important drawback of the Ehman.

If you want to use the monitor with a Plus or SE, Ehman includes a \$25 dealer installation certificate which makes the process considerably cheaper.

Although Stepping Out II software was included, I could not get it to function properly and another copy sent by Ehman did similar weird things. I don't know if this was a defect or a lack of experience on my part.

The monitor has a brightness control on the back of the monitor but no contrast control. When the Mac was booted up the monitor came on automatically and turned off when the Mac was shut down.

Largely because of the special software advertised with the Mirror Technologies PixelView monitor, I decided to take a chance and sent back the Ehman monitor within the 30 day trial period.

Mirror Technologies PixelView

The Mirror Technologies (MT) PixelView monitor arrived several weeks later. I immediately noticed that the shipped monitor was *not* the one shown in the advertisements in Macintosh magazines. I was told by MT that their two page display was made by Samsung but the one I received was made by Moniterm in the USA. Why the discrepancy I don't know.

The PixelView had a front-mounted brightness control and





"on" button but no contrast adjustment, similar to the Ehman. It was interesting that there was a recessed hole next to the brightness knob for a contrast control that was not included. The PixelView monitor had to be turned off manually unlike the Ehman which went off when the Mac was shut down. Since the Moniterm 19" two page monochrome display, called the Viking 2, lists for \$1,995 the lack of a contrast control may have been one of the trade offs. I assume this is the same monitor.

The MT monitor comes with an anti-glare filter built in but I preferred the Ehman monitor without it. I think anti-glare coatings decrease focus and are not that beneficial unless you use the monitor in a brightly-lit room.

Although the MT monitor software was a big improvement over the lack of any from Ehman, it was also somewhat of a disappointment at the same time. Even though tear-off menus were mentioned in the ad, they were not discussed in the manual and were not available.

The PixelView software does include a screen dimmer, a screen copy command (screen dump), menu bar sizing and an enlarged cursor. On the Mac II and SE/30 it is a standard size cursor with a circle (dime sized) around it. Pop-up menus do function on the Mac II but I could not get the side-by-side hierarchical menus to appear on the Mac IIci. Strange!

Instead of shipping the Samsung monitor that I have also seen other VARs advertising, they shipped a monitor not shown in the ad. Whether or not this is better or worse, who knows?

The bottom line is that both monitors have advantages and disadvantages. I prefer the screen image on the Ehman monitor but like the software for the MT monitor. I prefer the automatic shut-off on the Ehman but like the front-located brightness control on the MT. Ehman gives you \$25 towards a Mac Plus or SE installation and MT

tells you how to do it yourself. Ehman offers a user group discount and MT does not.

Bottom line cost (including shipping) to a Pi member is \$889 for the Ehman and \$927 for the MT monitor. Therefore, the cost of the Ehman monitor is from \$38 to \$63 cheaper if you want to count the \$25 installation certificate.

If you want to use the monochrome monitor with a Mac Plus or SE, I would get the Mirror Technologies because of the software features, but if you want to use it with a Mac II or SE/30, I might get the Ehman. This decision is not so one-sided as to tilt the balance in favor of one over the other. Another reviewer could have easily gone the other way for the same reasons.

Again, buyer beware! Don't be afraid to call any vendor and ask specific questions such as who makes the monitor tube, do you charge a credit card before shipping, is software included, what does the software do, are there different features for different Macs, do you give a user group discount, etc.

When Should I Buy?

How many times have you purchased a software program only to see a new version come out 3 months later and after the date which qualified for a free upgrade to the new version? At least software vendors give you up to a six-month grace period, which is not done by hardware vendors.

Version 1.0 of any application may sound like the greatest program to come down the pike but it rarely is. Version 2.0 is generally a significant upgrade and version 3.0 is usually even better. My point is this: unless you absolutely need the features of the new software package, it is generally better to wait for version 2.0 before making a purchase.

One reason is to wait for reviews of the application to appear in the major Macintosh publications. Both *MacUser* and *MacWorld* do extensive

ratings and help the novice user to make better buying decisions. In addition, keeping up with the popular Macintosh press helps keep you informed about new upgrades coming out and entirely new programs that might have better features than the program you are considering buying.

This advice is even more important if you are talking about a hardware product that represents an even larger investment. Large-screen monitors are a case in point. They represent big bucks and there are many offerings to choose from with widely differing quality. If you are in the market there were good reviews in the April issues of *Macworld* and *MacUser*.

Again the first generation of most hardware products is generally not the best to buy. Prices drop with time, offerings increase and features get better. Be patient!

Where Should I Buy It?

A five year warranty is worthless if the company that backed it goes out of business. This may be particularly true of mail-order hardware vendors that come and go in the night. MacConnection and others may be here to stay but what about the small companies that advertise in the back of *MacWeek*, *MacUser* and *Macworld*?

My advice is don't always go with the cheapest vendor for a hardware product that represents a significant investment such as a hard disk. Case in point is a 45 MB Syquest removable cartridge hard disk. I have seen generic brands using the Syquest mechanism selling for \$50 less than from a vendor like Ehman. I would pay the extra \$50 and buy it from Ehman, or CMS among others because they have been around awhile and are doing well financially. They are thus apt to be around two years from now to honor the two-year warranty. The lesser known companies may not. If something goes wrong, don't look for Syquest to bail you out.

Again there are no guarantees



and Ehman and others could eventually have trouble if they get fat, dumb and happy and forget the customer base, but you are generally safer with larger and more well established companies. Look what happened to Jasmine which was one of the more respected Macintosh vendors. Reading the popular press helps to keep current on which companies are doing well and which are not.

Real Bits

1. Do you need double sided, high density disks (DS/HD) for use with the new Super Drive? One cheap source of generic disks is MEL/Micro Center at 800-634-3478. They are 89¢ each (may be lower now) with the purchase of a pack of 25 for a total of \$22.25. If you want 50 disk labels add \$1.50 and another 55¢ for shipping for a grand total of \$24.30. They are guaranteed error free with a 100% money-back guarantee. In comparison Sony DS/HD from the same company are \$58.63 for the same number (25).

Tips

Many of you may be aware that when you purchase merchandise with a Gold MasterCard one of the benefits is a doubling of the warranty up to one year. Therefore, it should be possible to purchase a Macintosh or peripheral with a Gold MasterCard and effectively double the Apple 1 year warranty to 2 years. Remember most computer dealers that accept credit cards add 2% to the purchase price for using the card. On a \$3,500 LaserWriter IINT purchase (street price) that would be another \$70 more—but look at the end result. You essentially get AppleCare for a second year for \$70 compared to AppleCare at \$384 a year (local dealer price) for the same printer.

Several words of warning about my suggestion. First, it is worth checking into to, but who knows how easy it is to collect should something go wrong. Check with your personal bank that issued the

Gold MasterCard and clarify the details. Give them the scenario and make sure it would cover a computer or printer.

Second, I assume this also applies to Gold VISA cards, but I don't know for sure. Third, if you can qualify for any Gold card or American Express card which has the same offer, it might be worth using it rather than using a regular credit card for large equipment purchases where having a longer warranty is advantageous.

I would be interested in the experiences of anyone who tries this suggestion. Write to me at the address at the end of the column and let me know what happens. Inquiring minds want to know so don't be afraid to explore the possibilities!

APO/FPO Shipping Problems

In preparation for moving to Japan, one of the problems I encountered was the inability of software companies to deal with shipping products overseas, including to an APO address. Aldus does not ship overseas—I presume because they have agreements with foreign distributors to handle sales and they don't want to undercut them. I also assume most other companies have similar policies.

Military personnel use APO or FPO addresses which are not really overseas addresses because the merchant only pays to ship to New York (Europe) or San Francisco (Asia). The military then pays to take it the rest of the way to the service-person who is stationed in some foreign country.

The problem is this: most software and hardware companies ship via UPS, Federal Express or some other third party carrier. Both UPS and Federal Express will *not* deliver to an APO address even though it is in the U.S. I assume Airborne, Purolator and others are the same.

If you face a similar situation, talk with the vendor's Customer Service or Customer Relations

Department about shipping via the largely dependable U.S. Postal Service. That may be cheaper than UPS or Federal Express but also takes longer. It may take some talking but most companies should comply, especially if you are an existing customer and need to get upgrades.

Don't take no for an answer. Remember you are doing them a favor buying their software and they had well better act like it. After all, they never know when they are talking to someone who writes a monthly Macintosh column...

Another option is having it shipped to a friend or relative and having them mail it to you although you then have to pay the additional cost. 🍏

Lynn R. Trusal, Ph.D. is a Lieutenant Colonel in the U.S. Army stationed in Tokyo, Japan and may be reached at the PSC Box 1892, APO San Francisco 96293. The opinions expressed in this column are his own.

NEW!
MacImage Services
from Capital Presentations Inc.

Postscript



Fast Turnaround

PICT or POSTSCRIPT!

- High Resolution 35mm Slides
- From Your Disk or Via Modem
- 24-Bit Color
- Over 16 Million Colors

NO ADDITIONAL SOFTWARE NECESSARY!

3 Free Slides With First Order

Software

- Aldus Persuasion • PowerPoint • MacDraw
- Cricket • Excel • Adobe Illustrator • FullPaint • PageMaker • SuperPaint • PixelPaint • Aldus FreeHand • VBS5 • and many others

From our production studio

- Full design and production services • Training
- Troubleshooting • Value added editing • Custom illustrations and clip art

CAPITAL PRESENTATIONS INC.
PIXELS WORTH A THOUSAND WORDS™

Phone: 301/588-9540 Modem: 301/588-0668
10 Post Office Rd., Silver Spring, Md. 20910

Professional Typography *On* Desktop Systems

*Do your computer-generated publications
look computer-generated?*

*Is your kerning
more cosmic than calculated?*

*Are you feeling boxed in
by the "boxy" look?*

*Does your output service
seem to have trouble putting out?*

*Are you answering "yes" to
too many of these questions?*

Bet we can help!

Full PC & Mac Support

Ventura Publisher, Pagemaker, Quark XPress—we work with the major players in the electronic publishing arena. We can assist you with expert advice, publication setup, style sheet design, and training on today's most widely used desktop publishing systems. And most important of all, by combining our typographic expertise with our technical know-how, we'll turn you into a "desktop typesetter" in no time.

Over 1,000 PostScript Typefaces

We set them...we sell them. Carver now offers one of the most extensive PostScript typeface collections in the D.C. area, including the Bitstream, Monotype and Adobe PostScript font libraries. If you've got 'em, we'll set 'em. If you want 'em, we'll sell 'em. Call for a quote on your favorite PostScript face.

Linotronic Output Service

Carver is a full service output bureau running one Linotronic 300 and two 202s. Our photo imagesetters can process pages up to 11" x 17", including scanned graphics or halftones, and any of the above-mentioned fonts. Standard turnaround on desktop publishing files is 24 hours. Call us any time for a quote on your next publication.

Digital Scanning Service

We now have first-rate black and white scanning capability. Our Microtek digital scanner can reproduce images to 300 dots per inch with a 256-level gray scale from original text, line or halftone images. No job is too simple or too complex—we'll scan it and print it, or make wholesale alterations if you wish.

Carver Publishing Services

(703) 528-0772

Free Radio-Dispatched Courier Service for Jobs Over \$100
Normal 24-hour turnaround • 24-hour bulletin board service for telecommunications

Carver Photocomposition, Inc. • 1025 N. Fillmore St., Arlington, VA 22201 • One DuPont Circle, Suite 30, Washington, DC 20036
Professional typographers since 1973 • Expert users of DTP systems since 1987 • Linotronic service since 1988

MacVolunteers Needed

by Martin Milrod

MacWorld Boston will be held August 8 - 11, 1990. Washington Apple Pi will have a 400 square foot "island" Booth #336 in the Bayside Exposition Center.

Bob Shaffer (301-384-3724) will be coordinating WAP's participation. Eight-person crews are needed for these four days in two 4-hour shifts for each day. In addition a "set-up" crew will be needed for Tuesday, August 7, and a "takedown" crew will also be needed for Saturday, August 11, 1990. If you are going to Boston during these dates we urge you to call Bob and commit yourself to one or more "shifts" of booth duty. We will try to have a brief orientation session on what a booth volunteer has to know sometime

prior to the show, probably at the WAP office. Frankly, we need your help badly if we are to have a rewarding and effective WAP presentation at this show. Please tell Bob which shift (morning or afternoon) you will be willing to work on which day(s), and leave him your name and phone number(s).

What are the benefits to you the volunteer? What do you get out of it? Well, early entry to the Exposition Hall as an "Exhibitor" comes with the badge that Bob Shaffer will provide you for your booth tour of duty. This permits you to chat with our neighboring exhibitors and to visit with them at leisure. But mostly you will have the satisfaction of knowing that you are helping your

club out in presenting a courteous, pleasant impression of WAP and "selling" others on joining our club and/or buying our products. Please call Bob NOW. Your help is urgently needed.

If you also have a van or similar vehicle to "shlep" our display booth and various other materials to and from the WAP office to the Bayside Exposition Center, you will forever be enshrined in the WAP Hall of Fame and I, of notorious penurious reputation, will buy you a cup of coffee of your choice throughout the year. (That is several cups of coffee, not just one.)

Let me also to remind you that a MacWorld Exposition will also take place in Washington, D.C. in April of 1991.

Working at these Expositions is exhausting, but also very enjoyable and rewarding experiences. ☺



We put the "Service" back in Service Bureaus.

- Linotronic 300 Output (Paper/Film)
- 24-Hour Standard Turnaround
- No Set-Up Charges
- Pickup and Delivery available
- Rush Service Available
- QMS ColorScript Output (Paper/Film)
- 72-Hour Turnaround Discount
- No Minimum Charges
- Full-Time Customer Service Reps
- Full-Time Technical Service Reps

Ask about our Apple Pi discount!



AWARD PUBLICATIONS

5301 Shawnee Rd. • Suite 400 • Alexandria, VA 22312
(703) 354-1600 • FAX (703) 354-1027 • BBS (703) 354-0966



LapLink Mac, Release III

by Lou Pastura

Question: What is LapLink Mac III?

Answer: The LapLink Mac III Connectivity Pac, from Traveling Software, is a hardware/software combination designed to ease the process of transferring files from one Macintosh computer to another or in either direction between a Mac and an IBM compatible. Laplink Mac III is the software packaged separately, without the hardware. A network versio called the Network Pac is also available to support as many as 5 users.

Question: Is Laplink Mac a powerful and effective tool for accomplishing its assigned task?

Answer: Yes

Question: Does it perform as advertised?

Answer: Yes.

Question: Are the hardware and software reasonably intuitive and easy to set up and use?

Answer: Yes. And if you do get stuck, the manual is excellent.

Question: Is this the best solution in your situation?

Answer: An unqualified "Maybe".

First, the Hardware

The LapLink Mac III Connectivity Pac includes 2 pieces of hardware. The first is a serial cable with four connectors: a DB9, a DB 25 and 2 Mini-DIN8s. The other is an accelerator that, according to the docs, boosts Mac to Mac serial transfer speed to 750,000 baud, almost 3 megabytes per minute. An additional cable, a 25 pin to 25 pin SCSI cable that will enable you to use the hard drive of a Mac portable

directly as a drive on your desktop Mac is available separately for \$14.95. It should be noted that any null modem cable with connectors appropriate to your situation will work with the package for file transfers, so that if the original cable is lost or broken it is easily replaced.

The hardware needed to run the program consists of a Mac Plus or higher (it won't run on a 128, a 512 or a 512e) with at least 300K of available RAM running System 5.0 or higher. On the PC side you can use any IBM or compatible PC, XT, AT or PS2 with at least 256K of RAM and DOS 2.11 or higher. For operation over phone lines you'll need a Hayes compatible modem (all modem commands are set up for the Hayes command set) up to 9600 baud.

Second, the Software

LapLink Mac III comes on 6 disks: a 3.5" Mac program disk, a 3.5" PC program disk, a 3.5" PC translator disk, a 5.25" PC program disk and two 3.5" PC translator disks. Traveling Software even went so far as to distribute the Mac version on a white 3.5" disk (gee, just like Apple) and the PC version on a blue one (Big Blue, get it?) to help avoid potential confusion.

The basic operation of the program(s) is reasonably straightforward and even a novice user should be able to perform simple serial file transfers with little difficulty. If you do get stuck, the manual is well written and well organized both as a teaching tool and as a reference resource. In fact, two manuals are included in the package. One deals exclusively with with Mac to Mac transfers and the other covers both

the Mac and PC sides of Mac/PC and PC/Mac exchanges. Both beginning and advanced users will want to take full advantage of the documentation for such tasks as transfers over phone lines using modems (Mac/Mac, Mac/PC or PC/Mac) and transfers over an AppleTalk network.

On the Mac the program will run in the background under MultiFinder, an important consideration on networks or in dial-in situations if you need to be able to send or receive files without disturbing your ongoing work. The activity logging features are extremely powerful and enable you to establish a detailed record of exactly who accessed your computer and when they logged in and out.

Speaking of security (After all you don't want every Tom, Dick and Harriet snooping around in your files!), the program includes very powerful and flexible password options for the AppleTalk and dial-in modes. You can set any user's authority to read/write (all folders), read only (all folders), or read/write, read only or drop in only (no display allowed) for a specified list of folders called "published folders". Within the list of published folders, each folder can be assigned any of the three security levels.

LapLink Mac III includes a long list of translators to support the transfer process and make use of the resulting file(s) as seamless an exercise as possible. Unfortunately, the only Mac program on the list is MacWrite (4.5, 4.6 and 5.0). The DOS programs are: Microsoft Word (3.0, 3.1, 4.0, 5.0), MultiMate (3.3), MultiMate Advantage (3.6), MultiMate Advantage II (3.7), Q & A Write (3.0), Word Perfect (3.0, 4.1, 4.2, 5.0), WordStar (3.3, 3.31, 3.45, 4.0, 5.0, 5.5), XyWrite III and XyWrite III Plus. There are also general transfer setups for DCA and 3 alternatives for ASCII files, Smart, Standard and Stripped. The Smart ASCII translation is a nifty tool. Translating FROM Ascii in Smart mode, carriage returns become hard



or soft returns, white space padding converts to formatting codes and form feeds become page breaks. In the other direction, text alignment is retained, hard and soft returns become carriage returns and page breaks become form feeds. The manual mentions that only MacWrite was included on the Mac list because almost all other programs are able to read that format. This may be true, but is out-of-date with the state of the art in file translation. One hopes this deficiency will be overcome in a future release.

Alternatives

The LapLink Mac III Connectivity Pac is an excellent product, if you need it. Whether you need it or not depends on whether other alternatives will better fit your situation and meet your needs. The following is in no way intended as a comprehensive treatment of alternatives, just notes on a few options you might wish to consider. All prices that are included are "street price" approximations, based on a perusal of a catalog from one of the big Mac mail order software/hardware/accessory firms and mail order ads in the Mac mags. Shop around a little, you might do better. For comparison purposes, the price for the LapLink Mac III Connectivity Pack (with the cable) was about \$119. The software alone goes for about \$85.

MacLink Plus—This is a software/hardware package from Data Viz that includes a cable, transfer software and over 100 translators. About \$120 for the package, \$90 for the translators purchased separately. (The translators will also work from within MacWrite as described below.)

Dayna File—A disk drive (it comes in both 3.5" and 5.25" flavors) that connects to your Mac and reads/writes IBM format disks using the Mac Finder interface. The 3.5" version will also FDHD format (see below) and will work on any Mac with a SCSI port. About \$525 for a single 360K, 5.25" drive, \$555 for a 5.25" 1.2 Meg drive and \$749

for a dual 360K 5.25 and 1.44 Meg 3.5" combo.

DOS Mounter—Also from Dayna, this is an INIT that sets the Mac up (FDHD required—see next item) to mount IBM disks on the desktop just like their Mac brethren. About \$55.

Apple FDHD—Included in the Mac IIcx, ci and fx, in the SE/30 and in newer SEs, this drive reads and writes IBM format 3.5" disks. With Apple File Exchange and translators appropriate to your needs, this is an excellent tool for someone with a moderate need for file transfer/conversion. An upgrade is available for earlier SEs to replace the 800K drive with this newer, more capable model.

SoftPC—This very clever software emulator for any Mac II or the SE/30 that performs a temporary lobotomy on your Mac to enable it to run DOS software (I know—I used that line a few months ago. I like it!). It includes the capability to set up an "E Drive" that can be read both by DOS software running under SoftPC and also by the Finder or any Mac software package. From Insignia Solutions, about \$245 for version 1.3.

MacWrite II—This is an excellent partner for DOS Mounter. The newest version (1.1) includes some translators to and from popular Mac and DOS word processors, and you get a pretty good word processor in the bargain! Additional translators available from Data Viz. About \$170 for MacWrite, \$100 for the additional translators.

Hard Disk Backup Software—If you're transferring the entire contents of a hard drive (Mac to Mac) to another hard drive (or, in some cases, to a partition on another hard drive) of the same size, this can be a quick and reasonably straightforward solution. This one is especially good at a site with numerous machines that must have identical software installed on all of them. Various packages—various prices/features.

Finally

To summarize, this is a well conceived and well executed hardware/software combination. However, it may be overkill for anyone whose needs are not extensive. To those who need its features and power, I highly recommend it, but I also recommend you explore other alternatives to see whether another product might meet your needs better, more efficiently/effectively or at a lower cost. 🍏

Lou Pastura is a Tibetan monk who has come down from the mountain to spread "the Real Truth" to the great unwashed masses, especially to the TCS Crew, who need more washing than most. He currently resides on a half acre gypsy moth farm in Annandale, and is deeply involved in a program to train the little buggers to hate the flavor of oak trees and develop a taste for crabgrass and dandelions.

**Odesta
Double Helix[®]
Registered
Developer**

Available for:

- Training
- Programming
- System design
- Installation
- Debugging
- Optimizing
- General Consulting

(serving the Washington, DC metropolitan area)

P. G. Filipowsky
PET Software
Dumfries, VA
703-878-1263



On the Trail of the Apple III

by David Ottalini, Apple III
SIG Co-Chairman

The Surveys

Ahhhh the surveys. Yes we did get some of them back. And yes, we did enjoy reading your comments. The best comment of the lot was from member George Blosser who said simply "Just keep up the good work" when asked how we could be of better service.

It would probably be easiest to go down the list and give you a brief overview of what everyone said. I'll make a few comments here and there as appropriate.

In answering why they were a member, most folks answered the obvious, which was they owned a III. Tom Linders added that he wanted to gain more information and pass out the articles (to his ATUNC friends in the San Francisco Bay area). Gerald Abelson says he likes being a member because it helps him to get "over problems." Robert Howe was kind by saying "The WAP III SIG is, so far as I know, the most 'professional' of the remaining III user groups." And our own TCS Sysop, Jim Suthard, added the SIG helps him to "get the most out of this old machine."

George Blosser already explained about how he thinks we can be of better service. Gerald Abelson says "Keep it coming—there was a feeling of being deserted" when we missed getting in the Journal one month. Trish Babylon says she'd like a list of SIG members and Dave Jernigan asked for a list of printers and other hardware that can be hooked up the to III. We'll try to take care of those requests.

Most everyone said they liked our articles in the Journal. But the Public Domain Library also got a lot of votes for what the most important

thing about being a member was. Meetings came in third.

Our Co-Chairman Jim Jutzin says he wants more educational stuff for younger children. I'd like to see more of that too.

As for the "one thing" most would like to get out of the SIG, our answers included:

- Operating tips for the III

- More technical articles

- More on Apple III Graphics

- How to maximize hardware and software (we addressed that a bit last month)

- Help to convert Apple III disks to Mac II and

- Hotline help.

Some of these I've already tried to address. For example, look below for more on Apple III Graphics. We'll continue publishing on occasion Dr. Bloom's articles which are more technical and also include information on things like transferring files from one machine to another. And we've started to add names to the WAP Hotline. I hope we'll even include phone numbers soon!

The survey asked about what it would take to get folks onto the TCS (Telecommunications System). Our long distance members are mostly concerned about line costs. I've suggested the TCS look into an 800 number and that's being discussed. I'm not sure that is the answer, but we will look into alternatives. And Trish Babylon asked for a tutorial. The TCS has a disk on the II side with those files in "Shrinkit" format. We hope to unshrink them and offer those disks in the PD in the next few months.

As for final comments, there

were a bucketful. Here's what folks said: "Everyone's help has been very much appreciated." "The III SIG is my security blanket. With On Three's future looking dimmer monthly, and Sun Remarketing moving to Macs, etc., who else is there but Dave and a few tenacious loyalists?" "Keep up the interest/resources!" "Keep up the good work!" And then there was Matt Krause who said the one thing he'd like to get out of the SIG was "the ability to sell my system; it gets too little use anymore" His number is 215-932-5208.

Well (blush), thank you for those kind words. It's obvious we have a great SIG, full of folks who still care a great deal about little SARA. All we can do is promise to try and continue earning your trust in the future. We want to keep serving you in the best way possible. But please remember we can't do it alone. As Robert Howe put it when asked how the SIG could be of better service, he answered "Shouldn't this read 'How can you better help the SIG?'"

I'd like to call on you folks on occasion for a little help (especially now that our second little boy should have arrived by the time you read this!). And if you have suggestions, we're always open to them too. Thanks again to all those who answered the survey!

TitanIII+IIe update

In January, I reported some information from Jim Wilson on CompuServe about getting your Titan cards repaired. Recently, I had occasion to call the folks at GR&D who now build and service Titan products and found them to be extremely helpful and eager to help with any problems.

Mine was a particularly vexing one. I could not load the ProDOS Kernel beyond 1.1.1. It turns out that the problem was not the Titan cards but the Profile card! It seems that after ProDOS 1.3, Apple changed the software enough to make the Titan cards burp when they tried to load ProDOS 1.4 or



higher.

The solution was to remove the Profile card and everything was fine. Slot 4 could still be used for other cards though, like an 800 Unidisk that would work in emulation. Or I could still use the Profile, but would NOT be able to use it in Emulation Mode (you have to move a post off a plug on one Titan card to enable the Profile, as well as make some changes to two chips on the Profile card itself).

"Greg" at GR&D told me that his company is still servicing the cards for \$85 plus \$7 P&H. And he says they are still making them in small batches. They appear to be the only source for the cards now, as Sun has apparently stopped selling them.

To help make it easier for everyone to get the Titan cards, I'm happy to announce that we have worked out a group purchase agreement with GR&D for all WAP III SIG members interested in buying a set! Normal price is \$299 and well worth the price. But through our special purchase plan, you can get them for just \$249! Postage and insurance is another \$7.50. Since they don't take credit cards, you'll have to order direct and pay with a check. This is a great deal and it will be good through Labor day. Please say you are a III SIG member when you order.

If you have any questions, GR&D's phone number is 313-677-4122 for technical help and 313-677-4110 for sales. Their address again is: 2862 Page Rd., Ann Arbor, MI 48104.

By the way, I can also report that those cheap Laser 800K drives and Universal disk controller cards work just fine with the Titan cards.

PD library

We offer two new disks in our PD this month. This first is for you Basic programmers or would-be programmers out there. PPT/Basic Helps (Basic 06) includes demos of the Programmer's Power Tools Invokables already in the library.

And Basic Helps has a number of files that answer questions and provide guidance as you explore Business Basic.

Our second disk (Miscellaneous 06) is one I've been talking about for a while. It's called "Double Boot" and is a disk you can place in either an Apple II or Apple III and boot directly. The machines can read the disk and will know which software to load. You may find this useful in developing a single boot disk application if you have a II and a III at home. The Apple II side is ProDOS based as you might expect.

Graphics

Once again, I've been having some fun with graphics on my III. Specifically, I've been working on a PD disk that will let you compare Apple II and Apple III graphics programs. It's provided me with some frustrating as well as enjoyable moments, trying to translate one program to another.

What got me started was an excellent series of articles in *A+/InCider* of late. The articles start from the beginning as far as Apple II graphics are concerned. That provided the perfect place for me to start as well, to compare how AppleSoft and Business Basic handle graphics.

This is not the place to get into all the minute details. But I can tell you a few things that I found rather interesting. First, since LoRes graphics on the II have the same 16 colors that Business Basic graphics have, it is possible to get color through your color video port in emulation mode. At least, Titan III+IIe emulation. HiRes graphics on the II have only seven colors and that translates to black and white on an RGB monitor (but you can get composite color). Finally, I found that making the transfer from one Apple to the other sounds easier than it is.

