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Volume 13, Number 2

February 1991

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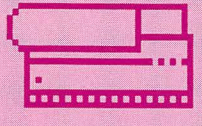

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This issue of the Washington Apple Pi Journal was created on a Macintosh IIfx, and printed on a LaserWriter IINTX.

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.

Adobe Systems, Inc., has expressed interest in and support for our proposal to produce a series of articles on typefaces and families. If all goes well, the first of these should appear next month. All, we hasten to add, rarely does go well, but those of us who clap for Tinkerbelle will continue to *believe.* So you get to find out, in the March issue, how the next episode in the continuing saga will turn out.

Stay tuned, and keep those cards and letter coming.

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Guest editorial

Imagewriter Pricing: A Lament

by Phil Shapiro

Few people would disagree that Apple makes fine computers and peripherals. But some of Apple's pricing is getting way, way out of line.

The ImageWriter II printer is a good example. It's a fine dot-matrix printer: sturdy, reliable, and relatively fast. Yet most Apple dealers sell the ImageWriter II for over $400, while comparable printers by other companies sell in the $150 to $250 range.

The inflated ImageWriter price even outpaces the price of some high-end 24-pin dot-matrix printers. A recent ad in The New York Times offers a NEC 24-pin printer for $199. (See page B5, NYT 12/26/90). How in the world, then, can Apple have the gall to price the ImageWriter II, a 9-pin printer, for more than twice as much as this 24 pin printer? What's most embarrassing is that the price of ink-jet and laser printers is steadily marching down closer and closer to Apple's inflated ImageWriter II price. Hewlett Packard's new Desk Jet 500, a 300 dots-per-inch printer, sells for under $500. And low-end laser printers, such as the H.P. IIP, are selling for under $1000.

It's time for Apple to cut the price of the ImageWriter II by a bold $100 to $150. At that point, Apple is ikely to find that increased sales volume will more than make up any loss of income from lower profit margins.

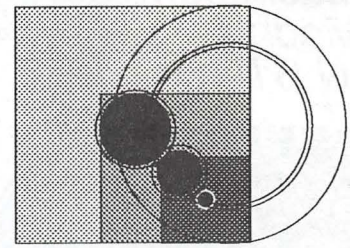
It's not so difficult to read what Apple had in mind with its inflated ImageWriter II pricing. High-level planners in Cupertino were hoping that more affluent Macintosh buyers would buy the ImageWriter II as their first Macintosh printer. Then, within a year they would quickly tired of the slow output of the ImageWriter in graphics mode, and would upgrade their printer to one of Apple's laser printers.

Here's the kicker, though. A flourishing second-hand ImageWriter market was supposed to have developed. Those Mac users were supposed to sell off their ImageWriters to humble Apple II users. Yet no such large-scale second-hand market has developed to date. Mac users have been holding onto their ImageWriters, keeping them as emergency back-ups to their laser printers. Or, they've been giving these printers to Junior to take to college with his or her low-end Mac. Consequently ImageWriter printers are relatively difficult to find on the second-hand market. And the price for second-hand ImageWriters stays up near $260 to $300, the price of what it should be selling for new.

All this wouldn't be so lamentable, were it not for the fact that Apple intentionally departed from the norm in making the ImageWriter a serial, rather than parallel printer. Any Apple II user wanting to use a different printer has to go off and buy a $100 Grappler serial-to-parallel converter, and live without the many programs that require an ImageWriter printer to print their output.

Apple has made it inconvenient for Apple II users to use a compatible-brand printer. Seeing that a printer is a virtually indispensable peripheral, it's time that Apple offered a price-cut on the ImageWriter II. Such a gesture of goodwill could perhaps assuage some of the mounting hostilities between Apple and the Apple II user community. And the price cut could actually be in Apple's best financial self-interest too.

(The author is the founder of Balloons Software, a new Apple II educational software company. He can be reached at (202) 244-2223, or on GEnie at P.Shapiro1)



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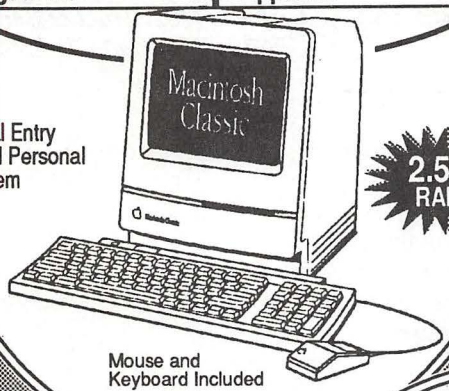

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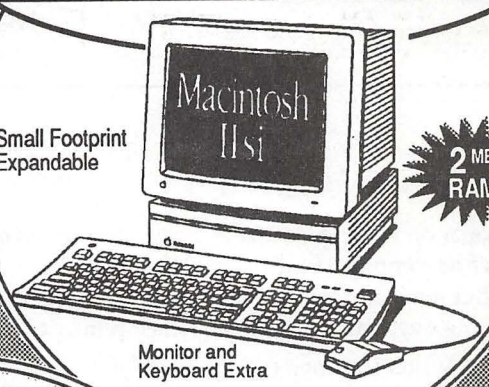

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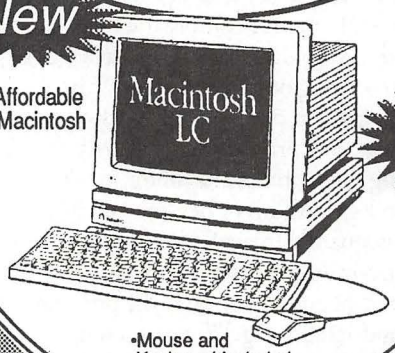

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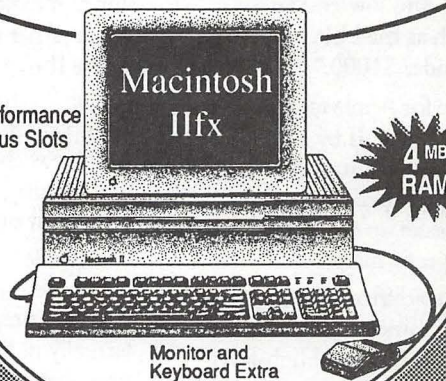

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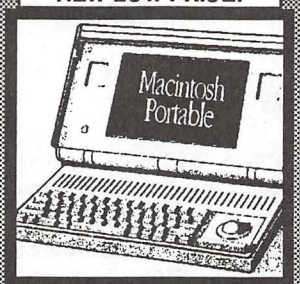

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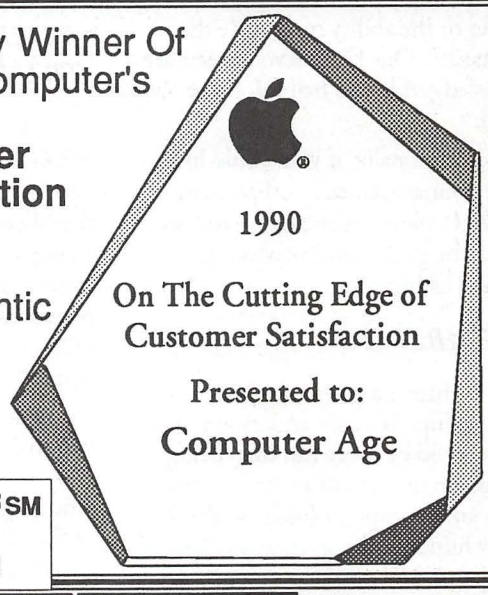

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What's new

Office News

by Nancy Pochepko

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I hope that everyone enjoyed a happy holiday season, and we wish you a healthy and prosperous New Year!

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Additionally, if you would like to offer your assistance to other members of WAP, please let me know and we would be glad to add you to the hotline listing.

MEMBERSHIP

Winter is a good time for computing. It's cold and snowy, and what could be more fun than being curled up in front of a crackling fire with your computer (okay, so there are a few hundred things that *could* be more fun, but who's counting?). If you know some folks who use Macs or Apples IIs or IIIs, give the office a call and we'll mail you a few membership applications to give to your friends. The more the merrier!

SIGS

Seems some of our Special Interest Groups have gone into hibernation. The Music SIG, the MS Works SIG, the New SIG. Then there are some great ideas for SIGs which simply need leaders, like a Kid's SIG, a Med SIG. Give it some thought and if you'd be interested in co-chairing a SIG or revitalizing one of the dormant ones, please let us know!

COMPUTERS ON TV

Check out The Learning Channel (TLC) on Tuesdays at 6:30 p.m. EST or Saturdays at 10:00 p.m. EST beginning December 4, 1990. They are running a program where they review software programs on the air.

WORKS to WORKS TRANSPORTER

Recently Microsoft made some enhancements to a utility called the Works to Works transporter within the Microsoft Works program. The changes allow users to convert files that were created in AppleWorks© 3.0 to Microsoft Works 2.0. In the past, users could only transfer files from AppleWorks 2.0.

Microsoft says this enhancement will make like a lot easier for many Macintosh users, particularly teachers who might have a substantial number of files that were created in AppleWorks 3.0 that they would like to move over to Microsoft Works 2.0.

There are two ways in which registered users can get this utility update free of charge:

1. If you are an AppleLink© user, you can access the new Microsoft Bulletin Board. In that Bulletin Board, the conversion utility is located within the Education folder as well as the Reseller folder. Both locations contain a read-me file that indicates downloading instructions.

2. Users can call Microsoft at 1-800-426-9400 to get this update. The caller should ask for the free updates to Works 2.0D.

WASHINGTON APPLE PI MEMBER DEALS AND DISCOUNTS

INCIDER MAGAZINE

WAP members are eligible for a special subscription rate of $24.97 for a one year subscription for new subscribers (the regular rate is $27.97 for one year, $43.00/two years and $59.00/three years). To order, please send your check for $24.97 per one year subscription made payable to inCider to the WAP Office at 7910 Woodmont Avenue, Suite 910, Bethesda, MD 20814. Also include mailing information.

MACUSER MAGAZINE

WAP members are eligible for a special subscription rate of $13.50 (50% off the regular rate of $27.00) To order, please send your check for $13.50 per subscription made payable to Ziff-Davis to the WAP Office at 7910 Woodmont Avenue, Suite 910, Bethesda, MD 20814. Also include mailing information.

QUE CORPORATION BOOKS

Que is offering a 35% discount on all of their titles (except instructor kits) to WAP members. To place an order, call 1-800-428-5331 x3476, fax 800-448-3804 or write Que Corporation, 11711 N. College Avenue, Carmel, IN, 46032 (ask for Debbie Hulse, and make sure you tell her you read about it in the WAP Journal!).

You may not always need the very best film output possible for your Postscript files, but if you plan to use your Mac for the most demanding prepress applications, it's good to know that there is a convenient source for absolutely state-of-the-art imaging for color printing— Baltimore Color Plate. Using Riplink® software, BCP moves your file onto their Scitex® and images it on the highest- end graphic arts equipment available today. The result is film output that meets the most demanding printing requirements: super resolution, tight register, proper trapping, Scitex (not Postscript) screen angles, screen frequencies to 200 lines per inch and output size to 19 by 25 inches. BCP can even proof your films on a Kodak Signature® proofing system, for an extremely close match to actual printing conditions. If you need this level of quality, it's here now, available now at [301] 391.8855 or [800] TRY.BCP1, Fax [301] 574.4075.

BALTIMORE COLOR PLATE

Columbia Apple Slice

by Tim Cook

At our January 3rd Apple II meeting, Andy Wakshul gave an impressive demo of the Print Shop Companion for the Apple IIGS. This program costs around $30 and requires a GS with 76K..

The Print Shop Companion IIGS by Broderbund Software is a set of utilities to enhance the Print Shop IIGS program. The utilities include the following modules:

1. Quick Page for creating freeform pages of graphics and text.

2. Calendar for printing out yearly, monthly, weekly, and daily calendars.

3. Envelope for creating sensational envelopes using full-panel graphics.

4. Label maker for making mailing or diskette labels.

5. Cataloger for printing out reference sheets of all your Print Shop graphics, borders and fonts.

In addition, editors are also provided to help with creating new art for the Print Shop GS:

1. Graphic

2. Full Panel

3. Border

5. Font (sic)

6. Pixel Patterns (for the Banner Maker of Print Shop)

Andy also pointed out some new features and capabilities that the Print Shop Companion GS gives us. Some of these include the capability of making printouts magnified 10 X 10, standard GS fonts can be edited and saved as Print Shop fonts, and the Full Panel edit capability. He seemed most impressed by Quick Page. Some of the capabilities provided by Quick Page were the capability to import graphics from other sources, the capability to move text and graphics around on the page. This feature of Quick Page could be used to make cards like the Print Shop card maker if more text is desired than what the Print Shop can give you.

At the business meeting following the Print Shop Companion IIGS demo, the Columbia Slice decided to sell copies of "The Apple II Guide" for $5 a copy as a fundraiser. This book is a complete resource for users of Apple II computers. Copies can be obtained from the club officers at the next meeting.

The Apple II topic at the February 1991 meeting of the Columbia Slice will be educational software on the Apple IIe and IIc.

GameSIG

by Steven Payne

GameSIG members gathered at the WAP Office on Pearl Harbor Day for our regular monthly meeting, under the fearless leadership of our new co-chairmen, "the two Daves" (Hakim and Romerstein). In what is fast becoming a regular segment on alternate gaming systems, Dave Hakim kicked things off by showing us the Atari **Lynx**, a hand-held color system that lists for around $180, handles programs of up to 8 MB, and is "comparable to the Sega **Genesis**"; among the programs currently available for this system, we had a look at "California Games."

Dave Romerstein then provided a demo of **Sim Earth** (Brøderbund, Mac), pointing out the similarities and differences between this new global simulation and its popular predecessor, **Sim City**.

In the "new products" report, we learned that Wizardry II: Knight of Diamonds, as well as **Bane of the Cosmic Forge** (first installment in a "new fantasy/role-playing adventure series in the spirit of **Wizardry**"), are now both available for the Macintosh from Sir-Tech (P.O. Box 245, Ogdensburg, NY 13669). Meanwhile, we received a review copy of the Mac version of Faces, the latest in Spectrum HoloByte's **Tetris** series (see the review elsewhere in this issue); unfortunately, once again there were no new Apple II games for review.

Among the games our brave members are currently exploring, we discussed **The Savage Empire, Silent Service II, King's Quest IV (on the GS), Centauri Alliance, Might and Magic II, Legends of the Lost Realm, Pharoah, Sword of Vermillion** and Steve Meretzky's Spellcasting 101: **Sorcerors Get All the Girls** (the first graphic adventure from our friend Bob Bates' new company, Legend). Some of these, you'll notice, are only available in MS-DOS versions....- which raises an interesting question: since it is now possible, with software or hardware add-ons, to run such programs on our favorite machines, is it permissible to publish GameSIG reviews of these products in the WAP Journal? We think it should be, and would like to broaden our scope to keep you informed on what's available out beyond the ever narrowing confines of exclusively Apple and Mac gaming. But we'll see whether this idea flies or not.

The meeting closed with our regular "Robot Tanks" tournament, from which Dave Hakim emerged victorious (one of the perks of his new job, we suppose). The next meetings will be held on January 3rd and February 7th at 7:30 PM in the WAP Offices.

Finally, a correction for all you Cliff "The Fool's Errand" Johnson fans: contrary to what I reported last time, his **3 in Three** is available from Cinemaware (4165 Thousand Oaks Boulevard, Westlake Village, CA 91362); however, Miles Computing (5115 Douglas Fir Road, Suite 1, Calabasas, CA 91302) is advertising a new **Puzzle Gallery 2: America**, which we presume will build upon Johnson's earlier **Puzzle Gallery: At the Carnival.**

(For information about the December IIGS SIG meeting, please turn to page 57)

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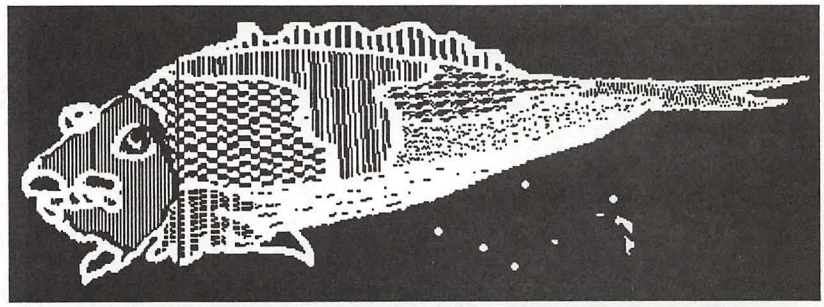
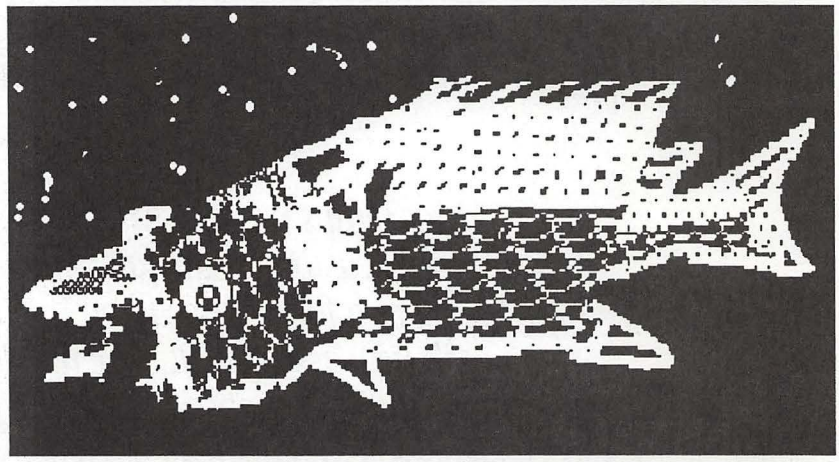
Artists on exhibit

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.





Jazzfish

Artist Info: Don Mace is editor of the *Federal Employees News Digest* and the *Federal Employees' Almanac*, has an art background, including study at the University of Miami and brief employment as an artist/ illustrator at the Smithsonian Institution.

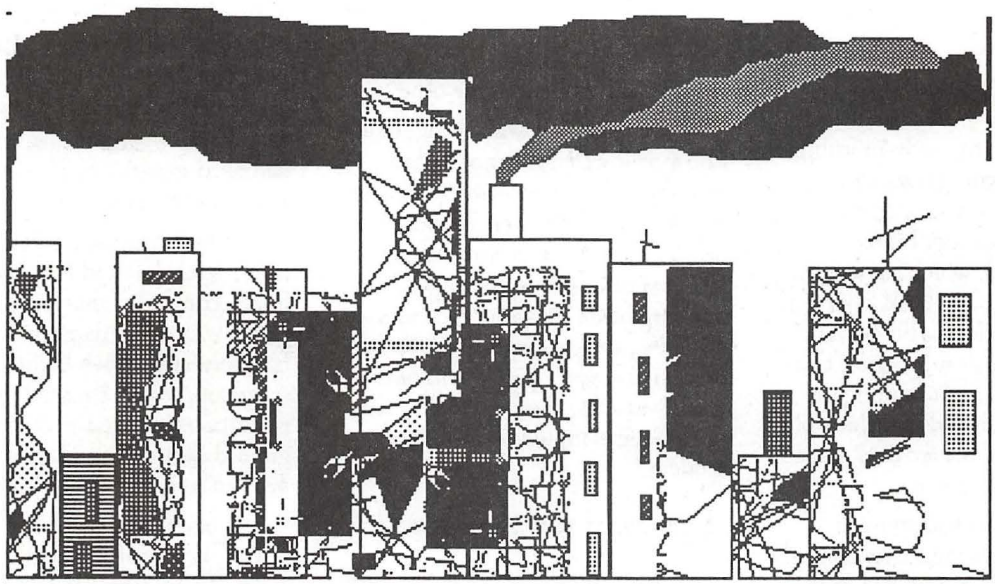
Art: *Jazzfish* (right), *Skyline* (opposite top), and *Archaeologist* (opposite bottom)

Tools: Mac SE, LaserWriter II NT, SuperPaint, Mac Paint, and Mac Draw II.

Procedures: "Normally, I don't start with one idea. I just start drawing and see where it takes me, experimenting with several versions. I freehanded Jazzfish, creating each one individually and then positioning them. Using the marquee tool, I took a section of the fish and distorted it in several ways experimentally to achieve various results. I repeated the process and inverted part of the drawing to work in a particular area. Then I positioned the entire image and printed it out. Revisions were made after looking at hard copy, in much the same way a writer revises after first drafts. I chose this as a subject because I like drawing and painting fish. Many of my oil paintings and water colors are of this subject.

"Skyline was painted a bit differently. I began by drawing freely all over the screen in MacPaint. I used the brush tool, then selected the mirror tool under Goodies. This tool allows you to create a mirror image in reverse, and will allow you to do it in a six-way pie. In this way you can create a kind of doily. I used different brush sizes to achieve a first draft. Then I took the whole image and cut it up with the marquee tool, moving the pieces around and reassembled them to make buildings. The matrix suggested a cityscape to me. So next I drew rectangles to create windows. I added the sky detail last. This process for Skyline was a cut and paste job, a collage.

"Archaeologist was created the very first time I tried any of the paint programs. I was intrigued by the fill tools and the textures, spray, and fill functions. I just started drawing a face, threw in a pipe, and created the hieroglyph using the fill mode for those wall figures in the background and also for the clothing. Then I experimented with his hair, trying to get a realistic look with various brushes and paints. I wanted to create broken lines where hair and pipe smoke partially blocks background."



Skyline

Archaeologist

Surge suppressors: worse than useless?

Computers—over easy?

by Andy Baird

ZZZZZAAAAPPP!

Jolted out of my early-morning sleep by the deafening buzz of an electrical arc, I knew at once something was badly wrong. I lunged toward the sound, which came from beneath my computer desk, taking in at a glance the ominous blue-white glare from my surge suppressor, and the cloud of black soot staining the wall behind it. I ripped the Mac's plug from the outlet as the arc died and an evil smell filled the room.

After my heart had stopped pounding, I examined the remains of my surge suppressor. Looking at the charred interior of the case, I shuddered. If it had been made of plastic instead of steel, there probably would have been a fire. The MOVs (Metal Oxide Varistors) had been literally blown apart by the force of the surge; then, like a welder's rod, had arced across the bare wire leads.

I thanked my lucky stars that the MOVs had done their job and saved my Mac, while wondering whether there wasn't a better way to protect equipment—a way that didn't involve an explosive failure of the components that did the protecting.

I thought about the time, a couple of years back, when my Hayes Smartmodem had died during a thunderstorm, along with a couple of chips on my computer's motherboard. I had surge protection on the computer, but none on the telephone line. When lightning struck nearby, a spike came up the phone line, fried the modem, then continued up the serial cable to kill the line-driver chips in my computer. After that experience, I added a surge suppressor on my phone line, so I was completely protected.

Or so I thought at the time.

Now I know I was wrong. In fact, I now realize that the modem was probably killed *by my surge suppressor.* The MOVs which were supposed to protect my computer had done their job by shunting an incoming power-line surge onto the ground conductor—*the same ground used by the modem as a signal ground reference.* The result was a few thousand volts across the modem's inputs—and a dead modem.

Everything you know is wrong

I want to make three main points in this article. First, the surge suppressor you own, if it's more than a year old, is probably *not* protecting your equipment, because its MOVs have degraded to the point of uselessness—and there's no practical way you can test this. Second, even if it's brand new, or uses expensive TransZorb devices instead of MOVs, it is designed to dump surge energy onto the ground conductor used as a reference by your modem, network connection or other serial device, thus endangering your peripherals or other networked computers even if it protects your own computer. Third, there is a new device which will protect your equipment over the long term—ten to twenty years—without endangering it.

Before I tackle those three points—and try to convince you that the conventional wisdom about surge suppressors is wrong—let me tell you where this information comes from.