For instance, here's an AppleSoft Basic LoRes program that will draw a giant "T" on the screen (from the

May, 1990 *InCider* article "AppleSoft Advisor"):

```

10 GR
20 Color = 13
30 HLIN 0,39 at 0
40 VLIN 0,39 at 20
50 INPUT "PRESS <RE-
TURN> TO END";X$
60 TEXT:HOME
70 END

```

It's a pretty straightforward 40 column program with a background color of yellow.

Now the Apple III Business Basic version:

```

10 INVOKE".D1/
   BGRAF.INV"
20 OPEN#1,".GRAFIX"
21 PERFORM RELEASE
22 PERFORM INITGRAFIX
30 PERFORM
   GRAFIXMODE(%1,%1)
40 PERFORM
   FILLCOLOR(%0)
45 PERFORM
   PENCOLOR(%13)
47 PERFORM FILLPORT
50 PERFORM
   MOVETO(%0,%191)
60 PERFORM
   LINETO(%279,%191)
70 PERFORM
   MOVETO(%140,%191)
80 PERFORM
   LINETO(%140,%0)
90 PERFORM
   MOVETO(%0,%10)
95 PERFORM
   PENCOLOR(%15)
100 PRINT#1;"PRESS
   RETURN TO QUIT";X$
110 PERFORM GRAFIXON
115 GET X$
120 TEXT:PERFORM RE-
   LEASE
130 CLOSE#1
140 END

```

In this example, I used the Mode 1 "limited 16 color" Apple III mode.

As you might guess, Business



Basic's graphics are much more powerful in some ways. But that also means its overhead is much higher too, including a graphics driver and assembly language invokage unit that takes up a lot of disk space. No wonder few games were ever translated from the II to the III!

I learn a little more about this stuff every time I play with it and you might enjoy it too. If you'd like to learn more, Taylor Pohlman's series of disks in our PD library can help, as can the Business Basic manual. But I found the Osborne

McGraw-Hill *Guide to the Apple III* my "Bible" and can highly recommend it to you. The AppleSoft Basic Programmer's Guide on the II side was also very helpful.

If you have any graphics programs you've translated, I'd love to have them to add to our PD disk. Both ASCII and Basic versions would be appreciated!

Finally: XModem III alert

If you bought XMODEM III in our library (Telecom 05), you might wonder why, when you boot it up, you get an error message that says "XMODEM.SET" can't be opened. The problem is that the file is locked. Use System Utilities to unlock it and everything will be fine. By the way, the Utilities module in Desktop Manager will not properly unlock this file (the same with AppleWriter files too) so use System Utilities. 🍏

A
P
P
L
E
I
I

The Power of our People.



MACTEMPS
A Division of Nicklas Associates, Inc.

Exclusively Mac Personnel
948-9857
8629•B Zetts Avenue • Gaithersburg, MD 20877

A New RGB Circuit for the III

by D.D. Meisel

Getting a Horse of a Different Color

Recently faced with the prospect of having to buy a new color TV set for the family, I steadfastly insisted at the store that my purchase would only be made if the set had RGB outputs in addition to the standard NTSC ones. Since the Apple III owner's manual had a neat conversion circuit printed in it (on Page 135—Appendix C), I figured that setup would be no problem while the sensible solution, of course, would be a purchase of an xRGB compatible monitor dedicated to the computer. My wife and daughters wanted a video recorder, and so the money for a separate monitor was spoken for. Besides, the Apple III at our house is for business only and games are not allowed. They couldn't understand what I wanted color for anyway.

Well, when I dutifully assembled the Apple conversion circuit and tried it with my newly purchased RGB TV set, it did not produce the standard Apple color set. When I ran the Apple III demo diskette, the one with the colored horses, the results were bizarre!

So, I went back to square one and started hooking up the four xRGB Apple III outputs (after passing through the proper transistor matching circuits) one at a time to a single color input. Then, by looking at the standard 16 color chart, I was able to decode the meaning of the xRGB outputs.

The standard color chart consists of four horizontal stripes and four vertical stripes. By a superposition of

these stripes the various colors come out. Here is a list of the standard colors and the xRGB inputs used to make them:

black	none
magenta	xRGB1
dark blue	xRGB2
lavender	xRGB1, xRGB2
dark green	xRGB4
gray #1	xRGB1, xRGB4
bluexRGB2,	xRGB4
light blue	xRGB1, xRGB2, xRGB4
brown	xRGB8
orange	xRGB1, xRGB8
gray #2	xRGB2, xRGB8
pink	xRGB1, xRGB2, xRGB8
green	xRGB4, xRGB8
yellow	xRGB1, xRGB4, xRGB8
aqua	xRGB2, xRGB4, xRGB8
white	all xRGB inputs

Armed with this knowledge, I started to make a simple mixing network consisting of 2.2k ohm resistors. Then, by trial and error, I connected various higher resistance values across the 2.2k ones until I got a reasonable match for most of the colors. Since I had to use resistors commonly available at any nearby Radio Shack store, some compromises were made. (The required transistors—2n3906 pnp's and 2n3904 npn's—for the circuits were available at my nearby Radio Shack store for only \$2 for 10!) Since my TV circuit required the synch to be hooked up separately from the xRGB

ones I simply took the synch output from the two npn transistors shown in the circuit and hooked it up directly to the RGB synch input on my TV set.

My final resistance network is shown in the diagram on the next page. It is to be connected between the transistor xRGB outputs shown in the Apple III owner's manual circuit and the transistor RGB inputs on the same diagram. While the color match is not absolutely exact, and you might have to jack up the RGB monitor's brightness a bit to see them all, it does give the 16 distinct colors which are very close to the standard ones (I think they are better!). Besides, my solution is cheap—about \$20! In the final test of these colors I ran the infamous demo horse sequence and got back quite a show!!

Now I am sure more experimentation would have produced results closer to the Apple ones, but I have not taken the time to do this. Anyway, I prefer the colors I have. In any event, this network is a good starting point if you want to mix your own set. Have fun! 🍏

(From Pair Software BBS)

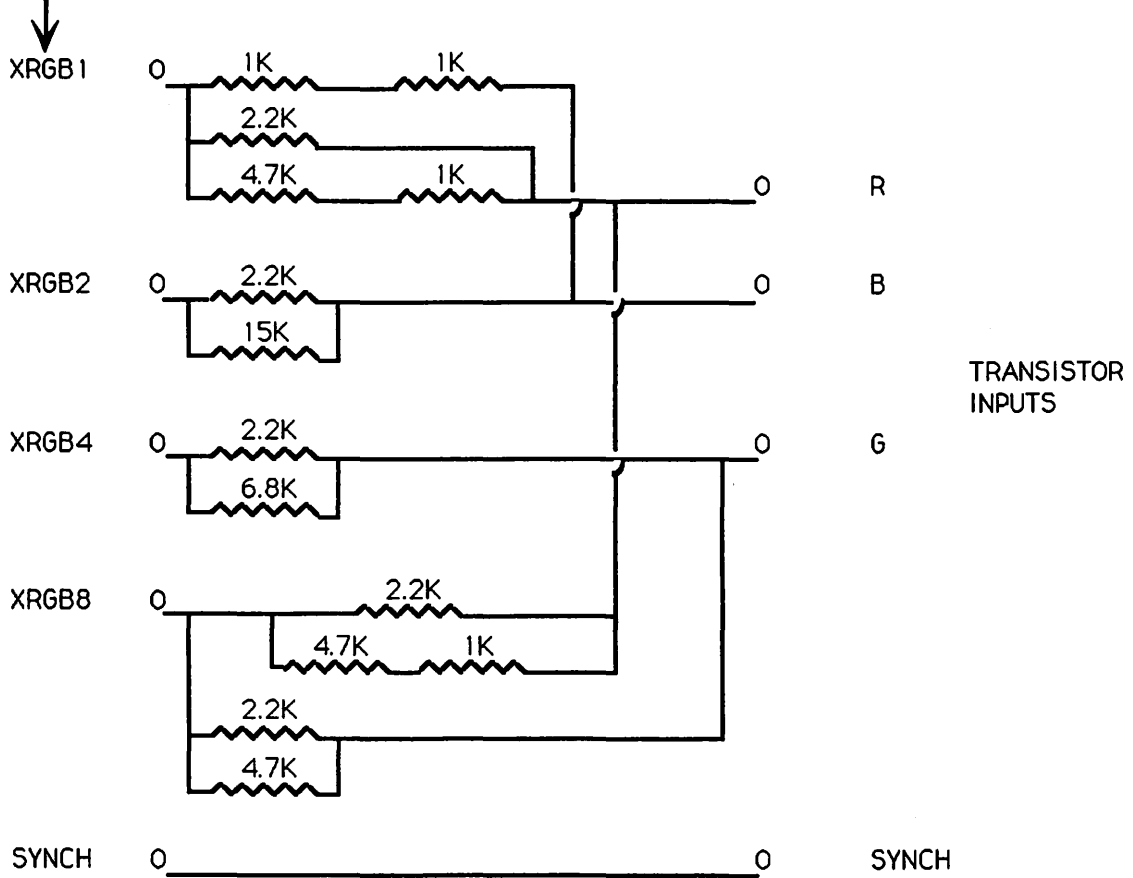




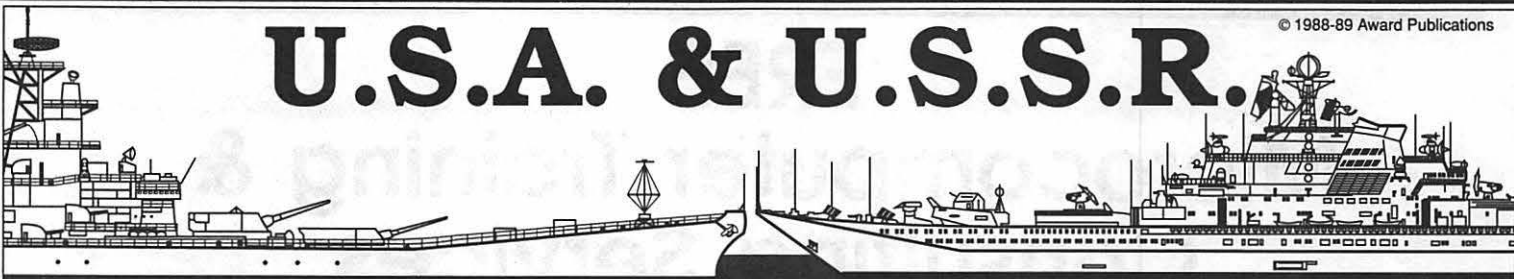
Examples:



TRANSISTOR OUTPUTS



U.S.A. & U.S.S.R.



POSTSCRIPT NAVY CLIP-ART FOR MACINTOSH & IBM-PC

For Proposals, Reports, News Articles and Vu-graphs

U.S. Navy includes

- ★ 45 U.S. Vessel Classes
- ★ 84 Ships ★ 6 Subs
- ★ 26 Page User's Manual

\$195.00

Complete U.S. Navy Clip-Art Library

Soviet Navy includes

- ★ 86 Soviet Vessel Classes
- ★ 110 Ships ★ 67 Subs
- ★ 48 Page User's Manual

\$295.00

Complete Soviet Navy Clip-Art Library



Buy Both & SAVE \$40.00

\$450.00

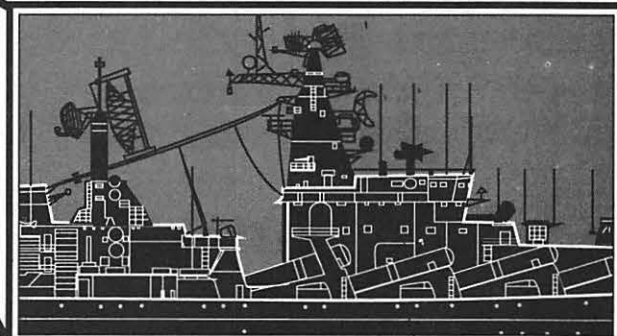
for Both Sets

Sample Pages of Manual (Actual Size 5.5" x 8.5")

- Vessel Class
- Silhouette Drawing
- Wire Frame Drawing
- Technical Information

ALFA	
<p>Class: Alfa (Fast Submarine SSN) Displacement: 207 x 32.8 x 34.99 (31.4x10³ tons) Number in class: 10 Torpedo tubes: 6 Speed: 40 kn (74 km/h) Complement: 60</p>	
VICTOR I	
<p>Class: Victor I (Fast Submarine SSN) Displacement: 308.1 x 33.8 x 23.0 (35.1x10³ tons) Number in class: 10 Torpedo tubes: 6 (2 in (5cm), 14 torpedoes carried) Speed: 23 kn (43 km/h) Complement: 60</p>	

SLAVA	
<p>Class: Slava (Cruiser C2) Displacement: 613.8 x 65.6 x 25.0 (187.3x10³ tons) Number in class: 2 Aircraft: 1 Helicopter Missiles: 2000, SA-2, SA-2.1, SA-2.2, SA-2.3, SA-2.4 (SA-2.1 (SA-2.1)), SA-2.5 (SA-2.5) Guns: 2 x 130mm (5 in), 8 Gatling 30mm Speed: 30 kn Complement: 600</p>	
MOSKVA	
<p>Class: Moskva (Helicopter Cruiser C2) Displacement: 620.9 x 11.2 x 23.0 (188.2x10³ tons) Number in class: 2 Aircraft: 14 Helicopter A-50W helicopters Missiles: 4 x SA-2, SA-2.1, SA-2.2, SA-2.3, SA-2.4 (SA-2.1 (SA-2.1)), SA-2.5 (SA-2.5) Guns: 2 x 130mm (5 in), 2 x 120mm (4.7 in) SAM (SA-N-3) (4) Speed: 31 kn Complement: 800 plus 40 group</p>	



Drawings can be cropped and resized without losing detail.

- Please send me _____ copies of *The U.S. Navy* clip-art library at \$195.00 each (Add \$7.00 S/H).
- Please send me _____ copies of *The Soviet Navy* clip-art library at \$295.00 each (Add \$7.00 S/H).
- Please send me _____ copies of *BOTH* clip-art libraries for \$450.00 each (Add \$10.00 S/H).
- Please send me _____ Demo Disks at \$19.95 each (Add \$3.00 S/H).

FORMAT:
 IBM
 MACINTOSH

Name _____ Method of payment MC VISA Check
 Address _____ City _____ State _____ Zip _____
 Credit Card # _____ Expiration Date _____
 Total \$ _____ Signature _____

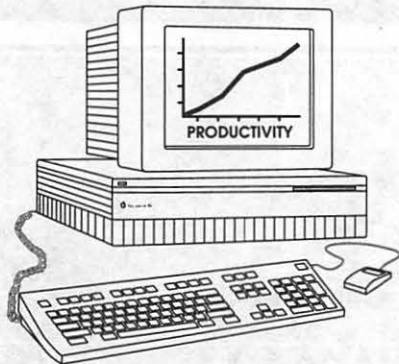
Enclose your check or Credit Card information plus Shipping/Handling (VA residents add 4.5% Sales Tax) and mail to:
Award Publications, 5301 Shawnee Rd., Suite 400, Alexandria, VA 22312, or call (703) 354-1600 for more information.

FREE Microcomputer Training & Consulting Services from Gestalt Systems!

Two Students for the Price of One!*

When your company sends one person to a Gestalt Systems 6 hour training class at our facility, a second person can attend that class at no additional charge. Subjects include:

- ✧ Introductory Courses
- ✧ Word Processing
- ✧ Spreadsheets
- ✧ Graphics
- ✧ Desktop Presentations
- ✧ Desktop Publishing
- ✧ Database Management
- ✧ Network Administration



Call (703) 471-6842
to take advantage of these offers or for more
information on Gestalt Systems' services.



Free Hour of Technical Consulting!*

(No Obligation)

A Gestalt technical consultant will visit your location to answer your questions and provide insight into the latest computer technology as it applies to your business. Topics include:

- ✧ Selecting a Computer System
- ✧ Macintosh & IBM Connectivity
- ✧ Local Area Networking
- ✧ Electronic Publishing/Presentations
- ✧ Database Development
- ✧ Computer Systems Administration
- ✧ Setting up On-line Information Systems
- ✧ Imaging/Scanning

Send us your questions in advance and get
the most out of your free hour.
Fax (703) 471-6404

Gestalt

450 Spring Park Place, Suite 1200
Herndon, Virginia 22070
(703) 471-6842

Gestalt Systems is
1 of only 23 members
nationwide of the
Apple Training Alliance



*Certain restrictions apply. Limit - one per company location. Gestalt Systems reserves the right to withdraw these offerings at any time.

JULY

- 1 Sunday**
💡 Editorial Deadline—August Issue
- 2 Monday**
7:30 PM PI-SIG office
- 5 Thursday**
7:00 PM Columbia Slice Columbia
7:30 PM GameSIG office
- 11 Wednesday**
7:00 PM NeXT SIG NIH
7:30 PM Board of Directors Mtng. office (Call)
7:30 PM Database SIG/4D . Computer Factory
7:30 PM dPub SIG PEPCO
- 12 Thursday**
8:00 PM StockSIG office
- 14 Saturday**
10:00 AM Annapolis Slice Anne Arundel Co.
9:30 AM Frederick Slice Frederick
- 18 Wednesday**
7:00 PM WorksSIG office
7:30 PM Excel SIG office
7:30 PM Fed SIG Call
7:30 PM HyperTALK SIG Arlington
- 20 Friday**
💡 Ad Space Deadline—September Issue
- 25 Wednesday**
7:30 PM Apple III SIG office
7:30 PM AV SIG office
💡 Writers' Deadline—September Issue
- 26 Thursday**
7:30 PM EdSIG office
- 27 Friday**
💡 Ad Copy Deadline—September Issue
- 28 Saturday**
8:00 AM AppleWorks SIG.. before WAP mtng.
9:00 AM WAP General Mtg. B/CC H.S.
noon HyperCard SIG after WAP mtng.
noon New SIG after WAP mtng.
noon Telecom SIG after WAP mtng.
- 30 Monday**
Apple IIGS McLean (Call)

WAP General Meetings

Monthly General Meetings are generally held on the 4th Saturday of the month at Bethesda-Chevy Chase High School, 4301 East-West Highway, Bethesda MD. Except sometimes, when we hold them other places. We try to give plenty of notice, but when in doubt, call. The place of meeting can, and does, change until we find a more permanent home. (The July and August meetings will be at B/CC, and it will not be air-conditioned. Our advice—pray for cool weather and dress appropriately.

Come as early as 8:30 AM to join, buy public domain disks, pick up your monthly WAP Journal. Attend the Q&A sessions to get your questions answered and hear the latest rumors. Listen to the main meeting topic at 9:30.

We also have a special session to welcome new computer users and get them started. Group purchase items can be bought at the office at noon.

Meeting Notices

Annapolis Slice 2nd Saturday; Anne Arundel Community College - Careers Bldg. Lecture Hall, Arnold, MD, 10:00 AM.

Apple IIGS SIG (normally) the Monday after the regular WAP meeting; alternates between Dolley Madison Library in McLean and (NEW) NIH (building 31, C Wing, 6th Floor, Conference Room 9) in Bethesda at 7:00 PM. Call Gary Hayman 345-3230 for information.

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

AppleWorks SIG just prior to the regular WAP meeting at 8:00 AM.

AV SIG (arts and video) 4th Wednesday; WAP office, 7:30 PM. May be subject to change; call Nancy Seferian (202) 333-0126 to confirm.

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

Database SIG/4D 2nd Wednesday; Computer Factory, Silver Spring, 7:30 PM. May be subject to change; call Eric Gutsche to confirm, (703) 379-1265.

July

SU	MO	TU	W	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Meeting Notices

dPub SIG (desktop publishing) normally 1st Wednesday; PEPCO Auditorium at 1900 Pennsylvania Ave., N.W., 7:30 PM. July meeting tentatively scheduled for 2nd Wednesday, call to confirm.

Ed SIG (Educational programs) 4th Thursday; WAP office, 7:30 PM; August 23, Sept. 27.

Excel SIG 3rd Wednesday; WAP office, 7:30 PM.

Fed SIG (Federal) 3rd Wednesday; alternates between Falcon Training Center, 1745 Jefferson Davis Hwy. Suite 502, Crystal City, and Apple Fed. Sys. Office, 1892 Preston White Dr., Reston, 7:30 PM. Call Jim Manley (703) 490-1034 to confirm location.

Frederick Slice 2nd Saturday; at the library at 110 East Patrick St., Frederick, 10:00 AM.

GameSIG 1st Thursday; WAP office, 7:30 PM.

HyperCard SIG after the WAP general meeting, 12:00 noon.

HyperTALK SIG 3rd Wednesday, the Fairlington Community Center, 3300 South Stafford St., Arlington, 7:30 PM.

Mac Programmers 1st Wednesday; WAP office, 7:30 PM. There will be no July meeting.

NeXT SIG meets 2nd Wed. of each month, NIH Bldg 12A, Rm B51, 7pm. Call Hugh O'Neill, (202) 328-9510.

PI-SIG (Programmer's Interface) 1st Monday; WAP office, 7:30 PM (except for Monday holidays). Call Ted Meyer (703) 893-6845 to confirm date, time and location.

StockSIG 2nd Thursday; WAP office, 8:00 PM.

Telecomm SIG after the WAP general meeting, 12:00 noon.

WorksSIG 3rd Wednesday; WAP office, 7:00 PM.


Notice: Anyone having information on changes to the calendar is encouraged to call the Calendar Editor and leave a message on his home answering machine, tel.: (301) 595-2539 in Beltsville, Maryland.

August

SU	MO	TU	W	TH	FR	SA
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

AUGUST

1 Wednesday

-  Editorial Deadline—September Issue
- 7:30 PM dPub Sig.....PEPCO
- 7:30 PM Mac Programmersoffice

2 Thursday

- 7:00 PM Columbia Slice.....Columbia
- 7:30 PM GameSIGoffice

6 Monday

- 7:30 PM PI-SIGMcLean (call)

8 Wednesday

- 7:30 PM Database SIG/4D .Computer Factory
- 7:30 PM Board of Directors Mtng. office (Call)

9 Thursday

- 8:00 PM StockSIGoffice

11 Saturday

- 10:00 AM Annapolis Slice.... Anne Arundel Co.
- 9:30 AM Frederick SliceFrederick

15 Wednesday

- 7:00 PM NeXT SIGNIH
- 7:00 PM WorksSIGoffice
- 7:30 PM Excel SIGoffice
- 7:30 PM Fed SIG Call
- 7:30 PM HyperTALK SIGArlington

20 Monday

-  Ad Space Deadline—October Issue

22 Wednesday

- 7:30 PM Apple III SIGoffice
- 7:30 PM AV SIGoffice

23 Thursday

- 7:30 PM EdSIGoffice

-  Writers' Deadline—October Issue

25 Saturday

- 8:00 AM AppleWorks SIG..before WAP mtng.
- 9:00 AM WAP General Mtg. B/CC H.S.
- noon HyperCard SIGafter WAP mtng.
- noon New SIGafter WAP mtng.
- noon Telecom SIGafter WAP mtng.

27 Monday

- Apple IIGSMcLean (Call)

-  Ad Copy Deadline—October Issue

Macintosh

General
 Jeff Alpher to midnight (301) 630-2036
 Donald Schmitt (717) 334-3265
Art & Video
 Nancy Seferian (202) 333-0126
Borland Products
 Doug Ferris day only (800) 826-4768
Databases
Fourth Dimension
 Bob Pulgino (301) 474-0634
FileMaker II
 Tom Parrish (301) 654-8784
Helix
 Jim Barry to midnight (703) 662-0640
 Harvey Levine (301) 288-9380
MS-File
 John Love (703) 569-2294
 John Spencer (301) 730-1084
Omni 3 & 3+
 Paul Tabler (703) 278-8657
 Jeff Alpher to midnight (301) 630-2036
OverVue
 J.T. Tom DeMay, Jr. (301) 461-1798
 Tom Parrish (301) 654-8784
Pro-Cite
 Elizabeth Mangan (703) 750-2710
Desktop Publishing
Generaf.
 Frank Potter bet. 9 pm (703) 620-8886
 Jay Rohr (301) 655-0875
 Freddi Galloway (202) 234-5837
ReadySetGo
 Jim Graham (703) 370-5737
 Marty Milrod (301) 464-5981
 Freddi Galloway (202) 234-5837
Graphics
General
 Bill Baldrige (301) 779-8271
 Jay Rohr (301) 655-0875
Adobe Illustrator
 Ling Wong (703) 378-5102
Canvas
 David Gursky (703) 522-8345
 Bill Baldrige (301) 779-8271
 Tom Parrish (301) 654-8784
MacDraw
 Tom Berilla (301) 434-3256
 Tom Parrish (301) 654-8784
 John Spencer (301) 730-1084
HyperCard
 Holger Sommer (301) 474-3467
 Rick Chapman (301) 989-9708

Inside Mac
 Jon Hardis (301) 330-1422
 John Love (703) 569-2294
Languages
Pascal
 Michael Hartman (301) 445-1583
Machine
 Ray Hobbs (301) 490-7484
MS BASIC
 John Love (703) 569-2294
MacMoney
 Chuck Sicard (301) 963-2879
MacProject
 Jay Lucas (703) 751-3332
Spreadsheets & Graphics
General
 David Morganstein (301) 972-4263
 Bob Pulgino (301) 474-0634
 Tom Cavanaugh (703) 627-8889
Excel
 David Morganstein (301) 972-4263
 Mark Pankin (703) 524-0937
 Jim Graham (703) 370-5737
 Dick & Nancy Byrd (703) 978-3440
 Bob Pulgino (301) 474-0634
 Tom Cavanaugh (703) 627-8889
MultiPlan
 John Boblitz (301) 356-9384
 John Love (703) 569-2294
Telecommunications
General
 Allan Levy (301) 340-7839
CompuServe
 Michael Spelske (301) 949-0203
ThinkTank-More
 Jim Graham (703) 370-5737
 Tom Parrish (301) 654-8784
Word Processors
Microsoft Word
 Marty Milrod (301) 464-5981
 Harris Silverstone (301) 435-3582
 Tom Cavanaugh (703) 627-8889
 Freddi Galloway (202) 234-5837

WriteNow
 Bill Baldrige (301) 779-8271
WordPerfect—Mac
 Curt Harpold (202) 547-8272

General

Games-Apple II
 Charles Don Hall (703) 356-4229
 John Wiegley after 2:15 (703) 437-1808
IBM
 Ray Hobbs (301) 490-7484
 Leon Raesly (301) 220-0717
Math-OR Applns
 Mark Pankin (703) 524-0937
Modems-General
 Allan Levy (301) 340-7839
 Hayes Smartmodem
 Bernie Benson (301) 951-5294
Practical Peripherals
 Allan Levy (301) 340-7839
Music Systems
 Ray Hobbs (301) 490-7484
Printers-General
 Walt Francis (202) 966-5742
 Leon Raesly (301) 220-0717
MX-80
 Jeff Dillon (301) 662-2070
Stat Packages
 David Morganstein (301) 972-4263
Stock Market
 Robert Wood (703) 893-9591
MS/DOS
 Tom Cavanaugh (703) 627-8889

**Volunteer
 on the Hotline
 Call us
 (so we can call you)
 654-8060**

Frederick Apple Core Help Line

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

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

Operant Systems

...since 1982

)(-series Hardware

DOT-MATRIX & LASER PRINTERS

Panasonic 1180 (192 cps, 9-pin, Epson-compatible)	199
1191 (240 cps, 9-pin)	249
1124 (192 cps, 24-pin)	325
1624 (wide-carriage version of above)	459
Okidata 320 / 321 (300 cps, 9-pin, NLQ mode, std / wide carriage)	379 / 525
390 / 391 (270 cps, 24-pin, std / wide carriage)	525 / 699
NEC 2200XE (192 cps, 24-pin quality at a bargain price)	349
5200 / 5300 (265 cps, 24-pin, std / wide carriage)	549 / 729
Toshiba 321SL (216 cps, 24-pin)	619
HP LaserJet II (8 ppm, 512k)	1699
LaserJet IIP (4 ppm, 512k)	1049
DeskJet Plus (240 cps inkjet, 300 dpi, LaserJet-compatible)	699
Panasonic 4450 (11 ppm, 512k, dual input bins, LaserJet-compatible)	1395

MODEMS

Applied Engineering DataLink 1200 / 2400 (1200 / 2400 card w / software)	149 / 185
Anchor 1200E / 2400E (1200 / 2400 external, Hayes-compatible)	119 / 165
Prometheus Promodem 2400A (2400 card w / software)	135
Promodem 1200G / 2400G (1200 / 2400 external)	115 / 175

MEMORY EXPANSION & VIDEO BOARDS & CPU'S

Applied Engineering RamWorks III (256k-1 meg, for][e)	159
RamFactor (256k-1 meg, for][+ or][ge)	199
gsRAM (256k-1.5 meg, for][ge)	139
gsRAM Plus (1 meg-6 meg for][ge)	289
RamKeeper (battery backup for gsRAM)	159
Sonic Blaster (stereo digitizer / playback for][gs)	109
Transwarp II (7 mhz 6802e accelerator for][+ and][e)	149
Transwarp GS (7-mhz accelerator for][gs)	295
PC Transporter (IBM-on-a-card, 768k)	389
AMR 80-column card (64k, for][e)	59
Zip chip (4 mhz / 8 mhz CPU chip replacement)	119 / 155

HARD & FLOPPY DISKS

Sider II (20 / 40 / 70 / 90-meg for][+,][e,][gs or Mac)	(call)
Applied Engineering Vulcan 20 / 40 / 100 (internal hard disk for][series)	549 / 699 / 1295
Half-hi floppy, 143k (for][+ /][e,][e)	119
AMR A.5d (143k, daisy-chain port, for][gs)	149
AS800 (3.5" 800k drive for][gs,][e+, Mac)	199

INTERFACES & BUFFERS & CLOCKS

ProGrappier (parallel printer interface w / graphics)	85
Grappier c / mac / gs (use most parallel printers from your serial port)	95
Practical Peripherals Graphicard (parallel interface w / graphics)	69
SeriAll (serial interface for modems or printers)	89
Microbuffer Mini (32k-512k printer buffer)	85
Applied Engineering Timemaster H.O. (clock card, supports ProDos time / date functions)	85

)(-series Software

WORD & PAGE PROCESSING

Appleworks 3.0 (word processing, database, spreadsheet for][e, c, e+, gs)	179
Word Perfect (for][e,][e,][gs)	109
pfs:Write (w / spell)	75
Beagle Write (][gs)	59
Newsroom	25
Publish It! 2.0	79
Sensible Grammar	59

SPREADSHEETS

VIP Professional (][e,][c /][gs)	79 / 89
------------------------------------	---------

DATABASE

pfs:File w / Report	75
---------------------	----

HOME & BUSINESS ACCOUNTING

Managing Your Money 4.0	95
Quicken (easy home accounting)	45
BusinessWorks (best][e /][c /][gs-series business accounting)	259
Dollars & Sense	79
Peachtree Back-To-Basics Professional (GL / AR / AP / INV for][e,][c,][gs)	169

COMMUNICATIONS

Applied Engineering ReadyLink (split screen, VT-100 emulation)	79
Comuserve Starter Kit	29

MISCELLANEOUS SOFTWARE

Beagle Timeout SideSpread / Power Pak / Program Writer / Thesaurus	32
UltraMacros	39
QuickSpell / SuperFonts	42
Graph	55
pfs:Workmates (includes Write, File, Report, Plan)	125
Print Shop / Print Shop Companion	35 / 29
Copy II+ v9.0	29
Avery List & Mail	45
PaintWorks Gold (for][gs)	49
Flight Simulator II	35
Where in the World is Carmen Sandiego?	29

Mac Hardware

LASER & INKJET PRINTERS

General Computer Personal LaserPrinter (QuickDraw-compatible, six fonts)	1549
Personal LaserPrinter Plus (as above, w / seven additional fonts)	1649
Business LaserPrinter (6 ppm, Postscript, 2-meg)	2995
WriteMove (QuickDraw-compatible inkjet printer)	535
HP DeskWriter (QuickDraw-compatible inkjet, 300-dpi)	899
NEC LC-890 (8 ppm, Postscript / HP emulation, 3-meg, dual-bins)	3199
Qume CrystalPrint Publisher (8 ppm, Phoenix Postscript, 3-meg)	2895

HARD & FLOPPY DRIVES

Peripheral Land PL 20 / 30 / 50 / 100 Turbo (1:1 SCSI for Plus, SE)	525 / 575 / 625 / 1049
PL 50i / 100i / 200 / 250 Turbo (1:1 internal for II series)	499 / 949 / 1349 / 1699
Infinity (40-meg removable disk, also reads IBM floppy disks)	1049
Infinity Optical Disk (570-meg read / write removable, SCSI)	3949
TurboFloppy 1.4 (1.44-meg floppy, read / write Mac & IBM disks, SCSI)	325
CMS 20 / 30 / 60-meg SCSI	435 / 495 / 649
100-meg internal, SE, II	925
DaynaFile (360k floppy, reads and writes IBM disks)	475

68020 / 030 ACCELERATORS

Dove Marathon 68020 accelerator (for SE)	475
68030 accelerator (for Mac II, Ix, SE/30)	999
Irwin Excelsator XL 16 (16-mhz 68000 for SE)	329
Excelsator XL 20 (20-mhz 68020 for SE)	649
Excelsator XL 25 (25-mhz 68020 for SE)	1125

MISCELLANEOUS HARDWARE

1-meg SIMM module (for SE or I series memory upgrade)	109
Lapis DisplayServer SE (supports a variety of multisync color & greyscale monitors)	325
Datascopy 730GS scanner (64-level greyscale, software, cable)	1249
Microtek MSF-300Z scanner (256-level greyscale & color, software, cable)	1895
MSF-300GS scanner (256-level greyscale, software, cable)	1450
Sigma Designs / E-Machines / Monitorm full-page displays	(call)
NEC MacSync (14" analog color monitor for Mac II)	459
Anchor MacPac 2400E (2400 / 1200 bps modem w / software & cable)	179
Dove MacSnap & SIMM memory upgrades	(call)
Kensington System Saver Mac (lan & surge protector for 512, Plus / for SE)	69 / 59
Turbo Mouse Plus ADB (trackball for mouse-haters)	125
Shiva / Farallon / Nuvotech	(call)

Mac Software

WORD & PAGE PROCESSING

Microsoft Word 4.0	259
Write	89
MacWrite II	135
Word Perfect Mac 1.03	229
FullWrite Professional 1.1	249
Write Now 2.0	129
PageMaker 3.02	375
ReadySetGo 4.5	289
Interleaf Publisher	649
Springboard Publisher II	119

SPREADSHEET

WingZ 1.1 (super spreadsheet / graphics)	255
Excel 2.2	259
Full Impact 1.1	249

DATABASE

Filemaker II	209
FoxBase+ / Mac 2.0	269
SuperCard	135
4th Dimension 2.0	499
Double Helix 3.0	349

GRAPHICS

MacDraw II	289
Claris CAD	529
Adobe Illustrator 88 w / Adobe Typeface Manager	285
Swivel 3D	319
Crickit Draw / Graph / Paint	185 / 125 / 125
SuperPaint 2.0	135

HOME & BUSINESS ACCOUNTING

Quicken 1.5	45
Managing Your Money 2.0	139
MacInTax 1040	79
Peachtree Back-To-Basics Professional (GL / AR / AP / INV)	165
Bedford Simply Accounting	229

MISCELLANEOUS SOFTWARE

Microsoft Works 2.0 (word proc, calc, database, commun, spell)	199
TOPS for MAC 2.1 Bundle	195
Symantec Utilities for Mac II / AntiVirus for Mac	109 / 79
Suitcase II 1.2	55
MacProject II 2.0	339
Smartcom II	89
Adobe Typeface Manager (scalable outline fonts for Imagewriter / DeskWriter)	65

TO ORDER--Call Jeff Dillon
(301) 942-1100

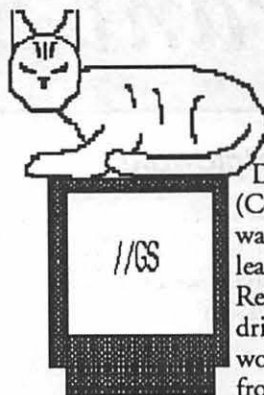
We sell over 10,000 items--call for current prices.
UPS 1-day shipping is available. Md sales add 5% tax.

Operant Systems
3514 Plyers Mill Road
Suite 207
Kensington, MD 20895



View from the Cat House

by Kim Brennan



from Computer Peripherals Inc. (CPI), is that the LaserWriter driver could not be selected from the Control Panel's Direct Connect Cdev (Control Panel device). This was baffling to me until I learned a work-around. Renaming the LaserWriter driver file to something else would allow it to be used from the Direct Connect Cdev. Apparently if it is

called LaserWriter it only expects to be used via AppleTalk.

When I finally had the direct connection established it was time to print. But now the LaserWriter driver could not talk to the IIP. I still have not solved this incompatibility. Talks with CPI indicated that they had only used the JetPage with Macs via AppleTalk, not with a direct connection. CPI is oriented mainly towards the MS-DOS world and was unable to help me further.

My system being quite a hybrid allows me to try things that other users cannot. The JetPage came with an MS-DOS disk which had several sample PostScript files on it. Reading this disk using my PC Transporter (the IBM PC on a card) was no problem. Outputting those files to the IIP from MS-DOS produced some impressive-looking output. Moving those files over to ProDOS and outputting them to the printer produced nothing.

About this time I purchased Publish It! 3 at AppleFest. Publish It! has support for LaserWriters, both through AppleTalk and with a direct connection. Curiously, according to Timeworks, printing via AppleTalk is faster than with a direct connection. I can't say. Once again nothing came out of the IIP. In fact almost the only time I have gotten output from the IIP while the PostScript cartridge is working is from MS-DOS. The lone exception is an interesting tale.

One of the files included with the LaserWriter driver is an ImageWriter Emulation PostScript

I seem to have missed a month. Vacations do that to a person. A week in Florida without a computer caused me to miss my deadline for submission. This, in theory, would give me more time to prepare a nice long column for this month. Hah! In reality things have been very busy.

AppleFest was held in the suburban wilds of New Jersey in the first week of May. Noticeable by their absence were Apple Computer and Claris. Claris, despite AppleWorks, I guess is mostly a Macintosh software house. Apple has apparently decided that appearances at several smaller shows is more desirable than at a few large ones. At least that is what is reported from the rumor mill. However, many other companies were present, some with exciting new products for immediate or near future release.

News Fit to Print

AppleFest ran for three days, but I was only able to spare a few hours. Just prior to AppleFest I purchased a new Hewlett-Packard LaserJet IIP printer. The IIP is HP's personalized laser printer. It is quiet and compact. Print quality is excellent. Using it with various Apple II and IIGS programs is something else again.

AppleWorks allows you to create a custom printer. In AppleWorks classic, the IIP is very easy to use. In fact, to date AppleWorks classic is my program of choice for using the IIP. AppleWorks GS on the other hand has problems.

The main problem is not a

problem with AppleWorks GS but rather with GS/OS. GS/OS allows you to have various printers as long as you have custom printer drivers for them. A printer driver is a small program that interprets what is on the screen into a format that the printer can understand. For simple text this is no problem, but for graphics the situation is much more complicated. AppleWorks GS when printing in Better Color or Better Text modes is actually printing graphic data that is in the form of pictures of text. This allows you to use lots of different fonts and font sizes but it slows down the print process. It also means that unless your printer driver knows how to talk to your printer you won't be getting anything meaningful on the printed page.

HP and other people are working on creating a custom printer driver for the LaserJet as well as other HP printers. However, one of the strong points of the LaserJet is that it accepts font cartridges. These cartridges allow you to use fonts other than the ones that are built in to the printer itself. One cartridge that is available for the IIP is a PostScript Emulation Cartridge. PostScript is the page description language that drives Apple's LaserWriters. These PostScript cartridges should make the IIP look just like a LaserWriter to the software, and there is already a LaserWriter Driver in GS/OS.

The first problem I encountered after setting up my IIP with its PostScript cartridge, called JetPage



program. This program is intended to make the LaserWriter work like an ImageWriter for text applications, save for the better appearance of the text. As ProDOS 16 has evolved into GS/OS there have been several versions of this file, called IWEM.

IWEM 1.1 is a nicely commented text file. Later versions excluded the comments. IWEM 1.3 is the latest version. When this file is output to the IIp, there is a single sheet which is printed which states that the ImageWriter Emulator Version 1.3 has been installed. Further attempts to make use of this installation produce no output.

I can't say that I am displeased with the printer. I can say that I am frustrated by the apparent lack of LaserWriter compatibility even with the PostScript cartridge. Sometimes it really doesn't pay to get out of bed.

Just as I was preparing to send this column off I discovered a way to produce PostScript output on my new printer. Well, it has to be almost the worst way to make the PostScript connection, but it does work. It was NOT easy, logical or simple to find the information. It also is not the easiest method of output, but...

Basically, using any of the GS/OS (or ProDOS 16) LaserWriter drivers (renamed to something OTHER than LaserWriter—I name mine after their version numbers, i.e. LaserWriter2.2, LaserWriter3.0, etc.) you can select the LaserWriter printer in the Direct Connect Cdev. Then you can print your output to a disk by holding down Open Apple-F when selecting "Okay" in the Print Dialog box. This will create a text file called POSTSCRIPT.GS (possibly with a number following it) in the DRIVERS subdirectory of your boot disk. (All of this was done from a hard disk; I can't guarantee that any of this will work from floppies.)

Next, I used the shareware GS VT100 terminal emulation program called Snowterm (other communications programs have so far been unsuccessful). To use this program it was necessary to set the printer port to Modem, although nothing else is

changed.

Within Snowterm I set the communications dialog to 9600 baud (same as my HP IIp), 8 bits data, no parity, 1 stop bit, no Linefeeds added after Carriage Return. The hardware dialog was set to Modem connected to Printer Port, no Printer. The Terminal was set to VT100.

Then, finally, I sent the PostScript GS out (via the "Modem," aka the HP IIp). After several minutes, Snowterm beeped indicating transfer of the file. After many more minutes (many more) the IIp warmed up its little engine and gave me my first PostScript output from the Apple II side.

Initially I was not impressed with the output until I used some of the normal PostScript fonts rather than the fonts I use for the ImageWriter. Then I was impressed. This is what I've been waiting for!

The file I output was a Word Processing document with two different fonts (Times and Helvetica) and several different styles and sizes. Everything looks very good.

I attempted to output a PageLayout Document but didn't get anything from the printer. More study and trial and error is needed for to me find just what is and isn't compatible with this process.

Drivers Down the Road

Speaking of printer drivers brings to mind Bill Heineman, who has written or helped write several games, and is currently developing several printer drivers for Seven Hills Software. One driver that he has already written and distributes freely is a new ImageWriter driver. This new driver allows the ImageWriter to print faster when printing graphic data, such as AppleWorks GS documents.

Bill Heineman is also working on new printer drivers for Epson printers other than the few that are supported by Apple's Epson printer driver as well as a driver for HP's Deskjet printer. When these drivers

become available as well as the drivers being developed by HP, GS owners will have exciting new possibilities for hard copy output. I for one am waiting impatiently for these drivers.

The Royal Scan

Since my intention is to convert my GS into a desktop publishing system, it seemed logical to purchase a hand scanner. Well, any excuse is good enough for another toy. I purchased the Vitesse Quickie at AppleFest. Installing yet another interface board into my computer involved a major reassessment of what goes where.

Suffice it to say that I squeezed the board into slot 2. Vitesse's software for the Quickie is impressive in its simplicity. You do not have to select "My Card" from the Control Panel for the Quickie software to find the scanner. The software finds the card regardless of the Control Panel setting. This caused me to have some intermittent problems. On my system, is this anything new?

With some quick help and an eager-to-please attitude I have since gotten the scanner to work flawlessly. The problem involved my Ohio Kache Systems Multikache, which objects to being polled by the Quickie software. After polling, the board won't write to the hard disk. The software fix for this means that my copy of the Quickie software prompts me for the slot that has the Quickie card in it, rather than determining this on its own. Vitesse says a new version of the software will be released shortly that has gray scale scanning abilities. The current version only works in black and white.

Crazy from the Heat

Adding another board brought me right up against a persistent "feature" of my GS: Heat. Having an internal fan plus a Kensington System Saver was just not enough to remove all the hot air being generated by the computer. My solution



was to modify the System Saver and remove the internal fan entirely. Stopping at my local electronic supply store, I purchased two 5" fans. One was a noisy 110 cubic feet per minute (cfm) fan, the other a quiet 82 cfm fan.

I initially installed the 110 cfm fan, but the noise was really too much. If I need it I have it, but in the mean time the other fan works nicely.

Modifying the System Saver involved opening the case (voiding the warranty) and removing the old fan, attached by two screws. Because the old fan was only 3" across it was necessary for me to increase two openings in the System Saver case to accommodate the increased air flow of the 5". On the bottom of the System Saver, this was simply a

matter of using a keyhole saw to enlarge the circle. On the top, to preserve the grill, more care was needed. Using the keyhole saw as well as a pocket saw (the type on Swiss army knives) I managed with a minimum of ruthlessness to leave a neat larger opening. Having all the proper tools available made for a tidy installation process. My GS now runs considerably cooler and without the overheating problem that used to plague my long sessions. The noise of the new fan (82 cfm) is no louder than the 3" original equipment (17 cfm).

In my April column on Shareware programs there were a few programs, as always, that I forgot to mention. Lifelike is a shareware program that works on any Apple II, not just the GS. Lifelike is a program

for the study of cellular automata. This is a subject that has been extensively covered over the years in the Scientific American column "Mathematical Games." Cellular automata are simple algorithms played out on a grid. When several generations are processed the results seem to mimic bacterial growth. On a computer graphic screen the results can be simply fascinating to study as the growths wax and wane. Lifelike was written by Sean Nolan. My copy dates from 1988 and it may be possible that Sean Nolan has moved since then.

A GS-specific program that includes other types of cellular automata is PlasmaLab. I've let this one run for days on end sometimes. PlasmaLab is free-ware and was written by Peter Brinkley. This program is well worth a look.

One shareware game I didn't mention was not even around when I wrote my April column. One Arm Battle is a wonderful solitaire game made lively by the clever use of sound. It's addicting to many, even those who are convinced the computer opponent cheats. Check these programs out at your local BBS or disk library or send in your money to the authors for copies.

One Arm Battle V1.0
\$10
Ken Franklin
5603 81st Street E
Puyallup, WA 98371
PlasmaLab V1.0
Freeware
Peter Brinkley
Lifelike V2.2
\$15
Sean Nolan

OOPS

In March, we ran a story entitled "Joys of Illustrator." What we didn't tell you, because somehow in the convoluted publication process, we lost track of it, was the name of the author and artist. We apologize profusely to Kevin Martin and promise him that it will NEVER, NEVER happen again.

To him, anyway.

We are working on the process, and it really shouldn't happen again.

AppleFest:Keynote Address

by Phil Shapiro

Last month's AppleFest was kicked off with a keynote speech by Tom Snyder, widely known and respected as an educational computing guru. Tom is president of Tom Snyder Productions, a software company that has produced such titles as Snooper Troopers and Agent USA. His programs tend to be offbeat and use the computer in unusual ways.

He is an entertaining speaker, whose words held the attention of the 300- to 400-member audience, a significant majority of which were teachers. The central theme of his speech was that technology should not replace the role of teacher, but rather should enhance it. Computers are great educational tools, but they don't come close to replacing teachers. After all, teachers are supposed to do much more than make children knowledgeable and skillful. The role of teachers is to inspire, cajole, humor, mold, captivate and prod young children into becoming fully functional human beings.

Knowledge and skill are just one part of the entire education picture. Tom talked about keeping teachers "in the loop," meaning actively involved in the learning process. Progressive reforms of recent years have shifted away from "teacher-centered" classrooms, to "child-centered" classrooms. At progressive schools, teachers no longer stand up in front of the classroom, lecturing children by shoveling facts into their heads. Rather, classrooms are set up as learning environments where the students themselves take the initiative to engage in learning activities.

Child-centered learning is an exciting new approach that recognizes that children naturally love to learn, and that traditional classroom settings dampen this enthusiasm rather quickly. Computers fit comfortably into a child-centered classroom in that they involve the children as active, thinking human beings rather than as passive recep-

Some teachers step back so far from being intrusive that they literally step off the stage.

tacles of knowledge.

But in a child-centered classroom there is a danger that a teacher could step "out of the learning loop" altogether. Some teachers step back so far from being intrusive that they literally step off the stage.

These teachers go beyond letting the children find the answers for themselves. They let the children try to find the questions they're supposed to be investigating.

With an understandably enthusiastic and supportive audience, Tom preached that teachers are important people whose contribution to the classroom is a function of their love for the subjects they teach. The successful teacher of the next century will be one who motivates students to learn using the new learning tools of today, along with time-tested learning tools of the past. Remember books? Books have a lot going for them too.

To give concrete examples of his point of view, he punctuated the speech with several anecdotes from his own classroom. He told of reluctant, shy students who blossomed when working on a seafaring simulation he concocted. He told stories of how children walk out of his classroom talking in animated voices about the lessons of the day. He told of children interacting outside of their narrow cliques when given a chance to talk with other children in the classroom. ("Why, that's educational heresy. Children are allowed to talk with one another in the classroom?")

He also told of how his own parents still refer to him as "my son the computer programmer" rather

than "my son the teacher." This characterization continues despite his frequent protestations to them that his calling in life is as a teacher. Developing software is incidental to his main calling in life. He makes computer programs so he can teach better; he doesn't teach so that he can program better.

This anecdote from his own family was told in an amusing way, but the underlying message was not lost on the auditorium full of attentive teachers. Sometimes we as a society honor educational technology more than we honor the human beings who teach our children. Computers hold out great promise in the classroom. But flesh and blood human beings make the learning happen. 🍏





AppleFest East '90— the Developers' View

by Ted Meyer and Loren Evans

First and foremost, we want to thank all of the WAP members who helped out at our booth. AppleFest was a success as far as the Pi was concerned and Bill Geiger, Bill North, Gary Hayman, Seth Mize, Loren Evans, Kim Brennan, Phil Shapiro and a few others made that possible. Also, thanks to John Ruffatto, David Weikert and Dave Ottalini for doing a fantastic job preparing the disk libraries and, of course, Nancy Pochevko at WAP's office for the logistic and paperwork support.

The general consensus is that those who attended had a great time. The show and the crowd were smaller this year but no less enthusiastic. Some have compared it to AppleFests of the pre-Macintosh days. There is no question that it was an Apple II show. There was a Commodore booth and an IBM presence, but the effect of these entities and Macintosh was very limited. The vast majority of the crowd and the enthusiasm was Apple II. Our booth was often crowded. We sold some memberships and a lot of disks and, as is our nature, we answered one heck of a lot of questions.

About a week or so before the show we discovered that Apple was not going to have a booth. In response, others, such as Applied Engineering, Ingenuity Inc., Laser and Claris also cancelled. IBM, which had been planning to attend, did not show because it had not finished a "Low Cost Education" machine. Both Apple and IBM did provide hands-on areas where people had an opportunity to play with the machines and try out software.

The only computer manufacturer present was Commodore, and despite their introduction of the Amiga 3000, they didn't seem to have anything really eye-catching.

With the emphasis on education, a large percentage of the attendees were teachers, but surprisingly few were parents with children. Perhaps a lack of things for children to do prompted their absence. In the past, Apple hosted and set up classroom environments so that kids and teachers could be shown software and learning methods together. There is no question that Apple's absence was felt.

Development Stuff

As far as we know, the only representative from Apple was Matt Deatheridge, one of Apple's Apple II technical gurus who is individually responsible for keeping a large number of the Apple II Tech Notes up-to-date. Many developers have Matt to thank for timely and helpful information being provided on the information services to help solve their Apple II problems. Matt spent a lot of time in the ByteWorks booth with Byte-Works' Mike Westerfield, continuing his mission of answering questions (and probably taking flak about Apple's absence).

Westerfield was showing all of his ORCA software development products and a new one called Design Master. Design Master is a resource editor and compiler which can generate resources or C, Pascal, or Assembly source code. It had a few bugs, but the show price was only \$55 (\$75 for ORCA/Pascal and C). For those interested in learning programming, the ByteWorks has

developed courses in Pascal and C which are available by mail or on America Online. The Byte-Works number is (505) 898-8183 for those interested. We understand Westerfield may be planning a course on the IIGS toolbox as well.

SSSI was showing another resource editor in a booth right next to The Byte Works. SSSI had demonstrated a beta version of Genesys at the last AppleFest in Boston. This year they were selling it. It has the added feature of being able to disassemble resources. Its show price was \$100. SSSI's number is (404) 928-4388. Genesys or Design Master are must-haves for serious GS developers.

Several software distributors and developers showed a strong interest in getting in touch with people who are either developing or able to develop software for the IIGS. Come to one of the PI-SIG meetings on the first Monday of each month to learn more about these opportunities. Give Ted Meyer a call at (703) 893-6845 for time and location.

Software Stuff

One of the most impressive things at AppleFest was a truly exciting demonstration of hypermedia on the IIGS. Roger Wagner's HyperStudio on a IIGS with a Transwarp and Apple's Video Overlay Card was controlling a Pioneer laserdisk player via a serial interface. Roaming through the HyperStudio stack activated the Overlay Card and laserdisk player to present the user with occasionally stunning mixes of IIGS and video graphics. Hypermedia is a technology in its infancy and the IIGS is the premiere low-end system for experimenters and educators interested in trying out this new technology.

Already a newsletter for HyperStudio has appeared. HyperStudio Network had the booth right next to the Pi's. Its newsletter, "HyperStudio Forum," is very professional, and the first issue included a technical question-and-answer column, product descriptions, recommenda-



tions on setting up a hyper-media workstation and an interview with Roger Wagner. A subscription is \$29. Call (609) 466-3196 for more information. As long as we're talking about Hypermedia, 8-bit Apple II owners should also remember TutorTech. A free TutorTech demo disk is available by calling 1-800-446-3000.

Brøderbund announced a new version of Print Shop for the IIe/c. Call 1-800-521-6263 after July 1 for information about upgrading. Also, for GS owners, they are coming out with a new Print Shop GS Companion Disk and a new GS-specific Carmen Sandiego.

GDL, the Graphic Disk Labeler, was being displayed at Roger Wagner's booth. At \$39.95, GDL is a neat disk labeler for the IIGS that allows you to import graphics and icons for producing your own 3.5" disk labels. It looks like a very handy package for finally labeling and getting your disk collection organized. It even produces a line for the edge of the disk so you can identify your disks in a stack or box. For ordering information, call Triad Venture Inc. at (516) 732-3771.

You can always count on Beagle Brothers for strong support of the Apple II. Their circular booth did a great job of presenting their products. Ted picked up Program Writer, a slick and valuable tool for AppleSoft programming. Ted also had a demonstration of the new version of Point-to-Point, a telecommunications package, and was convinced to upgrade his copy.

A new company called PC Globe Inc. was showing PC Globe and PC USA for the IIGS. These are a couple of spiffy programs that allow you to work with maps and databases for 177 countries in PC Globe and 50 states and Puerto Rico in PC USA. They said the programs would be available in June and we're pretty sure they were seen in a local Egghead Discount Software store last week. Call 1-800-255-2789 for more information.

Barney Stone, as always, had a

booth showing off his powerful DB Master Professional. Barney's package is *the* state-of-the-art relational database system for the Apple II line. Barney's company, Stone Edge Technology, has released DB Master Version 5 as shareware and Barney provided both 5.25" and 3.5" copies for WAP's disk library. His hope is that you will be impressed enough with Version 5 that you'll pick up the even more powerful DB Master Professional. Stone Edge Technology's number is (215) 641-1825.

Hardware Stuff

Harris Laboratory was selling a new memory expansion board called GS Sauce that holds up to four 1M SIMMs. The card was about the size of a IIe 64K mem-ory card. It's DMA compatible and works with GS/OS 5.0. You can order it with no SIMMs for \$95 from Harris Laboratory, 1143 Riverwood Drive, Burnsville, MN 55337. Their phone number is (612) 890-4498.

One of the most impressive new hardware products was SYNnovation's TurboRez, a graphics coprocessor that greatly enhances the graphic capabilities of the IIGS. The card allows 256 colors in the 320 super hi-res mode and 16 colors in the 640 mode, and expands the number of colors available from 4,096 to 32,768! On top of that it allows the use of graphic "sprites" and different graphic "layers" for overlapping images. The animation techniques demonstrated with this card were stunning. However, with an estimated \$400-500 price tag, SYNnovation has a long row to hoe to get enough users and developers interested to make it a standard. If you're interested in helping them hoe their row, call them at (707) 573-9257.

Although Applied Engineering (AE) didn't have a booth, they did send an employee to assist in the CDA Computer Sales booth. CDA is a hardware and software retailer who was doing pretty good business at the show. Although we didn't get the

name of the AE representative, we did get a lot of favorable comments about the support he provided. Ingenuity Inc., AE's arch-rival, also was "boothless," but they did have a rep flashing around a "hard card," a 40MB hard disk drive completely contained on a single plug-in card for the Apple II series.