Lightning strikes in the capitol

The National Institute of Standards and Technology, in Washington, DC, has a section devoted to the study of power-line surges. The head of the group, François Martzloff, has been studying surges and other transient electrical phenomena for many years, resulting in ANSI/IEEE standards (C632.41-1980, if you're interested) defining commonly-encountered spikes and surges. A recent experiment, in which surges were artificially induced in the power wiring of an industrial building, yielded an unexpected result: suppressor-protected computers were undamaged, but serial printers connected to them were damaged *by surges on the data input lines—not the power line.*

Where had these surges come from? Martzloff and his colleagues finally concluded that the data-line spikes which had damaged the printers had been created when the computers' surge suppressors shunted the excess electrical energy to the common ground conductor. *The printers had been killed by the surge suppressors!*

Interestingly, the NIST team was not the first to arrive at this conclusion. A small New Jersey company, Zero Surge Inc., had been founded not long before by two engineers who set out to build a power conditioning device which would *not* dump excess energy to ground. We'll talk more about the Zero Surge device later...but now let's consider my three major points.

The mortality of MOVs

A look at GE's "MOV Design Manual" reveals several interesting facts. First, MOVs don't begin to respond to a voltage spike until 10-40 nanoseconds. That may sound fast, but the typical spike described in the IEEE standard has a rise time of just 5 nanoseconds. That means an MOV can't react fast enough to stop the most common electrical spikes...spikes the IEEE standard says can be expected many times a week in an average building!

Second, MOVs wear out. Every little jolt shortens the lifetime of an MOV, until finally it fails to provide any protection. Those little jolts include the several-times-a-week spikes described in the IEEE standard. A recent article in the industry journal

LAN Times (May 1990) says: "If your surge protectors have been in use for a while (six months is a reasonable time), the MOVs may be incapable of proper performance. Moreover, as the [MOV] ages, its clamping voltage decreases and it may begin a process called thermal runaway, which has resulted in fire." (Remember, I spent a long time scrubbing the soot off my walls after my surge suppressors burned up!)

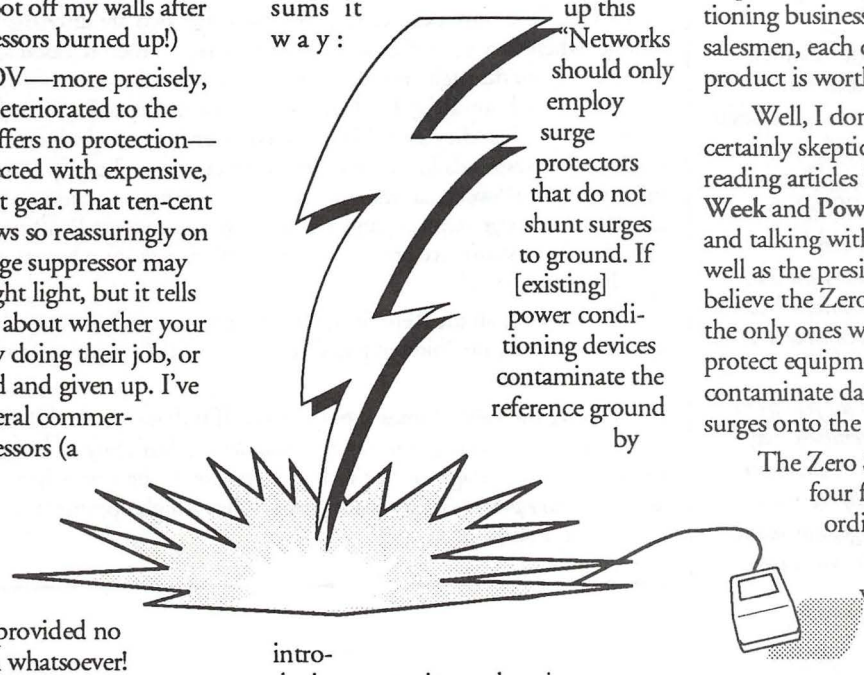
A dead MOV—more precisely, one which has deteriorated to the point where it offers no protection—can only be detected with expensive, sophisticated test gear. That ten-cent LED which glows so reassuringly on your present surge suppressor may make a good night light, but it tells little or nothing about whether your MOVs are really doing their job, or have gotten tired and given up. I've been shown several commercial surge suppressors (a Kensington MasterPiece, among others) which *appeared* fully functional, but provided no surge protection whatsoever!

In short, MOVs provide inadequate protection; they wear out in the course of normal use, and they fail without warning, possibly posing a fire hazard.

What about TransZorbs?

I've always figured I was extra safe, because my Mac was plugged into an expensive power strip using TransZorbs instead of MOVs. TransZorbs (avalanche diodes) are semiconductor devices which respond faster than MOVs, and don't degrade with time. However, I've recently discovered that they have another problem: when a really big surge hits, they fail "open", so they can't divert the surge voltage, just when they're needed most!

But that's minor. The real problem is this: just about all presently available surge suppressors, whether they use MOVs or TransZorbs, are wired to divert, or shunt, energy to ground. As the NIST researchers found, this almost guarantees contamination of data lines, resulting in garbled data at best, and fried equipment at worst. The same design flaw which cooked my Hayes modem and those printers in Washington is built into almost every surge suppressor made, from the cheapest to the most expensive. The LAN Times sums it up this way: "Networks should only employ surge protectors that do not shunt surges to ground. If [existing] power conditioning devices contaminate the reference ground by introducing surges, it may be wise to remove such devices from a network or to replace them with something better."



Some people may think they're protected by the use of UPS (uninterruptible power supply) equipment, which by definition is a 100% battery-fed system. But not only are UPSs quite expensive, their inputs are protected by the same fifteen-cent MOVs the average surge suppressor. (The single exception, Abacus Controls, licenses its technology from Zero Surge, the small company I mentioned earlier.)

A singular solution

So how *can* you protect your expensive computer equipment? The LAN Times has this to say: "The ideal surge protector would be a circuit that presents a high impedance to the the surge and a low impedance to the [normal] power wave, while protecting the integrity of the ground circuit. It should also contain no degrading components like MOVs." Such devices exist; they are made by Zero Surge, Inc.

If I tell you that the Zero Surge units appear to be the only surge suppressors on the market which work properly, you'll have a right to be skeptical. After all, the power conditioning business is full of snake oil salesmen, each claiming that only *his* product is worth buying.

Well, I don't blame you. I was certainly skeptical at first. But after reading articles in LAN Times, PC Week and Power Quality magazines and talking with electrical engineers as well as the president of Zero Surge, I believe the Zero Surge protectors are the only ones which 1) will adequately protect equipment and 2) won't contaminate data lines by dumping surges onto the ground circuit.

The Zero Surge unit differs in four fundamental ways from ordinary surge protectors:

1. It's a series circuit with zero response time. It intercepts all surges, including the common 5 nanosecond surges which are too fast for MOVs to divert.

2. It contains no MOVs or other sacrificial or degrading parts, and no components are overstressed by surges of unlimited current up to 6000 volts (the IEEE standard). Its service life is equal to the shelf life of its components, which is why Zero Surge warrants its products for 10 years, and thereafter offers to upgrade any unit to new condition at any time for 20% of whatever the unit then sells for.

3. Critical for networks and modems (BBS and LAN users take note), Zero Surge does not use ground as a surge sink, but instead stores the surge energy temporarily, then slowly releases it to the neutral line. This preserves the integrity of the ground for its role as voltage reference by all dataline interconnections.

4. Zero Surge takes the sharp leading edges off surges and noise, eliminating their ability to couple into

computer circuitry.

Zero Surge makes 2 sizes of surge interceptors, a 7.5 Amp model (list $149), which is right for those of us who don't have laser printers, and a 15 Amp model (list $199) for those who do. The 15 Amp unit is offered at a special price of $169 to user group members. (You won't be surprised to hear that I bought one!)

Zero Surge president Wendell Laidley is a straightforward, soft-spoken man who emphasizes his desire to answer any and all questions about his product. His phone number is 201-766-4220 (fax number: 201-766-4144). Don't hesitate to call him.

This article is from the June 1990 issue of the Princeton Macintosh Users' Group Newsletter, and is copyright 1990 by Andy Baird.

This subject is not at all free from controversy, and WAP members may wish to communicate their own experiences with surges. Certainly we have no connection with Zero Surge, nor should this article be considered as an endorsement of the product.

How does it work?

Briefly, Zero Surge employs a 100 microHenry current limiting inductor, followed by a voltage limiting bridge. The bridge contains several triggered energy absorbing stages that respond according to the slew rate and energy of the incoming surge, and keep maximum let-through voltage under 250 volts (in UL 1449 tests at 6000 volts and 500 amps, let-through was 223 volts, or 42 volts above AC power line peak, the best ever tested by UL).

The unit contains three large electrolytic capacitors. One capacitor is charged to track the sine wave peak at all times; the other two are uncharged except during a surge, when they store the excess energy, which is then released slowly back into the neutral line through current-limiting resistors. The rated life of these capacitors, under 24-hour-a-day full load, is 11.5 years. Regarding the claim of "zero response time," Laidley says, "The first component is an inductor, in series with the line, that responds instantly to the surge current. The *output* rise time of this inductor is far slower than the low nanosecond range response time of the bridge diodes. Zero Surge reduces surge rise time by approximately 40 times, thus reducing the disturbance below the threshold, to a point where no significant coupling can occur."

By the way, all the Zero Surge components are in full view when the box is opened; there are no "hidden parts" and none of the epoxy encapsulation so often found in other units.

I'll give the **LAN Times** the final say: "If it doesn't have UL or CSA certification *as a transient voltage surge suppression device,* don't buy it. Look for the UL 1449 clamping voltage in the product literature. If the device has UL certification *as a temporary power tap,* it means that UL has a high opinion of it *as an extension cord,* not as a surge protector!"

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Take care of yourself...who else will?

My aching back...

by John Blumenstein

Is your desktop computer (hopefully an Apple/Macintosh) breaking your back?

12 years ago I had back surgery for a herniated disc, presumably brought about or exacerbated by a long period of basketball playing. I gave up the basketball and have been reasonably good since then in following a prescription for preventing further back problems:

- Controlling weight
- Exercising properly
- Walking a mile or so to and from mass transit daily
- Sleeping correctly
- Lifting (moderate loads) with legs rather than my back

Unfortunately, I am now home recuperating from my second disc operation. What went wrong? I did not have any dramatic or specific trauma; rather it was a case of the straw that broke the camel's back. In my case, after a few days of dull pain and discomfort, I was putting on my socks when I was hit with debilitating electrical type pain in my right hip and leg.

Am I doomed to an operation every 10 years, or am I doing something that is contributing to my back problems? Having lived with back problems for so long, I am conscious of most of the more obvious causes of low back pain. At the hospital I had an opportunity to read a bit of literature on the subject, and one area kept popping up in which I was failing and failing rather badly:

sitting posture at work.

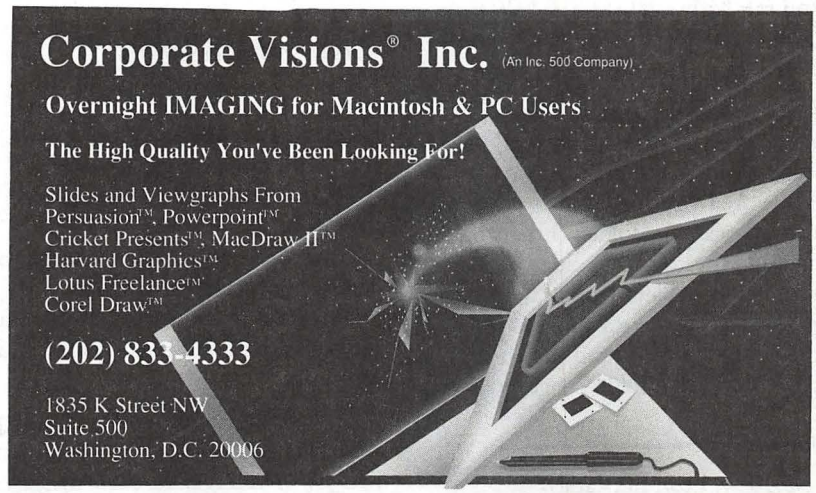
Three years or so ago I was introduced to the wonderful world of Macintosh, using a Plus and an SE on a part time basis. For the last two years, I have used a Macintosh II to write and edit books. For me, writing books using Macintosh computers represents a very rewarding career experience. Hours just seem to fly by as I compose in front of a 19" monitor.

I have suffered from "mouse" wrist and shoulder at the end of particularly long weeks of work at the Mac but not much else, until now that is. Are my many hours at the computer contributing to my back problems? I tried picturing my posture after hours of sitting in front of the computer - it was frightening! I sit in a great old judge's-type chair, heavily cushioned and made for leaning back to peruse a legal treatise and maybe take a short nap; however, there is absolutely no support for one's back when using the chair for keyboard work. My desk is a ponderous old wooden relic with no height adjustments for keyboard or monitor.

What should I do? **First**, I'm looking into getting an "ergonomically" designed chair for keyboard work. That should be relatively easy. **Second**, I need a modern desk built for computer keyboards and monitors that can be adjusted to my height which is on the tall side. (This will be somewhat more difficult given the budget constraints these days.) **Third**, I need to think about the type of keyboard and mouse I use and perhaps upgrade to a product that is more sensitive to the effects of prolonged use. (These I will probably purchase myself). **Fourth**, acquire a good alarm clock utility to interrupt me from time to time so that I get up, stretch, walk around, and generally take a break from the keyboard.

Will this remedy work? I don't know and may not for years, which is the point of this article. Desktop computers are just too new (especially for people who are not equipped with the proper desks, chairs, etc.) to draw any conclusions. If you are like me or think you might be prone to back problems (in theory, all humans have been since we started walking upright), then you might consider assessing your work environment and making some changes.

The possible alternative, giving up your Macintosh, is just (read my fonts) not acceptable!!



Low-cost DTP

Avoiding body bags

by Leon H. Raesly

Last time we talked about Club Logos, and the things Logos seemed to say about the Club, plus the information the Logo carried, or didn't carry. A total of 34 people wrote for the sample copies, so I wasn't inundated! Too many to comment to each here, but I did send comments to them with the sample Logos.

Now about the Body Bags. You've seen them before - your hard work torn to shreds by the Post Office, and the remains stuffed in a baggie, with a little note - received at the xxxxx post office, sorry! Yeah, they're sorry, all right. But not as sorry as you are! Body Bags for *your* Newsletter - *not good.* How can you avoid them?

The only way to be sure to avoid them is to use an envelope. But that costs more, and envelopes waste weight - which could be additional pages in your Newsletter. But you can reduce the probability of damage. First, if 3 sheets or less (especially for 1 or 2 sheets) use a three-fold. Then staple as described below. If more than 3 sheets, you can fairly safely fold in half, then staple.

I spent some time at the post office watching them machine cancel these pieces of paper. That stuff flew! I watched what snagged, and how. There are five potential snags. The first two snags are the folded corners on half fold sheets. If the fold is loose, it can snag there, and tear off part of the paper. I always take a pen and place the newsletter on a hard surface and BURNISH that folded edge to get it as tight a fold as possible. It will help.

Don't try to get by with just a single staple in the center. The corners will fold up and several are likely to rip. Place a staple in each corner to make the corners tight. Make sure that your staple fastens on both ends, not just one.

And the fifth point I saw them snag is...the staple itself! Most home staplers leave a rounded corner on the back, which can catch with other pieces of mail, or just in the machine. Most commercial staplers will punch the back of the staple flat, if possible, use one of these types. Since my stapler leaves the curled back (even though it is electric) I place the top side of the staple on a small board, (back side up) and use a small hammer to *completely* flatten the curled back of the staple. A few minutes work, but I believe worth it.

Another alternative instead of using a staple is to use a round adhesive circle. Avery makes a whole series of them, and you can even get colored ones. As above, place one in each corner.

Continuing columns

As I have remarked before, an Editor is always working against two conflicting agendas. One, to get as much information in as possible on each sheet. (Remember the first exercise of completely filling a sheet of paper with typing, and how gray it looked?) The second one is to open up the NewsLetter and make it light and spicy.

Ongoing columns offer a particular challenge. You certainly want them written, even if it is the same message, stated differently each month, from the President. I have seen many titles for such columns "The Pres Speaks," "The President's Corner," "The Publisher's Pen," "The Editor's Nag," etc. Not that there is anything wrong with such titles, it is just that they are always the same. And easy to skip, which is not what your President had in mind when he wrote his article.

So here is a way to get spice and interest going for them. First, find a graphic that relates in some way to the ongoing topic. Perhaps a man printing on a old-timey press, or a quill pen. How about a harassed man shouting? Find something you like, and that they (the author) will like. Then combine the name of the column with the graphic. Also include the author's name as a part of the graphic.

Creating a composite graphic

If you are cut-and-paste (KCP) it is easy to lay graphics on top of each other to create composites. Just use the following techniques:

First, select your graphic, and lay it on a clean sheet of paper—no glue yet. Then take another piece of paper, and draw a line on it with your non-reproducing blue pencil (NRBP). now, using the dry-transfer type style sheet you chose, burnish each letter of your title into position. Even if you want it later on 2 or 3 lines, do it all as a single line now, and cut later. Do the same with your author's name.

Now place this beside your chosen graphic, and measure the width and height of the resultant combined piece. Take a separate sheet of paper and draw a box with your NRBP. Use a T-square to be sure to get the corners square. Firmly glue your graphic and title and author's name positioned within this square (waxing is still better, but since this is to be permanent, dry glue stick (Uhu or other) will work fine. After you have centered and balanced these items as you wish them, use a roll of lines (or borders) and place carefully over the NRBP line. Now you should have your completed graphic, ready to be used each month. Carefully cut to the edge of the border with your X-acto knife, and it is ready to mount to your layout sheet. Wax

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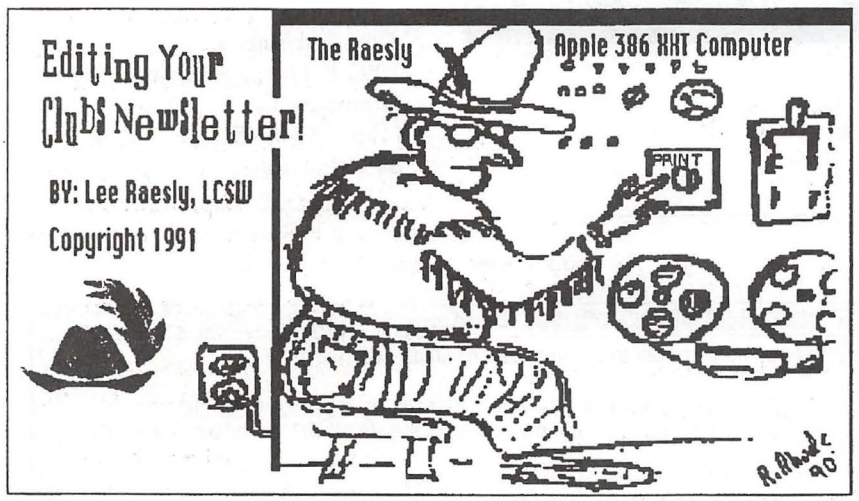


(or dry glue if you must!) the corners into position at the top of the column on your layout sheet. Ready to go!

For DTP it is much simpler. Notice the graphic leading this column this month. I was fortunate to have a graphic that our club's previous Editor had drawn (I don't have that talent) of a stylized "Computer" with a (friendly) charicature of me running it.

It was really a neat 3-part cartoon. The first showed a Neolithic man carving on stone, and was titled, "Pre-Rhode Era." The second showed a hard-working Editor slaving over a typewriter, with reams of paper flying in the air. This was entitled "The Rhode Era." The third showed the graphic above, and was titled, "The Ultimate Era"! All I have to do each month is push "PRINT" and *voila*! Out comes the printed copy! None of these lengthy hours of composing and entering the copy, Don't I wish!

Having the basic graphic that I wished to work with, I scanned it to create a DHR (Double Hi Res) graphic. I then loaded it into a Paint program, and cleaned it up. On the way, I moved the image over to the right, to open more space on the left. Here I used San Francisco 18-Point font to enter the Title "Editing Your Club's Newsletter."

This type is somewhat "crazy" and fit with the concept of an Editor wearing a leather vest and such a crazy hat (yes, I wear one like it all the time [*ed.-Really?*]). So the type is also a complimentary part of the graphic. When I loaded it into my DTP program, I told it to "Frame Border." This gives the nicely framed box you see. Since my Paint program did not have the type I wanted for my name, I then loaded the graphic into my DTP program, and proceeded to create the composite graphic you see.

PI3 allows the building of a composite graphic that looks like it is a single graphic. I placed a Text block on top of the graphic, and entered my name in 12-point Shaston. Both the hat in the lower left corner (a stylized rendition of the hat I wear) and the signature of R. Rhode in the right corner are actually additional DHR graphics I laid on top of the first. Of course, I did not "frame" either of the additional graphics, or the text block.

You can do the same for your regular feature columns. You can even do the same if you are using KCP methods (as shown above). Just save it and use again next month.

But the composite graphic is just the first part. The column name is now part of the graphic, as well as the author's name. That allows you to give a different title to each months column. Choose the most prominent subject that the author wrote about, and make that a catchy title (maybe you can't equal the ones in *Variety* in the '20s, but you can still make it "catchy"). Use a 24-point type to make it stand out.

This way you will have a graphic to grab the readers' eyes, as well as a title (catchy, of course!) to bring your readers to the column. The graphic repetition each month makes it familiar, and the titles (different each month) make it new. Your readers will look for it.

Electric clubs

I am interested in learning of Electric Clubs. I located one in Pennsylvania, the "Westmoreland Electric Soaring Society". The club newsletter is "Watts Current", and the editor is Richie Simpson. As he says, "We carry our winch aloft with us!" If you are the Editor for ANY type of Electric Club, *or know of one*, please drop me a note. I will serve as a clearing house for Electric Clubs. I will send a copy of the list I develop from those letters to all who send a letter to me, so that the "Electrics" can start their own support network.

Next month I will cover some readers' response to the series, and answer some questions asked. I want to get to "busy" in a Newsletter, and effective use of your back cover. Here "busy" pays! Also, I want to take a look at some sources for graphics of airplanes, and how you can both get them, as well as use them.

Take Care, Now! Lee...

Write your comments and questions to:

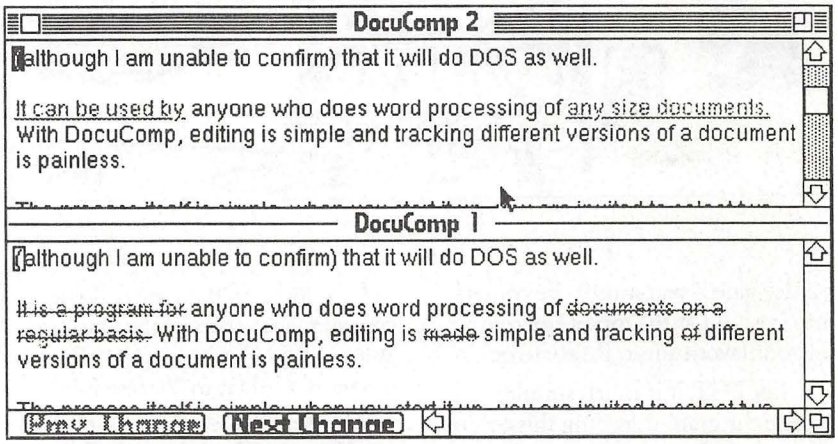
Leon H. Raesly, LCSW
6201 Greenbelt Rd. Suite M-16
College Park, MD 20740

Software review

DocuComp 1.5

Advanced Software, Inc.
1095 E. Ducne Ave., Suite 100
Sunnyvale, CA 94086
(408) 733-0745
$89 Mail order

by Frank Potter



DocuComp is the kind of program that not everyone will need—but if you do need it, it fits the bill very nicely indeed.

It function is to compare two different versions of the same document and to identify the changes that have been made. The program doesn't much care what format the document was created or modified in—it will handle MS Word, MacWrite in all of its permutations, WordPerfect, and its creators assert (although I am unable to confirm) that it will do DOS as well.