Media Stuff

America Online (AOL) had a booth and was giving away starter kits. They gave away a LOT of kits. AOL is still interested in coming to a WAP Apple II meeting, giving away starter kits and showing off their system. Their booth was linked to AOL and constantly had a booth person online in an effort to provide a bit of AppleFest to AOL users across the country. Likewise, CompuServe's MAUG was hooked up and interfacing with the world. A few Pi members were able to meet Glen Bredon, author of ProSel and ProSel 16, as he demonstrated a new version of ProSel 16 at the MAUG booth. Normally, AppleFest has some excellent after-hours parties for meeting the "big names" in the Apple II community. Although Apple wasn't there to throw a major bash, AOL and GENie did host parties on consecutive nights.

The editors of a new publishing venture, *GS+ Magazine*, were peddling their IIGS-specific magazine. GS+ is composed and edited completely on a IIGS and a LaserWriter IINT using AppleWorks GS for desktop publishing. Ted found the content pretty substantial in the first four issues that they were handing out for free, so he subscribed. Although you can subscribe to just the magazine, we recommend getting the disk as well since a lot of the content relates to what's on the disk. If you're interested write GS+ Magazine, P.O. Box 15366, Chattanooga, TN 37415.

Conferences, Meetings, and Chats

As always, AppleFest had conferences and some of the subjects



included an AppleWorks clinic, classroom telecommunications, software for the home office, the future of computing, computer games, desktop publishing and computer games as educational tools. Some of the half-day intensive seminars included AppleWorks GS, Music, MIDI and the IIGS, and IIGS Graphics in the Classroom.

Of special interest to us programmers, the Apple II Developers Association met on Sunday morning. Roger Wagner, Barney Stone, Tom Weishaar (publisher of *A2-Central*) and Mike Harvey (publisher of *Nibble*) led the meeting and offered interesting perspectives on the future of the Apple II. Stone is leading a developers' push to convince Apple of the benefits of making the FDHD 3.5" drive available for the Apple II line. The FDHD is hardware-

compatible with ProDOS, Macintosh, and MS-DOS disk formats.

Barney's goal is to get Apple to allow the IIGS to be an at-home system compatible with work and school. Sounds like a great idea to us. Weishaar, though, pointed out that Apple does not really consider the home market an important part of their marketing plan. It was suggested by Wagner that writing to Apple and stating "I had a good time at AppleFest, but missed you there" might be a good idea. Wagner pointed out that if Apple doesn't hear anything, they may figure it's not important in the future.

Paul Statt, Senior Editor of *inCider* magazine, suggested that Apple didn't attend because of politics and conflicts with Apple-Fest management. Perhaps the incorporation of "ComputerFest" with MS-

DOS and Commodore got on Apple's nerves. Another suggestion was that Apple didn't attend because it didn't have any "show stopper" major products to show. Apple showing up empty-handed might have been more frustrating for attendees than them not showing up at all. It can be very demoralizing for a company's personnel if all they get from a crowd is complaints about lack of support, especially if they've just spent a year working their brains out for that same crowd. Protecting its people may have been a factor in Apple's decision.

In a conversation with Weishaar near the end of the show, Ted started a rhetorical question with the phrase "If Apple were to drop the Apple II line tomorrow..." As he said it we could see Tom's hackles rise.

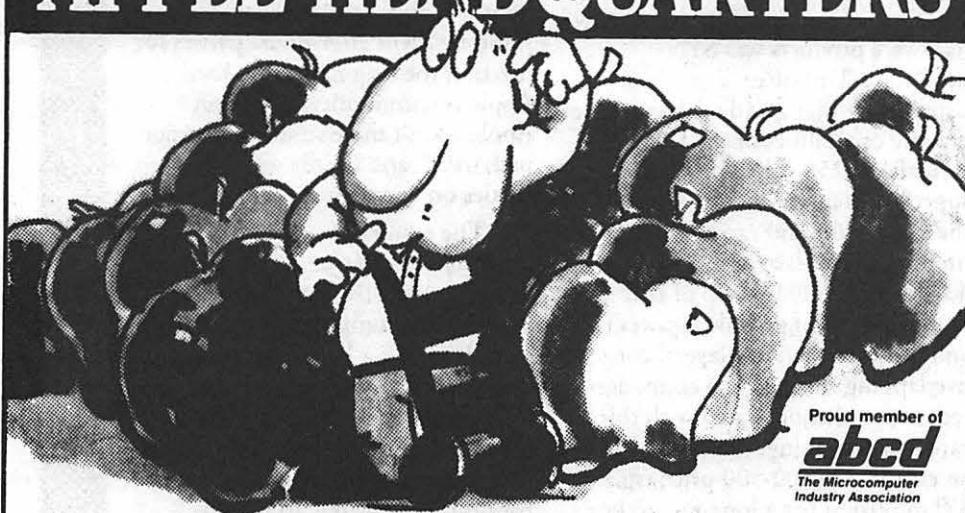
"Apple is NOT dropping the II!" was his immediate and powerful response before Ted had even finished the question. Tom pointed out Apple's continued support and commitment to the education market. The next week we received the June issue of *A2-Central* where Tom outlines Apple's commitment to the Apple II. Tom is frustrated, as are many, with the self-fulfilling negativism within the Apple II hobby market.

Mike Dodge, the Conference Director for AppleFest for the last few years, is leaving Exposition Management. We understand he is heading to Spain to support a positive career move for his wife. We will miss Mike a lot. He was always there and helpful when we, as exhibitors, needed him, before and during the show. Good Luck, Mike!

If anyone didn't attend AppleFest because "It wouldn't be an AppleFest without Apple there," then they made a mistake because this was definitely an AppleFest—and a good one at that. As exhibitors and marketers we learned a lot and will try to do better yet next year. That's right, we're getting ready for AppleFest/East '91 at the Meadowlands Convention Center, New Jersey, April 26-28. Hope to see you there! 🍏

APPLE II

APPLE HEADQUARTERS



- 🍏 Guaranteed 6 Hour Delivery
- 🍏 4 Hour Service
- 🍏 Free Software
- 🍏 Network Service and Installation
- 🍏 Competitive Rates

- Equipment on Hand**
- 🍏 Mac Plus • Mac SE • Mac II • Mac II CX
 - 🍏 Imagewriter II Printers
 - 🍏 Apple Laser II NT's NT's NTS
 - 🍏 19" Color/Mono Mac II Monitors

For Prompt Service Call: Bethesda, Md. (301) 951-0811 Baltimore, Md. (301) 576-8868 Arlington, Va. (703) 525-0455

Rent-A-Computer, Inc.

Pi Reports: APPLEFEST 1990

by Kim Brennan and Adam Robey

New Jersey was the host to its first AppleFest in early May. In some ways there were two computer shows: one called AppleFest focusing on computers made by Apple Computer, and another called ComputerFest, which encompassed many other computers such as IBM and Commodore.

Despite the presence of these less powerful computers, Apple stole the show. Except for non-Apple computers such as the Amiga and a few IBM PCs, the computers showing off the Cdrive were the lone exceptions to the statement that all of the computers at AppleFest were Apple IIGSes.

There were over 60 booths at the Garden State Convention Center In Somerset. Virtually every major Apple II vendor was there, such as Beagle Brothers and Roger Wagner Publishing. Apple user groups also were represented, including Washington Apple Pi.

Hard drives are becoming an Apple II staple. Ingenuity, formerly Applied Ingenuity, was showing a hard drive on a card. Called the Innercard, this 40MB \$699 hard drive brings new meaning to portability. Also on display were Ingenuity's Cdrive, an internal hard drive for //c, //c+ and Laser 128 computers.

A session on peripherals was lackluster, and dwelled on the basics. The crowd's reaction literally dwindled—along with the crowd.

Software developers are to hard drives as mechanics are to car owners. Two companies were present with new tools for programmers. The Byte Works, maker of the Orca family of products and the prime

creator of the Apple IIGS Programmers' Workshop (the official development program), was taking orders for its yet to be shipped Design Master.

Billed as a visual program design tool, Design Master allows you to visually lay out how your program will look on the screen. Then Design Master will save your screen in a format that various programming languages can understand.

SSSi had a similar but more powerful product announced and shipping. Its Genesys programming environment will also allow you to lay out your screens graphically, but in addition will create the rudiments of your program as well. All you would need to do is "fill in the blanks." Quite impressive.

A visit to the Roger Wagner Publishing booth yielded HyperStudio dollar sample stack disks. HyperStudio is a very impressive hypermedia authoring system for the Apple IIGS.

Roger Wagner hardly needed to be present with a booth at this show. Many of the conferences on hypermedia also demonstrated HyperStudio. One of the most interesting HyperStudio stacks was the information computer in the center of the convention hall. A GS equipped with a touch screen and laser disc player had all the information about who was where and when, cleverly presented in HyperStudio. Sound, too. Being in the center of the convention hall, it may not have received as much attention as it might have had it been at the main entrance.

Digital Vision booth, maker of ComputerEyes, a video-based

digitizer board and software combination, gave some very impressive demonstrations. One person working at the booth took a picture that looked like a photograph of some keys for his hotel and some pocket change. ComputerEyes is available for almost any kind of computer that you can think of, including the Apple IIGS, earlier Apple IIs and the Macintosh. Three different computers were used to demonstrate ComputerEyes: IBM, an Apple IIGS and a Macintosh. All three of them gave impressive demonstrations.

Timeworks, maker of Publish It!, was present with the latest Apple II version, Publish It! 3. Many others are quite fond of this Desktop Publishing program. Though this is a program for all Apple II computers with 128K of memory, it follows the standard GS interface pretty closely.

Beagle Brothers was there with their multitude of Apple-Works add-ons. One nice feature at the Beagle Brothers booth was a sign telling shoppers that they could purchase those same add-ons for 50 percent off at the booth across the aisle.

In fact, the various mail order businesses were out in force. One of the more prominent booths was that of Educational Resources, a frequent advertiser in national magazines other than the Pi Journal. Most of what this company sells is educational software, but games and other software were also listed in their catalog.

SYNnovation, a two-man operation, was showing off their second prototype of TurboRez GS. The company could not afford booth space so they shared a booth with a user group. TurboRez GS provides a substantial increase in the quality of graphics on your Apple IIGS.

They only had two demonstrations, one an animation feature of a bee in flight, and one a slide show of various graphic images. This board would be a giant step forward for GS graphics. It would have been nice if they had another computer running the same demonstration without TurboRez GS to give a better idea of





how much it improved the graphics, but one could still see that it was an important product.

At this point the design calls for use of a standard GS monitor, so vertical resolution has not improved. What has been improved is the number of colors available, the number of colors that can be used at once and the speed of graphic manipulation. Further programming will be needed for a complete interface into standard GS programs. TurboRez GS is due out later this year.

Impressive in a different fashion was a demonstration of SoundSmith being given next door to the Byte Works Booth. In fact it was so impressive that one of the Commodore Computer representatives could not believe that the sound was

coming from a stock GS. If you haven't heard SoundSmith yet, put your ears on. The latest version shipping out of Spain is 0.94, with reportedly some impressive new features.

AppleFest was not without problems. First of all, Apple Computer was not there. The promotional brochure listed Apple Computer under the list of "Exhibitors & Supporting Organizations." While I cannot be certain which one of these categories Apple Computer was supposed to fall into, I still know that they were a no-show at AppleFest.

Another problem for those attending the sessions was sound. There were no walls between the conference theaters, only a curtain. The people who organized AppleFest

(Exposition Management) did not realize this until after they printed up the programs, so they posted schedule changes that staggered the time blocks for the conferences. Even with these changes, there were still sound conflicts.

Despite these problems, AppleFest was a success. While there were some things that could be expected, there were other things that were not. 🍏

GALAXY GRAPHICS

P. O. Box 2466, Fairfax, VA 22031

Imaging

We create slides from most popular Mac software. 3 Day Economy rate \$5. Color prints and transparencies also available.

"Word Processing Slides"

Create 4000 line resolution slides from your word processor. Send us your file and we'll do the rest. Call for our Background Color Card. Prices start at \$10.

Color/Grayscale Scanning

Transform your hardcopy to 24 bit TIFF color images or grayscale of 256 shades of gray. \$10 Grayscale, \$15 Color.

Animation

We can take virtually any Mac file, scanned image and create an animation sequence with sound that will catch everyone's attention. Disk or videotape format available.

703-278-8000



Cheap Computing

by Ron Evry

Elsewhere in this issue of the Journal, readers will find my review of geoCalc, I hope a worthy endeavor in its own right. But in the process of getting the review to the reader, a story of interest ensued:

Normally, I am a cautious computer user. I back up everything I write and on more than one disk.

After writing the geoCalc review, however, I broke my number one rule. I saved the article on one disk only and neglected to print out a "hard copy." Needless to say, this disk had been lying around uncovered and bashed about for months. The volume was ironically named / READY. I discovered my embarrassing mistake when I tried to upload the article to the TCS. The disk just spun and spun and spun.

I tried to track down the problem. Using my faithful Copy II Plus software, I first catalogued the disk. There was the file: GEO-CALC... TXT.. 10 blocks. So far, so good. Then I tried to copy the file onto another disk. Bingo! There the problem showed itself. "BLOCK ERROR," I was informed. I tried again; same problem. I tried to copy the disk, but like clockwork, every spin of the disk brought another ERROR to nestle atop a stack of them. It was getting frustrating.

Then oh so cleverly I used the bit copy option to copy the entire disk contents onto another. This was too successful. The error went along onto the new disk. Finally, I used the utility software's sector editor to track down the article. I set it to search for the text characters in "geoCalc" and I found them! Except what I found were blocks of data stored in 256 character chunks that were not necessarily in the order I wrote them in.

I set the program to print out these chunks, which it did alongside their hexadecimal equivalents. Then I took the 15 foot long printout and cut out little chunks of text about one inch by six inches. After juggling them back in order, I rewrote the article from the text and saved it on two separate disks this time!

I know that as soon as this article gets in print, I will be told by 20 different people about 20 other kinds of software that would have retrieved the article for me and probably correct my grammar and fix my breakfast in the morning as well. But I used what I already had to get what I needed. And there, fellow cheap computists, is what we need to keep in mind as we look at the juicy new software being written for other brands of computers, but NOT for the Apple II: *do we need it?*

The other folks have been

playing catch-up for years. The main reason a lot of new software is not being developed for the II is simple. Most of us already have much of what we need already. There still lie over 50,000 programs out there that we can use and a very hefty chunk of them are in the public domain. One of the problems Apple II software developers have is that as soon as they put something good out to market, some clever 13 year old in Racine, Wisconsin comes up with a different way to do the same thing and gives it away! Better to write software for the MasS of DOS users who can't even write a simple basic loop and are just itching to spend their money!

I am not saying that there is no use for good new software. I look forward to seeing great things in the future. But if software producers keep coming out with the same old junk that we've already seen a thousand times before, then they can leave the Apple market alone. After all, there are over five million of us who can wait for the good stuff. We know it will keep coming anyway. And if it doesn't, we will just have to write it ourselves. 🍏

Letraset® "Studio Line" Learning Center

- ◆ DesignStudio™
- ◆ ColorStudio™
- ◆ ImageStudio™
- ◆ FontStudio™
- ◆ LetraStudio™

Competitive Pricing

Macintosh Desktop Media Services

COLOR OUTPUT ◆ QMS ColorScript™ 100 Model 30 ◆ TABLOID TRANSPARENCIES

PC RESOURCES LTD
 11490 Commerce Park Drive ◆ # 320
 Dulles Access Rd at Wiehle Ave Exit
 Reston, VA 22091 ◆ 703 860 1100



Copy II Plus v. 9.0

by Bob Oringel

For most Apple II users some programs, like AppleWorks, for instance, have become old friends, requiring little thought, and getting just a whole lot of usage. Another such application program is Copy II Plus from Central Point Software. I'm sure that a week doesn't go by that I don't use one or more of its utilities, and I often use its Bit Copy programs as well.

I last reviewed Copy II Plus, version 6.6, in September of 1986. I was happy with the program then

and I'm still delighted with it. What is new about version 9.0 then? Well, it has grown with the times. It is in ProDOS, but still permits its use in DOS 3.3. It automatically converts files, or a data disk, from one operating system to the other, if the target disk and source disk are in differing systems. It copies the source files, converted to the target disk's operating system. It can copy Pascal or CP/M disks. It has separate programs for copying 5.25" and 3.5" disks.

The first item on its extensive menu is Applications. It can be a launcher for other applications like AppleWorks, GEOS, or Smart Money. It can Edit Applications, Catalog a disk, Delete and Undelete, Lock and Unlock files, Rename, Sort a catalog, Format, Verify—files, and 5.25" disk drive speed—and Compare files. It can display a Disk Map, change a DOS 3.3 boot program, Create a Subdirectory for ProDOS, and most of all it can Bit Copy.

Bit Copying permits you to make a backup copy of most copy-protected software for your own use. It does not authorize you to make copies for others. Bit copying permits changing, or otherwise reconstructing the hexadecimal parameters (called parms) of a copy-protected program so that you can make a backup copy. There is a built-in file of parms covering perhaps hundreds of application programs, and this file is updated every few months. My only negative thought about the Copy II Plus parm file is that since it is found in a subdirectory, there should be other subdirectories containing all of the parms ever found in this program's long life. It would be helpful if one could use the file to back up a program which is several years old, its parms removed from the file, but which is new and useful to the user.

Copy II Plus V. 9.0 comes with 3.5" and 5.25" disks, in a handsome package which also contains a well-written 189-page manual. The documentation rightly assumes that the reader/user will not be primarily interested in the methods of copy protection, but simply how to defeat it. It therefore separates the "what to do" from the "how it's done." There is, however, plenty of material on the latter, for those who care to get into the technical stuff.

Finally, although Copy II Plus is reasonably priced, there is an upgrade program for registered users, which, at \$18, is more than reasonable. ☺

GO AHEAD... BOSS US AROUND!

The Document Preparation Experts

- Page Layout
- Word Processing & Data Entry
- Editing
- Presentation Graphics
- Cover & Publication Design
- Technical Illustrations
- Document Preparation
- Database Management
- Linotype Services & Typesetting
- OCR & Graphics Scanning

301 • 948 • 2175

B.O.S.S.
BACK OFFICE
SUPPORT
SERVICES
A Division of Nicklas Associates, Inc.

Technical Manuals • Books • Proposals
Newsletters • Direct Mailers • Advertising
Presentations • Charts • Business Forms
Vu-Graphs • Illustrations • Brochures

GeoCalc (with geoChart)

by Ron Evry

Apple II users hankering for a Mac-like environment are fortunate enough to have the GEOS series of software produced by Berkeley Softworks available to them. GEOS is an acronym for "Graphic Environment Operating System." By putting together the various programs in the series, a user can perform many popular functions and stay within the friendly GEOS universe of Windows, Icons, Mouse and Pointer (otherwise known as the "WIMP" interface).

Of the available GEOS packages, the original base program is called GEOS, but is actually a combination package consisting of geoPaint, a terrific black and white drawing program, and geoWrite, a multi-font word processor with a built-in spell checker (geoSpell).

GeoFile is a graphically oriented database program that works quickly and efficiently to sort out whatever may happen to need sorting. It uses a variety of typefaces and sizes as well as illustrations, and its layout capabilities are only limited by the user's imagination.

GeoPublish is a desktop publishing program that can easily hold its own alongside Publish It! or any other similar software for the Apple II. Perhaps the most powerful of all GEOS programs, geoPublish will integrate virtually any output from other GEOS applications (as well as a number of non-GEOS ones) and incorporate it as a design element. Actually, it is possible to integrate almost any GEOS application with any other, by moving Icons around the screen with a pointer from one "folder" to another.

GeoCalc, Berkeley Softworks' spreadsheet program, may be the weakest link in the integrated GEOS

chain. In fact, a good case may be made not to buy this program! It is by far the hardest GEOS application to learn. Procedures must be followed explicitly every step of the way. Failure to properly set up a spreadsheet can result in hours of wasted work later on. A lot of practice helps. There is a flood of formulas to learn (admittedly not very different from setting up an AppleWorks spreadsheet in that respect) and a number of decisions to make regarding graphic display. Formula and format decisions need to be made on both individual cells and entire rows and columns.

To be frank about it, the average home user probably does not need a spreadsheet program very often. Using one to balance a checkbook is akin to driving a Cadillac from the living room to the kitchen.

Perhaps a few people with home businesses or investments to track may find a good use for a spreadsheet. No doubt there are many readers of this magazine who can come up with lots of practical uses they have put their spreadsheet programs to in the past. I just am unaware of any that are worth the programming time and effort to be worthwhile in my own experience.

Now after all that negativity, I am still going to give geoCalc a hearty recommendation! The spreadsheet program alone is not a very good value. But it has a saving grace. After spending hours mastering the program comes a reward: the opportunity to use geoChart! Without a shred of doubt, geoChart is the BEST graph and chart generator for the Apple II line, and there have been plenty to come along over the years.

GeoCalc spreadsheets can be

sent as unformatted "text scraps" into the geoChart program. Then, with a few magic clicks and double-clicks, bar, column, pie, point, line, scatter, area and "unibar" graphs can be instantly produced on the screen with a variety of graphic embellishments such as type styles and patterns.

GeoChart is as much fun to use as geoCalc is difficult to master. Of course, the charts and graphs produced can be integrated into geoWrite or geoPublish, where they can be illustrated and put into letters, brochures, resumes, school reports and who knows what else.

GeoCalc is not the best introductory GEOS software around. I suggest geoPublish or the GEOS base package for the newcomer. But geoCalc rounds out the GEOS environment in a way that makes it eventually indispensable. This program, like all GEOS software, will work on an Apple II or compatible computer with at least 128k RAM and at least one 5.25" disk drive. A mouse is highly recommended, but a keyboard or joystick will work. Life with GEOS is a whole lot nicer with more than one disk drive, and I have heard that lots of RAM speeds up operations a good deal. I imagine that an Apple II owner with all of the GEOS family of software loaded onto a hard disk along with a megabyte or so of RAM would be under the impression that he or she was sitting at a Macintosh. Will wonders never cease? 🍏





APPLE II

Intro to BASIC

by Mike Subelsky

Few of us take advantage of the power built into our Apple IIs. Specifically, BASIC is a tremendous resource for getting your computer to jump through hoops as well as a way to explore your own programming potential.

BASIC, for Beginner's All-purpose Symbolic Instruction Code, has come a long way since Apple started building it into their computers oh so many years ago. In this and future columns, we'll explore together the trips, traps and tricks of BASIC and how it's not only for beginners, but experienced programmers as well. All you have to do to get started is run the program called BASIC.SYSTEM.

This month I'm going to introduce five new commands: IF, GET, GOTO, ?, and : (the colon command). IF is a decision statement. It works like this:

```
10 LET P$ = "WAP"
20 PRINT "Enter the password:"
30 INPUT PASS$
40 IF PASS$ = P$ THEN
PRINT "Correct":END
50 IF PASS$ <> P$ THEN
PRINT "WRONG!!!!":END
```

This program initializes the password, in this case WAP, then asks the user for a password. Now, IF what the user typed is EQUAL to P\$ (WAP), THEN the computer will PRINT "Correct" and end (incidentally, the : is used to place more than one command on a line). But what happens if the user types in the wrong password? IF what the user typed in IS NOT equal to P\$ (WAP), THEN the computer will PRINT "WRONG!!!!" and terminate execution (sounds more scientific than "Ends the program"). Line 50 could have simply been:

```
50 ? "WRONG!!!!":END
```

Why? Because if PASS\$ didn't equal P\$, then the computer would not execute the rest of the line INCLUDING everything after the colon (:). It's better programming practice to include this line: GET, GOTO and ?

Get is simply a version of INPUT. Say you only wanted the user to type one letter or number, like in a menu program. You would do it like this:

```
10 HOME
20 ? "Which Item Would
You Like?"
30 ? "1) Chicken Low
Mein"
40 ? "2) Kung Pow"
50 ? "3) Exit"
60 ?? "Enter your
choice:"
70 GET S$
80 IF S$ = "1" THEN GOTO
120
90 IF S$ = "2" THEN GOTO
120
100 IF S$ = "3" THEN
GOTO 140
110 GOTO 10
120 ? "Enjoy your eat-
ing. Unfortunately, that
item cannot
be delivered"
130 ? "through the com-
puter. Look in the phone
book
under 'CHINESE FOOD' ."
140 END
```

First, ? is a short way of typing PRINT. When you LIST the program, the question marks will be changed to PRINTs. Notice on line 60 how I combined two ? statements to create a blank line. GET S\$ asks for a number and then immediately continues the program without waiting for the user to press RE-

TURN. Then, depending on what the user typed, the program will jump (or GO TO) line 80,90, or whatever line after GOTO.

We are telling the computer to skip over lines we don't want executed, depending on what the user typed. You'll have to play with GOTO for a while to really understand how it works.

BE CAREFUL. GOTO is one of the most abused commands in BASIC. Don't use it too often to jump around a program, or you'll soon be confused. Use it sparingly. This is called "Straightforward Programming." There is another use of the Print command though, which I'll show here:

```
10 ? CHR$(7)
20 GOTO 10
```

I'm not going to tell you what this program does; you'll have to find that for yourself. But this is a good time to explain BREAK. If you find yourself in a Basic program you want to get out of, just hold down Control and press C. The computer should say (say, no, your computer won't begin to speak, sorry) BREAK and return you to the] prompt. If you'll notice, the above program is called a "loop," meaning that it repeats the command on line 10 until you BREAK it.

Next month...

I'll introduce FOR, NEXT, RND. Also, we'll discuss Error messages and Debugging (two terms which go hand in hand).

Programs to ponder

Adding to last month's program, ask the user to enter the person's name and age and Print them out.

```
Hint:
50 ? NAME$, AGE$
```

If you have any comments, suggestions, hints, or problems or mainly whatever you can think of, leave a message on the TCS under Conference One, PI Journal . Or call me at 949-0203. 🍏



Publish It! 3

by Gary Hayman

Publish It! 3 has burst on the Apple IIGS scene like a rocket. There has been much excitement awaiting its arrival, and the wait was well worth it. Although it is not a new program (being an update to Publish It! 2), it contains so many new features that it may act like a new program while feeling like the familiar PI2.

The upgrade path to PI3 runs approximately \$30, and I have seen advertisements for the new \$129 PI3 selling at mail order houses for around \$74. Be careful when ordering; I have also seen some ads for PI2, the older version, for \$89.

I will be writing a series of articles regarding tricks and techniques while using PI3. For now, I will list some of the NEW features to whet your appetite.

- * Additional equipment supported
 - Epson LQ
 - Apple Scribe
 - * Color printing
 - ImageWriter
 - Epson
 - Okidata
- * NEW - user control of how much memory PI3 can use (assists different equipment configurations)
- * NEW - user control of loading fonts on startup (good for floppy drive users)
- * NEW - file selector now allows user to change disks quickly w/o going back through sub directories (use button or Tab key)
- * Save default settings option expanded to include more settings (assists personal configurations)
- * Method of saving files changed (saves file then deletes previous file reducing chance of losing files)
- * NEW - Go to page # (quick technique)
- * NEW - Shows total number of pages (of value for multi-page documents)
- * NEW - Method of viewing pages (right-hand corner of object selected or insertion point will appear in center of next view; facilitates change of size transition)
- * NEW - Page guide system (precise layouts made easier)
- * NEW - Custom guides (one of the best new features)
- * Improved "snap-to guide" operation (works with text and graphics)
- * NEW - Grouped objects can be copied—even to another page or document (long a desired feature)
- * NEW - Definition of objects (creates interesting effects)
 - Don't print
 - Locked
 - Don't runaround
 - PostScript text
 - Color
- * NEW - Text tab leaders which can be defined by user (very handy for listings and tables)
- * NEW - Instant square text columns and graphic areas (you are always certain of the shape)
- * NEW - Don't runaround text flows under (used for drop caps, shadows and 3D)
- * Upon re-formatting, PI3 now turns off page standard (in case you

have forgotten)

- * NEW - Can now import IIGS fonts (no more file type changing; opens opportunity for thousands of additional fonts)
- * NEW - Can now de-install all fonts except Desplaines 12 and Deerfield 12 (leaves more room for font families)
- * NEW - Cannot turn off individual selected font attributes (speeds this operation)
- * NEW - Method of drawing circles (no more guessing)
- * NEW - Can import SHR and Print Shop GS graphics (opens up a world of graphics for use by PI3)
- * NEW - Can now view 85 Print Shop files on a disk (vice 64)
- * NEW - Faster method of cropping graphic pictures (under mouse control)
- * NEW - Can flip graphic horizontally or vertically (create interesting effects)
- * NEW - Can add color to text and graphics (for colorful presentations)
- * NEW - Gray-scale pen & fills now available (better control of lines and backgrounds)
- * NEW - Can import color DHR, SHR and PSGS graphics
- * NEW - Can now print in color (for colorful presentations)
- * Improved use of PostScript for LaserWriter printing (easier time for printing attractive documents with a LaserWriter) 🍏-

The author is a Beagle Buddy. Professionally, he is a Certified Hypnotherapist in private practice in McLean, Virginia and does part-time Apple II family computer application programs consulting and teaching.



Byts and Pyces

by Gary Hayman

A
P
P
L
E
I
I

We are beginning a regular monthly column to include Apple II information of the hints, techniques, suggestions, helps, information, news, etc., genre. Information which may not, in itself, warrant a separate article in the Journal but would nevertheless be of interest to Apple II readers.

I will start out with a collection of a few pieces of interest. You are encouraged to submit your hints, ideas and suggestions to me for monthly organization and publishing. You may do it via the TCS or direct mail to me at 8255 Canning Terrace, Greenbelt, Maryland 20770. Telephone calls to 301-345-3230.

AppleWorks 3.0

I have been receiving many calls from people who have just switched or upgraded to AppleWorks 3.0 and are having trouble getting their printers to work. Please be advised that there are bugs in AW 3.0 that are easily corrected by the free program Patcher 1.4. Sales personnel at the stores are NOT advising their AW 3.0 buyers of this, yet another reason to join a user group.

Patcher 1.4 is available on the TCS in the Files Download area under AppleWorks. If you are not on the TCS, other telecommunication services have the file in their Apple II areas. If you don't own a modem, contact me or any other regular classic AppleWorks user to help you in obtaining a copy.

WYSINWYG (What you see is NOT what you get)

Your AppleWorks screen purports to show what your text will look like when printed on paper; but

have you noticed that many times, even though you have indicated left and right margins, the text appears flush to the left?

Wouldn't it be nice if you could display the text on your monitor screen to more closely depict what the printer will print? You can! Try this easy trick. Press open-apple (OA)-9 to get to the bottom of your word processing document and then press OA-O, setting the Left Margin to 0. Press escape to get out and that's it.

Now you will find that your document carries the correct "white space" on the left and right of your screen.

Dynatron Falcon Cartridge

If you own the new Falcon "Self-Inking" Cartridge that fits the ImageWriter printer which is available from Dynatron (614-221-0502), be aware of the disclaimer that it is not for graphics. Several users have had better luck with text than graphics. Also be aware that if the cartridge wears out before 1,200 pages, Dynatron will replace it. Dynatron has acted in good faith with this guarantee.

You might try the suggestion of a couple of drops of Ronsonol lighter fluid in each well prior to adding the ink, but you may prefer adding a drop of WD-40 instead (I have). Remember, when adding ink use only one or two drops. Also, for peace of mind, remove the cartridge from the printer before adding ink.

Publish.It! 3

The Pi's own Lee Raesly has discovered that some available commands are omitted from the new manual and the reference card. These

commands affect the selection of text material. Here are some hints. You can select a word if you double-click with the mouse to select the word at the current cursor location. You can select a sentence if you press OA-period. The highlight will move to the next period. If you continue with OA-period, you can select sentence after sentence. You can select a paragraph by pressing OA-Return. Continuing will select more paragraphs. As indicated in the manual, you can press OA-E to select text from the cursor to the end of the current article. Clicking and dragging will select just as before.

Remember, IIGS users (and maybe IIc and IIe users too), when you leave Publish.It! do a cold boot by turning off the computer and then turning it on. IIGS users can reduce the wear and tear on the power switch with the "Self-test salute," OA-Option-control-Reset, followed by a Control-Reset. This will clear out any residuals in the memory.

Potpourri

The new version of Hyper-Studio is out. If you haven't received your upgrade information, you should be receiving it soon. On some of the earlier 2.1 upgrades (like the one I got) some important files that the Installer uses were omitted. Roger Wagner Publishing Co. is making good on those disks. If your Installer doesn't work, give Roger Wagner a call at 619-442-0522... for those who use AppleWorks Companion by Mark Munz, please be advised that an update is out. Take a look on the TCS in the AppleWorks File Download area... two Pi members are beta testing a revision of TO.TELECOMM by Mark de Jong.

If you have tidbits or hints to share, please send them along. 🍏



Quicken and AppleWorks 3.0

by Gary Hayman

If you have attempted to send information from Intuit's Quicken to AppleWorks 3.0 using Quicken's built-in transfer utilities, you may have had a rude awakening when things did not go as expected. The process used to work with AppleWorks 2.0 or 2.1, but not now.

Well it doesn't work and it does work. Transferring information to an AppleWorks spreadsheet will not work if any of the new AW 3.0 functions are present. Quicken will not support: Cosine, Sine, False, True, Future Value, Present Value, Natural Log, Logarithm, Payment and Rate. Also, another nagging problem, a glitch in the "smart" recalculation, could occur leaving you with incorrect results in your spreadsheet. What a bummer! To make matters worse, Intuit has advised me that they have no plans (at this time) to revise their Apple II version of the Quicken program.

After discussing this matter directly with Intuit, they have, however, come up with several ways around the problems.

- 1) When preparing your AppleWorks spreadsheet, don't use any of the new functions.
- 2) If you desire to use functions within your spreadsheet, prepare two separate spreadsheets. The first one will contain everything the way you want it, including functions—even the new ones. Into the second spreadsheet you can transfer from the first spreadsheet, via Block Copy to the clipboard, cells which contain LABELS or DATA only (no FUNCTIONS). You may have to conduct more than one copy operation unless all your function information is outside of the label blocks that you are copying. Now use Quicken to

transfer the necessary information to the second (no-FUNCTION) spreadsheet.

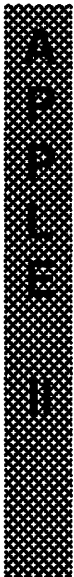
Finally, copy the produced data, via the clipboard, to the first spreadsheet that contains the functions. Please don't try and short cut by preparing a second spreadsheet with a full copy from the first and then attempting to delete the functions because, even if it looks right, it isn't.

3) Also, if you encounter an incorrect recalculation (I hope you can spot it) or if you find that some cells will not recalculate after transfer you will need to have AppleWorks recalculate the entire spreadsheet. Unfortunately, when AppleWorks

thinks it has recalculated a cell before and no new information affecting that cell is introduced, an OA-K recalculation zips by that cell without processing it. There is a method which will force AppleWorks to do the necessary recalculation. Press OA-9 to get to the bottom of the spreadsheet. Use the down arrow to go one row further. Press OA-I and insert one row. Using OA-D, delete the row you just inserted. If you are in the manual recalculation mode, press OA-K. This will trick AppleWorks into recalculating the spreadsheet correctly. If you own UltraMacros, the following macro will do it for you:

```
K:<asp oa-9 down oa-I>R1<rtm oa-D>R<rtm oa-K>!
```

If you have been having trouble with the Quicken/AppleWorks 3.0 combination, you can use the above hints to help you out of trouble. ☺



Toner Cartridges Remanufactured

• Highest Quality Available

681-4516

(We also buy used EPS-SeriesII cartridges)



Apple II Forever?

From the News Desk at "II at Work", the Apple II productivity newspaper:...

**NEWSFLASH:
MAJOR VICTORY FOR
APPLE II SUPPORTERS
7-YEAR APPLE VET AP-
POINTED DIRECTOR OF
APPLE II PRODUCT LINE**

He says: "Didn't take the job to sit around and do nothing."

Dateline: May 24, 1990

Ralph Russo, a seven-year Apple veteran, was recently appointed the director of the Apple II product line for Apple Computer, Inc. Thus, for the first time in several years, there is now one person responsible for the Apple II product line, including software, hardware and marketing. Russo's appointment fills a gap in the Apple chain of command that had been pointed out by a number of

Apple II supporters, including the directors of the Apple II Developer's Association.

One of those directors, A2-Central's Tom Weishaar, had noted on numerous occasions that you had to go about seven levels down from John Sculley in the Apple organization to find someone whose job was strictly Apple II related. That appears to have been cut by more than half: Russo reports to Don Casey, who reports directly to John Sculley.

Barney Stone, a leader in the Apple II field, said, "I consider this a victory for the Apple II Developer's Association, which will be just one year old in July, and for the "II Infinitum" campaign and other Apple II users who have been writing to Apple in support of the Apple II product line."

Russo was originally hired by Steve Jobs for the Macintosh

development team. At various times he has reported directly to Del Yocum and Mike Spindler, so he has been no stranger to Apple's top management. Russo's job now is to develop a strategy for the Apple II, sell the plan to Apple management, and implement it. In his new position, Russo will draw on resources from throughout Apple, and he will be in charge of everything for the Apple II: hardware and software development, and marketing.

In a recent conversation, Mr. Russo told Barney Stone, "I didn't take the job to sit around and do nothing."

Barney explain that he thought the Apple II needed three things - advertising, new CPU's, and evangelism to bring third-party developers back to the fold - and that if any of the three were missing, Apple would be wasting their time and money. Mr. Russo agreed.

Barney also told him that no computer could thrive as a "K-12 only" system, and that Apple had to market the Apple II to home, home office, and small business users. Again, Mr. Russo agreed.

Russo made it clear that he knows about the sad state of the Apple II third-party community, about the need for old-style Apple evangelism to that community, and about the ill will that Apple has generated among some of its best supporters by neglecting the Apple II line for so long. He also understands the relationship between the lack of consumer advertising for the Apple II and the lack of consumer sales, and the fact that an Apple II sale should never be viewed as a lost Macintosh sale. In short, Ralph Russo knows the score, and he's out to turn the game around.

With all of the mixed signals that have been coming from Apple lately, the appointment of Ralph Russo as director of the Apple II product line comes through loud and clear as a positive sign for "Apple II Forever".

Balance of the Planet

by Mary Ann McQuinn

If you're concerned with environmental issues and just know that, if given the chance, you could restore the earth to its once environmentally sound condition, listen up.

Chris Crawford has a new game out just for you. It's called **Balance of the Planet**. Crawford was on hand at the April general meeting and demonstrated his new game to the Macintosh session.

In a lively presentation, reminiscent of stage theatrics, Crawford explained that "Balance" is a simulation game in which you get to do something about the environment. You are granted unlimited power. You can levy taxes, grant subsidies, anything you want, and what's even better, you gain points for every environmentally good thing you do.

So what's the catch? You lose points for every bad thing you do which has negative results such as an increase in the death rate, increased flooding, etc. (Crawford says that you will make the environment worse the first few times you play.)

As a matter of fact, you start off losing points due to heavy metal problems. The next screen shows you what causes heavy metal problems. Another screen shows you how heavy metal is used, and yet another screen shows you what factors contribute to heavy metal waste.

Finally, a help screen appears to give you a choice of actions to take to improve the situation. You can levy a tax, for example. Then, you execute the policy and review the consequences of your actions. In this particular scenario, the industrial output went down—a good thing. Starvation points went up—a bad thing.

"Balance" is not a child's game.

It has four levels of play. The first level is a point and click method where you make choices and kind of browse through the program.


The second level is to approach it as a game by gaining as many good points as you can.

The third level gets a little more complicated. A new question is added—"How can I be sure that I can trust the numbers in the game?" There are a lot of assumptions. (The defaults, according to Crawford, are actual current estimates.) What

about the politics involved? This level of play provides for non-accountability of data. You can load biases of, say, the pro-nuclear forces and play from that perspective.

The fourth level allows you to set your own biases. You can enter settings for your own opinions and say how important biodiversity is to you. "This game forces you to declare your values," Crawford said.

The game consists of 9 turns—five years each turn. It also forces you to keep a balanced budget.

It is MultiFinder compatible and has been tested and run on all Macintosh machines with the exception of the IIx. It comes with a manual written by Crawford. The suggested retail price is \$49.95 and is reportedly available from Software, Etc. 

Technical & Sales & Service I . N . C 1 . 9 . 8 . 0		Maintenance Contracts Macs • Laserwriters • Imagewriters • Networks • Tops • Novell Ram Upgrades • Hard Disk Installations
MAINTENANCE REPAIRS SERVICE		On Site & Carry In
2820 Dorr Ave., Fairfax, VA		698-0347

Telecommunicating breakthrough

Tele-Foster Grandparent Program

by Mary Kercher

Last April, I attended the Council on Exceptional Children's (CEC) International Conference in Toronto, Ontario. The title of one of the sessions, "My gerbil died—can anybody help?" intrigued me. It was about a telecommunications project in Michigan that combined special education students and senior citizens. What a great combination! The title of the session came from a student's plea for help. Here is how the senior citizen responded:

"You're feeling sad because your gerbil died. Losing something that you love really does make a person sad. Once when somebody I loved died, I felt lost and lonely too. I think the thing that helped me the most was trying to remember the good times, the fun times, more than I remembered the loss. As long as I can carry those happy memories, it's as though part of that person I loved is still with me."

The Tele-Foster Grandparent Program establishes a "love link" between seniors and special education students. Sixty-three students from 10 school districts and 48 seniors from eight senior centers (in Michigan, Ontario, and Hawaii) using Apple computers and modems participate in the program. It operates out of SpecialNet and is part of a larger telecommunications initiative in the Genesee Intermediate School District in Michigan entitled GENKIDS.

The project is sponsored by a grant from Ronald McDonald Children's Charities, but the seniors involved in the program are getting as much out of it as the children. It helps students by meeting their need for individual attention, positive reinforcement and improved self-image while it helps seniors by reducing their isolation and loneliness, giving them feelings of contrib-

uting and improving their self-worth. Students are also gaining a new appreciation for the elderly, while the seniors can't wait to see if they have any e-mail.

Many of the seniors need special help in using the computer. A local Lions Club donated funding for a magnifying lens so that visually impaired seniors could read the screen. Volunteers are needed, in some cases, to type in responses for those who cannot type due to arthritis.

The seniors not only respond to student crises, but also pick up on school-related problems, such as not liking math or getting in trouble on the school bus. They build relationships with students and sometimes even help them with their homework. Here is a chance for students to get first-hand knowledge of history. For example, Bergslie, age 95, gave students a description of the 1936 Sit-Down Strike at the Fisher Body Plant (remember, this is Michigan!). McKenny, another senior, described the Battle of the Running Bulls at Chevrolet. He encouraged students to find out more about the Wagner Act that ended the strike. A Hawaiian senior who was raised in Germany described events leading to the Berlin Wall and how happy she felt when the wall was dismantled last year.

Students are also interested in the everyday lives of the seniors when they were growing up. In response to a question about Thanksgiving, only one senior reported eating turkey—chicken was more the standard fare. Times were tough for many seniors. One gentleman remembered having to wear his mother's shoes to school because he had none. This kind of reminiscing is what social workers call a "life review," an opportunity to validate life accomplishments and

contributions. It is an important part of the aging process.

An exciting adjunct to this whole program is that a research study was conducted from November 1989 through March 1990 to test the results. There were 797 transmissions between the two groups during that period. Seniors participated in an interview to find out how they felt about children, what their educational experiences were and what their computer knowledge was. They were also given a Life Satisfaction Index at the beginning and end of the study. The students who all exhibited some type of language disorder were given the Children's Attitudes Towards Elderly Index, an interview, and a written language sample. There is no doubt that the participants have all benefited from this project.

Robert Baynes, director of the project, would be interested in speaking with any school districts and/or senior centers who want to learn more about the program. He can be contacted at (313) 768-4494 or on SpecialNet under the Username GENESEED. I called him the other day to check on a few items about this article. He returned my call from a nursing home. Ronald McDonald had just left after a party in which the GENKIDS met their senior GENPALS for the first time. He said that it was quite a touching experience. If my article seems geared more to the benefits for seniors it is because Baynes, who presented the session at the conference, is a senior citizen himself. 🍏

Mary Kercher is Project Coordinator of a middle school computer/special-education project in Prince George's County Public Schools.

Download City

by Paul Schlosser

Our members have uploaded the following files to the Teleconference System during the last thirty days. This listing represents only a small portion of the files available for downloading on the TCS. Call the Pi Office at 654-8060 to obtain a password.

File area 2 - Apple II Misc.

- 018 DMASCSI.INFO Text from AOL re DMA SCSI card
- 017 PROLINE.LST ProLINE BBs sitelist

File area 3 - Apple II Technotes

- 007 TNIIGS78.80.SHK GS Technotes 78,79,80

File area 4 - Apple II Utils

- 127 RAPID.DIAL1.2 Phone dialer for busy lines
- 126 SHK3.0.2.XTX Update: ShrinkIt v3.0.2

File area 5 - GS Desk Accs

- 092 SHOWTEXT1.X.SHK Old ShowText that supports AWP files.
- 090 IPRINT.SHK Print card port driver
- 089 BUFGRAPPLER.SHK Buffered Grappler Port Driver
- 088 EPSONAPL.SHK Epson APL Port Driver
- 087 IMAGE3.2.SHK Burgerbill Imagewriter Driver 3.2
- 086 FASTIMAGE.SHK Fast Imagewriter II GS/OS Driver

File area 7 - GS Games

- 035 PLUNDER.SHK Computerized guessing game.

File area 8 - GS Graphics

- 028 DRM.GRPH.SHK Nice 3200-color paint demo picture.

File area 9 - GS Misc.

- 042 SSMITH.94.SHK Soundsmith V0.94 (w/MIDI)
- 041 FINDPATCH.SHK Finder patch program - very useful.
- 040 GENESYS.DEM.SHK Resource Editor demo version
- 039 LEAPFROG Switcher/Multi-Finder type program

File area 10 - GS Utilities

- 059 SYS.SWITCH.GS System Switcher for GS

- 058 SNOWTRM2.03.SHK V 2.03, SnowTerm VT100 GS Comm. Prog.
- 057 MD.BAS.DEMO.SHK MD-BASIC Demo w/source code

File area 11 - AppleWorks

- 061 GRAMMAR.CK.SHK Grammar Checking Macro for AW 3.0

File area 12 - ProSel Updates

- 026 REVISE.848.SHK ProSel-16 revisions - to 8.48
- 025 PROSEL848.SHK ProSel-16, v 8.48

File area 14 - Mac Games

- 080 DATETRIS.SIT Tetris in a DA
- 079 GLIDER.SIT Fly a paper glider through a house. Fun
- 078 COLUMNS.SIT Tetris-like B/W game

File area 15 - Mac Graphs

- 074 PRESS Old printing press - MacPaint
- 073 DTPIDEAS2.SIT Graphics arts samples
- 072 US.MAP.SIT US Map

File area 16 - Mac Hypercard

- 074 RESCOPY.SIT Version 4.1b3 from Steve Maller

File area 17 - Mac Technotes

- 012 TN.ABOUT.90.02 About the Mac Tech Notes—Read Me First
- 011 TN.INDEX.90.02 Mac Tech Notes, Index, 2/90
- 010 TN.FONT.SIT Mac Tech Notes, Standard Fonts, 2/90
- 009 TN.001.050.SIT Mac Tech Notes, #1-50, 2/90
- 008 TN.051.100.SIT Mac Tech Notes, #51-100, 2/90
- 007 TN.101.150.SIT Mac Tech Notes, #101-150, 2/90
- 006 TN.151.200.SIT Mac Tech Notes, #151-200, 2/90

- 005 MTN201.250.SIT Mac Tech Notes, #201-250, 2/90

- 004 MTN251.300.SIT Mac Tech Notes, #251 & higher, 2/90

File area 18 - Mac Utilities

- 217 COMPACTOR.1.02 File archive/compression utility
- 216 SENDPS2.0.SIT SendPS 2.0. Postscript laser utility

- 214 DISINF18.SIT Disinfectant 1.8 - zaps MDEF (Garfield)
- 213 VIR.DETECT.SIT Virus Detective version 4.0.2a
- 212 SUPER.CLOCK.SIT SuperClock! version 3.9

- 211 TALK.CLOCK.SIT Talking clock FKEY, see browse

- 210 ICONHOUSE.SIT Utility to archive ICN#s from desktop

- 209 MINISCRN.SIT Init to set screen size

- 208 ASCII.DA.SIT DA to show all characters in a font

- 207 BAD.DISK.SIT Format disks with bad sectors

- 206 INIT.TRACK.SIT Init to monitor other inits

- 205 RE.PRIMER.SIT Beginners guide to using ResEdit

- 204 MORTGAGE2.SIT Can you qualify for one?

File area 19 - Apple System Software

- 018 TPASCALU.SIT SIT Think Pascal Update, 3.0->3.0.1

- 017 SYS605TOOL.SIT SIT System 6.0.5 System Tools from Apple

- 016 SYS605UTIL1.SIT SIT System 6.0.5 Utilities #1 from Apple

- 015 SYS605UTIL2.SIT SIT System 6.0.5 Utilities #2 from Apple

- 014 SYS605PRINT.SIT SIT System 6.0.5 Printing Tools from Apple

- 013 DSKTOPMGR.SIT SIT Apple's Desktop Manager INIT.

File area 20 - GIF Graphics

- 071 HOTFOOT.GIF A gif of a dragon and a wizard in battle

File area 21 - Pi Documents

- 010 DC0590.TXT District BBS's May 1990

- 009 MD0590.TXT Maryland BBS's May 1990

- 008 VA0590.TXT Virginia BBS's May 1990

- 006 PIBYLAWS.SIT Pi Bylaws 4/30/90 in Word 4.0 format

File area 22 - Hyper/Tutor * Stacks

- 014 XCMD.DIALOG Dialog.xcmd for HyperStudio

File area 25 - PC Transporter

- 014 WIN3.TXT Review of Windows 3.0

- 013 CLONEINV.ZIP Clone of the old classic

- 012 POPCORN.ZIP Arkanoid-type game from France

- 011 FV128.ZIP Display contents of any archive type

- 010 SCANV62.ZIP Virus scanner

TCS FILES



WAP Disketeria offerings

Apple III Disk Library

by Dave Ottalini

Our PD library adds two more disks this month, our 98th and 99th offerings! Basic 06 is "PPT/Basic Helps" which has some material for those of you interested in Basic. PPT on Side One is a demo of what the many Programmer's Power Tools Invokables (Utilities 07) can do. Our own Jim Salerno put this together, and we invite you to try it. Self booting as usual. PPT will let you greatly expand Business Basic and make it more useful.

On Side Two, you'll find Basic Helps. This is a side full of hints and

tips from a number of sources, designed again to help those of you learning how to program.

Our second disk (Miscellaneous 06) is called Double Boot. I've been talking about this for a few months and think you'll get a kick out of it. Basically, it is a 5.25 inch disk that you can place into an Apple III or an Apple IIe, boot it and the disk will load and run. Side one has our Menu.Maker program as well as an Apple II menu program from the Apple II PD library. There's an information file that you can read from either program as well. Frankly,

all these files take up the whole disk on Side One. So Side Two is JUST the basic Double Boot files. You can volume copy them to another disk and then add the appropriate files.

For example, on the II side you would have the ProDOS.Kernel file and then a System file, like Basic.System and (if it is Basic) a Startup file. This compares to the III files, SOS.Kernel, SOS.Interp (which could be Basic), and SOS.Driver and then Hello (with Basic).

Useful? Hard to say. But it can be a lot of fun if you have similar programs that could be run from just one disk on two machines. It may also lead us to add some "double" II and III disks in the future.

Still to come: Apple III demo disks, more graphics disks, and much more. 🍏



WAP Disketeria offerings

Apple II Disk Library

by Phil Shapiro

The first of many new disks that are to be added to the Apple II Disk Library is Language Arts Treasures, a compilation of some of the better public domain language arts programs:

Word Power is a drill to improve vocabulary skills. (For studying purposes, the words and definitions have been transported into an AppleWorks file on the flip side of the disk.) Spelling Bee is a simple but effective spelling drill, with nice musical reinforcement. Fourteen word lists are provided on disk, and it's easy to add your own. Speed Reading is a word flash sort of program, with lots of phrases in it.

Keyboard Invasion is a hunt-and-peck typing drill, good for 2nd and 3rd graders. (A complete review of Keyboard Invasion appeared in the October 1989 issue of the WAP Journal.) Text Demo shows you how you can create an Applesoft BASIC program to display your own reading passages. And Memory Game displays nonsense words on the screen for you to remember. To order a copy of Language Arts Treasures, ask for Education disk 14 🍏.

Apple IIGS Disk Library

by Chris Hutmire

HyperStudio Stacks

This month we have two new disks containing several HyperStudio stacks. These stacks require GS/OS v5.0.2 to be active. To use these stacks, you will have to launch (boot) HyperStudio. Then "Open" the Home.Stack that is located on these disks. The Home.Stack will allow you to launch the stacks described below. These stacks have been modified, so clicking on the Home Card icon will return you to the Home.Stack that is located on these disks.

At this time, only those who own HyperStudio will be able to use these stacks. The next release of HyperStudio, version 2.1, will allow the Disk Library staff to create "User Disks" which will allow anyone with an Apple IIGS to run these stacks. A recent HyperStudio upgrade notice states that there is no license fee for non-commercial use (i.e. User Groups). Future HyperStudio stack disks released by the Disk Library will include this feature.

A Note about Shareware

These disks may include "shareware" stacks as well as public domain software. The writers of shareware code ask that the user of his code pay for its usage. Information on how to pay the program's author is included in the software or the documentation.

MISC.HS.STKS.01 -
HyperStudio Stacks 11

/ART/ folder: This stack has a picture that was obtained from a LaserDisc of Fellini's SATYRICON using a ComputerEyes GS video digitizing card. This picture is displayed as a 320-mode graphic and

as a 640-mode graphic. Hint: don't forget to click on the moon.

/HYPER.KEYS/ folder: A stack that plays several kids' songs by clicking on piano keys. Includes the notes and lyrics for three songs: The Alphabet Song, Mary's Little Lamb and London Bridge. An excellent stack for preschoolers. This stack is password protected; the password is AG60 (that's the letter O, not the number zero). This stack has a hidden 'Info Card' which is accessible by pressing OA-9 (move to last card).

/HYPER.TUBES/ folder: This stack contains a 'Kiddie' xylophone. Use the mouse button to click on any of the tubes and hear the tone. You can click as often as you like and the tone will be repeated. Another good stack for youngsters. This stack allows children as young as two to create music, and teaches them to use the mouse. This stack is Shareware.

/XCMD.DEMO/ folder: Demonstrates and describes how to display 320-mode graphics by using an XCMD (External Command). This stack was based on the Arizona stack, which is included in the HyperStudio ten-disk demo set. Two 320-mode digitized pictures of the Arizona countryside are included.

MISC.HS.STKS.02 -
HyperStudio Stacks 12

/HISTORY/ folder: An "American History" HyperStudio stack. This stack is Shareware. The time period covered is from 1776 (The Revolution Starts) to 1989 (USA Today). This stack contains a variety of items of information, including: the dates of admission of states to the Union, a U.S. population graph from 1790 to 1980, maps of the USA at different time periods, and

notes containing historic information.

/STEREOPTIC/ folder: A stack which displays 3-D graphics (stereograms). Stereograms are composed of two similar pictures placed side by side. You must fuse the left and right pictures by crossing your eyes.

/XCMD.BORDER/ folder: Contains a HyperStudio XCMD and a demonstration stack. This XCMD allows you to change the border color to any one of sixteen possible colors. The demonstration stack explains how to use XCMDs in general and provides information on how to use this XCMD to change border colors. This XCMD is Freeware.

/XCMD.SRC/ folder: Contains XCMDs source code and a demo stack, direct from Roger Wagner. The source code is in assembly, Orca/Pascal, TML/Pascal and Orca/C. The demo stack is provided to help explain the use of HyperStudio XCMDs and the sample source code files that are included.. 🍏





Macintosh Disk Library

by Dave Weikert

New and Recent Disks

We have eight new disks this month; one is an update of the Anti-Virus Utilities and the other seven are additions to the Programmer/Hacker Series thanks to Tim Buehrer.

Recent disks include Anti-Virus Utilities (Mac Disks #1.02B and #1.03B), the initial disks of the INITs/cdevs Series (Mac Disks #9.01 through #9.05), a Telecommunications disk featuring WAP's own TCS (Mac Disk #13.09), Programmer/Hacker Series (Mac Disks #14.02 through #14.13), Misc. Utilities (Mac Disks #15.01A through #15.11A, only the last four of which are new programs not previously in our collection), HyperCard StackWare (Mac Disks #19.30 through #19.34), the recently revised Mac II series (Mac Disks #20.01A through #20.11A), HyperCard Externals (XCMDs and XFCNs) #21.05 and five disks containing Apple System Software version 6.0.5.