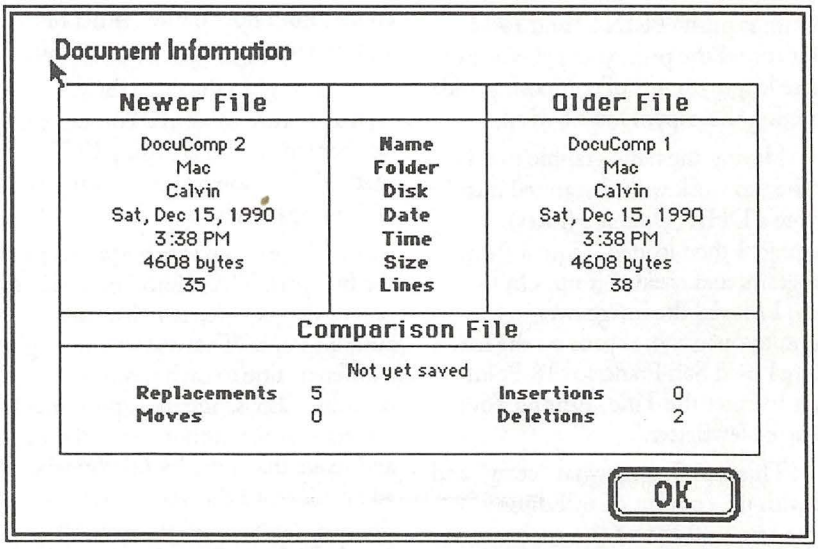
It can be used by anyone who does word processing of any size documents. With DocuComp, editing is simple and tracking different versions of a document is painless.

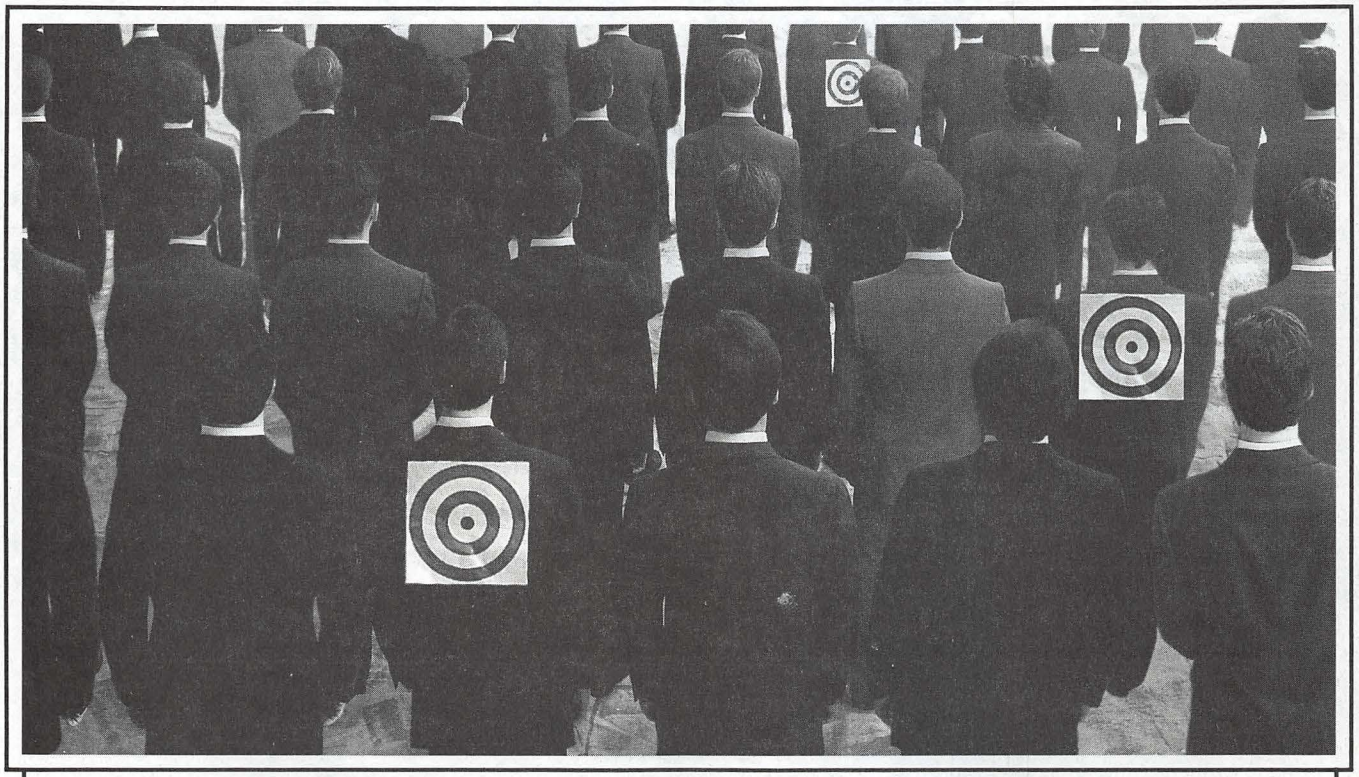
The process itself is simple: when you start it up, you are invited to select two documents for comparison. It will then quickly identify the ways in which those documents diverge: insertions, deletions, replacements, moved text, and even changes in a block of text before or after the text is moved. The comparison is seen in two linked windows on the screen, which scroll wherever the cursor is placed. It can also be printed as a composite document, identifying with whatever convention you choose the changes that were made.

Every composite document is salved with a summary report on the compared files; you also can produce a Revision List that itemizes every change found in the composite document. The location of each change in the List is cross-referenced in the composite document.

Lawyers will love the program—at least this lawyer does. I have been told that programmers find it useful for debugging source code, but I hasten to add that I have no way of checking the accuracy of that statement.

The program itself can be run from a floppy, but is much happier when it resides on a hard disk drive. It will run on any Macintosh but the plain vanilla 128K machine (and the developer has a DOS version as well). It can use color, but does not require it. On-screen help is available, but doesn't go into a lot of detail. On the other hand, the program is simple enough that you are unlikely to need help anyway, so it all balances out in the end.





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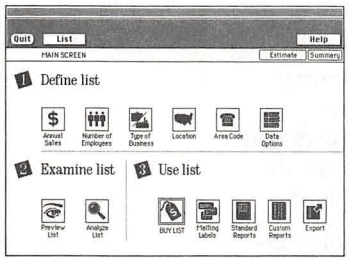

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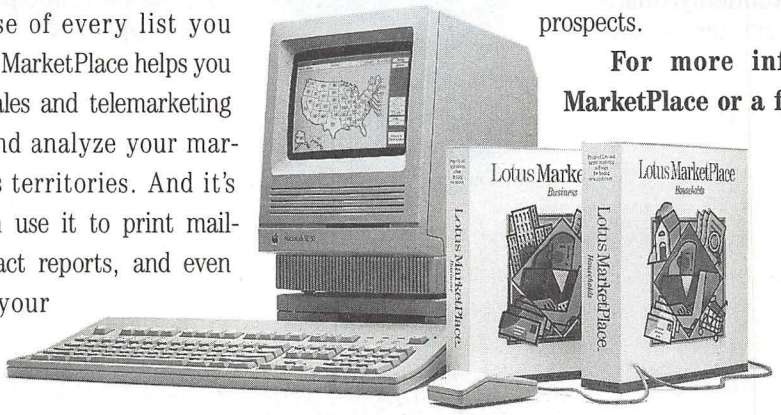

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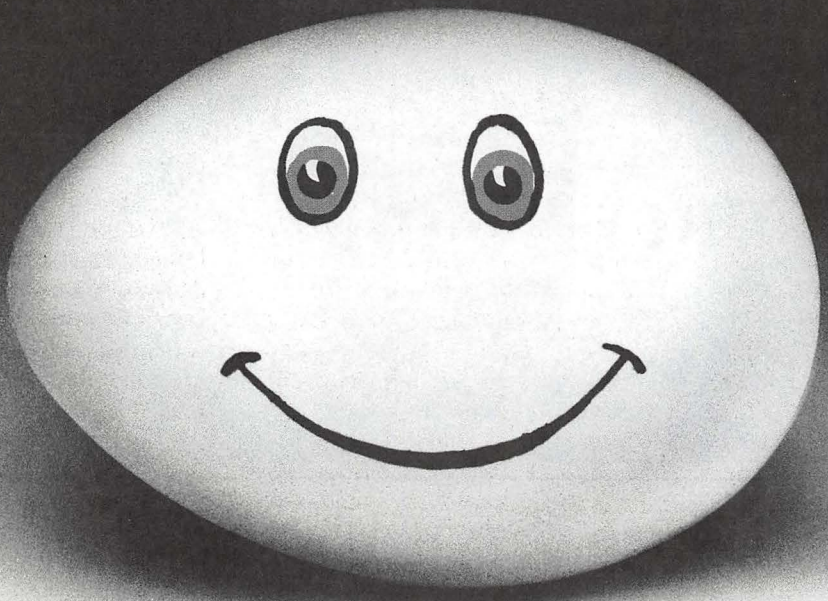

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Disk Ranger

by Kevin Nealon

Disk Ranger is a combination disk cataloging and labeling program with secondary file management features. The Disk Ranger package (version 4.6) consists of an application, a desk accessory and an INIT. Disk Ranger requires a Mac 512K or better, running system 4.2 or later. The Disk Ranger application works by creating a catalogue of files/folders of any mounted volume (any floppy or hard disks you see on the desktop). Additional disks can be added to the catalogue by simply inserting them into an open drive while Disk Ranger is running. Disk Ranger then quickly adds the directory of that disk to the open catalogue. It only took 45 seconds for Disk Ranger to catalogue the 3,300 files on my hard disk.

The catalogue has all the information about a disk you could want. At the top left of the window is information about the catalogue itself, indicating the number of volumes the catalogue contains and when the catalogue was last updated. To the right of that are the volume names, date last modified, space available, number of files, number of folders and if the disk is in HFS (hierarchical) or MFS (flat) format. Volume information can be sorted in many different ways. Volumes can be deleted from the list or their catalogues updated. Unfortunately, it treats volumes whose desktops are maintained with Desktop Manager, rather than with the Finder, as MFS directories, and so does not include any folder information about that volume. This severely limits Disk Ranger's usefulness for those who use Desktop Manager for their large hard disks, or any one using an AppleShare file server.

Below the volume information is the listing of the different files/folders. This includes an icon depicting the kind of file, file name, disk and folder the file appears in, modified date, type, creator, the size of the file, or for folders, how many files the folder contains. When a disk is catalogueed, a file filter can be used to keep certain file types from appearing in the catalogue. Disk Ranger does this by providing a check list of file types to filter and allows the user to add specific file types not covered in the extensive list. When a file is selected by clicking on its line, the user can obtain a directory path by pointing at the folder icon at the top of the catalogue window and holding down the mouse button to display the folder hierarchy. The files can be sorted many different ways.

Disk Ranger is capable of file and disk management. Disks can be erased, formatted of verified. Disk Ranger can defragment a file or disk (oddly, called *scrunching*). It does this by reading a file into memory, erasing the old file and then writing the file in memory onto a contiguous area of the disk. Needless to say make sure a file is backed up before doing this. Highlighting a file in the catalogue gives you the option to encode/decode that file, delete it or rename it. There is also a file editing feature that allows manipulation of the ASCII or HEX code of a file à la FEdit.

A part of Disk Ranger is used to set the controls of the accompanying INIT (startup document). The INIT automatically updates any disk in the catalogue when it is ejected from the drive. This important feature assures that the catalogue will always be up to date and saves the user from having to recatalogue disks.

The Desk Accessory called Ranger Reader lets the user call up the Disk Ranger catalogue at any time. The purpose of Ranger Reader is to help find a file by its name, and display a directory path to that file. However, since Ranger Reader is a desk accessory, it can't be used when it would be most useful—when an open file dialogue box is on screen. Nor, once found, is there a way to pass a directory path to the open file dialogue box.

On the labeling side, Disk Ranger lets you print the catalogue as a single listing or as disk labels. Disk Ranger is designed to create labels for the ImageWriter though it can be used with other printers and includes specific instructions for the LaserWriter and HP DeskWriter. The volume name can be used as the disk title or the user can specify a title. Files on the label can be arranged in two or three columns, depending on the number of file names to be listed. A border for the label can be added and a text color specified. Disk Ranger comes with 50 pin-fed labels to get you started. Avery Label #5196 is recommended for the LaserWriter and DeskWriter.

The Manual for Disk Ranger, while not sterling, is up to the task of instructing the user in how to use this straightforward program. The manual also includes useful information about Macintosh directories.

Disk Ranger retails for $59.95, although WAP members can get a special price of $35, including shipping, by mentioning the club name and special price. To order write:

Graham Software Co.
8609 Ingalls Circle
Arvada, CO 80003
(303) 422-0757

Software review

MacFlow 3.1.5

by Michael Samuels

Sometimes, you just don't need a $5,000 CASE ("Computer-Aided Software Engineering") tool. All you want is an inexpensive flowcharting package that gives you a quick-and-dirty graphical image of the steps you used to solve the latest crisis at work.. MacDraw just doesn't quite fit the bill - sure, the graphical images are there, but you need something that illustrates the hierarchical decision-making processes you used to solve your problem. The solution? Mainstay's Ma*cFlow*, a package that continues to improve with each release while maintaining its incredibly easy-to-use flowcharting style.

What Is MacFlow?

MacFlow is basically a drawing tool that automates the process of drawing ANSI-standard flowcharts, organization charts, electronic designs, or a host of other graphical images. The user selects a symbol from the palette (Figure 1), drags it to the screen and releases the mouse. Symbols are connected by pressing the mouse button while dragging from symbol A to symbol B. Need to add a comment about a particular step in the process? Select "Shadow comment" from the "Symbols" menu, double-click on the edge of a particular symbol, and a box pops up with enough room to write a small book of comments. Need even more detail? If you choose "Shadow Zoom" from the "Symbols" menu, double-clicking on the edge of a particular symbol will open up a "child" window describing the "parent" process in further detail (Figure 2). Want to launch another application? Choose the "Shadow Launch" option. In all three cases, MacFlow highlights the parent process to indicate that further information is hidden from the user, but readily available with the click (rather, double-click) of the mouse.

A Short Tutorial

As the well-written manual says, the best way to learn MacFlow is to open up a new flowchart and get going. The interface is pure Mac: a symbol palette on the left, the typical Mac menu bar across the top, and a scrollable work area in between. Each new document opens up with a default heading, the name of the file and today's date. You can easily tailor this by selecting what you would like to appear as the default–the file name, one or more lines of descriptive text, an icon, the date or the page number–and saving it in a "Stationary" file just like in MacDraw.

Flowcharts are created by moving the mouse to a particular item in the palette and dragging the item to the work region. You can resize the selected item by moving the "grow" handles. The next time you choose this same symbol, MacFlow remembers the size and shape of your last selection and duplicates it.

Figure 1. MacDraw's palette can be expanded with over 300 custom symbols - from dataflow diagramming icons to Mac programming to electronic design and industrial piping. Users can create their own symbols, too.

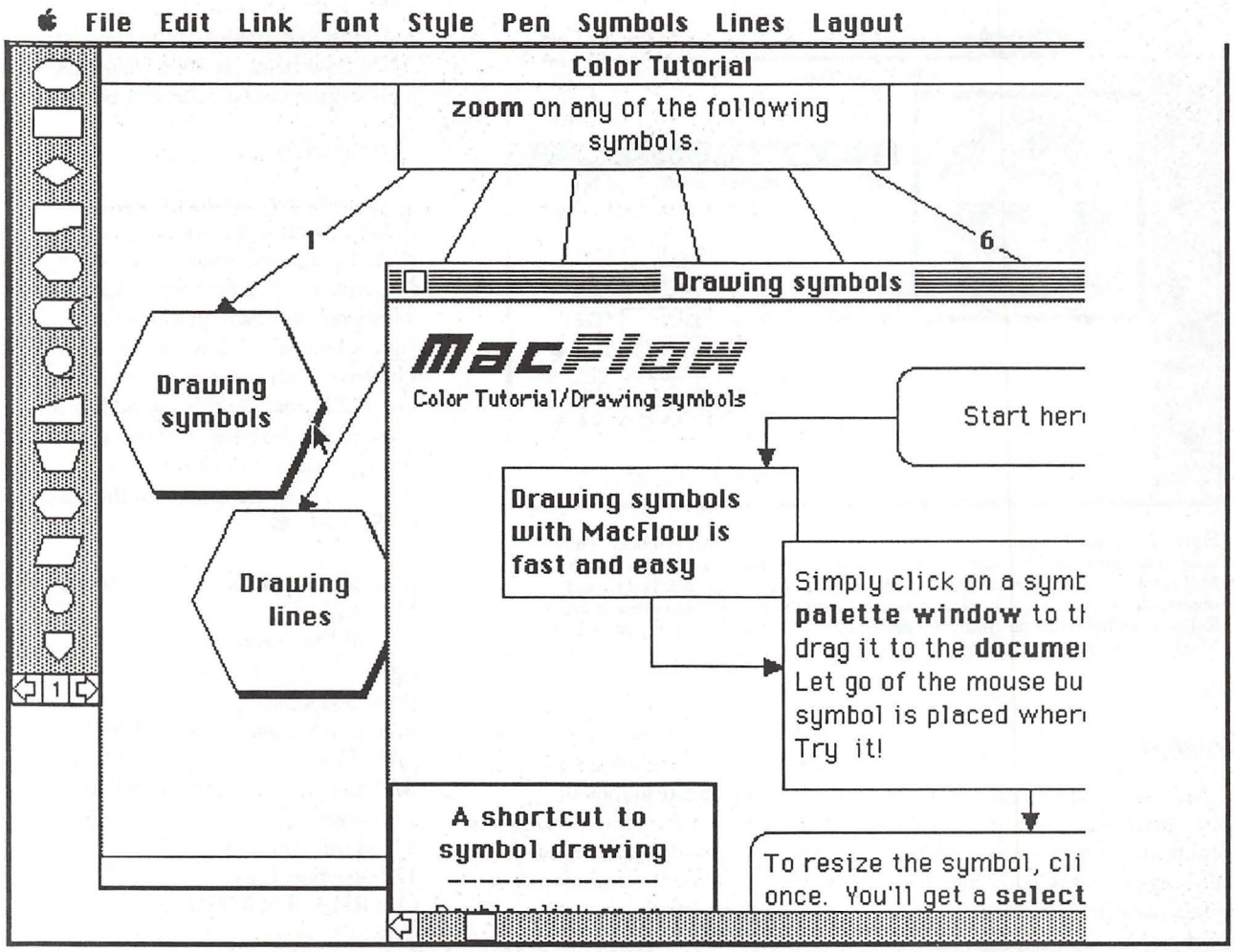


Figure 2. MacFlow's big advantage over general graphical tools is that hierarchical decision-making processes can be represented easily. Double clicking on "Drawing Symbols" opens up a lower level diagram that describes the parent symbol in more detail. The parent is shaded to indicate that more information is available to the user - a simple, yet effective way to implement "information-hiding."

After selecting a series of symbols, you may wish to move them around the screen. Simply click on the edge of a symbol and drag it. For fine tuning, click on the object and use the keyboard's arrow keys. The selected object will snap from one invisible grid position to another with each press of the arrow key. Even finer tuning is available by shutting off the "Snap" option or turning off the grid entirely.

Relationships are represented by straight lines or series of line segments; however, curved lines are not permitted. When lines are drawn with the "Right Angles" option on, all diagonal lines are converted to series of lines at right angles.

Labeling is very simple in MacFlow. You merely have to select a relationship or symbol to add a label. Free-floating text can be created by typing in a selected object, and choosing the "white" fill option from the "Pen" menu.

MacFlow has a number of features to assist the user in the creation of organization charts. The "Set Chart Size" option sets the overall size of your chart. Selecting "Reduce by N,"- where N = 2, 4, or 8 lets you see the overall chart structure.

The Link menu provides a series of interesting features that let the user control the organization of flowcharts, as well as relationships between flowcharts. For example, the "Extract" command copies selected objects into a separate MacFlow file - including all hidden information for those objects (i.e., lower level diagrams and comments). Even better, the "Launch" command lets you attach a particular document that runs under another application to any symbol. Thus, a 20-page Microsoft Word description of a particular section of your flowchart can be automatically accessed by double-clicking on a symbol linked to Word.

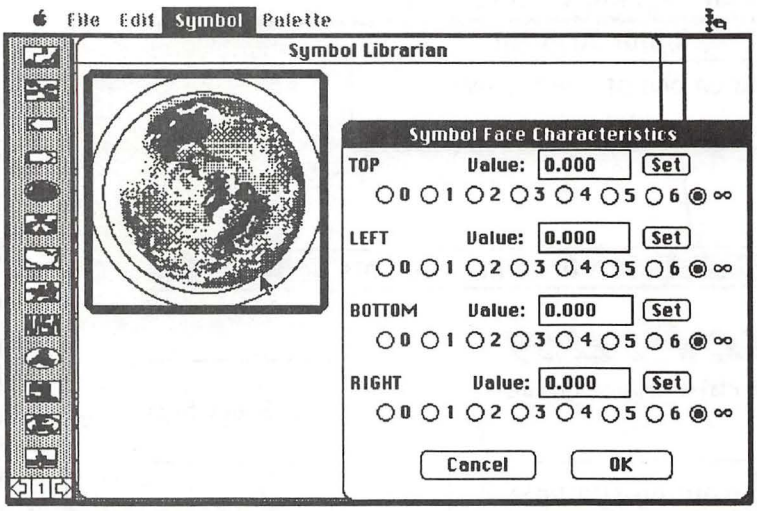


Figure 3. Symbol Librarian lets the user create his or her own symbols. Graphical images can be pasted into the Librarian from other packages, such as MacDraw or MacPaint. The user defines the number of links that may be attached to each object, characteristics of the text associated with the symbol, and other features. Related symbols may be grouped together into a file that can be imported into a MacFlow diagram or added to the existing set of symbols.

Graphics

MacFlow graphics use PICT2 format, permitting cutting and pasting to and from word processors, desktop publishing programs, and other graphics packages. MacFlow can import graphics into a special object called a "picture box." Links can be drawn to and from these objects, but no text can be added to the imported box.

According to the documentation. the "Color" menu is present whenever MacFlow runs on a Mac II or properly configured SE. Since this review was conducted on a Plus, these features could not be tested. The Color menu allows the user to change the background color for the palette, as well as various features of each window. Default colors can be set for symbols, lines, and labels. Finally, MacFlow provides a "Modify Color Table" option to set up a table restricted to the colors of a particular corporation or to match your current mood.

Symbol Librarian

MacFlow is packaged with a set of ANSI standard symbols - not something that would attract the user of a CASE product. However, MacFlow comes with a "Symbol Librarian" that lets the user create graphics in MacDraw or some other package and create an object library of needed symbols (Figure 3). Symbols can be added to the default set or stored in separate files to be imported into MacFlow as needed. Such symbols can really jazz up your presentation., but the capabilities are limited compared to a true CASE flowcharting tool.

Additional Tools

MacFlow is distributed by *Mainstay*, known for other flowcharting tools, such as MacSchedule and V.I.P. ("Visual Interactive Programming"). Synergistic Applications, Inc., one of Apple's first Certified Developers, has created a host of utilities especially designed to work with MacFlow. The MacFlow/M*ORE II Translator* lets you move outlines and flowcharts back and forth between these two applications. µ*MacFlow* reads and displays MacFlow diagrams and lets the developer create clickable charts that can be read by anyone - even if they don't own MacFlow. Finally, there is the *MacFlow Symbol Sampler* - a collection of over 300 symbols that let you create entity-relationship diagrams, more complete ANSI flowcharts, dataflow diagrams, logic diagrams, and other charts.

The Bad News

About the only bad news I could come up with is the price. Mainstay started shipping Version 3.5 in early November with a list price is $295.00. This seems a little high to me for a "quick-and-dirty" flowcharting tool. However, mail-order prices are in the low $120s, making this a good buy for those of us who need to create a lot of flowcharts and don't have a few thousand to spend on one of the Mac CASE tools.