Another Anti-Virus Utility Update

Another new virus, this one named the MDEF or Garfield virus, was first discovered at Cornell University in May, 1990. MDEF infects the System file and application files. The Finder and DA Handler also usually become infected. Unfortunately, Vaccine will not prevent infection by the MDEF and ZUC viruses. GateKeeper is totally effective against the MDEF virus. Virus Detective and Disinfectant have both been revised because of MDEF. Virus Detective 4.0.2b will detect MDEF and Disinfectant 1.8 will remove MDEF. The Virus Detective DA is installed in the

System (System Software version 6.0.5) on this disk.

Programmer/Hacker Series

Tim Buehrer has another seven disks for the Programmer/Hacker Series. These include three disks of languages, Mac Disk #14.14, #14.15 and #14.19; two to Programmer Utilities, Mac Disks #14.16 and #14.17; one to C, Mac Disk #14.18 and one with ways to customize your desktop, #14.20. Although not for all Mac users, this series contains welcome technical additions to our library for those interested in programming.

The Programmer/Hacker Series also includes disks for the curious and adventuresome. For example, Mac Disk #14.02—Color Icon Tools and Resources and Mac Disk #14.03—ResEdit, ResEdit Extensions and Resource Tools, have proven to be two of the more popular disks in recent issues. A number of our members have commented that they felt comfortable using technical tools like ResEdit for the first time because of the wealth of information which Tim provided on these two disks. Mac Disk #14.20—Desktop Modifications, will probably join these other two in popularity. Remember, as long as you work with copies of the files you modify, the damage you can do is usually limited to the copies. For extra safety, work from floppies and without a hard disk on the desktop.

Tim is still interested in receiving source code submissions from members of the Washington Apple Pi. If you have any code you think may be of interest, send a disk to Tim at 110 Prospect Street #2,

Somerville, MA 02143 or via internet at buehrer@hus-c3.harvard.edu.

DISK #101C-AV1

ANTI-VIRUS UTILITIES

ReadMeFirst.txt: By Dave Weikert.

This text file describes the results of running Interferon 1.3 and Virex on disks that have the WAP INIT file installed.

Disinfectant 1.8: By John Norstad.

Detects and repairs files infected by all of the currently known viruses including Scores, nVIR, Jude, AIDS, INIT 29, ANTI, WDEF, ZUC, Garfield and MacMag (Peace). Like Virus Detective, it operates under your control and can scan a succession of floppy disks and create a log file of the results. announcement is the text file documentation.

Once Upon A Virus.txt: By Mel

Hoffman. A useful compendium of what to do to reduce the likelihood of a virus attack and a synopsis of what to do if you encounter one.

Repair 1.5: By Steve Brecher. This application repairs files infected with the nVIR virus. You must first determine if a file is infected using a virus detection utility such as Virus Rx version 1.3 or later.

Vaccine™ 1.0.1: By Don Brown, CE Software Systems. Intercepts any suspicious attempts to modify applications and systems files and requests operator confirmation of each change. This is a cdev type file, so copy it into your system folder and access it through the Control Panel (under the Ⓜ menu). Setup instructions are provided when you select Vaccine from within the Control Panel. The space in front of the file name places it at the head of the list of cdevs so that its associated INIT resource is loaded before any other at boot time.

Virus Detective™ f (v4.0.2b): Virus Detective™: By Jeffrey S. Shulman. This Desk Accessory scans a disk, folder or file to detect a virus. It includes the capability to search for operator entered strings and to write a log file to disk. This version has extended capabilities over previous versions and permits you to easily



check out an entire floppy disk library. VD 4.0.2b Doc (MW) IW is the terse but comprehensive documentation on the theory and use of Virus Detective. The DA is included in the System file as noted following. *Shareware - \$35, for license, \$40 for license and disk with other demo programs.*

Virus Rx 1.6: By Apple Computer, Inc. Scans selected drives or folders for any damaged applications, INIT, cdev and RDEV files, invisible files, altered system files and altered applications. Creates a text file that includes an analysis of what it has found. The Teach Text document Release Notes describes what Virus Rx does and provides some useful guidance for reducing your risk of exposure to any virus.

system 6.0.5 f: Includes Apple System Software version 6.0.5 with System and Finder (only) to provide a self starting disk. The System has been stripped of all possible fonts and DAs and the DA Virus Detective has been installed for your convenience in using this as your primary virus detection, eradication and prevention disk.

DISK 14.14 - P/H 14

LANGUAGES 1

MiniAda f: MiniAda: By Anil Bajaj, Kelly Hickman, and Thomas A. Standish. MiniAda is a small educational compiler. It uses animation and pictures to show you what goes on inside a compiler while it is translating a source program into object code. AboutMiniAda is a MacWrite file describing the MiniAda compiler. miniada.txt is a small Ada program for use with the MiniAda compiler. MiniAda was on WAP disk 39.

Quinta f: Quinta: By Eric W. Sink. Quinta is an object oriented, stack based programming language implemented on the Macintosh. The language is interesting, if somewhat limited. It is designed as an object oriented version of Forth but includes influences from Lisp, Smalltalk and the HP-28 calculator. Do not try to exit by typing quit, it will crash. Instead use the menu. It takes a very long time to build the

dictionary. Don't get impatient. Quinta.doc, Quinta.doc.txt and Quinta.doc2.txt are documentation files. fact.q, fit.q, mat7.q and printlist.q are example programs. QCore and Quinta Worksheet are system files for Quinta. *Shareware - \$20.*

RMaker 2.0 f: RMaker 2.0: By Apple Computer. RMaker is Apple's resource compiler. It can be used as an alternative to ResEdit for creating resources. RMaker 2.0 Doc describes the compiler.

Simula 4.07 Reference: By Lund Software House. This HyperCard stack describes the use of the language Simula on the Macintosh. The Simula compiler is included in Programmer/Hacker Disk #14.15 and is more fully described in the notes for that disk.

XLisp 2.0 f: XLisp: By David Michael Betz. XLisp is an experimental programming language combining some of the features of Common Lisp with an object-oriented extension capability. It was implemented to allow experimentation with object-oriented programming on small computers. The folder contains the interpreter as well as a number of example programs (fact.lisp, init.lisp, pp.lisp, pt.lisp, qa.lisp, step.lisp, and tak.lisp) and documentation. XLisp does not run on a Mac IICI.

DISK 14.15 - P/H 15

LANGUAGES 2

MacView 0.25 f: MacView.p and MacView.rsrc: By Mark Watson Associates. MacView™ is an object oriented toolkit for writing Macintosh applications in Lightspeed Pascal 2.0. Five object classes are defined: *MacView*, *WindowObject*, *DisplayObject*, *DialogYesNo*, and *DialogString*. The class *MacView* handles all event handling, and the class *WindowObject* supports scrolling graphics windows. *DisplayObject*s are shown in *WindowObject*s and can be dragged and relabeled by using the mouse. The two dialog support classes allow simply data entry. Works when compiled into an application. When used on a Mac IICI in the Lightspeed

Pascal environment, it bombs. MacView version 0.25 describes the system. Test Macview.p and Test MacView Animation.p are demonstration programs. *Shareware - \$2.50.*

New Aquarium f: New Aquarium: By John D. Cherry. This is a sample Pascal program that displays a PICT resource of a fish swimming across the screen. It is a nice example of animation in Pascal.

*Aquarium3.pas is the source code for the application.

Simula f: By Lund Software House AB. Simula is a general-purpose high-level object-oriented programming language, comparable in power to ADA, SmallTalk, and C++. Simula has Algol 60 as subset with the addition of pointer structures, classes, powerful text string handling, event oriented simulation capabilities, and more. The system is designed to work within the MPW environment and you must have MPW to use the program. Installation of the system is described in MacSimula Installation. The compiler is in the **Tools** folder.

Unity 3.1.1 f: Unity 3.1.1: By Mike O'Rourke. A program for concatenating text files. Useful for those of you that download .hqx files off of Internet. The file Unity docs documents the program. *Shareware - \$5.*

DISK 14.16 - P/H 16

PROGRAMMER UTILITIES 1

Bind Icons f: Bind Icons: By John Jeppson. This program will add all of the resources that are needed for the Finder to display an application's icon. This simplifies a cumbersome little programming problem. *Shareware - \$10.*

BNDL Modify 1.0: By Thomas F. Wilkinson. This program views and deletes BNDL resources from the invisible desktop file on a disk. Why would you want to do this? If you change the BNDL resource of an application or change any of the ICN#'s in the file, the changes will not be noticed by Finder unless you delete the BNDL from the desktop



file. This program is a simple way to handle this problem. *Shareware – \$5 for the program or \$25 for the program and source code.*

Bund Aid f: BundAid: By Jim Hamilton. This program checks to see that each application on a disk that has a BNDL resource has its BNDL bit set and that each application that has its BNDL bit set has a BNDL resource. A good house keeping program.

Clipboard Magician 0.55 f: Clipboard Magician: By Ed Lai. A desk accessory that allows you to view and manipulate the contents of the clipboard. Magic Wand is a resource file needed by Clipboard Magician. About Clipboard Magician describes the program. programming information describes how to program conversion routines for inclusion in Magic Wand. iconpict.p and testmagic.p are example programs for use with Clipboard Magician.

Clips 4.20 f: CLIPS 4.20: By AI Section, NASA Johnson Space Center. This is a tool for experimenting with artificial intelligence programming. This program is identical to the CLIPS language implemented on other platforms. The ReadMe and clips.upload.info files describe CLIPS. CLIPS.HLP provides documentation for the CLIPS environment and language. The Examples folder contains a number of programs demonstrating the use of CLIPS.

ComparAll 1.1: By E.R. Peay. Yet another program for comparing files. This one differs from the rest by providing for comparison of all types of files and the comparison of both the resource and data forks.

Debugger's Assistant Demo: By BC Software. This is a demonstration version of Debugger's Assistant. This program allows a programmer to view the system and application heaps and view resources and various data structures in memory. It could be a very handy tool in the right circumstance but SANE and the debuggers in the Think products may have made it obsolete. This version is free. The real program can be ordered for \$79.95.

Disk Test: By Henry Lowe. Did you

ever wonder whether a floppy has gone bad? This program will give you the answer to the question. It tests all of the blocks on a floppy to determine whether they are still useable.

File Cleaner: By Kent Flowers. This program performs any of the following conversions on a text file: changes linefeeds to carriage returns, removes linefeeds, converts case, remove high ASCII characters, removes nulls, converts tabs to spaces, and removes all ASCII characters below space except for carriage return and linefeed.

Noise.txt: From Mike McCauley. A description of how to use some common electronic components to eliminate, or minimize telephone line noise. Not tested.

DISK 14.17 – P/H 17 PROGRAMMER UTILITIES 2

DisAsm: By Bob Aring. This a minimal disassembler. Not as nice as MacNosy, but then it doesn't cost \$300 less.

DiskTimerII.a f: DiskTimerII.a: By Steve Brecher. A program that makes various disk read and write calls and determines the time required for the actions. Used to compare speeds of hard disks. Notes on DiskTimer II is a listing of DiskTimer results for a number of hard drives.

FastTask/FreeFlow/et. al. f: By Iconix Software Engineering Inc. This is a set of demonstration versions of programs that support the DeMarco method of structured analysis for software design. FreeFlow™ 3.0 Demo automates the creation of data and control flow diagrams, minispecs and data dictionaries. FastTask™ Demo supports Ward-Mellor and Harley real-time methods with State transition diagrams, state tables and state/event and from-state/to-state matrices. SmartChart™ Demo is used to develop flow charts for systems combined with PDL listings. PowerTools™ Guided Tour is a HyperCard stack that describes these tools. Included in the *atm* folder is an example of how the programs can be used.

Sound Advice: From Bruce Caughlin.

Information provided by Apple Computer regarding problems with the documentation for the Sound Manager.

Set File Attributes: By Kent Kersten. This program allows you to change the type, creator and file attributes of any file. This is the information used by the Finder to display the file.

DISK 14.18 – P/H 18 C SOURCE 4

File Tricks f: File Tricks: By Joseph F. Buchanan. I hope you never need a program like this. This program allows you to extract ASCII text from any file or from a disk if you can't identify a specific file for recovery. It will attempt to decompress MacWrite files and data, but I have found that it is unable to do this well. Use this as a last resort if you can't get your data off of a disk any other way. Fix It All (MW) describes how to recover lost data using a somewhat dated set of programs. Fix MacWrite (MW) describes methods for recovering MacWrite files.

Forked Tongue© f: Forked Tongue©: By PEEK[65] (yes that is the name in the About Box.) A disk editor that performs the simple editing functions of a program like SUM or PC Tools. Forked Tongue Docs describes the program. *Shareware – \$10.*

Homebuilt SCSI Notes f: Homebuilt SCSI HD Notes: By Chaz Larson. More SCSI Notes: By Allen Rothwell. These files describe how to go about building your own external hard drive. You can possibly save some money and learn a little more about your computer.

PRAM-5.0: By Ken Winograd. An application that allows you to view and manipulate the values held in parameter RAM. Parameter RAM is that portion of your computer's memory that is used to store values such as the time of day when you have turned off your computer. *Shareware – \$10.*

RDex 0.91: By Arata Kubota. This program allows you to freely move data or resources from one file to



another. For instance, you can take the data fork of one file and put it in the resource fork of another file, specifying the resource type to be created. You can take a resource in one file and put in the data fork of another file. Any combination is possible. Be careful. During testing it occasionally crashed while opening the help system on 68030-based systems.

ResTools 3.00 f; ResTools 3.00: By Alan Dahlbom. This program compiles and decompiles resources for use in applications. It's syntax for resources is very similar to that used with Rez and Derez, the MPW resource compiler and decompiler combination. *Sample.r* and *Sample.rsrc* are sample files for use with the program.

RunCodeRes f (v1.0); RunCodeRes: By Douglas Wyatt. This program is designed to allow you to transfer resources from one file to another and then either open or run the target file. For example, it will allow you to move resources into a HyperCard stack and then open the new stack using HyperCard. (I have not been able to get the program to work this way. It does transfer resources between files, but it doesn't seem to work with HyperCard stacks.) *Shareware* - \$5.

Sad Mac Codes: If you have ever started your Mac and seen a sad Mac Icon, you know what this refers to. If you haven't had that experience, congratulations. When the Mac sense a problem during its self-test at startup, it displays a sad Mac icon with a numeric code below it. This file explains what that code means. Print this file and put it somewhere safe. It doesn't do any good to have it on a disk when your computer won't work.

Signature Bytes: By John Holder. A simple program for displaying the contents of the signature resource of an application.

Sound Edit Format: By Farallon Computing, Inc. The format for Sound Edit Files.

ST80.04 LWPprinter f; Laser04.st and PAP Loader: By Bob Denny of Alisa Systems, Inc. Program and resources needed to print to a laser printer from SmallTalk 80. (Not tested, sorry I don't have SmallTalk.)

Laser04.st.notes: A file describing the method used to implement laser printing.

TIFF Format: By Aldus and Microsoft. A description of the Tag Image File Format from 1987.

TME f (Turing Machine Editor): TME: By Steven Kienle. This is a Turing Machine editor. It allows the user to design Turing Machines on the screen without first making state/transition tables. TME Manual, MW describes the operation of TME. The rest of the files in the folder are example programs.

DISK 14.19 - P/H 19

LANGUGES 3

Basic3.0 Utilities f: By StarSys, Inc. The entire set is part of a series of utilities provided by the company. *Shareware* - \$5 for the set.

Common Utilities f: Common Utilities: A set of subroutines for dealing with text, strings, files and sorts.

Printer Management f: Routines that create a device independent common page oriented interface for printer output.

Selection Window: Routines to implement selection of items from a scrollable list.

PocketForth f: PocketForth: By Chris Heilman. A small Forth compiler. Manual describes the use of PocketForth. The rest of the files in this folder are example and support programs for the system.

PostScript (CophonStuff) f: By Adobe Systems, Inc. Twenty six examples of PostScript code. Some files need special PostScript fonts. The series is described in the file ReadMe!

Prototyper™ Demo f (v1.0):

Prototyper™ Demo: By SmetherBarnes. Prototyper is an application that allows you to graphically develop the interface for a new program. Once the interface is developed, the program will create C or Pascal code and resources to support the interface. Read Me (MacWrite) describes this version of Prototyper.

DISK 14.20 - P/H 20

DESKTOP MODIFICATIONS

Bigger SFDialogs: For those of you who always wished that the Open file dialog box was larger, the resources in this file can be added to the System File to enlarge the SFGetFile and SFPutFile dialog boxes. Must use ResEdit to install. May create problems for some applications that expect the open and save dialog boxes to be a specific size.

Cursor f: This is a collection of new cursors that can be copied into Finder or used with Cursor Animator.

Curse The Finder f: Curse The Finder™: By Leo Harris. An improved moving watch cursor. *Curse the finder.doc.txt* and *CURSE THE FINDER.Docs* describe the installation of the cursor into Finder.

Cursor Animator f: Cursor Animator: By Wilhelm M. Plotz. An INIT/CDEV for using animated cursors in all programs. Will display the other cursors contained on this disk. *Requests a postcard from users.*

Cursors for Fndr6.0 f: By Eylon Caspi. A collection of moving cursors for use with Finder or Cursor Animator. Includes: "wait" cursor, Camera Cursor, Man Cursor, and Star Wars cursor. Cursor Helper describes how to install the cursors into the Finder.

Moon Cursor f: Moon Cursor: By Jim Trudeau. A moving cursor that looks like the moon. *Moon Cursor Doc* describes how to install the cursor. *Requests a postcard from users.*

RotatingEarthCursor: By Don Harriss. A moving cursor in the shape of the earth.

Trader's Cursors f: By Paul McGinnis. A collection of moving cursors, including Arc cursor, Digital clock cursor, Fireworks cursor, Hourglass cursor, Jumping Jack cursor, Sine wave cursor, and Stopwatch cursor. The file *What to do with this...* describes the installation of these cursors in the Finder.

Easy Icon v1.5f: Easy Icon v1.5: By Rolf Rando. An ICON (not ICN#)



editor. Easy Icon docs describes the use of the program.

ICE f; ICE: By Augur Microsystems, Ltd. A small, but nice ICON editor. Samples contains sample ICONs. *Shareware contributions appreciated.*

ICN#->ICN f; ICN#->ICN: By Jim Hamilton. A utility program for turning ICN#s (icons used by the Finder) into ICONs (icons used by other programs like HyperCard.) ICN#->ICN doc describes the program. *Shareware - \$5.*

ICON Designer 3.0: By John Nairn. A very good ICN# and ICON editing program. It includes many tools not found in other programs. *Shareware - \$10.*

Icon Maker 2.0 f; Icon Maker 2.0: By Steve Fine. This is a desk accessory that will capture an area of the screen and make it into an ICN# or ICON. Icon Maker 2.0 Doc describes the program. *Shareware - whatever its worth.*

Icon f: A collection of ICN#s and ICONs for use in modifying the look and feel of your desktop and in HyperCard. Please use with discretion.

779 icons: Exactly what it says it is, a whole lot of ICONs for use in HyperCard and other programs.

Apple FolderIcon f; Apple Folder Icon and Standard Folder Icon: By John ?? Replace your standard folder icons with apples. Apple Icon Info describes how to install the ions.

AppleLink 5.0 ICN# and cicon: Color icons for use with AppleLink 5.0. Can be use with Color Finder or Icon Colorizer.

Color Icons 1 f; Color Icons 1: By Nicholas Vedder. Yet another collection of cicons and ICN#s for use with Color Finder or Icon Colorizer. Color Icons 1.docs describes the main file.

Icon colorizer ICN/CICNs: cicons for use with Color Finder or Icon Colorizer.

Icon Text: By S. Wardlaw. This document describes how to use ResEdit to install an ICN# into an application so that it will be used by the Finder.

ICN#, ICN# SYSTEM/FINDER: A modified set of ICN#s and ICONs for use with the System

and Finder.

Icon/ICN# Collection: A collection of ICONs and ICN#s.

Icons f; Macwrite Icon and Desktop Icon: By George Howell. Replacement icons for MacWrite. Instructions is what it says it is.

MacSE Icons f: A set of Icons for the system folder that look like a Mac SE rather than Mac Plus.

Modify System/Finder f: By Bob Grubb. A set of modifications to System and Finder 5.x to jazz up the interface. Don't use directly with System/Finder 6.x, but you might want to use some of the ICONs and concepts. Includes: Modify Documentation, modify finder 5.3, modify finder 5.5 and modify system.

New ICN#s f; New ShutdownSound ICN# and New Stuff-it ICN#s: By Stephen Fleming. Replacement ICN# resources for these programs. To make them visible you will have to delete the appropriate BNDL resource from your desktop file. Icon docs.txt describes these ICN#s.

New SuitCase Icon: Well described by its title.

NeXT Folders f: By Chris Morrison. For those with NeXT cube envy, make your Mac folders look like NeXT folders with the ICN#s in the file NeXT Folders. About... describes how to use the ICN#s.

Print1FolderICN#s: Yet another set of ICN#s for replacing the folder ICN#s in Finder.

Pyro ICN#cicon: ICN# and cicon resources for Pyro for use in Icon Colorizer or Color Finder.

System Cicons: By Scott Anguish and Mark Steinberg of Graphic Applications. cicons for use in the System.

Version 6.0 Icons f; Cursor moving both hands, ICON for System Folder and New File Folder Icon: By Jack Zeiegler. A set of resources for use with System 6.0. Installation described in Cursor/Icons Instructions.

Iconer: By Bill Sammons and Rob Bys. A simple ICN# editor.

ICONstructor f; ICONstructor: By Lawrence W. Walker. An ICN#/ICN# editor with the usual tools.

ICONstructor.doc describes the program.

IEdit 1.1 f; IEdit 1.1: By Kent Flowers. A very nice ICON and ICN# editing program. iedit doc is a short description of the program.

SicnEdit: By Paul Dubois. An application for creating and modifying sicns or small icons.

Trash f: A collection of files and programs to make the trash can more interesting.

Better Black Hole f; BBH: By Carnation Software. One of the series of files for turning your trash can into a black hole. Better Black Hole Docs describes how to install the necessary resources.

Black Hole II f; BlackHole II: By Richard Johnson. Another of the series of files for turning your trash can into a black hole. Black Hole II Instructions describe how to install the necessary resources.

Jaws2 Icon f; Jaws2 Icon: By Al Hatch and Frankie Sierra. Replace the trash can with a picture of a shark. The file Jaws2 Instructions is what you would expect it to be from its title.

JerryCan f; JerryCan: Another trash can replacement.

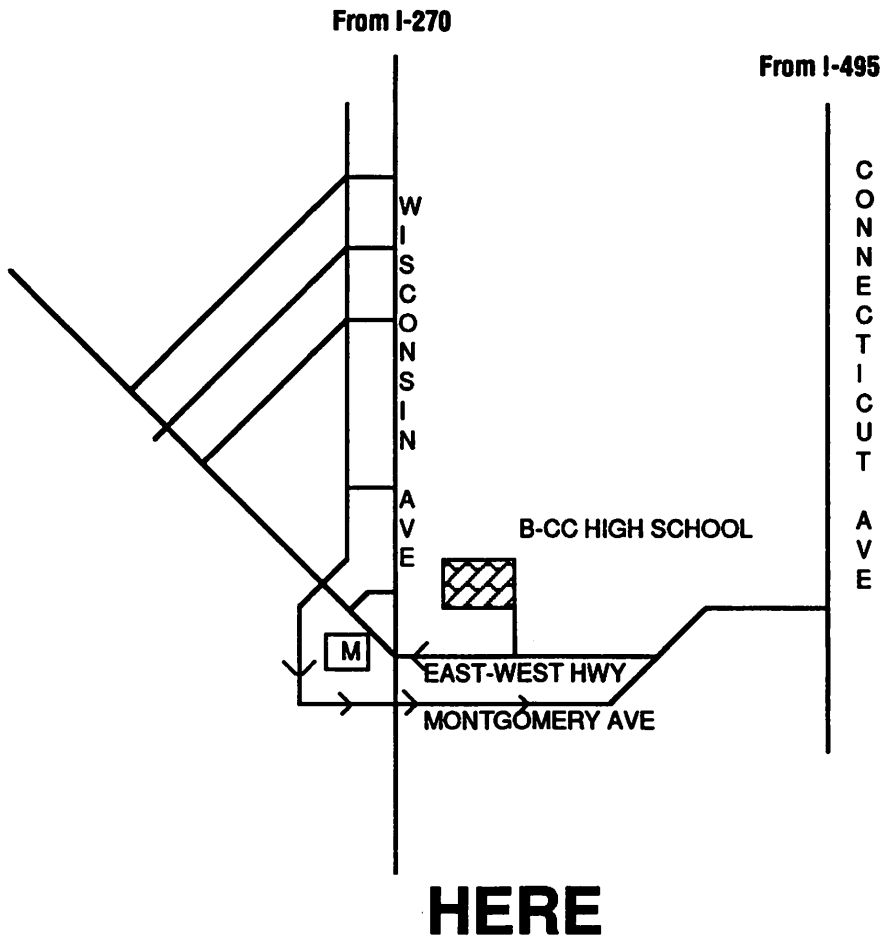
Kick the Can: By TruValue™ Software. An application that will replace the normal trash can icon with a different one.

Shredder f; Shredder Stuff: By Brad Fergusson. Make your trash can look like a shredder. Shredder Doc describes the main file.

Slimy Trash Icon f; SlimyTrash: By Andrew Klaus. Make your trash can look like you haven't cleaned it out any time within the past decade. SlimyTrash.Doc describes the main file.

Toilet Icon f; Toilet.res: By B. Novack. Make your trash can look like a toilet. To install, read Toilet instructions.

WHERE IN THE WORLD IS BETHESDA/ CHEVY CHASE HIGH-SCHOOL, ANYWAY?



Back to school...

WAP Tutorials

by Rob Clark

Washington Apple Pi provides training to its members and to nonmembers on a regular basis. We've provided complete course descriptions for the Macintosh tutorials, and a general description for the Apple II courses.

We urge you to bring your computer with you to most classes, since we have no computers for you to use at the office. If you can't bring your own computer, you'll have to look over someone else's shoulder.

Occasionally, the WAP class schedule changes due to circumstances out of our control. Please call the office at least one business day prior to the class date to confirm that your class will be held as scheduled. We regret any inconveniences that may arise.

As we've done with the Macintosh tutorials, we're planning to significantly expand the Apple II tutorial program. Look for more Apple II courses beginning in the June to July time frame, and look to this section for details.

Payment for Courses

The fee for each session is \$15 for members, \$20 for nonmembers. Mail or phone in your registration to the WAP Office. You must pre-register the class or classes you wish to attend by either sending in the registration form or by phoning your registration into the office. Please do not call any of the Education Program volunteers to register. If you've signed up for a class and need to cancel, please do so 2 business days prior to the class; otherwise we can not refund your money.

Call for Volunteers

(This is a repeat call for volunteers—your help is needed.) We're looking for a number of volunteers to help run a fun, effective, beneficial Tutorial Program for Washington Apple Pi members. If you've wanted to contribute something to this club, now is your chance. What are we looking for, you ask. Well, we need instructors, a Tutorial Publicity Agent, a Macintosh Tutorial Coordinator, and some special projects volunteers. If any of these strikes your fancy, please give me or the office a call. I can be reached at 301-937-2672. The WAP office number is 301-654-8060. Details? Here they are:

Macintosh Application Instructors. We need instructors to teach the following courses: PowerPoint, WingZ, Fourth Dimension, File-Maker II, Telecommunications, HyperCard, and Introductory Microsoft Word. What does the job entail? You prepare the lesson plans, gather any additional materials you may need, and prepare Activity Disks, if you want the students to have some templates or prepared exercises to work from. Oh, yes, you also teach the class. If you believe yourself to be an expert with a particular application, then you're probably qualified to teach. The club has a classroom, an overhead projector for presentation slides, a Macintosh SE for the instructor to use, and a device capable of projecting the Macintosh screen. Courses are three hours in length. If you believe you need more time to teach your subject, break it up into modules. Instructors are paid \$30 for each time a class is held. A lot of people find this a rewarding activity,

and it provides a valuable service to the WAP membership.

Apple II Application Instructors. We'll be developing specific courses soon, and the call will go out for specific instructors at that time. However, if you'd like to teach an Apple II course, please contact Allen Beach at 202-362-2239.

Tutorial Publicity Agent. I'm looking for someone to prepare the Journal input each month. Job entails gathering basic course schedule information from the Apple II and Macintosh Tutorial Coordinators, providing any news about the Tutorial Program, and putting that information down on paper so that it can be published in the monthly Journal. You'll also work closely with the office staff on getting the word out to the Washington Post, and the TCS Calendar Board.

Macintosh Tutorial Coordinator. The person who fills this position develops new ideas for additional courses, schedules the courses, and finds instructors to teach them. If you like working with people, or if you have specific ideas which classes would be beneficial to the membership, then this job is for you.

Special Projects Coordinator/Volunteer. We've been getting a lot of good ideas on projects, policies and so forth, but don't have the time to fully develop them. If you're the type of individual who likes to take a raw idea and turn it into something meaningful, please let us know. Some projects would be short term, requiring only a few months of help, others would be longer term. The kinds of things we want to work on include: Course Catalog development—is this a good, practical idea; Tutorial Policy Development; Activities Disk development; and finally, Apple III Tutorial Development—is there a need? (I believe there is.)

Want to take a course for Free?—The Tutorial Assistant Program

Something for nothing? No, but close to it. For every class held, we're offering the opportunity for you to take a class for free, if you help the instructor. The Tutorial Assistant sets up the room, helps put chairs and tables back after the class is over, distributes critiques before the class begins and then collects them when the class is over, takes attendance and collects any money owed by the students. Total time involved will be around 15 minutes. Available on a first-come basis.

Apple IIe/c Tutorials for July

We're providing the Apple IIe/c Introductory Tutorials, a three part series in July. The courses are held each of the first three Tuesday evenings in July from 7:00 to 10:00 pm at the WAP office. The dates are July 3rd for Part I (course # AE 1790), July 10th, for Part II (course # AE 2790), and July 17th, for Part III (course # AE 3790). You may sign up for just one, or for all three, if you wish. Of course all three courses provide you with the most benefit. These classes are designed for beginners, not experienced users.

Macintosh Tutorials for July

This month's courses, in addition to the three beginning courses, are Introduction to Microsoft Works, Introductory Adobe Illustrator and All About Fonts. Each class costs \$15 for members and \$20 for non-members; all classes are held at the WAP office. See the listing below for more details.

Introduction to Macintosh, Part I (Course # M1790). This class is designed for the beginning user. You should go through the Guided Tour disk that came with your computer before you come to this class. You'll learn each of the components of your Macintosh, both hardware and software. You'll discover what are the System, Finder, Icons, the Active Window, and how they all work. You'll also investigate the components of the Control Panel.

Materials required: Your Macintosh, external drive, start-up disk, and an unformatted disk.

Course Date: July 9th, 1990

Introduction to Macintosh, Part II (Course # M2790). This class is designed for the beginning user. You should go through the Guided Tour disk that came with your computer before you come to this class. You'll learn each of the components of your Macintosh, both hardware and software. You'll learn the finer points of the Menu Bar, various error messages, what the Clipboard and the Scrapbook are, various peripherals and how they are connected to your Macintosh, and, finally, you'll learn about command key equivalents (keyboard shortcut for Menu Bar commands).

Materials required: Your Macintosh, external drive, start-up disk, and an unformatted disk.

Course Date: July 16th, 1990

Introduction to Macintosh, Part III (Course # M3790). This class is designed for the beginning user. You should go through the Guided Tour disk that came with your computer before you come to this class. You'll learn which version of the System software you should be using; you'll learn how to update your system files; about the Set Start-up command; how to use the Font/DA Mover; learn about what a RAM disk is and how to use one, if you wish; how to use Switcher or MultiFinder; and finally, you'll learn about the various RAM configurations possible with each Macintosh.

Materials required: Your Macintosh, external drive or hard drive, start-up disk, and an unformatted disk.

Course Date: July 23rd, 1990

All About Fonts (Course #MF1790). This is a special class designed to help the new user learn about the various types of fonts for the Macintosh. This class will cover bit-mapped fonts (also called screen fonts), outline fonts, PostScript and what it does for fonts, Type 1 and Type 3 PostScript fonts, Adobe Type

Manager, what it is and what it can do for you and what it won't do for you, and more.

Materials required: None

Date: July 14, 1990

Introduction to Microsoft Works (Course # MW1790). Microsoft Works is one of the most versatile programs available for the Macintosh—in one package you get word processing, spreadsheet, database, graphics and telecommunications applications. If you're a beginning Works user, learn how to put the Works word processor, spreadsheet and database to work for you.

Materials required: If you have a Macintosh with a hard drive, bring it and your computer with you to class.

Course Date: July 19th, 1990

Introduction to Adobe Illustrator (Course # AI1790). If you want to know more about turning your Macintosh into a graphic arts machine, then this is the class for you.

Materials required: If you have a Macintosh with a hard drive, bring it and your computer with you to class.

Course Date: July 21st, 1990

New Database Series

We're working to produce a six-week, six-class, series on Double Helix, one of the most powerful relational databases for the Macintosh. This course, for beginning users of Double Helix, or even for the moderately experienced, will start with the basics and develop a fully functional membership database application. You can sign up for any one class, or for all six. Obviously you'll get the most benefit from all six classes. We hope to begin this series in August or September. We'd like to get a feel for the interest in this series, so if you are interested, please call the office. We'll call you when specific details are firmed up. Of course, we'll make announcements next month, as well.

Index to Advertisers

Alphagraphics.....	15
Award Publications	33
B.O.S.S.	58
Capital Presentations	31
Carver Publishing.....	32
Color 90	18
Computer Age	24, 25
Corporate Visions, Inc.	64
Desktop Publishing Center	88, Cover 3
Galaxy Graphics	56
Laser's Resource	63
Mac Corner	Cover 2
Mac InOffice	5
MacSource	20
Mac Temps	38
MacUpgrades	Cover 4
Macintosh Business Solutions	1
MacWorld	13
Maya Computer	21
Multisoft Resources	79
One Mile Up, Inc.	41
Operant Systems	47
PC Resources	57
PET Software	35
Rent-A-Computer	54
Ringmasters	6
SlideShow Presentation Graphics	12
Software Ventures	28
Technical Sales & Service, Inc.	65

Washington Apple Pi Tutorial Registration Form

Washington Apple Pi
7910 Woodmont Avenue, Suite 910
Bethesda, Maryland 20814
301-654-8060

Basic Information

Name _____

Address _____

City/State/Zip _____

Phone (day) _____ (Eve) _____

Member Number _____ Non-Member

Number of Classes _____ x Class Fee \$ _____ = Total Fees \$ _____

Check/Money Order Credit Card Card Number _____

Card Expiration _____ Signature _____

Course Numbers

**Please fill in
the course #
from the
description,
otherwise we
cannot
process your
application.**

Course # _____

WAP Form #CL006 (Revised 4/90)

Mail registration and payment to the above address

Letters to the editor

Continued from page 7

The Washington Apple Pi was conceived as a User Group. It began with users helping users and should always remain so, regardless of how the group and the computers they use evolve.

A larger group may require more formality and a paid staff, but the basic commodity of the Pi should always be the free flow of information and help amongst the members. Even as the make-up of the group progresses from an emphasis on individual programming to assistance with packaged software, that noble currency of exchange must not change. Although such numbers require the organization to be like a business, it should not be about business.

One of the best signs of the great worth of this relationship is the number of people who are able to positively exploit the benefits of membership and begin commercial endeavors. However, sometimes that person has also successfully sought a leadership position in the Pi. Once anyone embarks upon the path of directly related commercial pursuits, it is time for them to step down from all positions of responsibility here. As good as their service might be, the potential for conflicts is a threat and is not true to our founding ideal of users helping users. There is a real danger of the Pi thus becoming a trade association or a business club within a leadership clique.

Recently, a superficial attempt was made to address this problem. The Board of Directors adopted the Standards of Conduct published in the April Journal. Unfortunately, those Standards fall short of providing any insurance. In the past, it has been possible for a dealer to hold office and be chairman of a committee. Thus dealers could chair a committee that makes product or service purchases where they would be the person that specifies and selects their product, presents it to the Board of Directors, votes on the approval, is the vendor and then provides the purchase

documentation. Would even a business allow such to occur internally? My employer considers like actions cause for dismissal. Can the Pi tolerate anything similar?

The current Standards of Conduct do not effectively prevent conflicts from happening. There are no stated mechanisms for such procedures as commercial interest disclosure, rules of proper conduct or for discipline. They are vague to the point of being hollow and probably could not be fairly enforced, if at all.

This point was proven by the fact that no disclosure statements were requested from this year's election candidates, despite the requirement for them in the Standards adopted in April. The Election Committee certainly expected them as evidenced by the ballot instructions making the representation that this was done, when indeed it had not. How would this have been implemented, if they had been requested? What other sections of the Standards are still not in effect, though adopted by the Board?

The preamble to the Standards seems to be an open invitation to create conflicts. I also feel, as it states, that we should welcome those with commercial interests to be members. Their attendance and intercourse can be beneficial to them and us, but they must not be officers of the Pi. Dealers and consultants should not be passed off as "volunteers". For example, Hotline callers should not find themselves being solicited. Places of commerce are readily available. The Pi needs to be an independent alternative.

The past commercial participation within the Board of Directors made any improvements in the Standards of Conduct unlikely. Hopefully this will not remain so forever. We need to have a commitment to facilitating users helping users. If preoccupied with that objective, the cooperation and just plain fun of being part of this Apple community will prevail.

—Tom Vier

MULTISOFT RESOURCES

presents.....

FEDERAL JOBLINK

The Complete Federal SF 171 Package

- Provides 171 on screen
- Modified pages
- Near-typeset quality
- Unlimited copies
- Use ImageWriter or LaserWriter
- Prints form & answers in one step
- Includes these forms:
SF 171, SF 171-A, SF 172, SF 15,
SSW 555, SSW 585, SSW 800,
OPM 1386, and OPM 1170/17.

Only \$59.95

Add \$3.00 s/h; MD res. add 5% tax
Requires a Mac & MacDraw (Specify 1 or II)

and just released.....

XPLAINING MACINTOSH

The Complete Primer of Macintosh Computing

Features of book:

- Learn about applications, disk drives, fundamentals of computing, peripherals, system implementation, telecommunications, and more.
- Over 1,000 acronyms and terms in one chapter for quick lookup.
- Great as a reference, or part of a training program.

All this for \$21.95

Add \$3.00 s/h; MD res. add 5% tax

MULTISOFT RESOURCES
P.O. Box 235
Washington Grove, MD 20880
(301) 977-6972

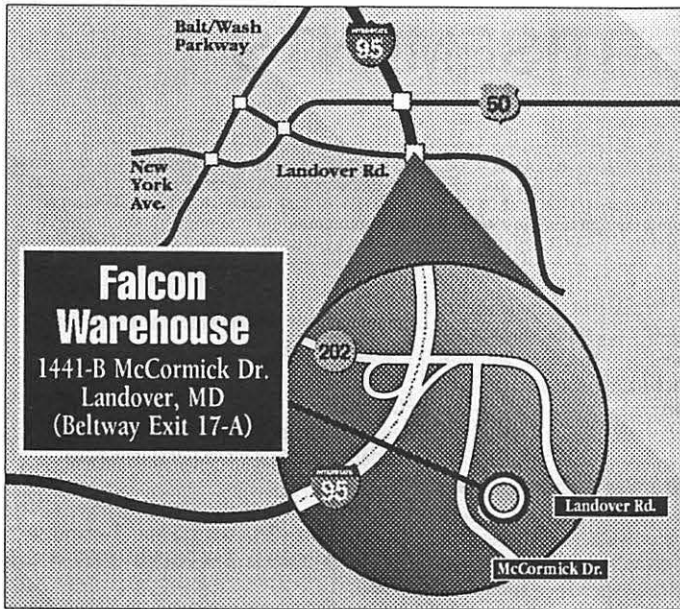
ISO—Apple II editor for WAP Journal.

The hours are long, the pay is nonexistent, the duties are substantial—who can possibly turn it down?

On the other hand, the rewards, in terms of a sense of satisfaction in helping your fellows, are equally great. The associations with a group of congenial professionals are significant, and it is a marvelous way to learn more about the process of putting together a publication that has come to mean something to a large body of computer users, in this country and abroad.

Prerequisites: a familiarity with Apple II computers, their needs and their quirks, some facility with basic writing and editing techniques.

If you think you might be interested, let us hear from you. Call the office and talk to Nancy Pochecko at (301) 654-8060.



FALCON'S FANTASTIC WAREHOUSE MOVING SALE

Macintosh II CPU

Falcon USED Price:
\$1995

Apple Hi-Res Color Monitor

Falcon USED Price:
\$595

Rodime 20i Plus Internal HD

Falcon NEW Price:
\$329

Microtek MSF 300QS

64 Grayscale Flatbed Scanner
with SCSI Interface

Falcon NEW Price:
\$899

Used Products

Monitorm Viking 10 19" Monitor	\$1499
Apple Personal Modem	\$99
AppleFAX Modem	\$399
MAC SE CPU 2FDHD	\$1499
Bering 20/20 BBox w/ tri-pack	\$349
Daynafile DF0102	\$399
Daynafile DF0200	\$299
PCPC II 8 bit Video Card	\$279
EVEREX 20MB ext. HD	\$249
Apple Tape Back-up 40SC	\$499
Apple PC 5.25" Drive	\$299
SuperMAC 19" Color	\$1599
Apple ImageWriter LQ	\$649
Sharp JX450 Color Scanner	\$3995
CMS 30 MB External HD	\$299
SE Mega Screen 19" Mono w/Video Card	\$1299
Sony Trinitron 13" Color	\$549

New Products

DEST 1020 Scanner w/ OCR	\$1149
Hayes SmartModem 1200	\$249
Hayes Government 1200	\$139
Mirus Film Printer Film Recorder	\$3295
RasterOps Color Board 232	\$2099
nView MACView Frame Proj. for SE	\$899
MegaScreen II	\$499
Monitorm Greyscale MAC II	\$599
MAC Surge Suppressor	\$19
Kensington Master Piece Plus	\$89
Universal Security Kits	\$19
KAO 3.5" SSDD Disks (box of 10)	\$3
Maxell 3.5" DS/HD 1.44MB (box of 10)	\$10
Aldus PageMaker 4.0	\$535
SAM	\$65
Ashton-Tate FullImpact	\$250
Letraset Design Studio	\$642
Fox Base+	\$329

Carrying Case For Mac SE

*/room for ext. keyboard
and external hard drive

Falcon NEW Price:
\$49

Sumagraphics MacTablet

12" x 12"

Falcon NEW Price:
\$325

Claris Productivity Bundle

MacWrite II, MacDraw II,
FileMaker Pro

Falcon NEW Price:
\$520

EMAC 40I D

40 MB
Internal HD

Falcon NEW Price:
\$329

Memory!

1 MB & 4 MB
Bulk Memory
Expansion Kits

Falcon 1 MB Price: Falcon 4 MB Price:
\$59 \$225

Falcon Microsystems, Apple's exclusive GSA Schedule federal government reseller, is moving its warehouse. And because the easiest warehouse to move is an empty warehouse, we're selling off a vast quantity of new and used equipment - at drastically reduced prices. Products listed here are only a partial listing, join us and see the wide selection available. It all must go before our moving date in July.

So you can help us reduce our inventory and save money at the same time!

Saturday, July 14th 1990
8 a.m. to 2 p.m.

Falcon Warehouse
1441 McCormick Drive,
Landover, Maryland

For more information, please call
(301) 386-8526

Used products are warranted for a period of 30 days from time from date of purchase. New products are warranted for a period of 90 days from date of purchase. New products may still be covered by manufacturer's warranty.

Falcon will accept cash, VISA, MASTERCARD, certified checks, and personal checks with valid ID. Quantities limited. Prices valid only through the date of the sale.

FALCON
MICROSYSTEMS

CLASSIFIED ADVERTISEMENTS

Classified advertisements can be placed by calling or mailing copy to the business office of Washington Apple PI, Ltd., 7910 Woodmont Avenue, Suite 810, Bethesda, MD 20814. Be sure to include your WAP membership number and indicate area codes with your phone numbers. Ads must be received by the 1st of each month for inclusion in the next month's issue. Any ads postmarked after that time will be included at the discretion of the editor. Cost is \$2.00 line (40 characters per line), maximum 12 lines. Members of Washington Apple PI, Ltd. may place ads up to 3 lines at no charge. The editor reserves the right to refuse any ads deemed inappropriate.

HELP WANTED

GENERAL CLERICAL WORK

Washington Apple PI is looking for a motivated, organized person to work in the business office. This is a part-time position, approximately 25 hours per week (10 - 2:30) Tuesday through Saturday. Some evening work is required. Duties include answering phone, processing mail, some data entry as well as other various duties. Learn more about your computer and make some money at the same time. Low key office atmosphere. Apple II or Macintosh knowledge very helpful. Come join our team!! If interested, call Nancy Pochecko at 301/654-8060 or stop by the office.

HELP WANTED

Microcomputer Trainer and Consultant - Gestalt Systems, a growing microcomputer consulting firm in Herndon, VA, is looking for a full time Macintosh Trainer to join our team. The ideal candidate will have experience in classroom training and possess in-depth knowledge of Excel, File-Maker, HyperCard, Networking, and other standard Macintosh software programs. Candidates must also be professional, self-motivated and a team player. Experience with DOS-based software a plus.

Gestalt offers an excellent work environment with an emphasis on satisfying client requirements. As a member of the training staff, you will conduct classroom training at our facility and at our clients' locations. You will also develop curriculum, conduct one-on-one tutorials and provide technical support to our clients. No long distance travel necessary. Excellent benefits. Competitive salary. Send resume to:

Gestalt Systems Inc.
450 Spring Park Place
Suite 1200
Herndon, VA 22070
703/471-6842

HELP WANTED

Desktop Publishing, PageMaker experience to design and prepare 32-40 page tabloid newspaper for printing twice monthly. This is a full time position with excellent benefits. Located in Silver Spring. Call 598-1090

HELP WANTED

Programmers with 1 yr of Mac Toolbox experience and knowledge of C. Full or Part Time. Hours flexible - day, evening or weekend. Looking for creative minds to help complete a new product and work on future enhancements. Send resume to Digit Software, PO Box 1425, Silver Spring, Md. 20915

FOR SALE

Apple 800K floppy drive. Excellent condition. \$150 or best offer. Call Jerry at 202/days, or 301/972-6443 eves.

FOR SALE

FASTER THAN THE SE/30 AND \$700 CHEAPER!! Mac SE with 4 MB RAM, 2 floppy disk drives and Prodigy accelerator board containing Motorola MC68020 processor with 32 bit wide data path & running at 16.67 Megahertz; Motorola MC 68881 floating-point math coprocessor running at 16.67 Megahertz; 16-bit I/O expansion bus for connecting additional devices. All for \$2850. Also Apple Extended keyboard - \$150. Call Howard 340-8442.

FOR SALE

MAC 512 with case and ImageWriter printer \$500/obo. Call Jim 202/965-1547.

FOR SALE

Apple II+ - Together or in parts! TI Color Monitor, KB 3000 Keyboard, Two 5-1/4" disk drives, 128K RAM Card, Grappler+ Printer Card, NLQ Dot Matrix Printer, + software! \$500 OBO - Call Mike 530-4160 evenings.

FOR SALE

Imagewriter II with network card. Call David (301) 972-4263.

FOR SALE

Radius Full Page Display with Mac II family interface card. Call David (301) 972-4263.

FOR SALE

Six Apple II+s - 3 working, 3 not. Two monitors, Four 5-1/4" drives. Call 301/484-8901 or 655-2239.

FOR SALE

Sessions Flight Form Cases. Two heavy duty trunks foam-padded to fit Mac Plus or SE (\$50) and ImageWriter (\$25). 301/243-6873.

FOR SALE

Apple IIGS, w/ 3.5 & 5.25 (2) drives, 256k (expandable), monitor, mouse, Mousewriter WP, Speed Reader, Music Printer et al software, DAC Board, ImageWriter Printer. \$1199 cash and carry. Call 703/878-0867.

POSITION WANTED

I am available for application programming. I have extensive experience with HyperCard, as well as experience with FileMaker and FoxBase. I have also written applications using LightSpeed Pascal. I am willing to learn a new application. I will also do word-processing and data entry, if necessary. I work part-time, primarily out of my house. I have a Mac-SE with 4 megabytes of memory, a hard drive, and an ImageWriter. I can provide references and can demonstrate past projects. Call Jenny Hoerst at 301/464-5857.

WANTED

PageMaker or Canvas software at an 'affordable' price. Call Amy 622-2203.

YOUR AD COULD BE HERE.....CALL 301/654-8060 FOR DETAILS

APPLE II DISKS

APPLEWORKS

THESE ARE ALL 5.25" DISKS

- APWK-01 Desk, Print, Money (813/814)
- APWK-02 Food, Lists, Etc. (815/816)
- APWK-03 1989 Tax Template (824)

COMMUNICATIONS

- COMM-01 TCS Instructions - Disk 1 (825)
- COMM-02 TCS Instructions - Disk 2 (826)
- COMM-03**WAPABBS.1 Documentation (121)
- COMM-04 WAPABBS.1 (135/136)
- COMM-05 DI COMM (503)
- COMM-06 Kermit 3.78 / File Trans (516/820)
- COMM-07 Comm-Term / Telecom (808/817)
- COMM-08 Micromdm / Hayes Term (116/169)

CP/M

- CP/M-01** Master Catalog (401)
- CP/M-02 Utilities 1 / Utilities 2 (402/404)
- CP/M-03 Communications (403/409)
- CP/M-04 ZCPR2 Install & Utilities (406/408)
- CP/M-05 ZCPR2 Doc. / Ess Utills (407/410)
- CP/M-06 Text Editor / Spreadsh (411/412)
- CP/M-07 MDM740 (413/414)
- CP/M-08 Kermit Source / Run (416/418)
- CP/M-09** Kermit Documentation (417)
- CP/M-10 Utilities (419)
- CP/M-11 Small C Compiler (420)

EAMON ADVENTURES

- EAMN-01 Utilities I / Utilities II (220/221)
- EAMN-02 DngN Dsgn / City Clds (180/229)
- EAMN-03 Bgn Caves / Eamon Mstr (181/214)
- EAMN-04* Lair Minotaur / Cv Mind (182/183)
- EAMN-05* Zyphur Vntr / Cstd Doom (184/185)
- EAMN-06* Death Str / Devil's Tomb (186/187)
- EAMN-07* Caves Trsr Isl / Furioso (188/189)
- EAMN-08* Magic Kn / Tmb Molinair (190/191)
- EAMN-09* Lost Apple / Abduct Qtrs (192/193)
- EAMN-10* Trezora / Undrgrnd Cty (194/195)
- EAMN-11* Merlin's Cstd / Hogarth (196/197)
- EAMN-12* Deathtrap / Black Death (198/199)
- EAMN-13* TempleNgurct / Blk Mntn (200/201)
- EAMN-14* Nuclear Nmare / Carroll (202/203)
- EAMN-15* Mstr Dngn / Crystal Mntn(204/205)
- EAMN-16* Lst Advtr / Manxome Foe (206/207)
- EAMN-17* Gauntlet / Caves Langst (208/209)
- EAMN-18* Futr Qst / House Secrets (210/211)
- EAMN-19* Sewers / Pits Kzorland (212/213)
- EAMN-20* Lifequest / Swordquest (215/216)
- EAMN-21* Priests Xim / Heroes Cstd (217/218)
- EAMN-22* Tmpl Undead / Holy Grail (223/224)
- EAMN-23* Mondamen / Orb Polaris (225/226)
- EAMN-24* Death's Gate / Orc's Lair (227/228)

EDUCATION

- EDUC-01 Edu. 1 / Personal Edu. (76/110)
- EDUC-02 Personal Edu. 2 / Edu. 3 (131/139)
- EDUC-03 Math/Science / Edu. 4 (1217/140)
- EDUC-04 Adv. Math / Vectors (510/513)
- EDUC-05 A. Camus Int. / Elem Math (53/105)
- EDUC-06 French Voc Tutor / Vocab (46/123)
- EDUC-07 Boot L'Hote / L'Hote Story (48/49)
- EDUC-08 Fr. Tic-Tac-Toe / L'Hote Qz (47/50)
- EDUC-09 Fr. Poet Tutor / Apoll. Bio (51/52)
- EDUC-10 Rafel Boot Disk / Rafel (55/56)
- EDUC-11 Span. Tic-Tac-Toe / Rafel Qz (54/57)
- EDUC-12 Matura / Lo Fatal (58/59)
- EDUC-13 Reading Fun (505)

FORTH

- FRTH-01 Assem-Dissem / Scrn Edit. (700/701)
- FRTH-02 Go Forth Tutor / Forth 78 (702/703)
- FRTH-03 Forth / Floating Point Arith. (704)

GAMES

- GAME-01 Games A / B (102/107)
- GAME-02 Games C / D (111/128)
- GAME-03 Games E / F (162/64)
- GAME-04 Keyboard / Paddle Games (72/74)
- GAME-05 Pinball / Arcade Games (142/157)
- GAME-06 Text Adventr. / Mystry Hse (73/517)
- GAME-07 Educational Games G / H (508/509)
- GAME-08 Sports / Utilities & Games (143/160)
- GAME-09 Adventures / Game Room (811/812)
- GAME-10 Haunted House (176 / 810)
- GAME-11 Games / Wizard Worker I (122/161)

LOGO

- LOGO-01 Logo Tool Kit / Kit Doc (145/146)
- LOGO-02 Logo Sample / Dallas Logo (147/158)

MISCELLANEOUS

- MISC-01 SS Coin Collecting / Misc (95/115)
- MISC-02 Miscellaneous (119/120)
- MISC-03 Misc / Recipe Files (125/159)
- MISC-04 Glaq & No Name Yet (129/175)
- MISC-05 Spec. D'bases / Jim's DB (141/504)
- MISC-06 Misc / Applewriter Iie (152/156)
- MISC-07 Astronomy Short Programs (506)
- MISC-08 Griffith & Weise Astronomy (507)
- MISC-09 Aviation - General, Disk 1 (514)
- MISC-10 Aviation - Navigation, Disk 2 (515)
- MISC-11 Gardner's Assistant (518)
- MISC-12 Music / Sights & Sounds (71/126)
- MISC-13 Merry Xmas / Hpy Holidays (103/165)
- MISC-14 Graphics & Cat / Graphix (108/171)
- MISC-15 Print Shop Graphics (172)
- MISC-16 Color Graph / Science & Eng. (75/106)
- MISC-17 Plots, Charts, Graphs (163/166)
- MISC-18 Bus & Math Stat / SS-Gen'l (70/90)
- MISC-19 SS Investment / SS Business (91/92)
- MISC-20 Business A / B (104/113)
- MISC-21 Investments A / B (153/154)
- MISC-22 Spreadsheet A / Misc (137/155)
- MISC-23** Riley's Pers. Instrumentation (173)

PASCAL

- PASC-01 Attach / Bios for Pascal 1.1 (300/301)
- PASC-02 Crypto, Grfx / Bios, Printers (302/303)
- PASC-03 Read-Write DOS / Printers (304/305)
- PASC-04 Cataloger / LISP & Math (306/307)
- PASC-05 Holiday Music / IO Filter (308/309)
- PASC-06 3D / Startups & Hackers (310/311)
- PASC-07 Stocks & Weight / Guerilla (312/313)
- PASC-08 Pascal to/from DOS / Misc.(133/314)

PILOT

- PILT-01* Pilot Language (167)

UTILITIES

- UTIL-01 New Member Disk-Disk 1 of 2 (821)
- UTIL-02 New Member Disk-Disk 2 of 2 (822)
- UTIL-03 Utilities A / B (100/101)
- UTIL-04 Utilities C / D (112/118)
- UTIL-05 Utilities E / F (124/132)
- UTIL-06 Utilities G / H (138/43)
- UTIL-07 Utilities I / J (44/77)
- UTIL-08 Mach. Lang. Utills / 1Key DOS (41/42)
- UTIL-09 Utills / Beginner's Choice (501/502)

- UTIL-10 Diversi Cpy / Diversi DOS (45/130)
- UTIL-11 Adds ProDOS / Zap Util (804/806)
- UTIL-12 Utilities A / File Cabinet (802/803)
- UTIL-13 Imageworks (174/807)
- UTIL-14 DOS 3.3 Sys Mstr / Tutr (511/512)
- UTIL-15 VisiTrend, VisiPit / Calclink (93/94)
- UTIL-16 AppleSoft Ttr / Pict Pack (109/117)
- UTIL-17 AppleWriter Utilities (168)
- UTIL-18 AppleSoft Prog / Lve Foll (144/170)
- UTIL-19 *Old* New Member's Disk (134)
- UTIL-20 Joyreader (819)
- UTIL-21 Large Type Joyreader (823)

APPLE IIGS DISKS

THESE ARE ALL 3.5" DISKS

IIGS COMMUNICATIONS

- GSCM-01 Freeterm GS (2003)

IIGS DESK ACCESSORIES

- GSDA-01 Desk Accessories I (2020)

IIGS FONTS

- GSFT-01 Fonts A-1 (2011)
- GSFT-02 Fonts A-2 (2012)
- GSFT-03 Fonts B-1 (2013)
- GSFT-04 Fonts B-2 (2014)
- GSFT-05 Fonts C-1 (2015)
- GSFT-06 Fonts C-2 (2016)
- GSFT-07 Fonts D-1 (2017)
- GSFT-08 Fonts E/F-1 (2018)
- GSFT-09 Fonts G-1 (2019)
- GSFT-10 Fonts H-1 (2020)

IIGS GAMES

- GSGM-01 Mean 18 Golf Courses 1 (2007)
- GSGM-01 Mean 18 Golf Courses 2 (2018)

IIGS GRAPHICS

- GSGX-01 Demo Disk A (2002)
- GSGX-02 Slide Show 1 (2004)
- GSGX-03 Slide Show 2 (2016)
- GSGX-04 Slide Show 3 (2017)
- GSGX-05 Nucleus Graphic Demo (2024)
- GSHS-01 HyperStuio System - Demo Version
- GSHS-02 HS.Demo - Demo Version
- GSHS-03 HS Sounds - Demo Version
- GSHS-04 More Stacks - Demo Version
- GSHS-05 More Stacks 2 - Demo Version
- GSHS-06 Video Demo - Demo Version
- GSHS-07 Com Stack - Demo Version
- GSHS-08 MUG 087 - Demo Version
- GSHS-09 USA - Demo Version
- GSHS-10 Hs Art 2 - Demo Version

IIGS ICONS

- GSIC-01 Icons 1 (2022)
- GSIC-02 Icons 2 (2027)

IIGS MISCELLANEOUS

- GSMS-01 New Member's Disk (2000)
- GSMS-02 Demo Source Code 1 (2005)
- GSMS-03 Demo Source Code 2 (2006)
- GSMS-04 Odd Bits 1 (2008)
- GSMS-05 Odd Bits 2 (2013)

FOR YOUR REFERENCE - THE NUMBERS SHOWN IN PARENTHESES () AFTER THE DISK NAMES ARE THE OLD DISK NUMBERS

FOR YOUR REFERENCE - THE NUMBERS SHOWN IN PARENTHESES () AFTER THE DISK NAMES ARE THE OLD DISK NUMBERS

IIGS SOUNDS/IIGS MISC.