MacFlow 3.5 (latest release) $295.00
Mainstay
5311-B Derry Avenue
Agoura Hills, CA 91301
(818) 991-6540

MacFlow Symbol Sampler $ 79.00
µ*MacFlow* 99.00
MacFlow/MORE translator 59.00
All Three! 179.00
Synergistic Applications, Inc.
127 Newport Drive
Oak Ridge, TN 37830
(615) 482-6049

Inexpensive PostScript Printers

by Lou Pastura

Well, maybe less expensive PostScript printers.

I had been toying with the idea of purchasing a PostScript laser printer for almost a year. When the latest round of price drops on the "low end" models occurred right before Christmas, the temptation was too much too bear. (It also didn't hurt that my much better half (Saint Suzanne) had acquired a new Mac IIsi. "Gee, dear, don't you thinK we need a laser printer?")

But which printer to buy? Both the Texas Instruments PS 35 and the NEC SilentWriter 2, Model 90 were available for under $1,600. The general specs for both were close enough to make the decision difficult:

TI

6 Pages Per Minute

35 PostScript Fonts

1.5 Megs of RAM (upgradeable to 4.5)

AppleTalk Included

NEC

6 Pages Per Minute

35 PostScript Fonts

2 Megs of RAM (upgradeable to 4)

AppleTalk Included

Hmm, nothing's easy, is it?

The TI has a smaller footprint and includes an integrated output tray for "straight through" jobs. The NEC is larger, and the extra output tray is an extra-cost option. Neither of these differences was important to me. The important issues for me were print quality and speed.

I decided to do a comprehensive test of the two printers because:

1) It would make a good article for the Journal{*ED.—Sure, Lou*}; and

2) It would enable me to make a more informed (and therefore, hopefully, better) purchase decision.

I went to the Computer Age store in Annandale, whose manager, Rich Berman, is a long-suffering friend and a big supporter of the Pi. In fact he passes out membership forms to anyone who'll stand still long enough to take one. When I told him what I wanted to do, he quickly agreed and offered to stay after closing a few days later so that I could run the tests undisturbed. with no interference on their AppleTalk network. Had he known I was going to make him stay for 2 hours he might not have agreed so readily. He'll know better next time, I suspect.

My next task was to set up some files that would really put these printers through their paces. I imposed on our ever-helpful Graphics Editor, Nancy Seferian, to provide me a long file made up entirely of graphics. She responded with a 5-pager that included some very heavy blacks, a gray-to-black gradation, some extremely fine details and some fill patterns that really demonstrated what these printers could do. Our ever-irascible Managing Editor, Frank Potter, donated a 4-page file of mixed text and graphics. An 11-page Excel spreadsheet and a 7-page Microsoft Word file rounded out the speed and graphics quality test items. To test text quality, I used The Type Book, by Jim Lewis, a freeware utility that prints a full page using any chosen font or group of fonts. The program prints a test page for each font that includes all the standard keyboard characters in 6, 7, 8, 9, 10, 12, 14, 18 and 48 points. It also includes 10-point text samples with 10, 12 and 14 points of leading and relevant statistics about the font for a variety of type sizes (6, 7, 8, 9, 10, 11, 12, 13, 18, 20, 24 and 36 points).

(A brief aside: The Type Book is a terrific program and a must for anyone who uses a large number of fonts. It is available on most bulletin boards,

Time to Print First Page:

	Graphics	Graphics and text	Spreadsheet	Text
NT	133	114	98	91
NEC	115	89	92	83
TI	101	120	98	87

Time to Print Complete File:

	Graphics	Graphics and text	Spreadsheet	Text
NT	628	218	231	199
NEC	583	176	210	171
TI	873	230	199	203

including our own TCS and the Twilight Clone, and is also available from the WAP Disk Library. There is such a thing as an occasional free lunch, Virginia.]

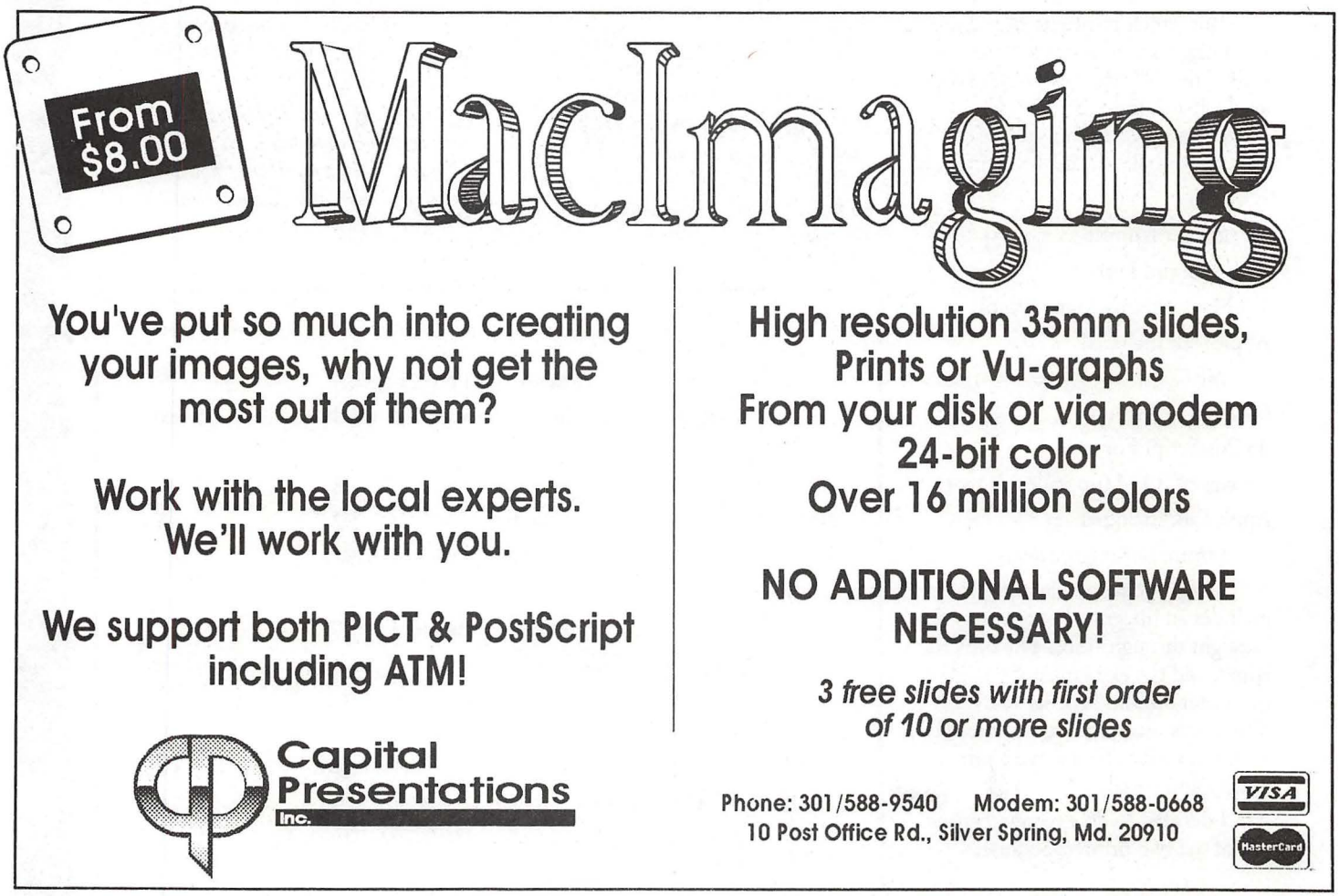
Back to business. The tests were conducted using a Mac IIci connected to all three printers via an AppleTalk network. There were no other jobs running on the network and no job was started until the previous job was completely finished. The time measurements were made using a stopwatch, and were begun when the "OK" button in the Print dialogue box was pressed and ended when the first page hit the output tray and the last page did the same. The following charts illustrate the results of the print speed tests. The Apple LaserWriter NT was included for comparison purposes.

The NEC edged out the competition in 6 of the 8 tests. The TI was fastest twice. The total times to print all files were 19 minutes on the NEC, 21 minutes, 16 seconds on the NT and 25 minutes, 5 secon!ds on the TI. (The TI took an extremely long time to print the all graphics file. It took so long, in fact, that I reran the test to be sure the results were accurate. The result of the second test was the same.) The total times to print the first page of all 4 files (a useful number for those of you who mostly print short files) were 6 minutes, 19 seconds on the NEC, 6 minutes, 46 seconds on the TI and 7 minutes, 16 seconds on the NT.

The print quality of the fonts turned out to be a non-issue. In a blind test I was unable to distinguish between the text output of the three printers. However, I urge anyone considering the purchase of one of these printers to make your own comparisons. As Frank [*a.k.a., the Editor*] will be happy to tell you, I'm no font expert and my eye leaves a lot to be desired. [*Ed.—He will tell you that Charlie Geer is a first-rate professional photographer and that his eye reflects his abilities.*]

The differences in the graphics printing, however, were evident even to my tired old eyes. The NEC had obviously darker and more consistent blacks, with the TI a close second and the NT laboring in third. The screens seemed best (by a very small margin) on the NT, with the NEC and the TI closely tied for second. All 3 printers were identical in their ability to show fine details (within the limits of 300 DPI resolution, of course). Again, I urge those considering the purchase of one of these printers to perform their own tests and make their own judgments and decision.

The bottom line for me? I chose the NEC. The speed advantage, while small, was significant enough to get my attention. I also liked the darker, more consistent blacks. Happy shopping!



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What's new...

Notes on the Mac

by Paul Schlosser

New Printers From Apple

Apple is preparing two new low-cost QuickDraw printers that are expected to be announced by mid-1991. The first, a 360 dot per inch (DPI) inkjet printer, will sell for less than $600. This printer uses a Canon print engine, weighs 4 pounds, offers an 8 inch print width, and will handle several print sizes including letter, legal, envelopes and transparencies. The second, a 300 DPI personal LaserWriter that will sell for between $1,300 and $1,500. The personal LaserWriter will replace the current $1,999 LaserWriter SC at the low end of Apple's LaserWriter line, and will use the same Canon print engine. It will come with 1 MB RAM, SCSI interface, a 250—sheet paper tray and a tray for envelopes and other non—standard sheet sizes. Both of these new printers will come with a TrueType INIT, and 13 TrueType fonts (the Times, Helvetica, Courier and Symbol families). The TrueType fonts have several advantages over bit-mapped fonts, in that they take less memory, can be printed in any size and are capable of special effects such as scaling, rotating and adding shadows. TrueType fonts for the current LaserWriter line will not be available until Apple releases System 7.0. The new TrueType INIT is said to be compatible with Adobe Type Manager—i.e., these new printers will be able to print Type 1 PostScript fonts.

TCS News

The TCS news this month is that Pi member Henry Halff has written "TCS Offline," a HyperCard stack that allows users to save, read, reply to or enter new messages using the HyperCard text editor. The stack requires that you have either MicroPhone II (v3.0) or White Knight (v11.nn). TCS Offline will create the necessary scripts in your telecomm program. The user can simply click on the appropriate button in the stack to get new messages, read these messages, and reply if desired. The stack also groups messages by subject, making it easy to follow a message thread (a specific subject). Henry has also developed an offline reader for use with The Twilight Clone, another popular bulletin board service (BBS) in the Washington metro area. Using Henry's new stack will make it very easy to learn your way around a new BBS, until you are familiar with the specific commands necessary to read and post messages.

A New Weekly Macintosh Radio Show Coming

A new weekly syndicated talk radio show will focus on the Macintosh, and is scheduled to debut in March 1991. The host, Don Rittner (CEO of the Macintosh User Group News Service), said that the great diversity of uses that exist in the Macintosh world will be the focal point of the show. "The Macintosh is used by everyone from artists to zoologists. We will not only focus on technical matters but will deal with the interesting issues that revolve around computing." The show's format will include one half hour of discussion with guests, during which listeners may call in questions. The remaining half hour will include features, contests and news.

New Mac Portable Available Soon

There have been several rumors that Apple will announce a new, slimmed-down version of the Mac Portable at the MacWorld Expo, in San Francisco on Jan 10, 1991. The new Portable will weigh 10 pounds (compared to 14 for the first model), and cost $1,500 less than the original it replaces. [*Ed.—it didn't make it, reportedly because of problems in obtaining necessary parts.*]These rumors also mention a "notebook" Mac that may be released in August '91, and a hand-held model for 1992.

New Products Announced

CE Software (QuicKeys and DiskTop) is working on a new product, Tiles, to simplify the launching of sets of files. Users will be able to connect sets of documents to a single icon, and open all of them by clicking on just that one icon. Tiles will also work from within the Mac's standard Open File dialog. The program requires MultiFinder, two MB RAM and a hard disk. Available mid-91, retail price to be $99.

Spark International has announced the introduction of the Spark Cordless Trackball and the Spark Cordless Mouse. Both products transmit to the computer via infra-red technology; the receiver is plugged into the Mac's ADB port (keyboard or CPU). The trackball or mouse may be located as far as 15 feet from the computer. Both are available in Mac, PC, Amiga and Atari ST versions. The trackball sells for $185, the mouse $175.

New products are being announced for the Classic. Computer Care, Inc. has announced the Mac Stretch line of products to expand the capability of the Classic. The "Stretch" provides memory expansion capabilities, has 1 MB of RAM, and can be expanded up to 4 MB, and has a socket for other expansion modules. Mac Stretch Video allows users to connect any standard monochrome, single page large format monitor to the Classic, in addition to the built-in

monitor. Mac Stretch RAM Disk will allow users to add a RAM disk, in 1, 2, 4, 8, 10 or 16 meg formats. Mac Stretch Ethernet enables the Classic to be hooked up to Ethernet networks. Mirror Technology has announced a new internal video board for the Classic that allows the use of the PixelView single or dual page monochrome monitor. The internal video board is connected directly to the 68000 processor on the Classic motherboard.

Do You Use Prodigy?

Prodigy, the joint venture of IBM and Sears, has agreed to refund four months of connect fees to Texas subscribers who want to cancel the service. The Texas attorney general's office determined that Prodigy had been guilty of misleading customers about costs and services. The main thrust of Prodigy's advertising had initially been a flat rate subscription charge, which changed when they began charging users that sent more than 30 e-mail messages a month.

New Disinfectant Released

Disinfectant version 2.4 was released in early December. This new version can detect the new B strain of the ZUC virus recently discovered. Version 2.4 will also check to see of the Disinfectant Prefs file is damaged when launched. If a damages Prefs file is found, Disinfectant will create a new file using the default values. A bug was fixed that sometimes prevented a Disinfectant error report from being saved properly. Also new is the ability to double-click on a disk name in the "Some Disks" dialog to begin scanning selected disks.

More 6.0.7 Problems

Inline software has a new version of "Darwin's Dilemma" for users that have upgraded to System 6.0.7. Version 1.0 of DD will crash under 6.0.7 if the sound is turned on. If you're using 6.0.7, get version 1.01 of DD; until then you can continue playing by turning off the sound option.

New Files on the TCS

The following files were uploaded to the Macintosh File Transfer areas on the TCS during the last thirty days. This listing represents only a small portion of the files available for downloading. Call the Pi Office at 301-654-8060 for information on signing on to the TCS.

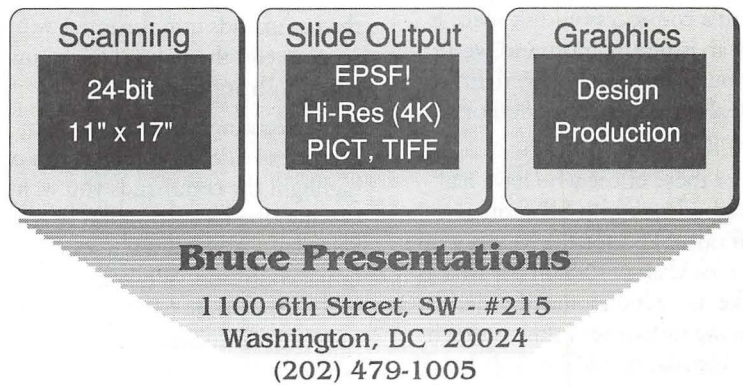
File area 13 - Mac Fonts
043 JUDAS.SIT Type 1 Laserfont. ATM compatible
042 AUTHOR.SIT Heavy copperplate Laser I script font
041 ARCHIMED.SIT Like Adobe's Tekton
040 BATCH.BINARY.CP Batch Binary—Binhex batches
039 TYPE.BOOK.CPT The Type Book, version 1.27

File area 14 - Mac Games
102 LEPRECHA.CPT Loderunner-like demo
101 IRAQATTA.CPT Iraq Attack, the game. 16 colors.
100 WACKYWHEEL.CPT Wacky Wheel of Fortune Game.
099 DROPPER.CPT Tetris-like game. Color only.
098 PARARENA.CPT Futuristic basketball/skateboard. Fun!
097 BUGS.CPT Evolution simulator
096 MICROBE.CPT Interesting microbe simulator
095 ELIZA.CPT Psychiatrist program
File area 15 - Mac Graphs
084 MIG21.CPT Scan of Soviet MiG-21 fighter
083 KIDPIX10.CPT Kid Pix - Kids paint program.
082 NFL.LOGO.CPT National Football League logo

File area 16 - Mac HyperCard
103 HCBUGLIS.SEA Extensive list of HyperCard bugs
100 HCHBUPDATE.WORD HC 2.0 Handbook update

File area 17 - Mac Technotes
023 TECH.NOTES.TXT Tech Tidbits, 11/15/90, from Apple
022 POSTSCRIPT.INFO How to redirect PostScript output
021 MAC.HINTS.CPT Collection of 5 years of Mac hints

File area 18 - Mac Utilities
244 TCS.OFFLINE.1.0 Read, write, reply to TCS msgs offline.
243 SOUNDMOV.CPT ic18s for SoundMover
242 GALAXIC1.CPT ic18s for Galax
241 FOXBASEI.CPT ic18s for FoxBase
240 FORMIT16.SIT Forms creator for Forms, certificates
239 CITYBANK.SIT SimCity utility
238 GIF.CONV.CPT GIFConverter, v2.2d3, see browse
237 FLASH.IT.CPT Screen capture CDEV, version 2.0.3
236 THC402.CPT Think C updater. Update v4.0 -> 4.0.2
235 I.LL.BE.BACK Sound from the Terminator
234 HACKERTE.CPT Funny test of your computer knowledge
232 CINTRO.SIT Good examples of THINK C programs
231 FILELIST.CPT This application lists files
230 INSIDE.MAC On-line programming reference
229 CPTUSGU.MSWD. Compactor documentation in MS Word form
228 MUG.SHOT.SIT Display system information
227 BOOTMAN.SIT Write operating system boot blocks
226 VITAL.SIGNS.CPT DA to display system information
225 COMMANDER.CPT Assign/change command key settings
224 DARKSIDE.CPT Very nice screen saver w/modules
223 SPEEDOMETER.SIT System speed benchmark program
222 TERMINAL.CPT Freeware communications program
221 SOUNDMASTER.CPT Version 1.6.4 of SoundMaster
220 DISINFECT24.CPT Disinfectant 2.4 catches Zuc B virus.
219 CRITTERS.CPT Eyeballs and Big Foot INITS. FUN!
218 CHECKLIST.CPT Gets info on PageMaker 4 files
217 WINDOWSHADE.CPT WindowShade 1.1 shrinks windows up!



Software review

SPSS 4.0

by Brad Tesh

Statistical Package for the Social Sciences (SPSS) for the Mac descends from a long and venerable line of SPSS products for computers, in the past exclusively for mainframes. Finally, for those of us wedded to the Mac and also in need of doing some complicated statistical analysis, almost nothing does as much as SPSS for the Mac (for other reviews of SPSS, see *MacWorld* October 1990, "The Stats of the Mac," and Reviews, "SPSS for the Macintosh 4.0"). There is a price to pay for this kind of power:

- you must use a Mac II or an accelerated Mac with a math co-processor installed (it works using a Total Systems accelerator on a Mac+, probably others),
- you need about 1.5 Megs of disk space to store the executable program (count on about 9 Megs of space for all the goodies and a couple of small data files),
- you need to know what you're doing, statistically speaking
- SPSS for the Mac version 4 is expensive, compared to the PC version.

Of course, you wouldn't want to run any statistical analysis program without a co-processor, disk space is hardly an issue any more and we all know our statistics anyway, right? If you've already spent the $800 or so on this program, let's hope so.

For those of use who have had some experience with SPSS on a mainframe, SPSS for the Mac is a case of *deja vu.* Using SPSS on the Mac is just like using it on a mainframe, except the turnaround time is much faster. Installation of SPSS involves using an installer utility and a package of about 8 diskettes (depending on how many modules you've purchased).

When you start SPSS, you are shown two windows: an input window and an output window (both with the familiar "Untitled" flag at the top). The input window is for writing commands; the output window catches the results of those commands and tells you if SPSS didn't understand your commands.

Entering commands—One very nice feature of SPSS for the Mac is the Command Generator window, a help-like window that gives explanations and examples of how commands are formatted. You can paste from the Command Generator window to your active input window to achieve flawless typing of the SPSS commands. If your cursor is on a valid SPSS command in your input window and you call up the Command Generator window, you immediately jump to that part of the Command Generator hierarchy. If your cursor is not in or near a command, you are put at the first screen of the Command Generator window, with the general headings of 'orientation,' 'information & settings,' 'data definition,' 'file interfaces,' 'modify data or files,' 'analyze data,' 'time series analysis,' and 'FINISH.' Once you put the commands into the input window, you can edit them, just like in any Macintosh application.

Executing commands—To execute an SPSS command, you must highlight the commands you want to execute (the most common selection is Select all...) which was a source of initial confusion. While executing SPSS commands, SPSS gives you a running commentary (in a small dialog box) of which command it is currently processing, plus a small line that runs through your input window showing exactly where you are in your command file. SPSS does an admirable job of telling you exactly where errors occur, but the command syntax is hardly forgiving (for instance, if you leave out a period at the end of a command, it will tell you that it has ignored this command because it didn't understand it). This does work to your advantage when trying to add comments (see the 'document' example below

Once your commands have executed, the output window comes to the top of the stack and you are looking at the last page of your output. If you go all the way to the top of the file and start wading forward, you can easily tell where the procedure has gone awry. A major failing of this program is that no graphics are included, though Cricket Graph is bundled with the advanced package, which will make lots of different kinds of charts and is a real joy to work with.

Add to that the SPSS penchant for printing everything you have in a given data set and you have a mountain of output to wade through.

Entering Data—For most statistical analysis, the hardest part of the whole job is the data input. Once you have the data in a file somewhere, you can either paste in the data and format it each time you're ready to analyze it or create an external file for your data. If you read your data from an external file, the procedure will look like this:

```
DATA LIST FILE
'drive:folder:filename' /
FREE var1 var2 var3... .
```

document — The text before the '/' (slash) tells SPSS where to find your data, 'FREE' tells it to look for data separated by spaces, and the rest of the lines tell what the machine should call your variables.

document — The lines below

rename your variables, in case the variable labels need to be longer. You could skip this step by putting in the right names to begin with, except for the multi-word variables

Variable labels

```
var1      'Happiness'
/ var2      'Health'
 / var3      'SAT FRM
FAMILY LIFE'
/ var4      'SAT FRM
FRIENDS'
/ var5      'SAT FRM WORK'
/ var6      'YEARS ED
COMPLETED'.
```

document — The lines below tell SPSS how to translate variables. This is mainly used for reporting purposes, for instance in a report where you want to correlate marital status and race against satisfaction and report the values, not the actual data (1's, 2's and 3's).