- GSSN-01 Sounds 1 (2014)
- GSSN-02 Sounds 2 - Nostalgia (2015)

IIGS TUTOR TECH

- GSST-01 WAP Stack (2019)

IIGS UTILITIES

- GSUT-01 Utilities 1 and Pictures A (2001)
- GSUT-02 Jumpstart Program Selector (2021)
- GSUT-03 Utilities 2 (2028)
- GSUT-04 Utilities 3 (2029)

APPLE //DISKS

/// 3EZP & AW TEMPLATES

- 3ZAW-01 Applewks & /// EZP Bus. Tem (1060)

/// BUSINESS BASIC

- 3BSB-01 Pohlman Disk 01 (1017)
- 3BSB-02 Pohlman Disk 02 (1018)
- 3BSB-03 Pohlman Disk 03 (1019)
- 3BSB-04 Pohlman Disk 04 (1020)
- 3BSB-05 Pohlman Disk 05 (1021)
- 3BSB-06 PPT Demo / Basic Helps (1098)

/// GAMES

- 3GAM-01 Games 01 (1001)
- 3GAM-02 Games for Kids (1007)
- 3GAM-03 Cap'n Magneto - Revised 1/89 (1041)

/// GRAPHICS

- 3GRX-01 Sketchpad & Slideshow (1012)
- 3GRX-02 Fig Factory Manual (1069)
- 3GRX-03 Fig Factory - Black & White (1070)
- 3GRX-04 Fig Factory - Color (1071)
- 3GRX-05 Raster Graphics Tool Kit (1072)
- 3GRX-06 3-D Modeling Tool Kit (1073)
- 3GRX-07 Chartmaker /// (1074)
- 3GRX-08 Graphics Utilities (1075)
- 3GRX-09 Graphics Disk 01 (1062)
- 3GRX-10 Graphics Disk 02 (1076)
- 3GRX-11 Graphics Disk 03 (1077)
- 3GRX-12 Graphics Disk 04 (1078)

/// GRAPHICS (Cont.)

- 3GRX-13 Graphics Disk 05 (1079)
- 3GRX-14 Graphics Disk 06 (1080)
- 3GRX-15 Calendar by Bloom (1081)
- 3GRX-16 Typewriter Art 01 (1082)
- 3GRX-17 Typewriter Art 02 (1083)
- 3GRX-18 Poster by Bloom (1084)

/// INFORMATION

- 3INF-01 WAP /// SIG PD Catalog (1000)
- 3INF-02 New Member Disk (1005)
- 3INF-03 Best of MAUG (1008)
- 3INF-04 Best of The Source (1009)
- 3INF-05 Best of TAU (1010)
- 3INF-06 Best of ATUNC (1055)
- 3INF-07 Best of ///'s Company 01 (1015)
- 3INF-08 Best of ///'s Company 02 (1057)
- 3INF-09 The Best of Bloom (1035)
- 3INF-10 Impert's Corner by Bloom (1096)
- 3INF-11 Phase /// Conference Plus! (1047)
- 3INF-12 Best of Ottalini 01 (1040)
- 3INF-13 Best of Ottalini 02 (1058)
- 3INF-14 Best of Ottalini 03 (1059)
- 3INF-15 Best of Ottalini 04 (1087)

/// MISCELLANEOUS

- 3MSC-01 File Cabinet / Sort Directory (1046)
- 3MSC-02 Contributions 01 (1053)
- 3MSC-03 Contributions 02 (1061)
- 3MSC-04 Contributions 03 (1086)
- 3MSC-05 Le Grayhaven Cookbook Plus! (1097)
- 3MSC-06 Double Boot - SOS / ProDOS (1099)
- 3MSC-07 Apple /// Demo Disk #1 (1100)
- 3MSC-08 Apple /// Demo Disk #2 (1101)
- 3MSC-09 Apple /// Demo Disk #3 (1102)

/// REPAIRS

- 3REP-01 A3 Diagnostics 01 (1013)
- 3REP-02 A3 Diagnostics 02 / Block Edit (1094)
- 3REP-03 Repairing your A3 (1088)
- 3REP-04 Brain Surgeon (1089)
- 3REP-05 Disk Map (1090)
- 3REP-06 Disk Check & Pro Health (1091)
- 3REP-07 Vindicator & Catalyst Fixer (1092)
- 3REP-08 Block Editor & Block Byter (1093)
- 3REP-09 Jappson Disassembler (1095)

/// TELECOMMUNICATIONS

- 3TEL-01 Telecom 01 (1063)
- 3TEL-02 Telecom 02 / Access /// (1064)
- 3TEL-03 Telecom 03 (1065)
- 3TEL-04 Kermit /// (1066)
- 3TEL-05 XModem /// (1067)
- 3TEL-06 TerminALL Manual - 7/89 (1032)
- 3TEL-07 TerminALL Program - 1/89 (1033)

/// UTILITIES

- 3UTL-01 System Utils & Data Disk (1004)
- 3UTL-02 Apple II Emulation 01 (1043)
- 3UTL-03 Apple II Emulation 02 (1044)
- 3UTL-04 SOS Drivers (1052)
- 3UTL-05 Basic Boot Disk (1014)
- 3UTL-06 Basic Utilities 01 (1002)
- 3UTL-07 Programmers Power Tools (1056)
- 3UTL-08 Applecon (1016)
- 3UTL-09 Diskmaker / Appleseeds (1045)
- 3UTL-10 Basic XT / Basic Utils 02 (1022)
- 3UTL-11 The Retriever (1023)
- 3UTL-12 Power Print /// (1024)
- 3UTL-13 Disk Window ///+ - 2/89 (1025)
- 3UTL-14 Source Window Data Window (1026)
- 3UTL-15 Powercat / Basic XRF (1027)
- 3UTL-16 Basic Extension (1031)
- 3UTL-17 Power Keys DM+ (1034)
- 3UTL-18 Ram+3 / Two-n-Fro /// 128K (1036)
- 3UTL-19 Basic GTO (1051)
- 3UTL-20 CustomFont Manual (1037)
- 3UTL-21 CustomFont (1038)
- 3UTL-22 Fonts 01 (1039)
- 3UTL-23 D3 Backup by Bloom (1011)
- 3UTL-24 Gucspar by Bloom (1042)
- 3UTL-25 ASCIDIF by Bloom - 4/88 (1028)
- 3UTL-26 MLM Manual by Bloom (1068)
- 3UTL-27 MLM Utilities by Bloom 01 (1048)
- 3UTL-28 MLM Utilities by Bloom 02 (1049)
- 3UTL-29 MLM Utilities by Bloom 03 (1050)
- 3UTL-30 AppleWriter to 3 EZP by Bloom (1085)
- 3UTL-31 Pascal Menu Maker (1054)

/// WORD PROCESSING

- 3WDP-01 AppleWriter (1006)
- 3WDP-02 Footnote /// (1003)
- 3WDP-03 Ink Well Manual (1029)
- 3WDP-04 Ink Well Program (1030)

ARE YOU A MEMBER OF WASHINGTON APPLE PI, LTD.? YES/NO
IF YES, MEMBER NUMBER _____

All payments must be in U.S. funds drawn
against U.S. banking institutions

Mail this form with your check to:
Washington Apple Pi, Ltd.
7910 Woodmont Avenue, Suite 910
Bethesda, MD 20814

PRICES:
ALL 5.25" DISKS \$2.00 EA.
1-4 3.5" DISKS \$4.00 EA.
5 OR MORE 3.5" DISKS \$3.50 EA.
COMPLETE SERIES 3.5" DISKS \$3.00 EA.
POSTAGE: \$1.00 / DISK (MAX. \$5.00)
NON MEMBERS ADD \$3.00 PER DISK (Or join WAP!!)

**Please note that all 5.25" disks are double sided
unless the disk number is followed by **.
*Disk numbers followed by * require disk
#EAMN-03 to start game.

DISKETTERIA ORDER FORM

NAME _____

ADDRESS _____

CITY, STATE, ZIP _____

DAY PHONE _____ EVE PHONE _____

INDICATE DISK NUMBERS

_____ DISKS @ \$4.00 = _____
_____ DISKS @ 3.50 = _____
_____ DISKS @ \$3.00 = _____
_____ DISKS @ \$2.00 = _____
POSTAGE _____
TOTAL = _____

MACINTOSH DISKS

Anti-Virus Utilities	9.03 - I/C 3	13.02 - T 2	16.06B - SU 6	19.24 - SW 24	Serially Numbered
3 disk set	9.04 - I/C 4	13.03 - T 3	16.07B - SU 7	19.25 - SW 25	
1.01C - AV 1	9.05 - I/C 5	13.04 - T 4	16.08B - SU 8	19.26 - SW 26	Disk 28.1 •
1.02B - AV 2		13.05 - T 5		19.27 - SW 27	Disk 29 •
1.03B - AV 3		13.06 - T 6		19.28 - SW 28	Disk 30 •
	Miscellaneous	13.07 - T 7	Word Processing Utils	19.29 - SW 29	Disk 31.1 •
	2 disk set	13.08 - T 8	3 disk set	19.30 - SW 30	Disk 32 •
Desk Accessories	10.01 - M 1	13.09 - T 9	17.01 - WP 1	19.31 - SW 31	Disk 35 •
10 disk set; \$30	10.02 - M 2		17.02 - WP 2	19.32 - SW 32	Disk 41 •
2.01B - DAs 1			17.03 - WP 3	19.33 - SW 33	Disk 45 •
2.02B - DAs 2	Paintings (MacPaint)	Programmer/Hacker	Adobe Screen Fonts	19.34 - SW 34	Disk 46 •
2.03B - DAs 3	5 disk set; \$15	20 disk set; \$60	16 disk set; \$48		Disk 54 •
2.04B - DAs 4	11.01 - P 1	14.01 - PH 1	18.01A - AF 1	Mac II Series	Disk 55 •
2.05B - DAs 5	11.02 - P 2	14.02 - PH 2	18.02A - AF 2	11 disk set; \$33	Disk 56 •
2.06B - DAs 6	11.03 - P 3	14.03 - PH 3	18.03A - AF 3	20.01 A - M II 1	Disk 74 •
2.07B - DAs 7	11.04 - P 4	14.04 - PH 4	18.04A - AF 4	20.02 A - M II 2	Disk 75 •
2.08B - DAs 8	11.05 - P 5	14.05 - PH 5	18.05A - AF 5	20.03 A - M II 3	Disk 76 •
2.09B - DAs 9		14.06 - PH 6	18.06A - AF 6	20.04 A - M II 4	Disk 77 •
2.10B - DAs 10	Digitized Sounds	14.07 - PH 7	18.07A - AF 7	20.05 A - M II 5	Disk 78 •
	31 disk set; \$93	14.08 - PH 8	18.08A - AF 8	20.06 A - M II 6	Disk 79 •
FKays (Function Keys)	12.01 - S 1	14.09 - PH 9	18.09A - AF 9	20.07 A - M II 7	Disk 80 •
2 disk set	12.02 - S 2	14.10 - PH 10	18.10A - AF 10	20.08 A - M II 8	Disk 84 •
4.01A - FKs 1	12.03 - S 3	14.11 - PH 11	18.11A - AF 11	20.09 A - M II 9	Disk 85 •
4.02A - FKs 2	12.04 - S 4	14.12 - PH 12	18.12A - AF 12	20.10 A - M II 10	Disk 89 •
	12.05 - S 5	14.13 - PH 13	18.13A - AF 13	20.11 A - M II 11	Disk 91 •
ImageWriter Fonts	12.06 - S 6	14.14 - PH 14	18.14A - AF 14		Disk 92 •
15 disk set; \$45	12.07 - S 7	14.15 - PH 15	18.15A - AF 15	HyperCard External	Disk 95 •
5.01 - IW 1	12.08 - S 8	14.16 - PH 16	18.16A - AF 16	5 disk set; \$15	Disk 96 •
5.02 - IW 2	12.09 - S 9	14.17 - PH 17		21.01 - HE 1	Disk 104 •
5.03 - IW 3	12.10 - S 10	14.18 - PH 18	HyperCard StackWare	21.02 - HE 2	Disk 105 •
5.04 - IW 4	12.11 - S 11	14.19 - PH 19	34 disk set; \$102	21.03 - HE 3	Disk 106 •
5.05 - IW 5	12.12 - S 12	14.20 - PH 20	19.01A - SW 1	21.04 - HE 4	Disk 108 •
5.06 - IW 6	12.13 - S 13		19.02A - SW 2	21.05 - HE 5	Disk 123 •
5.07 - IW 7	12.14 - S 14	Miscellaneous Utils	19.03 - SW 3		Disk 134 •
5.08 - IW 8	12.15 - S 15	11 disk set; \$33	19.04 - SW 4	System Software 6.0.3	Disk 143 •
5.09 - IW 9	12.16 - S 16	15.01A - MU 1	19.05 - SW 5	4 disk set; \$12	Disk 147 •
5.10 - IW 10	12.17 - S 17	15.02A - MU 2	19.06 - SW 6	SS.ST	Disk 150 •
5.11 - IW 11	12.18 - S 18	15.03A - MU 3	19.07 - SW 7	SS.PT	Disk 151 •
5.12 - IW 12	12.19 - S 19	15.04A - MU 4	19.08 - SW 8	SS.LJ1	Disk 153
5.13 - IW 13	12.20 - S 20	15.05A - MU 5	19.09 - SW 9	SS.LJ2	
5.14 - IW 14	12.21 - S 21	15.06A - MU 6	19.10 - SW 10		
5.15 - IW 15	12.22 - S 22	15.07A - MU 7	19.11 - SW 11	System Software 6.0.5	
	12.23 - S 23	15.08A - MU 8	19.12 - SW 12	5 disk set; \$15	
LaserWriter Fonts	12.24 - S 24	15.09A - MU 9	19.13 - SW 13	SS.ST.5	
5 disk set; \$15	12.25 - S 25	15.10A - MU 10	19.14 - SW 14	SS.PT.5	
6.01 - LW 1	12.26 - S 26	15.11A - MU 11	19.15 - SW 15	SS.LJ1.5	
6.02 - LW 2	12.27 - S 27		19.16 - SW 16	SS.LJ2.5	
6.03 - LW 3	12.28 - S 28	System Utils	19.17 - SW 17	SS.NI.5	
6.04 - LW 4	12.29 - S 29	8 disk set; \$24	19.18 - SW 18		
6.05 - LW 5	12.30 - S 30	16.01B - SU 1	19.19 - SW 19	HyperCard Update 1.2.2	
	12.31 - S 31	16.02B - SU 2	19.20 - SW 20	HC & Stacks - HC.01	
INITs & cdvcs		16.03B - SU 3	19.21 - SW 21	HC Ideas - HC.02	
5 disk set; \$15	Telecommunications	16.04B - SU 4	19.22 - SW 22		
9.01 - I/C 1	9 disk set; \$27	16.05B - SU 5	19.23 - SW 23		
9.02 - I/C 2	13.01 - T 1				

HyperCard Upgrade requires HyperCard proof of purchase; any of original disk, first page of manual, receipt or previous HyperCard Upgrade disk.
Disks marked with a bullet are in 400K single side disk format; all others are 800K double side disk format.

Mail this form with your check to: Disketeria Washington Apple PI, Ltd. 7010 Woodmont Ave., Ste. 610 Bethesda, MD 20814			Are you a member of Washington Apple PI, Ltd? Yes/No ____ If Yes, Member Number ____ All payments must be in U.S. funds drawn against U.S. banking institutions. Non-members add \$3.00 per disk to listed prices.		
Number of Disks	Member Price each	Extended	Name		
_____ Singles			Box Number, Apartment, Suite, etc.		
_____ 4 or less ●	\$ 4.00 =	_____	Street Address		
_____ 5 or more ●	\$ 3.50 =	_____	City		
_____ Sets (marked above)	\$(above)	_____	State		ZIP Code
_____ + Postage - \$ 1.00 /disk,		_____	Daytime telephone		
_____ max \$ 5.00		_____	Evening telephone		
_____ Disk Catalogs	\$ 3.00 =	_____			
_____ + Postage ● \$ 1.50 ea.		_____			
TOTAL AMOUNT		_____			

Washington Apple Pi Journal Questionnaire

I would like to see more (or less) in the Journal having to do with:

	MORE	LESS
General information		
Club news		
Activities of Board of Directors		
SIG information		
Software reviews		
Hardware reviews		
Information about telecommunications		
Information about disk libraries		
Meandering editorials		
Information about computer basics		
Other		

Balance between information about different Apple computers:

- About right
- Tilted too much toward
 - Macintosh
 - Apple II

My principal interest in Apple computers is in:

- Macintosh
- Apple II
- Apple III

Other suggestions for improving the Journal:

Name: _____

Telephone number: _____

Please send completed questionnaire to: WAP, 7910 Woodmont Ave.,
#910, Bethesda, MD 20814

Membership Application

Please type or print:

Name _____
 Company _____
 Address _____

Home phone # _____
 Work phone # _____
 Occupation _____
 Sponsor's name _____

Please answer a few questions for us regarding your computer use. Circle the computers/ equipment you use on a regular basis.

WAP has many Special Interest Groups and Activities. Please check boxes of those areas which interest you. You will be contacted by the appropriate group.

- Apple II _____
- Apple II + _____
- Apple II e _____
- Apple II c _____
- Apple II gs _____
- Apple Other _____
- Laser 128
- Basis
- Franklin
- Apple III
- Mac 128
- Mac 512
- Mac 512 e
- Mac Plus
- Mac SE
- Mac SE/30
- Mac portable
- Mac other

- LISA
- Mac II
- Mac IIx
- Mac II cx
- Mac IIc+
- Mac IIci
- Mac II other _____
- IBM or compatible
- Non-Apple laptop
- Modem 300
- Modem 1200
- Modem 2400
- Modem 9600
- Fax modem
- Printer, dot matrix
- Printer, impact
- Printer, laser

- Appleworks SIG
- Apple II GS SIG
- Apple III SIG
- AV SIG (Arts & Video)
- CP/M SIG
- Disabled SIG
- Disk Library
- Desktop Publishing SIG
- EDSIG (Education)
- Excel SIG
- Federal SIG
- Game SIG
- HOTLINE
- HyperCard SIG
- Law SIG
- Mac Programmers SIG
- Music SIG
- NeXT SIG
- PIG (Pascal Programming)
- PI-SIG (Program Interface)
- Stock SIG
- Telecommunications SIG
- WAP Journal Editorial Board
- Works SIG

Join Group	Volunteer

Enclose check or money order payable to Washington Apple Pi, Ltd.

- | | |
|---------------------------------------------------------------|-----------------|
| Basic membership - One Year | \$39 |
| Two years | \$67 |
| Three years | \$92 |
| Student rate * (for one year) | \$32 |
| For other options please add correct amounts | |
| (1) WAP bulletin Board system (TCS) | \$ 6 |
| (2) First class mail (U.S.) | \$17 |
| (3) Airmail to Canada, Mexico, West Indies or Central America | \$20 |
| (4) Airmail to Europe & South America | \$38 |
| (5) Airmail to Asia & elsewhere | \$48 |
| (6) Surface to Europe, Asia & elsewhere | \$18 |
| Total enclosed | \$ _____ |

*Students please enclose photocopy of current Student ID

Indicate desired New Member Kit (1 only)

- Apple II
- Apple IIGS
- Apple III
- Mac 400k
- Mac 800k

Applicant signature and date:

Please circle Yes or No for the two items listed below.

My name, address and phone number may be published in the membership directory. **Yes** **No**

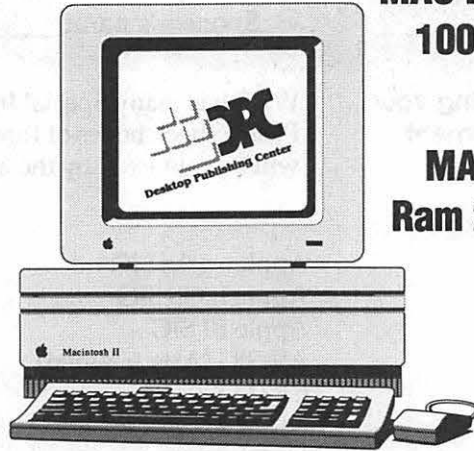
Please leave my name on the Pi mailing list. (The list never leaves the office and all mailings are supervised by the Pi staff). **Yes** **No**

Attention

- *Designers
- *Architects
- *Engineers
- *Graphic Artist
- *Editors

Call DPC for
the most
informed &
knowledgeable staff
on the East Coast

Macintosh System Sale



MAC IIcx 5 Meg Ram
100 Meg Drive
\$4895

MAC IIcx 5 Meg
Ram 200 Meg Drive
\$5559

MAC IIci 5 Meg
Ram 200 Meg Drive
\$6559

MAC IIci 5 Meg
Ram 100 Meg Drive
\$5895

MAC IIfx 4meg Ram
80 Meg Drive
\$7995

All DPC units carry a 1 year warranty

New Hardware Specials

Microtek Color Scanner (24bit)	\$2095
Upgrade to 2.5 meg ram only	\$ 199
Texas Instruments postscript Laser	\$2495
GCC PLPII (quickdraw) 4ppm laser	\$1299
GCC PLPIIs (quickdraw) 8ppm laser	\$1769

• Printers • Accessories • Scanners • Disks • Hard Drives • Modems • Networks

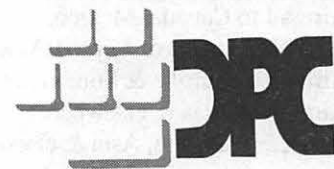
**We provide service for all Macintosh equipment.
Call DPC when you need quick, competent service.**

DPC QUICK QUOTE

Fax us your list of equipment.

We will fax a quote in under 2 hrs.

Fax Line(703) 658-0386



Desktop Publishing Center

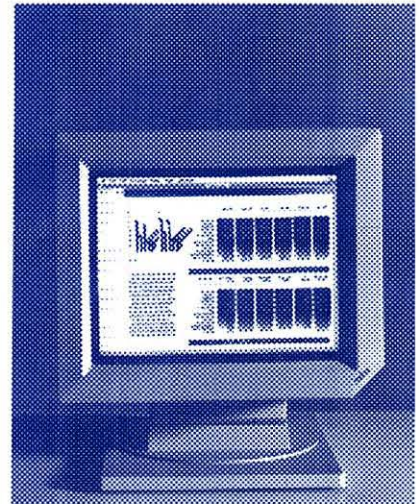
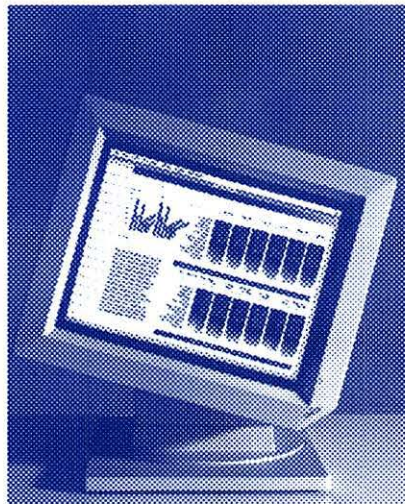
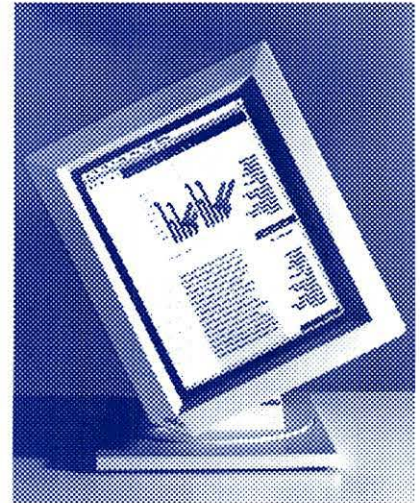
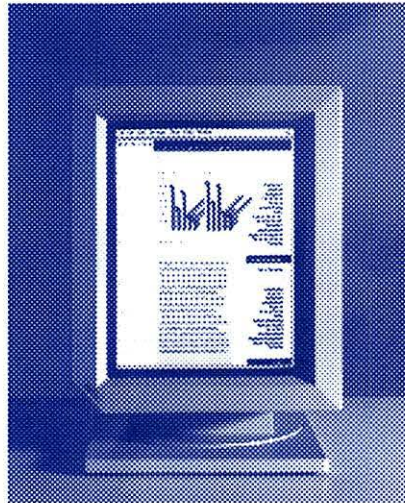
(703) 658-0033

5704G Gen. Washington Dr. Alexandria, Va

Located Next to Marlo at 395 & Edsel Rd

DPC & RADIUS ARE ABOUT TO CHANGE THE WAY THAT YOU LOOK AT MONITORS

Presenting the Radius Pivot. The first and only monitor system that allows you to change the orientation of your screen with just the simple twist of your wrist.



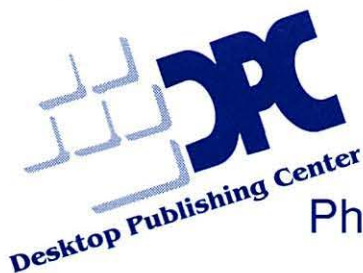
SPECIFICATIONS

CRT SIZE	15 INCHES DIAG
RESOLUTION	H640 X V864
VERTICAL REFRESH	69 HZ
PIZEL DENSITY	78 DPI
PHOSPHOR TYPE	PC104
Available only for the Mac II, CX, Ci SE-30	

DPC has the complete line of Radius products on display. We have the PIVOT in stock with a system price of only \$1299 for active WAP members

* \$150 extra for 16 levels of grey

Open M-f
10 to 6
Sat 10 to 5



Desktop Publishing Center
5704 -G Gen. Washington Dr.
Alexandria, VA 22312

Phone (703) 658-0033 Fax (703) 658-0386
Located next to Marlo at 395 & Edsel Rd