Value labels

```
    HAPPY  1 'very' 2
'pretty'  3 'not too' 8
'dk' 9 'na'
   / HEALTH 1 'excellent'
2 'good' 3 'fair' 4
'poor' 8 'dk' 9 'na'
   / FAMILY 1 'very great
deal' 2 'great deal' 3
'quite a bit' 4 'fair' 5
'some' 6 'little' 7
'none' 8 'dk' 9 'na'
   / FRIENDS 1 'very
great deal' 2 'great
deal' 3 'quite a bit' 4
'fair' 5 'some' 6
'little' 7 'none' 8 'dk'
9 'na'
   / WORK 0 'na,no job '
1 'very sat' 2 'moder-
ately sat' 3 'little
dissat' 4 'very dissat' 8
'dk' 9 'na'
   / MARSTAT 1 'married'
2 'widowed' 3 'divorced'
4 'separated' 5 'never
married'
   / CHILDREN 8 'eight or
more' 9 'na'
   / INCOME  1 'under
$10' 2 '$10-$19,999' 3
'$20-$29,999' 4 '$30-
$39,999' 5 '$40-$49,999'
6 '$50 and over' 8 'dk' 9
'na'
   / GENDER 1 'male' 2
'female'
   / RELIGION 1 'catho-
lic' 2 'jewish' 3 'prot-
estant' 4 'other' 8 'dk'
9 'na'
```

That last character in each command is a period, necessary for SPSS to recognize a statement as a command (otherwise, SPSS treats those statements as comments). If you'd rather have all your data and procedures in one place, you can enter data after the variable and value statements like this:

```
DATA LIST / FREE var1
var2 var3... .
VARIABLE LABELS...
VALUE LABELS...
BEGIN DATA
1   1   1   1   2   1
19  1   0   6   02  2   2
34  1   3
2   1   2   1   2   1
19  1   1   5   01  0   2
28  9   3
3   3   3   3   2   0
18  1   2   3   01  2   2
39  1   3
5   2   1   4   4   1
18  5   0   4   01  1   2
29  3   3
...
END DATA.
```

This procedure will give you a mountain of stuff in your output window. In order to keep this from happening (and from processing your data each time you restart the program), once you have your data all nice and set you can create an SPSS System file, a special file format that will squeeze down your data set, variable names, value labels and the like into an executable file that when executed, Gets the file and loads it into memory. Once you have finished getting the file, you can analyze it in different ways (but do save a copy of the original files that retrieve and name your data— you'll probably need to re-format or add to the data sometime).

You can check to make sure you have all your variables by looking in the variable window, which lists all variables currently available for analysis. This is mainly used to finish filling out data analysis tasks like correlations and anovas. To make sure you have good VARIABLE VALUES, you can generate a REPORT to make sure the variables are translated correctly

Thankfully, you can also edit the output window before you save it (print it out?).

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Bits & Bytes

by Lynn R. Trusal

Sayonara

Washington Apple Pi was founded by loyal and dedicated users who wanted to "share their knowledge" with other users. I have said many times, "what good is knowledge if it isn't shared" and this has been the guiding principle that has kept the "Bits and Bytes" column going for so long.

By my count, I have written 51 "Bits and Bytes" Columns. There were probably another 9 columns or separate articles under different titles before that, which represents 6 years of monthly effort and the longest continuous running column in the history of the WAP Journal.

Each month, I tried to discuss a number of items dealing with the Macintosh and new computer related technology. I made a conscious effort to largely stay away from subjects better covered in *MacWorld* or *MacUser* and concentrate on a wide variety of short subjects obtained from many sources. This was intermingled with my personal Mac experinece and even an personal editorial or two.

It has been a labor of love, frustration, satisfaction, hard work and sense of duty all rolled into one. Every time I wondered if it was time to "hang it up," I would get a letter or telephone call asking me a Mac question and always telling me how much they enjoyed the column and got useful information from it. That always spurred me on to keep the information flowing each month.

Although I still receive most of my Macintosh publications, I have no ability to network with dealers, decision makers and users. I have also felt somewhat isolated by not being in a Macintosh work environment where I always had access to new equipment and software and was always looking for new ways to use the Mac. In the past 5 months, I have made trips to Nagasaki, Hiroshima, and Osaka, Japan and also to Bangkok, Thailand, Jakarta, Indonesia and Bombay, India. This extensive travel schedule has also interfered with my ability to meet an ever earlier WAP deadline with even more time needed to mail a disk to the states.

All of these factors have impacted on my ability to write a timely, quality column each month, and have therefore resulted in my decision to terminate the Bits and Bytes column.

Just as new WAP leaders and volunteers have come and gone over the years, it is time for someone else to take up the mantle of "Bits and Bytes" provider. I will miss my monthly "duty" and am sorry that I can no longer provide this service.

Paul Schlosser has done an excellent job in his "Notes on the Mac" column. If he is willing, I have no objection to his taking over the "Bits and Bytes" by-line and the task of keeping the column going under a new author, a new twist, and a fresh perspective. All I ask is that you continue to "share the knowledge."

Finally, if you have enjoyed my column and received useful information from it, I would enjoy hearing from you. My address is PSC Box 1892, APO San Francisco 96293. Postage is still 25 cents.

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Software review

ChessMaster 2100

by Dan Wages

Some people may say I did it by cheating. I prefer to think of it as finding my opponent's weaknesses and exploiting them to the fullest. Whichever way you look at it, I am certified by Chessmaster 2100 at a numerical rank of 2230, which makes me a Master, according to the program's documentation.

You want proof, you get proof:

The U. S. Chess Federation, a somewhat stuffy organization in my opinion, has not yet chosen to recognize this rating, but I will stick with Chessmaster 2100's opinion.

Let me explain and you, too, can become a Master.

I have to admit that I am an indifferent chess player, as well as an infrequent one. In fact, I've probably played no more than half a dozen games in the past ten years. However, a couple of months ago I bought Chessmaster 2100 for the Macintosh. It was touted on the box as the cleverest chess program for personal computers. I prefer to think that it is. (That improves my status.)

Chessmaster 2100 has a number of features, many of which I have not yet mastered. You can set the levels of play. You can click "Hint" in the Choice Menu and it will make a suggestion for your best move in the current position. You can ask it if it can figure out checkmate in x number of moves. And best of all, for those of us who want to be chess Masters, it will keep a record of games you play, and based on the rating of your opponent (in this case, Chessmaster 2100 itself), will give you a tournament rating. Each time you win against Chessmaster your rating goes up; each time you lose (presumably — I haven't tried it) your rating goes down.

Which brings me to how I became a Master. I didn't keep score at first, but I suppose the first 20 or 25 games I played (at the novice level) I won a couple and a couple ended in draws. Chessmaster 2100 won all the rest. In the interest of full disclosure, I should point out that in the games I won or drew (and even in the ones I lost) I frequently clicked "Hint" to find out what I should do.

Then one day I changed the opening slightly, altering my third move. The play went like this:

White	Black
Human (Me)	Chessmaster
1. e2-e4	e7-e5
2. g1-f3	b8-c6
3. f1-c4	f8-c5
4. b1-c3	g8-f6
5. O-O	O-O

This is where Chessmaster 2100 made his mistake, based on subsequent analysis (by Chessmaster). But I continued the game:

6. d2-d3	f6-g4
7. f3xe5	c6xe5
8. c1-f4	e5xc4
9. d1xg4	c4xb2
10. f4-h6	

He didn't even see it coming! Here is the situation after 10. f4-h6:

Position after 10. f4-h6

So Chessmaster 2100 played:

10.	a7-a5
11.	g4xg7

Checkmate.

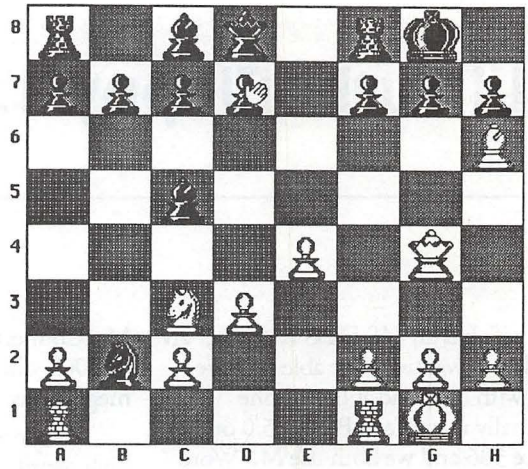
I beat him in 11 moves! I tried the game again. The dolt didn't learn his lesson, and lost again, exactly the same way. It was then that I set the program to keep track of my rating. After 46 games I was a Master, with a score of 2230.

With my title now intact, I experimented a bit more. With the game after Black's tenth move (a7-a5) — with checkmate staring him in the face on my move —I asked if he could find checkmate in one move. Apparently he didn't think I saw the move, and was determined not to point it out to me. He thought for five full minutes and still had not admitted that he saw

it coming, at which time I cancelled the request. Just to test his good faith, I offered him a draw. He declined! In my opinion, that certainly calls into question his honesty, so I don't feel bad about taking advantage of his weaknesses.

It was interesting to try the same moves in Championship Mode instead of in Novice Mode. There Chessmaster made the same 4th move (g8-f6), but he thought about it for more than three minutes. And on move 5 (after four minutes of thought) he chose d7-d6 rather than O-O.

I haven't continued the game with that line, but I could probably win that one too. After all...I am a Master.



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PLI TurboFloppy 1.4

by Chas Geer

My wife has an MS DOS computer at work and wanted to be able to share files with our Mac at home. She normally uses Word Perfect 5.0 on her office 386 and we both use MS Word 4.0 on my 2 year old Mac II. Up until about a month ago, when my wife did any work at home she would print it out on the LaserWriter and take the hard copy to work. If she still needed to work on it, she would then re-key it on her office PC. We knew there had to be a better way. After a little investigation, I found that with a little investment in hardware and software, it could be done very easily.

Problem: I have 2 800K drives on the Mac; she has a 5,25" 360K drive and a 3.5" 1.4 meg drive on her PC. None of them are compatible.

Since high density 3.5" disks could be read by both computers, getting a SuperDrive or its equivalent for the Mac seemed like a good idea.

I considered getting the Apple SuperDrive upgrade, but the best price I could find was $450 with the ROM upgrade from Computerland. Instead, I ordered a PLI Turbo Floppy 1.4 meg external drive from MacConnection for $289 + $3 shipping. The PLI external seemed like a good alternative because it was about $160 less than the Apple SuperDrive and I'd be able to still use the two 800K internal drives on my Mac II.

There was one other difference between the PLI TurboFloppy and Apple's SuperDrive. The PLI drive will not read 400 and 800K Mac disks while the Apple SuperDrive will. I was not looking for this capability in this drive so I elected not to pay for it. (I should note that PLI also makes a "SuperFloppy Drive" for $425 from MacConnection which will read 400 & 800K disks as well as the 1.4 meggers just like Apple's drive).

By the way, the fact that the 3.5" high density disk drives are readily available for PCs for just $75 was just a bit irritating.

The first glitch showed up when I received the new drive and tried to plug in the SCSI cable. To be fair the PLI TurboFloppy and the Mac both have 25 pin SCSI connectors. If I had no other SCSI devices, there wouldn't have been a problem and the cable which came with the drive would have fit fine. But, I already had a PLI 40 Turbo removable drive attached to the SCSI port on the Mac. "Just attach the PLI external to the back of the removable drive in a 'daisy chain'," you say? Problem: the PLI's SCSI connector has a 50 pin connector.

OK. So now there are two solutions to the problem:

1. I could connect the PLI Turbo Floppy to the Mac (25 pin to 25 pin) and the PLI removable drive to the Turbo Floppy (50 pin to 25 pin). I tried this and it seemed to work. Or,

2. I could buy a new cable from MacConnection for $29 and connect the two drives as I had previously planned with the PLI Turbo Floppy on the end of the chain. In the end I decided to do it this way because the Turbo Floppy has an external on-off termination switch, the other drive did not, and Apple suggests the last device on a SCSI daisy chain should be terminated.

The PLI Turbo Floppy came with the SCSI cable, a 3.5" high density diskette containing a Turbo Floppy init that goes in your system folder and some other utilities. The TurboFloppy init allows you to mount DOS 720K or 1.4MB 3.5" floppy diskettes directly on the Macintosh Desktop when used in conjunction with AccessPC™ from Insignia Solutions ($82 from MacConnection). Another solution may be to use Dos Mounter, but I haven't tried it.

Without the Turbo Floppy init you can only mount Mac high density disks. Under this arrangement you must run Apple File Exchange to access DOS files through this drive. However, with the init and Access PC any DOS formatted high density disk will mount directly on the desktop and all the files will be visible. These inits run transparently and without conflicts except for TOPS, which does not like the TurboFloppy init at all and will bomb the Mac at startup if they are both active. I got a system error with both system 6.05 and 6.07.

It may be that TOPS is complaining because it wasn't originally set up with the Turbo Floppy installed on the Mac and there is some way to reconfigure it, but I haven't found the solution yet.

My workaround to this problem is to use Aask. (INITPicker would work just as well). This utility allows me to select which inits and cdevs I want to be active at any time without having to physically remove them from the system file. I don't normally leave TOPS active so when I want to use it, I open the Aask window in the control panel and make the 3 TOPS inits active and "turn off" the TurboFloppy INIT. (Actually, a neat little trick with Aask is to hold down a designated key when your Mac is starting up. The Aask control panel window will pop up to let you designate which inits and cdevs you want to be active either temporarily for this session or permanently).

'Course this won't help much if you use TOPS all the time and want to use the Turbo Floppy drive with DOS disks.

So now the drive is working fine. When I pop in an unformatted 3.5" high density disk it asks whether I want to format it for MS DOS or for the Mac.

When my wife brings home a 3.5" DOS disk with one of her Word Perfect 5.0 documents, I just use MacLink Plus 4.52 from DataViz Inc ($99 from MacConnection). This software has many features but the most important one here is a very good WP 5.0 to MS Word translator. I'm given the two Apple File Exchange windows, asked which direction I'll be translating DOS to Mac or vice versa, the documents on my wife's disk are shown, I highlight the item I want translated, hit convert and that's all there is to it. By the way, the MacLink Plus software provides 150 other DOS to Mac translators in the package.

To make it even easier, you can save a script of your normal conversion procedure in MacLink Plus, add a short QuicKey sequence and the whole process becomes just a few keystrokes.

So how well does the translation process work? Surprisingly well. Most of the formatting, type sizes, bold, underline, etc. are retained. My wife's only complaint is that "the fonts aren't the same." We're working on that.

As for the PLI, I have one other minor complaint. When there is no diskette in the drive, it clicks or ticks like a clock about once every two seconds. I can just hear it above the fan noise of two computers on my desk. For some this might be a real annoyance. But I usually keep a disk in the drive so it won't click.

It's interesting that the documentation refers to the TurboFloppy as not being a diskette auto-eject model and the picture on the box shows an eject button. In fact the drive has no eject button and a sticker on the box refers to it as the "new auto-eject" model.

Turbo Cache software is included with the drive. The principle sounds enticing but there seems to be many incompatibilities with other software. Also, one prominent software designer who frequents a local bulletin board claims that Turbo Cache may actually be hazardous to the health of your hard disk. So I trashed it.

All in all I'm happy with the Turbo Floppy drive so far, despite the few software glitches here and there. If this drive is as sturdy as the PLI removable I've had for over 2 years, it should give good service.

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Write for the Journal

WAP Authors' Guide

Welcome to the Washington Apple Pi Journal. If you're reading this, it's probably because you're interested in submitting an article to the Journal, and for that you have our thanks.

This Guide builds on work done earlier by Tom Piwowar, Peter Cook and others. For their assistance, we are grateful; any mistakes we made on our own.

We hope that this reference guide will answer any questions that you may have about writing for the Journal. However, if you have a question that isn't answered here, please do not hesitate to contact any of the editors or the Journal office. We look forward to receiving your article, and hope that you have fun writing it.

Article Format

All material must be supplied in machine-readable format and, at least where graphic material is to be included, with a hard copy printout.

Apple

Disk Format: 3 1/2" Unidisk (5 1/4" disks by arrangement with the Apple editor. Do not send 5 1/4" disks to the other editors, unless you have made prior arrangements.) Text Format: AppleWorks or ASCII text. Graphics Format: print on paper using a new (but not brand-new) ribbon. We are looking for format conversion software, but so far no luck. If you have a good graphic, we can scan it in and it will look almost as good as the original. Frequently a xeroxed copy will scan better than one out of your printer. We can handle GIF files, however.

Mac

Disk Format: 3 1/2" disk 400K, 800K or 1.4MB. Text Format: Any reasonably standard word processing format should work. Although the Journal is produced in PageMaker, we would rather that you did not use the program to produce the article unless you have cleared it first. Graphics Format: MacPaint, MacDraw, PICT, TIFF, EPS. Large TIFF files are hard to handle and may not get used. Keep it to 100K, please.

Other computers

We are not absolutely locked into Apple computers for receiving material. If you have something to say that you think will be interesting to Journal readers, but do not have access to Apple equipment to write it up, please contact the office and let us know. We'll work something out.

Submitting Articles

In order to produce and distribute the Journal on time every month, the editorial review board has a schedule of deadlines. We ask that you work with us to meet those deadlines by submitting your articles according to the dates listed in the Journal. The calendar section of a recent issue of the Journal will identify writers' and editors' deadlines, usually for the next two issues. You may notice that the writers' deadline is one week before the editorial deadline, and that the editorial deadline is two weeks prior to a general meeting. This is because each issue of the Journal ought to be in the readers' hands before the general meeting (usually on the fourth Saturday of the month) during the month prior to the month on the cover of the Journal. Generally speaking, the deadline for getting material into the hands of the editors is one week before the end of the month.

In extreme situations, we can bend these requirements a little, but would prefer not to have to. Our hope is to publish all articles that are submitted to us, and we will try to accommodate late articles when possible. But keep in mind that the editorial review board is staffed by volunteers who have other obligations and commitments.

There is an upload board on the WAP TCS, and one on the Twilight Clone ((301) 946-5032). If you can submit your material through either of these boards, it will make everyone's lives immeasurably simpler and more elegant. If you do use this method of communicating with us, please be sure that you contact or call the appropriate editor to tell him or her that your article has been posted and how to find it. And to repeat, if your article has graphics, it will be important to have it in hard copy so that we can tell where you want your graphics to show up.

Please identify any disk you submit so that we can return it to you. (Disks are returned quarterly.)

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A sentence about yourself to follow the article (optional). Which types/models of computers your material relates to. Graphics: drawings, screen shots, appropriate (public domain) clip art. We love graphics. More to the point, so do readers. If you do include graphics, please prepare the article with graphics in place, and then add the graphics in a separate folder as well.

Suggested placement of any graphics. Please mention if you specifically refer to a graphic in your text. A printout of your text and graphics. Special information, i.e., time-critical nature of the material.

Journal Styles: All of these style

suggestions are just that: suggestions. Some of them cannot be followed unless you are composing your article on a Mac, and other may just seem too complicated. Not to worry. Do the best you can and we will take care of the rest of it. The more closely you can follow these suggestions, the easier it will be for us to do that.

Except for common abbreviations and acronyms, a long name should be spelled out the first time it is mentioned in the article with the abbreviation or acronym after it in parens. Numbers, including money, should be written with commas where appropriate: 1,000 or $13,450. If a number series occurs within a paragraph, number the series using "(1)," etc.

Do not indent by adding spaces or tabs. If this is a problem, don't bother to indent—let us do it. One space only after punctuation marks. Two spaces after periods confuses typesetting practice.

Do not use an extra return between paragraphs. Periods and commas always go inside quotation marks. Other punctuation marks go outside, unless they are part of the quotation.

When you quote a person or text, please be sure to get the quote exactly correct. We don't have the time or, usually, resources to check it ourselves.

This editor prefers no serial commas, i.e., "red, green and blue flags."

Use ellipsis (Option/Semicolon) without extra spaces(...). At the end of a sentence, use a period as well (....).

Use en dash for phone numbers (Option/Hyphen). Use em dashes (Shift/Option/Hyphen) within text. No space before or after. Add subheads where you think they might be useful.

Italicize all publication names (except WAP Journal).

Place "open apple" (Shift/Option/K) at end of articles. If you are not using a laser font, not to worry. We can do it, and we try to catch them all. Repeat: Do not use more than one space between sentences, or after punctuation marks. No space before punctuation marks.

Avoid use of ALL CAPS and quotation marks, unless part of trade or product name.

Beware of editorializing. If in doubt, make note to Managing Editor.

"It's" is an abbreviation for "it is" or "it has." It's frequently misused, and its incorrect use bugs the editor.

One other grammar reference: "hopefully" is frequently misused. You wait hopefully for the Wells Fargo wagon; it is hoped that the word will be properly employed in the WAP Journal.

Footnotes: they are difficult to handle. They can be added as endnotes to the article, but they should be avoided, if that is possible. Barring that, they should be minimized.

Legal concerns: Please do not submit material that is not your own or that bears someone else's copyright notice. You may copyright your own material, but we will print it only if permission is granted to reprint in other publications, with appropriate citation.

We will not publish material that we consider to be offensive. This is not censorship—just a matter of good taste.

Software Reviews: Essentially, what the reader would like to know is whether or not you think this is an appropriate program for the user, and under what circumstances it is useful (or not, as the case may be). It would be useful to have your judgment on the level of user it is targeted for (novice, average, expert) and how well it does its job. If you have had occasion to call on the publisher for support, it would be useful to know how good that support is (another way, we suppose, of finding out how buggy the program may be). Try to give the readers the information that you would look for, if you were in the market for this kind of program.

Name of Program (and version). How much have you used it? A few hours? A few weeks? Short description (word processing, page layout, 3D graphics, etc.) What does it do? How well does it do it (if possible, contrasted with similar programs)? What do you like most about it? What do you like least about it? Do you recommend it, and for whom? Ease of use? Quality of documentation? Help files available? Name & address of publisher Telephone number (800 number if possible) Copy protected? Compatibilities, if known (kind of computer, Multifinder-compatible, memory demands, what else is required, etc.) List price and street price, if known.

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Barry Fox (717) 566-6709

DataBases

dBase II
John Staples (703) 255-6955

dBase II&III,Data Perfect. Db Master-PRO
Leon Raesly (301) 220-0717

Profiler 3.0
Barry Fox (717) 566-6709

HARD DISKS

CMC (not CMS)
Barry Fox (717) 566-6709

Corvus & Omninet
Tom Vier (12N–6PM) (703) 860-4810

Corvus
Leon Raesly (301) 220-0717

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

LANGUAGES

Applesoft
Louis Biggie (301) 967-3977
Peter Combes (301) 251-6369
Leon Raesly (301) 220-0717
John Love (703) 569-2294

Integer Basic
John Wiegley after 2:15 (703) 437-1808
John Love (703) 569-2294

Machine
John Love (703) 569-2294

Pascal
Michael Hartman (301) 445-1583

C and TML Pascal
Harry Erwin (before 10pm) (703) 758-9660

OPERATING SYSTEMS

Apple DOS
John Wiegley after 2:15 (703) 437-1808

CP/M
Art Wilson (301) 774-8043

ProDOS
John Love (703) 569-2294
John Wiegley after 2:15 (703) 437-1808

ProDOS 8 and 16
Barry Fox (717) 566-6709

RWTS, Disk structure
John Wiegley after 2:15 (703) 437-1808

Print Shop
Thomas O'Hagan (301) 593-9683

SPREADSHEETS

General
Walt Francis (202) 966-5742

MagicCalc/SuperCalc2.0
Leon Raesly (301) 220-0717

Telecommunications
Allan Levy (301) 340-7839

TimeOut Series
Morgan Jopling (301) 721-7874

Utilities:ProSel
Barry Fox (717) 566-6709

WORD PROCESSORS

General
Walt Francis (202) 966-5742

Apple Writer II
Dianne Lorenz (301) 530-7881
Leon Raesly (301) 220-0717

AppleWorks GS
A.D. (Bill) Geiger (703) 237-3614

Letter & Simply Perf
Leon Raesly (301) 220-0717

Mouse Write
Barry Fox (717) 566-6709

Publish.It!
Gary Hayman (301) 345-3230

ScreenWriter II
Peter Combes (301) 251-6369
Gene Carter (202) 363-2342

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

Word Star
Art Wilson (301) 774-8043

Apple IIGS

Paul Tarantino (before 10pm) (703) 451-5608
Neil Laubenthal (703) 691-1360
FA.D. (Bill) Geiger (703) 237-3614

GENERAL
Barry Fox (717) 566-6709

//e Upgrade
Morgan Jopling (301) 721-7874

APW
Andy Gavin (703) 734-3049
Jim Frison (703) 532-8328
Leon Raesly (301) 220-0717

Deluxe Paint II
Rich Sanders (703) 450-4371

GS BASIC
Barry Fox (717) 566-6709

Multiscribe GS
Ray Settle (301) 647-9192

TELECOMMUNICATIONS
Dale Smith (301) 762-5158
Allan Levy (301) 340-7839
Bob Sherman (305) 944-2111

TimeOut Series & Utilities: ProSel
Chuck Ward bef. 9 pm (703) 830-3720
Barry Fox (717) 566-6709

VIP-Pro/Multibe
Jim Frison (703) 532-8328

816 Paint/Writ'rs Ch.El
Andy Gavin (703) 734-3049

Apple II Hardware Epson printers, hard drives,
Guy Durant (202) 363-0366
Wayne Meckling (301) 263-4053

Apple III

GENERAL (APPLE III)
Jim Jutzin (703) 790-1509

3 Easy Pieces
Robert Howe (916) 626-8198
David Jernigan before 9 pm (703) 822-5137

Word Juggler
Tom Linders (408) 741-1001
Charlene Ryan (703) 822-5137

Pascal
Charles Sykora (912) 729-2968

Powerkeys
Robert Howe (916) 626-8198

Diskwindow III+
Robert Howe (916) 626-8198

Apple Speller
Robert Howe (916) 626-8198

Beagle Buddies

MARYLAND
Ray Settle (Annapolis) (301) 647-9192
Scott Galbraith (Frederick) (301) 865-3035
W. T. Cook (Columbia) (301) 995-0352
Gary Hayman (Greenbelt) (301) 345-3230
Lee Raesly (Adelphi) (301) 220-0717
Allan Levy (North Potomac) (301) 340-7839
David Page (301) 599-7630
Don Avery (Bethesda/DC) (202) 362-1783

VIRGINIA
Kenneth De Vito (Alexandria) (703) 960-0786
Neil Laubenthal (703) 691-1360

WAP HOTLINE

CALENDAR AND SIG NEWS

FEBRUARY

4 Monday
7:00 PM PI-SIG ..... call
Editorial Deadline—March Issue

5 Tuesday
7:00 PM Tutorial (Apple II e/c: Intro.—I) ..... office

6 Wednesday
7:30 PM dPub SIG ..... PEPCO
7:30 PM Mac Programmers ..... office

7 Thursday
7:00 PM Columbia Slice ..... Columbia
7:30 PM GameSIG ..... office

9 Saturday
9:00 AM Tutorial (Adobe Illustrator—II) ..... office
9:00 AM Annapolis Slice ..... Severna Park
9:30 AM Frederick Slice ..... Frederick

11 Monday
7:00 PM Tutorial (Macintosh: Intro.—I) ..... office

12 Tuesday
7:00 PM Tutorial (Apple II e/c: Intro.—II) ..... office

13 Wednesday
7:00 PM Tutorial (Microsoft Word: Intro.) ..... office
7:00 PM NeXT SIG ..... NIH
7:30 PM Database SIG/4D ..... Computer Factory

14 Thursday
7:30 PM Board of Dir.'s Mtng. ..... call office
8:00 PM StockSIG ..... office

16 Saturday
9:00 AM Tutorial (Microsoft Excel: Intro.) ..... office

18 Monday
7:00 PM Tutorial (Macintosh: Intro.—II) ..... office

19 Tuesday
7:00 PM Tutorial (Apple II e/c: Intro.—III) ... office

20 Wednesday
7:00 PM WorksSIG ..... office
7:30 PM Excel SIG ..... office
7:30 PM Fed SIG ..... call
7:30 PM HyperTALK SIG ..... call

21 Thursday
7:30 PM AV SIG ..... office

23 Saturday
8:00 AM AppleWorks SIG ..... before WAP Mtng.
9:00 AM WAP General Mtng. .... Beth. Holiday Inn
noon HyperCard SIG ..... after WAP Mtng.
noon New SIG ..... after WAP Mtng.

25 Monday
7:00 PM Apple IIGS SIG ..... McLean (call)
Ad Space Deadline—April Issue

26 Tuesday
Writers' Deadline—April Issue

27 Wednesday
7:30 PM Apple III SIG ..... office
Ad Copy Deadline—April Issue

28 Thursday
7:00 PM Tutorial (Macintosh: Intro.—III) ..... office
7:30 PM Ed SIG ..... call office

Meeting topics—Mac: Hewlett Packard printers, scanners and related software. Apple II -topics not yet set.

WAP General Meetings

Monthly General Meetings are generally held on the 4th Saturday; January meeting at the Bethesda Holiday Inn, 8120 Wisc. Ave, Bethesda. We are still looking for a semi-permanent "home" for the General Meetings. Requirements are: two meeting rooms, one holding approx. 50 people and the other approx. 250 people. Anyone with suggestions please contact Nancy Pochepko at the WAP office (301-654-8060 in Bethesda).

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

Meeting Notices

Annapolis Slice —2nd Saturday; Severna Park Library on McKinsey Rd(off Rt. 2) Severna Park, MD, 9 :00am.

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)—3rd Thursday; WAP office, 7:30 PM. May be subject to change; call Nancy Seferian (202) 333-0126 to confirm.

Columbia Slice—1st Thursday; Jan. meeting at Mt. Hebron High School. Usually at the Howard County Board of Education Bldg., Route 108, Columbia, MD.

Database SIG/4D—Second Wednesday, 7:15 pm start (until about 9:30 or 10:15 pm); Mac-In-Office Training Room, 4th Floor, Brick Triad; 101 West Broad Street, Falls Church, Virginia; (Along Route 7 at the intersection with US 29/211—Free office parking lot abundantly behind the office buildings) (Via Metrorail, use *East* East Falls Church Metrostation. Call Eric Gutsche to confirm, (703) 379–1265.

February

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		

Meeting Notices

dPub SIG (desktop publishing) —1st Wednesday; PEPCO Auditorium at 1900 Pennsylvania Ave., N.W., 7:30 PM.

Ed SIG (Educational programs) —4th Thursday; WAP office, 7:30 PM.

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. No January meeting; next meeting will be Feb. 6.

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, 7:00 PM (except for Monday holidays). Call Ted Meyer (703) 893-6845 for date, time and location.

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

Telecomm SIG—currently unscheduled.

Notice: Anyone having information on changes to the WAP calendar is requested to call the Calendar Editor at home (301-595-2539, in Beltsville) or Nancy Pochepko at the WAP office (301-654-8060 in Bethesda). E-mail can be left at: Andy Shaw, Twilight Clone BBS.

March

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*

MARCH

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7:00 PM PI-SIG ..... call
Editorial Deadline—April Issue

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7:00 PM WorksSIG ..... office
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7:30 PM Fed SIG ..... call
7:30 PM HyperTALK SIG ..... call

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noon HyperCard SIG ..... after WAP Mtng.
noon New SIG ..... after WAP Mtng.

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Ad Space Deadline—May Issue

26 Tuesday
Writers' Deadline—May Issue

27 Wednesday
7:30 PM Apple III SIG ..... office
Ad Copy Deadline—May Issue

28 Thursday
7:30 PM Ed SIG ..... call office

The Pi Needs To Go To School!

Okay, let me qualify that a bit:

It seems that there are a lot of Apple II users in education: teachers, students, parents, etc. Some are probably getting by nicely by themselves, but some might like to learn a little more. Maybe there's a piece of software that they could really use, if only they knew that it existed. Maybe they're having some hardware problems which they can't figure out; if only they could talk to someone who understood the hardware inside out.

That school needs us. And we'd enjoy having them. Do you know of such a school? We'd be glad to make their acquaintance. Please leave a message for me (David Wood) at the Pi Office, 654-8060, and tell me where this school is. We'll introduce ourselves, drop off some Journals for them to peruse, and establish a proper working relationship. Just point, and we'll be there...

CALENDAR AND SIG NEWS

WAP HOTLINE

Macintosh

GENERAL

Jeff Alpher to midnight (301) 630-2036

Art & Video

Nancy Seferian (202) 333-0126

Borland Products

Doug Ferris day only (800) 826-4768

DATABASE PROGRAMS

Fourth Dimension

Bob Pulgino (301) 474-0634

FileMaker II

Tom Parrish (301) 654-8784

Mort Greene (703) 522-8743

Paula Shuck bef. 10pm (301) 621-5549

Helix

Jim Barry to midnight (703) 662-0640

Harvey Levine (301) 299-9380

Double Helix

Paula Shuck bef. 10pm (301) 621-5549

MS-File

John Love (703) 569-2294

John Spencer (301) 730-1084

Mort Greene (703) 522-8743

Omnis 3 & 3+

Paul Tabler (703) 278-8657

Jeff Alpher to midnight (301) 630-2036

OverVue

J.T.Tom DeMay, Jr. (301) 461-1798

Tom Parrish (301) 654-8784

Pro-Cite

Elizabeth Mangan (703)750-2710

DESKTOP PUBLISHING

General

Frank Potter bef. 9 pm (703) 620-8886

Jay Rohr (301) 655-0875

Freddi Galloway (V/TTY) (202) 234-5837

ReadySetGo

Jim Graham (703) 370-5737

Marty Milrod (301) 464-5981

Freddi Galloway (202) 234-5837

PageMaker

Mort Greene (703) 522-8743

Quark Xpress

Ron Mann (202) 333-3409

GRAPHICS

General

Bill Baldridge (301) 779-8271

Jay Rohr (301) 655-0875

Adobe Illustrator

Ling Wong (703) 378-5102

Canvas

Bill Baldridge (301) 779-8271

Tom Parrish (301) 654-8784

MacDraw

Tom Berilla (301) 434-3256

Tom Parrish (301) 654-8784

John Spencer (301) 730-1084

ImageStudio

Mort Greene (703) 522-8743

SuperPaint 2.0

Mort Greene (703) 522-8743

VideoWorks

Mort Greene (703) 522-8743

Inside Mac

Jon Hardis (301) 330-1422

John Love (703) 569-2294

LANGUAGES

Pascal

Michael Hartman (301) 445-1583

MS BASIC

John Love (703) 569-2294

SPREADSHEETS & CHARTS

General

David Morganstein (301) 972-4263

Bob Pulgino (301) 474-0634

Tom Cavanaugh (301) 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 (301) 627-8889

Paula Shuck bef. 10pm (301) 621-5549

Kirsten Sitnick (301) 750-7206

Mort Greene (703) 522-8743

WingZ

Kirsten Sitnick (301) 750-7206

MultiPlan

John Boblitz (301) 356-9384

John Love (703) 569-2294

TELECOMMUNICATIONS

General

Allan Levy (301) 340-7839

CompuServe

Michael Spelske (301) 949-0203

WORD PROCESSORS

Microsoft Word

Marty Milrod (301) 464-5981

Harris Silverstone (301) 435-3582

Tom Cavanaugh (301) 627-8889

Freddi Galloway (V/TTY) (202) 234-5837

Kirsten Sitnick (301) 750-7206

ThinkTank-More

Jim Graham (703) 370-5737

Tom Parrish (301) 654-8784

Hebrew Word Processing

Tim Childers (301) 992-0105

WriteNow

Bill Baldridge (301) 779-8271

WordPerfect—Mac

Curt Harpold (202) 547-8272

MISCELLANEOUS

MacMoney

Chuck Sicard (301) 963-2879

MacProject

Jay Lucas (703) 751-3332

Norbert Pink (703) 759-9243

HyperCard

Rick Chapman (301) 989-9708

File Transfer

Mort Greene (703) 522-8743

Backfax

Mort Greene (703) 522-8743

HyperCard Scripting

Jamie Kirschenbaum (eves) (703) 437-3921

General

Games-Apple II

Charles Don Hall (703) 356-4229

John Wiegley after 2:15 (703) 437-1808

IBM

Leon Raesly (301) 220-0717

Math-OR AppIns

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

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

Dvorak Keyboard

Ginny & Michael Spevak (202) 362-3887

Volunteer on the Hotline Call us (so we can call you) 301 654-8060

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

Dueling SCSI cards

by Paul Tarantino

It was with a certain amount of trepidation that I responded to Rick Zeman's call on the TCS for volunteers who had hard disks and Apple's new DMA SCSI interface card; what exactly was I signing myself (and all that expensive hardware) up for? Would it hurt?

I guess I won the contest, which awarded me a "loaner" RAMFAST SCSI card from C.V. Technologies of Miamisburg , Ohio for an attempt at a side-by-side comparison test between Apple's newest SCSI card and the RAMFAST. Apple's new card was announced early this year (it's still 1990, isn't it? Editorial lead times confuse me...), and Apple's claims of a better, faster (New! Improved!) SCSI interface—a replacement for the original Apple SCSI card (now with rev.C ROM)—pushed me over the edge into an investment, in April, in an 80-meg hard drive and the new interface card for my venerable Woz IIgs. It had hardly seemed like a day or two had dawned on my new toys when there was talk all over the rumor mills, magazines and BBS's of a faster, more powerful (longer! lower! wider!) SCSI interface card from a previously unheard of third party. This was the RAMFAST, and lots of people on the hardware gossip boards were saying it beat Apple's product in all categories.

I can testify that the RAMFAST is a very slick product. it comes with a comprehensive 23-page manual that walks the uninitiated through an installation procedure. One criticism o: the RAMFAST hardware layout is that the card's cable originates at the front of the card (the Apple card's cable starts at the back of the card), which means more cable to fit through some tight spaces, especially with the SCSI card in slot 7, flanked by a memory expansion card and another card (in my case, an old Disk II controller card; call me a traditionalist) in slot 6. This is the sort of job where one wishes for a couple of extra hands, very strong and very small. I got better at removing and installing SCSI cards with practice, although most users will expect not to have to do this job more than once.

A most impressive feature of the RAMFAST card is that all of its support software is in ROM on the card, which means that the first time you boot up the computer with the card installed, you will be greeted with a utility program all ready to format or partition the drive for you. Also included in ROM is a RAMFAST.SCSI driver, which can be copied to the /System/Drivers folder on your boot partition. The ROM software will automatically boot up the RAMFAST utility program the first time you install the RAMFAST card, and also whenever you move it to another slot, add another SCSI device to the SCSI chain, change any DIP switch settings, or upgrade the ROM software with a new chip. Otherwise, the software will be available with a double-click on the ROMdisk icon which now appears on your desktop (unless you disable it with a DIP switch).

RAMFAST's biggest advantage over the Apple DMA SCSI card is in speed of access to the data on your hard drive. In particular, RAMFAST is capable of supporting a hard drive formatted with a 1:1 interleave factor, meaming that it can read a track of data from the hard drive, or write to the drive, with every rotation of the drive, rather than on every second rotation (2:1 interleave, the most efficient the Apple card can support). The RAMFAST also has dedicated cache memory on the card, which will retain the most recently accessed data in RAM, ready for retrieval without another access to the disk. This allows much faster access to that data which is most frequently needed by the CPU. Another advertised advantage of the RAMFAST card is its ability to provide a faster inteface with SASI drives (i.e. sort-of-but-not-quite SCSI drives like the many permutations of the Sider). Gary Hayman addresses this capability in an accompanying article. Apple's DMA SCSI card has none of these three features.

New CAD Workstation
Technical Illustration & Graphic Design Services
Applied DeskTop Technology
PC LTD RESOURCES
703 860 1100 ◆ Fax/Modem 860 4529
11490 Commerce Park Drive ◆ #320 ◆ Reston, VA 22091◆ Dulles Access at Wiehle Exit
MACINTOSH DESKTOP MEDIA
SERVICE BUREAU & LEARNING CENTER
Appointments Recommended ◆ 8:30 a - 5:30 p Daily ◆ Other Hours By Request

How well did the RAMFAST work for me? Very well indeed. I had a major fear hurdle to get past in testing this card's capabilities, since using RAMFAST in its optimal mode meant reformatting my hard drive at a 1:1 interleave, which meant having to erase and then (hopefully!) restore all the data on the three partitions on my hard drive. Gentle persuasion and reassurances from Gary and Rick helped, but my Christmas acquisition of ProSel-16, with its excellent hard disk backup routine, finally got me past my trepidation. I should pause here to discuss the benchmark tests I used. ProSel16 includes several generally recognized HD performance tests (cleverly concealed in the Volume Repair routine; select the "Statistics" option to access them.) I also utilized a freeware program called Disktimer GS, by Joe Jaworski, together with some other tests I devised with the software available to me. My "homebrew" benchmark tests consisted of a power-down cold boot to the finder (allowing the HD to power up and come up to speed before turning the computer on), copying three large files from one HD partition to another (a read/write test), going from the finder to the Appleworks 3.0 main menu (with LOTS of TimeOut accessories attached), and loading those same three large files to the AW desktop. Each test was run several times with each SCSI card, and the average times in seconds are reported in the table. I ran the tests twice on the RAMFAST card, once with a 2:1 interleave on the hard drive and once with the 1:1 interleave recommended by CV Technologies.

RAMFAST's formatting and partitioning routines, which I used to reformat my drive to 1:1 interleave and reconfigure my three partitions, and then go back again to 2:1 before reinstalling my Apple DMA SCSI card, are accessed by opening the ROMdisk icon and then the file called RamFAST.SYSTEM. As always, it is MANDATORY to back up the data on your hard drive first, since reformatting erases everything on the drive. The formatting and partitioning routines are straightforward, and both tasks were accomplished without miscues.

As can be readily seen in the accompanying table, RAMFAST increased effective hard disk speed dramatically in almost every test I attempted. Access to the Appleworks desktop was especially impresssive. Gary Hayman's accompanying article provides comparisons for other programs.

One feature of the RAMFAST which I did not verify is that its ROM-based software will recognize up to eight SCSI devices/partitions at a time, all of which could be accessed even from Prodos 8. (Normally, Prodos 8 will only recognize two HD volumes, although there are some other ways of tricking the system.)

Are there any downsides to the RAMFAST card? For starters, its ROM-resident software does not include a hard disk backup program, which no HD user should be without. (Apple's DMA SCSI card comes with a set of utilities on a 3.5" disk, including a backup routine.) There are also discussions on bulletin boards (I'm referring mainly to the Info-Apple board on TCS Conference 5) about the RAMFAST's inability to deal with SCSI CD-ROM drives, and also some limitations with removable-cartridge hard drives. Not owning any of this gee-whiz hardware and thus unable to try them out with RAMFAST, I won't comment on these possible limitations, except to note that the RAMFAST manual doesn't address either CD-ROM's or removable HD's. The same bulletin boards have talked about a possible ROM upgrade for the RAMFAST (which had been rumored for release in late November '90, with a $15 price tag, although I have seen no announcement of availability as of this writing, in early January) which may address some of these caveats.

To me, the biggest potential downside to the RAMFAST is its price, in comparison to the Apple card. RAMFAST lists for $289, and is available at discount for $180 or so; the Apple card is obtainable for $109 locally. Depending on the needs and priorities of the buyer, RAMFAST may be well worth the premium, especially if

disk access speed is especially important. Personally, the boost in speed and power obtained by moving from a floppy-based GS to even a basic (cheap) hard drive setup was the giant step in speed and convenience. For the budget-limited buyer, out to acquire an effective hard drive and a controller card at minimal cost, the extra bucks the RAMFAST requires may be better spent on a larger hard drive ($80 could buy 20 or 30 more megabytes of storage capacity) or perhaps another megabyte of RAM on a memory card to take better advantage of the power of a GS with a hard drive and system 5.0.x., and the more capable but RAM-hungry software (like AWGS) which a hard drive renders useable. For the Sider owner looking for better performance (see Gary's accompanying article), or for the owner of a SCSI drive and Apple's older card (Apple does not offer an upgrade path from the Rev.C SCSI card to DMA SCSI), RAMFAST may well be the way to buy some extra performance. For the speed-hungry power user with a big budget, RAMFAST would be the SCSI interface of choice.

RAMFAST, by C.V. Technologies, 9431 Saddlebrook Lane, Suite 2C, Miamisburg, Ohio, 45342. (513) 435-5743.

SIDERING UP TO A RAMFAST

by Gary Hayman

Well Zip-a-dee-do-dah! You should see my Sider D4A hard drive fly now. Where it used to take my AppleWorks 3.0 with 70 some TimeOut (Beagle Bros) applications and a file, over one minute to load from my hard drive, it now takes just a little over 17 seconds from the time I select it in Prosel until I am ready to get to work.

When the Washington Apple Pi received the RamFAST/SCSI card for testing from C.V.Technologies (9431 Saddlebrook Lane Suite #2C, Miamisburg, OH 45342, (513) 435-5743), Rick Zeman (Apple II Editor) chose Paul Tarantino to test it with his IIGS configuration that uses a SCSI hard drive (see other review in this Journal). The thought arose that some of the WAP members might be using SASI hard drives, such as the Sider D4A. Since RamFAST will also operate in that environment, Rick chose me to do some additional testing.

You will probably learn more about the technicalities of the RamFAST/SCSI card from Paul's article, but in short, it is a hard drive controller card that replaces your current card and allows you to format your drive with a 1:1 interleave. The resulting provides you with remarkably reduced hard disk reading and writing times.

The "older" technology SASI drives, like my Sider do not compare, in speed, to the newer breed of hard drives that are now available. So any technique to speed up the drive would be appreciated. The RamFAST does just that. I tested it in both an 8 and 16 bit environment on my IIGS with programs that were resting on my hard drive. What you are about to read are the loading time comparisons (without vs with RamFAST) for these programs calculated from the time that they were selected from my Prosel 16 menu screen to the time they were ready to go; or, in the case of one game and one music program, a significant event occurred.

Please remember that when a program loads into your computer things are happening in RAM that have nothing to do with hard disk access and of course will add extra moments to the timing. For example, many games load and seem to freeze for while before something happens. The delay is your computer doing something and should not be attributed to your hard drive. However, in all praticality, we owners are interested in how long it really takes us to get from pressing a key or clicking a mouse till we are ready to go.

Read the following numbers as - it now takes XX% of time to load-and-go using RamFAST as compared with a non-RamFAST configuration:

From Self-test to Prosel menu (65%)
AppleWorks 3.0 (28%)
Publish.It! 3 (59%)
HyperStudio (63%)
SoundSmith 9.4 (65%)
Rastan (78%)
Copy II + (45%)
GS Backgammon (72%)
ProTerm (83%)
ShrinkIt GS (88%)
New Print Shop (66%)

There are a couple of remarkable speed differences when you require an action which is basically disk intensive. For example I copied a batch of 8 files occupying 1024 blocks from partition 1 to partition 2 of my hard drive using Prosel. Without RamFAST it took 55.60 seconds. With RamFAST the time was reduced to 20.57 seconds which is 37% of the original time. That's a GREAT speed improvement. Two other speed improvements, that I didn't time but did notice in my experimenting was the great speed increase in displaying a tree directory of my hard drive using Prosel. Now, the directory seems to pop-up, where before, I had to wait. I also get increased speed when AppleWorks goes to drive to check the Main Dictionary for spell checking my document. Another very important occurrence is the speed up of "restores" of the drive. It used to take me 2.5 minutes per disk and I now find that a disk is restored in 1.5 minutes. That saves me 20 some minutes for a restore. I imagine (though not tested) that backups are also make comparably swifter.

For you technical people, here are some additional figures. My mean access time for a liner read went down from 20.75ms to 5.91ms. However, my mean access time for random reads went up from 43.04ms to 51.26ms and my OS overhead efficiency changed from 1.57ms to 1.73ms. The liner read change is impressive. I don't know about the other two though.

Now for the war stories. You have to fight in the trenches in order to win the battle. The installation process even though it should have been, was not easy for me. This was not due to the RamFAST card but was due to my current memory card and drive. It took me over 12 hours of involvement until everything worked well. On my first attempt I spent over 8 long hours attempting to re-format my drive and restore my backups in order to test the card. Scary messages appeared on my screen stating that my hard drive was damaged. Prosel 16's Volume Repair told me that there were 25 files on my first partition and 71 files on my second partition that were bad. I did a second hour and one-half restore and got similar results. During the process I placed two calls to C.V.Technologies (CVT) attempting to ascertain what was happening. Drew, of CVT, advised me that it was the GS RAM Plus revision A memory card that I was using that was not DMA compatible. He was surprised to learn that on page 19 of CVT's manual it states that it is compatible. Further checking on his part discovered that the compatibility is with revision D, and that although, it was not stated correctly in the manual that I had, the current edition of the manual DOES advise this.

I was ready to throw in the towel, so I re-formated my drive and did a restore to get back to my original configuration - more time wasted. Later, Rick Zeman kindly offered the use of his GS Ram memory board, which is DMA compatible, if I would

consider continuing the testing. Undaunted, I thought I would try again. I did a quick partial backup of my two partitions and was ready to go. I started the procedure again and ran into another major problem. The formatting of my drive to 1:1 was accomplished fine, but the built in utility program would not let me divide my 40mg drive into two 20meg partitions. The proper keyboard commands would not work. This prompted my third call to CVT. This time Terry helped me. He was bewildered by the problem but asked all the proper inquiring questions in order to arrive at a solution. He finely suggested that I turn off the computer and turn it back on. Sure enough, the proper screen display with the appropriate information appeared and the keyboard commands permitting me to partition correctly now worked. Terry opined that the problem may have been due to my Sider/RamFAST combination controlled by the software in the RamFAST utility and that he will look into possible software changes in the utility program. I then restored my drive and began experimenting as I noticed the speed improvements that were taking place.

Here are a few other comments which may be of interest. Drew, of CVT, was not tainted with the knowledge that I was testing the card for the Pi and thought that I was a just a recent purchaser. Both he and Terry are to be complimented for their interest in helping me, their patience, and their knowledge of the product. Each gave me many suggestions and even stayed on the phone while I accomplished some of them. I would rate CVT as having excellent customer service. The 22 page manual (the one I had - not the most recent) is not quite as clear as I would prefer. Some terms and assumptions may be a trifle more advanced for the novice. I had to skip around the manual some in the process of configuring the hard drive. My first call to CVT was to gain a little more knowledge so that I could attempt a proper configuration. My second was to report the file trashing. I then learned of the problem I had with MY memory card. The third call was to report the problem of not being able to partition the drive.

I can recommend the RamFAST/SCSI card if you are looking for a way to speed up hard disk access time. Disk intensive tasks will be markedly improved. I would also pass along the comment that you should ALWAYS make sure that you ascertain the compatibility of a peripheral with your present equipment, operating system, and other installed peripherals. Read reviews, like this one. Read what people are saying on the Telecommunications System of the Pi or the major services, and even call the manufacturer and ask questions of the technical support experts. Ask your fellow Pi members at the main and SIG meetings during Question and Answer periods. Your advance actions may save you time and money.

SCSI Card Performance Tests

	DMA SCSI	RAMFAST	RAMFAST
Hard drive interleave	2:1	2:1	1:1
ProSel16 tests (times in msec.)			
Linear read efficiency test	7.05	10.09	4.53
Random read efficiency test	28.48	30.11	22.63
OS overhead efficiency test	1.67	1.60	1.60
(All other test times are in seconds.)			
Disktimer GS tests			
Read test	59	36	20
Seek test	51	11	10
Adapter test	26	10	10
Power off cold boot to Finder	38	33	28
Copy 3 files from HD2 to HD3	12	16	8
Finder to Appleworks/Timeout	22	17	8
Load 3 files to Appleworks Desktop	23	16	9

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On the Trail of the Apple III

by David Ottalini
Apple III SIG Co-Chairman

Apple III emulation on the Macintosh (or Amiga)?

Hmmm. With the new Mac LC and its Apple II card, Apple has provided a pathway for Apple II (sorry GS) users to move on to a Mac without losing access to all those beloved Apple II programs.

But as usual, I have to ask, what about the Apple III? From Apple's standpoint, the answer is the same as it is apparently giving the GS folks, which is, forget any card that could emulate a III (or GS) in the Mac. (Why couldn't they have done a GS card that included Apple III emulation too? - OK I know they don't care about our SARA anymore .. . but what happened with the GS?)

That brings up an interesting question, however. What about a software emulation of the Apple III on the Macintosh? That possibility was recently kicked around on CompuServe's Apple III forum on MAUG (Micronetworked Apple Users Group).

An Apple III voice from the past, Daryl Anderson, whose excellent programs are all in our public domain library, suggested it should be possible (as would, in fact, an Apple // emulation). I asked him to expand on his brief comments on-line, and he responded with the following (keeping in mind he is now an AMIGA user (which is also a 680x0 machine):

I still DO think a software emulation of a III on a faster CPU such as a 68020 or 68030 is technically feasible - it seems to me you'd have about a 10 to 1 effective instruction speedup so, in principle, you could take 10 68030 instructions to emulate one 6502 one. In fact almost all 6502 instructions could be emulated in 1 or 2 680x0 instructions and clever design could keep a lot of the action in the 680x0 registers for MAX speed and even take advantage of CPU-cache if available (figuring 16 32-bit registers to simulate 3 8-bit ones (!) lots of room to fool around...

Course the real bear is gonna be simulating the "machine specific" stuff, e.g. specially the VIDEO... that's where a single 6502 instruction could take 10 or even 100 680x0 instructions to emulate - Storing a value to memory-mapped Apple III video ram would have to be mapped to a bunch of code that adjusted colors, text, scrolling, etc. Writing directly to an I/O peripheral controller chip addressed register would require similar complexity. BUT all of these are essentially " FINITE-STATE Machines" and emulatable via software. It's simply the performance hit that would be open-ended. And, of course, on video you cannot really spare that piece...

I specifically recall an Amiga program called Transformer which never made it to commercial acceptance - that was emulating an 8088-PC on the 68000 Amiga - it ran about 1/3 speed (1/3 of the old, slow 4.77MHz PC's) and didn't handle graphics, just text — but, in my opinion, it was a MARVEL... emulating the bizarre and convoluted instruction set of the 8088 with a 7 Mhz 68000 is a wonder.

One thing Transformer did not do, but which I think I'd consider, is to take advantage of some special features of the Amiga - in this case Multitasking... I'd set up an entirely different task to only manage the display of the "IIIEM" 'pseudo-machine' - it would sit and wait for signals that the memory associated with the video had been modified then perform the update... an entirely separate task would do the emulation of the 6502 and/or the SOS environment - perhaps a couple of tasks in all. This would allow for selective and flexible tuning of the system.

Of course it's less "portable", e.g. to MAC if you do it this way... Also it will tend to be even slower if we set it up to run under the umbrella of an OS (e.g. AmigaDOS and the Amiga Multi-tasking EXEC) since that adds its own "system" overhead - but I think the whole point is to be able to run the emulation(s) simultaneous with the host environment. This is what the (HardWare) emulation of the Amiga BridgeBoard allows - PC/MessyDos running in a window while other Amiga Apps are also running, with disk/partition and clipboard level data interchange.

HOW would I go about it ?

First I'd do, a straight 68000 Assembler version of a vanilla 6502 emulator, coded for modularity but optimised for speed - perhaps limit to a subset of instructions at first, then feed it a simple 6502 machine language program (simple brute-force imbedded loops with some memory access) and see how close I am to 6502 on the III. I'd expect it to be faster, at this point.

{{ PS on memory access, initially just grab a 64KB chunk from the system, within the emulator, and call that 0000-FFFF and access it always using 68000 indexed addressing modes... you can see where this leads for the III and its clever bank switching. The Ram addressed by the III was not directly accessed by the 6502 anyways (and the 6502 was not really the CPU in the machine), the CPU and ram decoding was handled by the handful of chips, including the PIAs and VIAs which, together, constituted the CPU - really more like a mainframe "CPU" than the typical CPU=microprocessor setup... the Amiga is the only other (micro) machine that I know of that really sets up a bunch of other chips which work as a collective CPU (in this case they

handle much of the video of the GUI) }}

Next I'd design an intermediate "video map" data structure (maybe it could just be the memory used for Video RAM but I'd expect some additional info would be useful, flags and such) and set up instructions to trap out any access to video memory (make these generic since we will later be trapping other machine specific addresses such as Page Zero and Page One accesses)

Let me back up. Here (I'm forgetting my III) we've got to decide whether to implement our own .CONSOLE driver or run the standard one under emulation - former is faster but more work, I guess I'd probably do the former which would probably allow full-speed text. Can all III text display be done thru .Console? I f so then maybe skip the video-special stuff for now (my idea is to trap the references to video ram for color/ graphics display and translate to the host machine's display format - I'm getting too used to machines like Amiga & Mac where text-aint-text, text is just a subset of color/pixel-mapped graphics on this machine. I think a text-only III with a custom .CONSOLE (e.g. running as a 68000-coded task on AMI accepting III formatted device commands) would give a nice 90% emulation - Graphics is probably why the][Emulation project on the new Macs ended up using hardware.

Hmmmmm... I've convinced myself here that this is even more doable (without the graphics).

NOW. What about SOS. First cut would be to run it directly on top of the 6502-emulator but a good alternative is a rewrite - remember we would not be re-writing an OS from scratch, just writing a bunch of routines (maybe even in C) that use the host machine's OS to process SOS functions. This gets us around all the SOS code

(You could also do a) custom .RS232 driver and .Printer driver and do a .Profile driver that just talks to a big (?! 5M ?!) Amiga file via simple file access calls.

In general do the FileSystem by setting up a single file named Apple3 on the host drive and defining an internal data-structure for the whole thing that is just the III file system layout.

Copy-protected stuff, special, low-level access to floppy-drive hardware, a real bugaboo (again why a III is more doable than a][).

1Meg, 2Meg, 8Meg III very doable (at least up to the limit of the "unused" bits on the bank-switch bytes - I think that would be 256 32K banks - yup 8 meg.

What would it take?

Daryl (who no longer has a III) says he'd love to see "someone" do this. How long would it take? Here's what he estimates:

I'd guess a good notion of relative performance and a rough 6502 simulator could go in 2-3 weeks from an experienced 680x0 programmer. After that another 1-2 months for alpha cuts of the .Console and .Profile/ file system emulators ought to get you to the point of wondering what the heck you're up to.

You know, I think the key point is the counter to the argument that "Apple couldn't (wouldn't) do the][emulator or Mac in Software so it must not be doable; I.E. that the "special" features of the III, Text vs. Graphics orientation, HardDrive vs Floppy, Application vs (copy-protected) games - all make a III emulation more doable. Modularity of SOS and the III filesystem also make it doable. Besides, I figure Apple just avoided a SW- only][emulation because then it'd just get pirated around - their little card for the Mac is the ultimate "dongle".

Let me know if you or anyone else ever gets into it.

Why bother?

Well, if for no other reason, this kind of project would again help to guarantee that our investment in software and data continues over time, and would be easily accessible on a state-of-the art machine.

Anyone interested in pursuing this (even with the graphics limitations)? All it would take (!) is 1) a programmer willing to take on the job and 2) some money to pay him/her. What could be done is get people to commit (without money) to purchasing the product and getting all the Apple III user groups to put some funds up front for seed money. If it were combined with a // emulation (or could lede to one), the interest might be even greater (since it would work on ANY Macintosh instead of just the LC).

Daryl, who (as you might have guessed) is into Amiga these days, says it would be a "good choice for host machine (to develop emulation on) since its floppy controller can read MFM <or> GCR-format disks, same as][and III.

I'll kick this one around to see if there's any interest and report back to you in a future Trail column.

February disks

I've been working on a number of new PD disks for you of late, but I'm not quite ready to release the one's I'm most excited about. In the meantime, I'll pass along some disks to keep your whistle whetted:

3ZAW-03 is another 3EZP/ Appleworks disk. Side one is a simple accounting program provided by III SIG member Irving Tessel of Los Angeles. It's simple to use and instructions are provided. On side two we've taken a number of Advanced Visicalc templates and converted them over to 3EZP/AppleWorks spreadsheet format. Templates included will let you keep track of your expenses, computer your net worth, keep track of your

stock portfolio and much more.

3INF-17 is the Best of Ottalini, Disk #5. Yes, I know it seems hard to believe that my columns could fill up five double-sided disks, but they you have it. This disk includes all my articles from 1990. In 1992 (when disk 6 is released), you'll be able to purchase the whole set in a giftwrapped edition!

Rounding our our offerings is disk 3MSC-18, "Music, Music, Music."

As you may have guessed by the title, this disk includes songs, information about a MIDI interface for the III (assembly language expertise required), even a fun music game you might want to try. For you Basic programmers, the programs offer some guidance if you're interested in incorporating single octave music in your programs. I really enjoyed putting this one together and hope you'll enjoy it.

In coming months look for a host of Pascal disks, a Star Trek disk and that long-promised (I know ... just about every month!) Apple // - Apple III graphics disk.

Finally

Hats off to Paul Campbell of Detroit, Michigan. Singlehandedly, he's been working to bring the Apple III back to life in Motown. I recently talked with Paul, who I hope will also have joined WAP by the time you read this.

Despite working full time and going to school, he's sold and installed seven Apple III systems, including one to a law office which uses 3EZ Pieces exclusively. Paul says he's always looking for more Apple IIIs to buy, so if you're interested, contact him at 18361 Burgess, Detroit, MI. 48219. His phone number is 313-255-6497.

Apple II Talk

Byts And Pyces

by Gary Hayman

This is a regular monthly column which includes 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. You are asked 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. Please note that this column is often submitted for publication 45 to 75 days prior to its appearance in print.

CDEVS on the IIGS

WAP members have been reporting problems with their CDEVs in the control panel of their IIGSs since they have installed GS/OS 5.0.3. Both DALE SMITH and KIM BRENNAN have a quick fix. They recommend that you DELETE the file "*/system/cdevs/CDEV.DATA" from your hard drive. This file will be automatically created the next time you go into the control panel and things should straighten themselves out. The asterisk represents the boot volume name of your hard drive. Ex: HARD1.

PROTERM 2.2

Several sources, including National AppleWorks Users Group and several on-line sources have advised that InSync Software (3035 E. Topaz Circle, Phoenix, Arizona 85028; Phone: 602-992-5515) is now shipping version 2.2 of ProTERM, a popular Apple II telecommunications program formerly distributed by Checkmate Technology. In addition to the normal communications features, ProTERM offers a scrollback feature that lets you review the communications session on or off-line, macros, sequential dialing that checks a series of telephone numbers until it makes a connection, auto-learn macros that memorize your keystrokes, VT-52 and VT-100 terminal emulation, split-screen chat mode, and XModem, YModem, ZModem, and Kermit file transfer protocols. ProTERM has a suggested list price of $129.95 but is available from mail order dealers at significant discounts [ed.-watch for a review of ProTERM in the March issue of the Pi Journal].

Owners of earlier versions of ProTERM can get the version 2.2 disks for $10 or the complete version 2.2 package including the manual for $35. InSync urges users to get the fully revised manual that describes the features of version 2.2. You should include your original disks with your upgrade order but I would suggest that you first call InSync for more current instructions.

Seven Hills software releases

Independence: Independence is a collection of GS/OS printer drivers that let you use HP DeskJet IIP and LaserJet printers with 16-bit programs such as AppleWorks GS, BeagleWrite, and GraphicWriter III. Independence lets you print any range of pages, or the even or odd numbered pages. (That enables you to print double-sided documents.) Independence also offers auto-collation of multiple copies of multi-page documents and supports all different paper sizes available on these printers. The drivers let you scale

the height and width of your output separately for more control of graphic output. You can print in either landscape or portrait mode, a useful feature for AWGS users who develop large spreadsheets. Finally, the program supports the DeskJet's draft mode which saves 50% of the ink by printing only half the dots in each character. Independence has a suggested list price of $39.95.

Font Factory GS: Font Factory GS is a font editor that lets you create, modify, scale, and smooth fonts used by GS/OS programs such as AppleWorks GS. Font Factory GS makes it easy to add font sizes to the GS/OS Font Menu. You can use the larger fonts to improve the output you get from TimeOut SuperFonts, AppleWorks GS, and from most GS/OS word processor and page layout programs. Font Factory GS, which requires an Apple IIgs with at least 768K of RAM, has a suggested list price of $39.95. Version 2.0 of Font Factory GS is current.

Disk Access: Disk Access is an Apple IIgs New Desk Accessory that lets you access all the functions available in the GS/OS Finder from within any program. Disk Access lets you format disks, create folders, copy, delete, rename, and verify files, folders, and disks from within any GS/OS application. Disk Access handles both the data and resource forks found in the extended files introduced with GS/OS 5.0. Disk Access has a suggested retail price of $49.95. Version 1.0 is the current version. Contact Seven Hills Software, 2310 Oxford Road, Tallahassee, Florida 32304; Phone: 800-627-3836 but remember that mail order prices may be less.

Sound on

JON THOMASON tells us that Apple][+ and //e owners can take their old games and redirect the sound to the "cassette out" jack of their computer instead of the internal speaker. Actually, with a small amplified speaker from Radio Shack, this actually sounds a lot better than the internal speaker. To do this, use a block editor to find the two bytes $30 C0 on a COPY of the game disk (of course, never the originals). Replace them with $20 C0. They may occur once, or they may occur several times. JON tells us that we should be aware that not ALL occurrences of $30 C0 are necessarily references to the address of the speaker. But in his experience, though, he hasn't found any which aren't; so this trick works most of the time.

Alternative to an RGB monitor

PAUL TARANTINO found a message on InfoApple that made reference to a "Mac II:Multiscanning Monitor Cable" which enabled a connection between the GS DB-15 connector and a VGA monitor. If this works well it would be an excellent low-cost alternative to an analog RGB monitor. He wonders if anyone knows more about this?

Heat—go away!

There was some recent discussion about heat produced by some hard drives. I have a Sider D4A which produces quite a bit of heat. It is situated on the floor behind my desk to keep it out of the way. I purchased a small $5.00 (on sale) 110v fan at Hechingers which bathes the drive with air and all the heat went away. Cheap fix.

Memory chips

DAVID HAWKINS was asking a question concerning problems he was having after installing chips in his memory card. I advised that he must install the chips in the banks in the proper order. I made the same mistake myself and didn't read the A B C D E F on my memory card and went directly from A to C. Of course, I had the same problem as DAVID until I corrected it. Now be careful when you pull and replace chips - they are delicate. There are a couple of chip puller and chip installer tools that you can purchase that will make your life much easier for this project. They are also cheap. Check Radio Shack or an electronics parts store.

More on chips—warning!

DAVID tells us that when he went shopping in town to purchase a single 256 x 1 chip for his memory board, Bethesda Computers would only sell him a complete set of 8 chips for $120 ($15 per chip) while Computerland MidAtlantic was glad to sell him a single chip for $5 or a bank of 8 for $40. Here is another example of why you should always check around for prices and policies from the various local dealers and mail order house. Please feel free to ask the advice of the HotLine volunteers, at Q & A sessions at the main meeting or the various Special Interest Groups (SIG), and individuals on the TCS. One answered question is probably worth the $6 per year cost to be on the TCS.

Do-it-yourself power supply replacement

ED MOSER was asking some questions concerning a failed power supply on a Apple][+. It's a common problem. The power supplies on the][+ DO fail after a time. I have 2][+s and have replaced the power supplies in both. Usually the on/off switch fails first. That is why you should be using a power strip with an on/of switch to control the computer. The next thing to fail is the C5 condenser. You can replace it if you know what you are doing and know how to test it. You can take the computer to an Apple Dealer and they will charge you two arms and two legs for a power supply replacement. OR YOU CAN DO IT YOURSELF VERY CHEAPLY.

There are four small bolts that hold the power supply. Unscrew the bolts from the bottom, unplug the power supply from the board and remove it. Plug in the new power supply and bolt it back in. However, I have found it more to my liking to leave the power supply outside of the computer. That way the heat goes into the air and does not warm the inside of your computer. All you have to do is to route the plug from the outside through the existing hole in the case and plug it into the motherboard.

Now were can you get power supplies? The best place I have found is

Jameco Electronics, 1355 Shoreway Road , Belmont, CA 94002; Phone: 415-592-8097. Give them a call and ask for their excellent catalog. A power supply from them will cost in the neighborhood of $40.00. They ship immediately and you will have your new one in a day or two.

I hope that this will be of help to those of you whose power supplies fail. I invite comments by other as to their experiences with power supplies for the Apple II family.

Beagle Brothers oldies

FRANK KOCZOT tells us that Big Red Computer Club (423 Norfolk Ave., Norfolk, NE 68701; Phone: 402-379-4680) has made a deal with Beagle Brothers to distribute the B.B.'s Oldies for $3.50/ disk (this includes S/H). This is cheaper than downloading from B.B.'s board in CA. the following is a list of the B.B.'s Oldies: Big U, PowerPrint, Pro-Byter, Alpha Plot, Beagle Bag, Beagle Basic, D Code, Dos Boss, Fat Cat, Shape Mechanics #1, S.M. #2, Typefaces, Silicon Salad, Tip Disk #1, Font Mechanic #1, F.M. #2, F.M. #3, F.M. #4, Flex Type, Double Take, Pronto DOS, Utility City, Extra K. If you call or write ask for catalog and vol 9 #2 Feb 1990 (descriptions of B.B. Oldies.) FRANK tells us that all profits from the B.B.Oldies sales, over $1000, are to be donated by Big Red to the Alliance for Technology Access - members committed to improving the quality of life of children and adults with disabilities.

SuperPatch 7.0

Quality Computers announces the release of SuperPatch 7.0, which features 34 new patches for AppleWorks 3.0, including a turnkey printer driver for the HP DeskJet, allow full use of RamFactors larger than 2 megabytes, change location of dictionaries, disable delete file option, disable create subdirectory option, have zoom on when you load files, recognize single space as a legal record entry in DB, recognize single dash as a legal record entry in DB, change "Preloading AppleWorks" to anything you want, etc.

In addition, 11 patches in SuperPatch 6.1 have been improved, including: if you install a new version of UltraMacros, the clock installer adjusts to this fact automatically, changing the date separator now changes it on the "Other activities" screen, all custom "Type number messages" are compatible with the UltraMacros mouse, you can enter any message you want to replace the "Carefully saving this file" message, from 1 to 27 characters, auto date insertion in SS and DB are both fully compatible with macro 0 in UltraMacros.

Here are some general improvements added to version 7.0: SuperPatch now answers most of its own questions. You still have to respond about the special single floppy prompting, whether you use a large capacity disk, whether you use an ImageWriter, and identify the prefix for AW. The rest is handled automatically.

SP will find out if it is running on a IIGS and whether you are using a slinky and/or bank-switched memory card (and their sizes). When SP checks the version of AW you are using, it automatically adjusts for Ultramacros, so you no longer need answer that question either. It also checks for the existence of a clock. If SP does not find a ProDOS compatible clock, you are given an opportunity to over-ride the negative finding, to accommodate the case that you ran SP without pre-running the software required by some clocks to make them compatible.

Floppy disk users will also notice that SP 7.0 determines the status of each file's patches much quicker than 6.1, even though there are many more patches to look at. The reason for this is that machine language is used for this task, instead of BASIC, with approximately a 500 percent improvement. Hard disk users will notice an improvement too, but since hard disks are so fast in themselves, it is not nearly as apparent.

SP 7.0 lets you know whether you need to press return to get input accepted. When its solid apple cursor is flashing, SP will act upon the first key you press, without waiting for a Return. When the Apple does not flash, you must press Return before SP will act on your input, with the exception that the Escape key will cancel all input.

You can call Quality Computers at 1-800-966-1508. The price is 34.95. Be sure to check mail order prices too. If you are a registered owner of version 6.1, you may upgrade for $12.00 (plus $3.00 shipping). Anyone who purchased SuperPatch 6.1 after October 1, 1990 can send a copy of their sales receipt along with the original disk to Quality Computers at 20200 E. Nine Mile Road, St. Clair Shores, MI 48080 and receive a free upgrade.

Apple introduces HHyperCard for the Apple IIGS

DAVE RANDALL contributed this press release that he downloaded.

Apple Computer, Inc. introduced HyperCard IIGS, a user-focused toolkit of information management software for the Apple IIGS personal computer. The new product will allow Apple IIGS users to create their own custom software and personalize the way they store, explore and present information. The announcement was made at the AppleFest Conference and Exposition that was held at the Long Beach Convention Center (California) in December.

"We're very excited about HyperCard IIGS," said Ralph Russo, director of the Apple II Business Unit at Apple. "Because our Apple II customers are extremely important to us, we continue to look for ways to provide product enhancements that increase the value of their investment in our technology. We believe HyperCard IIGS does just that".

Features and Benefits

Like the original HyperCard for the Macintosh personal computer, HyperCard IIGS functions much like set of index cards. Users store information in documents called stacks, which are made up of individual units called cards. Cards can contain text, graphics,

scanned images, and even sound. Buttons on the cards can be used to link cards and stacks, and much more. HyperCard IIGS supports multiple media by letting users work with information in virtually any form, including text, graphics, video, sound and animation. It also takes full advantage of the advanced 16-color graphics capabilities of the Apple IIGS.

To allow customers to begin immediately using the software, the program comes with a large collection of ready-to-use stacks — plus templates and card designs to help individuals create their own stacks. The program's scripting language, HyperTalk, provides buttons, cards, stacks and utilities such as debugging tools to facilitate creation of sophisticated programs and speed the preparation and performance of user-designed HyperCard stacks. With HyperCard IIGS, Apple IIGS customers have the full functionality of Macintosh HyperCard version 1.2.5 — plus specific enhancements to improve performance and take advantage of the color capabilities built into the Apple IIGS. They can also enjoy the additional benefit of accessing the many stacks that already exist for the Macintosh once developers convert them for the Apple IIGS.

"Now Apple IIGS users and third-party developers can enjoy the same power users have had — but with the added advantage of color," said Tom Weishaar, editor of the A2-Central and board member of the Apple II Developer Association. "With HyperCard IIGS, Apple is delivering in a big way on its promise to continue supporting the installed base of Apple II customers and developers."

Configuration, Price and Availability

HyperCard IIGS will be sold only as a stand-alone kit, with six program disks and three manuals. Included will be nine ready-made stacks (programs) for productivity, learning/games and inspirational/creative applications. To use HyperCard IIGS, customers will need an Apple IIGS with at least 1.5MB of RAM (2 MB are recommended), system software 5.0.4 or subsequent version, one 800K disk drive and a hard disk drive or connection to a network environment. The program will be widely available through authorized Apple dealers at a suggested retail price of $99 in mid-February 1991.

The author is currently Chairman of both the AppleWorks and Apple IIGS Special Interests Groups. He is published frequently in the Journal of the Washington Apple Pi. He is also a Beagle Buddy and a Seven Hills Partner for the WAP. 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.

IIGS SIG

by Paul Tarantino

Our meeting at Dolley Madison Library had a small turnout; perhaps most of our members were worn out from the rigors of the holidays (it was, after all, the day after Beethoven's birthday); others may have been confused by the Journal's calendar, which scheduled the December meeting for Christmas Eve! Some of us (including a crop of first-timers) knew better, though, and had some fun and learned a few things as well.

Our star presenter was Bob Gurskey in an encore performance, fresh from his triumphant demonstration of Cosmocade at the November meeting. Bob's subject this month was the new Companion disk for Print Shop GS. PSGS Companion can be used as a standalone program (you don't need PSGS to run it), and it has capabilities, like its graphic editors, which supplement PSGS very effectively. Like the more venerable Print Shop Companion, the PSGS Companion Disk includes a very versatile calendar maker, capable of producing hard copy calendars for the year, month, week or day of your choice, decorated with small graphics and/or page-wide panels. PSGS Companion can also produce fold-up envelopes (or decorate an existing envelope of the right (standard?) size, and will produce labels of several varieties (mailing labels, disk labels for 5.25 or 3.5" disks). It includes QuickPage, a sort of GS painting program, with many of the features common to other painting programs, which paints or otherwise decorates a quarter of a page at a time, adding PSGS graphics at will.

PSGS Companion can import standard Print Shop or Print Shop GS graphics, or SHR graphics. It can cut and paste a selected block from a SHR page and thereby create a PSGS graphic from it. When SHR graphics are imported, very different results can be obtained be selecting Best Resolution, Best Color or Compromise modes. The program also includes powerful graphic editors, similar to the QuickPage module, for the creation from scratch of small PSGS graphics or full panel wide graphics for use in PSGS greeting cards, letterhead or envelopes, or new or modified PSGS borders or fonts.

Of particular interest to avid accumulators of PS graphics is the Companion's cataloger, which will eassily create hard copy reference sheets containing up to six PSGS graphics with notes indicating the disk or pathname where they are stored, truly a boon to those who have filled disks with Print Shop graphics and need to keep better track of their collections.

This very capable program from Broderbund is available by mail order for $35-40, is not copy protected and can be installed on a hard drive. Very slick!

In the spirit of the season, Gary demo'ed his Christmas gift, a collection of many of the music, quiz and game programs he has written over the years, quite a few of which have found their way into Uptime, Softdisk and

(You're doing fine—now turn to page 59)

The begets of the Apple IIe motherboard

by Lorin Evans

Over the years, the Apple IIe computer has undergone several major internal revisions. Software developers have taken advantage of these enhancements to produce software that runs faster and has better graphics than was possible with the original IIe. As a result, you may find that you are unable to run some of the newer software available for the IIe and IIc computers. It is quite possible that the Apple IIe you use is one with an original motherboard or an older set of operating chips. If you want to use graphic based, hi-resolution programs like Publish It! 3 or take advantage of the MouseText capability found in communications software, then read on about the begetting of IIe motherboards and how to upgrade your IIe if it turns out to be an older model.

There are four different motherboards for the IIe computer. There is the original board from 1983 known as the Revision 'A' board; there is a second Revision 'A' board known as the enhanced Logic Board; the Revision 'B' board introduced in 1984; and a newer board sometimes referred to as the Revision 'C' board. In addition, there has been a chip enhancement kit produced for the machine that can be installed on either the enhanced logic 'A' or 'B' board. Only the newer 65C02 central processor was installed on the enhanced Logic Board (aka second Revision 'A'), whereas the full enhancement kit was added to later Revision 'B' and 'C' boards.

The enhancement kit was designed to allow the IIe, introduced in 1982, to take advantage of software developed for the Apple IIc, introduced in 1984. The enhancement made it possible for programmers to use special symbols, known as MouseText characters, to create programs that are more interesting and intuitive. Depending on the kinds of programs you run (Z-Link, Shrink-It, or Windows) you may find that they will not run at all, stop in midstream, or that the copy protection scheme causes them not to boot at all. If all you use is Appleworks and Number Squares, then you probably have experienced none of the above and need read no further.

Normally, you cannot see the differences among an original 'A', its 'A' replacement, or a 'B' board by looking at the screen. Here is how to tell by looking inside the computer, and a complete listing of the enhancement chip part numbers.

First turn the power off to your computer, but leave it plugged into the wall. Open the top and touch the power supply with one of your hands to ground yourself and bleed off any static electricity. The power supply is the large metal box inside your set.

With the keyboard facing you, look at the upper left hand corner of the motherboard: write down the copyright date found below the line of silver soldered text, "APPLE IIe". Next look at the center rear portion of the motherboard, between slots 3 and 5. You should see three lines of information: two done in silver solder characters. You are interested in the second row of silver solder characters and the white numbers immediately below them.

Now let us see if you have any or all of the enhancement chips. Here is how to tell if you have the complete set of chips that come with the enhancement kit. It is possible to have a partial set if the machine has had any chips

If you see:

NUMBER	COPYRIGHT DATE	YOU HAVE
820-0064-A	1982	original Rev 'A' (in silver solder)
820-0064-B	1982	enhanced Logic (in silver solder) Board (second 'A')
607-0164-[B]	1984 or later	Revision 'B' (in white letters) (may or may not be enhanced)
607-0187-[A]	1984 or later	Rev 'B' (with (in white letters) enhanced chips)

replaced.

The easy way to do it is to turn on your computer and look at the start-up screen. On an unenhanced IIe, the start-up screen will display "Apple][." The screen from a chip enhanced machine shows "Apple //e."

To those for whom seeing is believing, again shut off the power, remove the top and ground yourself to the power supply. Now unplug the set from the wall outlet. Look at the motherboard. You will notice that it is stenciled along the left edge with letters A through F; and along the bottom from left to right 1 to 14. Use these grid markings to locate the chips used in the enhancement kit.

Turn the computer so that the keyboard is to your left.

- Find location B4. This is the Central Processor Chip. In an unenhanced set the third line of text on top of the chip will read 6502A; the enhanced chip will read 65C02.

- Find location F4. That is your vidio chip. The enhanced chip stock number is 342-0265.

- Find location E8. That is the CD ROM chip. The enhanced chip stock number is 342-0304.

- Find location E10. That is the EF ROM chip. The enhanced chip stock number is 342-0303.

For the enhancement to work, you must have all four chips installed on either an enhanced Logic Board (aka second 'A') or 'B' motherboard. If for some reason you have some of the enhancement chips but not others, purchase and install the missing ones. A complete enhancement kit will cost you $70.00 from an authorized Apple dealer; somewhat less from some of the local independent repair services or mail order. There is no charge to upgrade from an original (copyright 1982) 'A' to a 'B' board; your friendly authorized Apple dealer will do it at no charge. If for some reason you have an original 'A' board with upgraded chips and want a 'B' board, be sure your chip set is transferred to the newer board.

If you decide to install the new chips yourself, please be careful. The four ICs you will handle are extremely susceptible to static discharge . ALWAYS touch the metal power supply case to discharge any static that may have built up on your body or clothing before working with these chips.

Should you decide to enhance your IIe, you will then need to check and see if you are using an Apple Extended 80-Column Text Card or the 80-column/64K version. If you have either one, carefully remove it and examine the chip side of the card. In the lower left hand corner are two pins. In an unenhanced computer, the pins are not connected. After you add the new chips, you will need to install the jumper block over those pins - if you remember where you put the little bugger. If you cannot find it, any Apple dealer or Radio Shack store should have one. Better yet, consider replacing the 80 column only card with an 80 column/64K or larger memory card. That way you will be able to run the newer programs that require at least 128K of memory.

With the arrival of the platinum cased machine (1987) there is another edition of the mother board - what I call Rev 'C'. Here the ROM is changed to a 32K ROM replacing the "CD" and "EF" ROM chips; and, RAM changed from (8x) 64x1 (200n) chips to (2x) 64x4 (150n or faster). In addition, there is stenciling for an increase in the RAM from 64k to 256k. It is very possible that by Spring, Apple will add the extra memory to the motherboard and even increase the clock speed to 4.0mhz.

There is one other option I have not discussed. When the IIgs was first offered, Apple produced a IIgs conversion kit for the IIe: new motherboard, case, etc. The only difference between the two is the detached keyboard. This kit provides a low cost growth option for someone interested in eventually acquiring a IIgs. All current accessories work with the new motherboard (so you need only buy the basic kit at first), and, by acquiring the IIgs specific hardware (3.5" and 5.25" daisy chain drives, memory card, and RGB monitor) from the secondary market, you will save considerably on the remainder of the conversion. An Apple dealer, who has a kit gathering dust on the shelf, might be willing to part with one at a price advantageous to you.

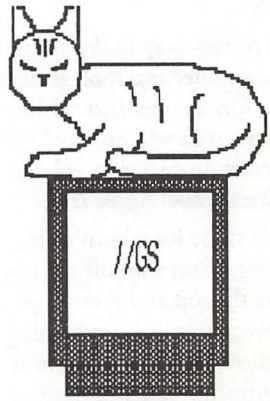
So now you know how to be sure you are getting the most from your IIe machine. Go sample some of the new software that is available for enhanced IIe or IIgs machines and renew acquaintances with the wonderful and creative world of Apple computing.

(Here it is—the end of the IIGS minutes from page 53)

other Big Time commercial products. Several members lined up, formatted and verified blank disks in hand (Handy Hint: Be similarly prepared for future GS SIG giveaways!) for the mammoth copying session which followed.

Our meeting schedule in 1991 will continue to alternate, mostly, between NIH in Bethesda (starting in January) and Dolley Madison Library in McLean. (We may need another meeting place once or twice.) We usually follow the main Pi meeeting (i.e. the Monday evening following the main Saturday meeting) but there are exceptions; prudent planners will check the announcement on the TCS or call Gary or me (see the Hotline listing) to confirm times, dates and places.

View from the Cat House



by Kim Brennan

Returns and Previews

The good news is that my Whitecat (a Siamese cat with striped 'points') has returned from the cat doctor from her surgery for breast cancer. The prognosis is good now, as the vet seems to have gotten it all (it was detected very early). And my CDC Wren III 150 M hard drive is back from the repair shop with a new power supply and all data still intact. The repair shop at first thought it would take many hours to recover the data as they thought it was a Mac drive. In point of fact, it is a Mac drive. I just happen to be using it on my GS. So what else is new?

New System

Well, lots of stuff is new. By now you should have heard that GS/OS system 5.03 is out. A mild update to system 5.02, but almost everything was reworked in this update. And, as is often the case, not quite everything was caught. GS/OS system 5.04 will be out very shortly [ed.note-5.04 is out as of 1 Jan.]. One of the noticeable things that did get updated are the printer drivers. All of the major Apple drivers for Apple printers were updated. The Imagewriter driver is now v4.0 and has many new features. It also works incredibly faster. Fast enough to pace Macs.

The Imagewriter LQ driver is also a new version (4.0). This is the first version of for the Imagewriter LQ that truly makes use of the better print quality of that printer. The previous versions made it work just like a 9 pin printer (it is a 27 pin printer).

The Laserwriter driver got only a mild update (to version 3.1). This update seems to have made the Laserwriter output more pleasing to the eye when working with GS color.

MIDI Synth

Something else new from Apple that didn't quite make it into the 5.04 system is the MIDI Synth tool set. MIDI Synth is a tool set that makes use of the Ensoniq chip in a new and exciting fashion. To most applications using this tool the Ensoniq will work like a separate MIDI (Musical Instrument Digital Interface) device. MIDI devices can be practically anything, though the most common ones are keyboards. I have an electric piano that has a MIDI port on it. With an appropriate program I can play the piano from my computer. I can also play the piano and record the music on the computer, not as sounds, but as the actual notes played including how hard I struck the key, how long I held the key and whether any special affects were in effect at the time the key was struck (such as the damper pedal).

What this means to the casual GS user is that skilled musical composers using separate MIDI equipped instruments can compose on their instruments and their results will be completely audible to you even though you don't have those same instruments. Previously, you could only here the music as they composed it if you had the exact same instruments. This tool also will allow the music being played to be practically invisible to the application that is currently running. The program tells the tool what to play at the beginning and then doesn't have to worry about it anymore.

A demonstration program that shows the power of MIDI Synth is called synthLAB. It was developed by the same person who created the tool set. SynthLAB is strictly a demo program and is not meant to be usable as it currently exists (it's a beta version, only available from APDA). But, the music it can generate is, well... you really have to hear it to believe it! Using synthLAB, I experimented with my electric piano. My electric piano is really just a piano. It doesn't have any other voices. However, since it does have a MIDI, I can hook it up to my GS and play and record pieces on the GS. Since my piano is electric it has a volume control. I turned the volume down on the piano, and choose a different voice (instrument) from within synthLAB and broadcast the sound on my stereo speakers. The effect was that I played a piano that didn't sound like a piano. It sounded like, a violin, trumpet, church bells, or whatever instrument I happened to have selected in synthLAB. This was really fun. The first commercial program using the MIDI Synth tool set is the GS version of Dragonwars, a role playing game that began shipping on the 19th of December, 1990.

Hypercard GS

One other new program that will be using MIDI Synth is Hypercard GS. Apple announced this program on the 15th of December, 1990. I've used both Hyperstudio from Roger Wagner, and Hypercard now on the GS. I honestly wasn't very impressed with Hyperstudio. I've seen what it can do, though, so my first impression was primarily based on the 'stacks' that came with the program. A 'stack' is the

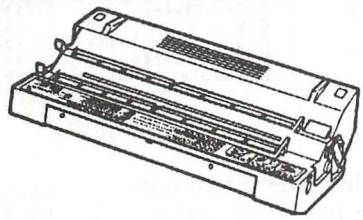
term that people have used when referring to the individual programs that are created using Hyperstudio (or Hypercard). A stack can be customized by the individual creating it in a number of ways, but a lot of the creation process is visually oriented, not programming oriented. An advanced or skilled stack creator can add sound and other features (such as the control of a Laserdisc player) to a Hyperstudio stack, but I simply was impressed.

Hypercard, however, seemed more refined. I was more impressed with it, and I can't say why. Perhaps it was simply the higher quality, in an artistic sense, of the initial stacks I've seen with Hypercard. Although Hypercard and Hyperstudio have many overlapping features there are some things that are also mutually exclusive. Hypercard doesn't have the ability to control the Laserdisc player that Hyperstudio can. Hyperstudio doesn't currently have any method for import Mac Hypercard stacks. Hypercard GS will be able to use Mac Hypercard stacks, in a fashion, but it will take a conversion program on both the Mac and the GS for the complete conversion.

Hypercard should be released at the same time as system 5.04 (which it will require) sometime around the beginning of February. It will be sold by Apple dealers for $99.

Next month I'll try to talk about Glen Bredon's ProSEL 16 and The Byte Works Orca series of programming languages and the MIDI recorder sequencing program Mastertracks Pro.

Toner Cartridges Remanufactured



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CoPilot to the Services

by Rick Zeman

To me, two of the most intimidating aspects of visiting either CompuServe or GEnie are the associated costs and the confusing interfaces which increase the former.

Luckily, there are ways to greatly reduce the cost of connect time and a way to avoid having to deal with any of the service's interfaces. CoPilot, by Ken Gluckman, is an Apple IIGS shareware shell for either Talk is Cheap or for Point to Point. There is a version of CoPilot available for both CompuServe and for GEnie.

CoPilot is a GS/OS desktop (640) application which is the "Command Center" in which the user performs every function needed to keep online time ($$$) to a minimum. Within this shell, one can compose or read messages or mark files which will be automatically downloaded from CIS or GEnie.

Setup

First, one has to run the Applesoft setup utility which will install all of the necessary files that are needed by the particular communications program that is being used. It will also install a special font (CoPilot.8) in your */system/fonts folder. Once that is completed, the CoPilot configuration awaits. That is pretty self-explanatory; one enters the phone number of the system being called, the kind of connection (Telenet, Tymnet or direct), baud rate, ID # and password.

The CIS version of CoPilot comes configured for Approd (Apple II/IIGS general message boards—figure 1) and the GEnie version comes configured for A2 (general boards). However, these although these configurations were correct when the latest versions were uploaded, they may not be current. Ken has a toggle in the Forum menu to "Update Subsections" in the CIS version. This, the first time you log on, will update CoPilot to let it know the latest setups the service is using. A nice touch. Unfortunately, due to the BACKWARDS way (ie. unlike the WAP TCS or CIS) GEnie is set up, updating subsections is not possible in the GEnie version of the program. It's not a limitation of CoPilot, but rather that of GEnie.

CoPilot is not a communications program; you need Talk is Cheap or Point to Point. I have only used it with TIC...so if you try it with PtP, you're on your own! The way CoPilot works is that Ken Gluckman has written extensive scripts that anticipate and handle almost every aspect of being online—all automatically.

All of the settings that have been entered into the shell get turned into variables and passed to the awaiting scripts so "one script fits all."

Going Online

We're all set up now and we want to log onto CIS; pulling down the file menu presents us with two choices: "Online and Quit" and "Online and Return." We want to read our messages when we're done so we select "Online and Return." Everything is automatic from here on out.

CoPilot quits, Prodos 8 boots and Talk is Cheap starts up...dials the service, logs on and checks for Electronic Mail. If you have mail, CoPilot will save it to a special file, delete the mail from your mailbox and then proceed to the selected forum. In the forum(s) (11 can be entered), all the messages in the selected subsections will be read continuously and saved to an appropriate file. If there are messages to be posted, CoPilot will post them, still maintaining the thread continuity of the board. For example, if you're replying to a message by Joe User, the reply automatically references the header of Joe User's message. When CoPilot is done reading and replying, it will post any electronic mail that you've previously prepared. The script will then hang up and return you to the CoPilot shell.

The Editor

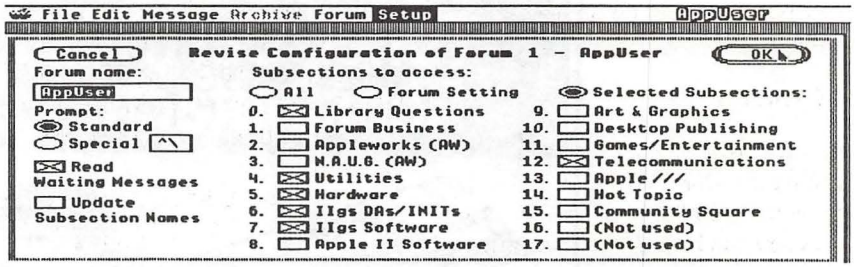

Figure 1

System Software 5.0 introduced the TextEdit toolset; CoPilot takes almost-full advantage of it. I'll mention the one caveat a bit later. When your system returns to CoPilot, all the messages are loaded into the editor. Each message is displayed one-at-a-time; that is, only one message appears on the screen at one time. Message selection is toggled by either a mouse-click in the screen area or a press of the space bar. One can also scroll backwards by using the OA-< command.

While reading a message, there are the choices under the "Message" menu of either "Write Reply" where CoPilot will reply within the original thread, or "Mail Reply"—CoPilot will then E-mail your reply to the originator of the

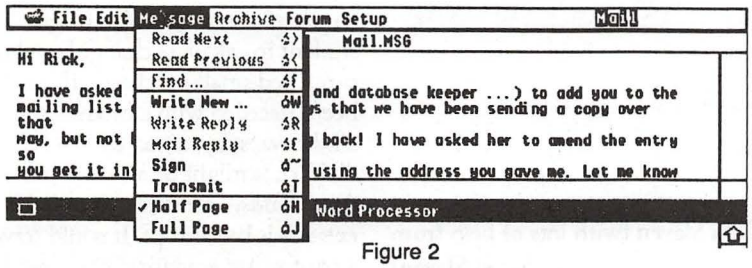

Figure 2

message. All without any effort other than selecting the appropriate menu item.

Regardless of which choice is made, CoPilot will present you with a word processing window—either full-screen or split-screen (figure 2). To me, the split-screen is the easiest way...that way I can still reference the original message while replying. Here is the aforementioned caveat: it's not possible to cut and paste between the message window and the reply window. A mouse click in the message window will scroll it to the next message. It is possible to paste to the processor window, but one has to use an NDA like WriteIt! or EgoEd to make it work.

Archiving

It's possible to archive your messages within CoPilot. It's possible to set up to 14 "pigeonholes" in which messages can be archived according to subject. I use this feature quite extensively; as users of the WAP TCS know, I'm continually uploading relevant messages from developers, etc. about product announcements, bug fixes or whatever. This feature allows me to put ProSel messages in one file, TIC messages in another, and so on.

Downloading

CoPilot will automatically download any file specified at the end of an online session using either Xmodem, 1K Xmodem or Ymodem (figure 3). However, you have to know the exact filename and what library the file is in in order to utilize this function. This leads to a Catch-22 kind of situation: if you're using CoPilot, you can't get a library listing because there's no provision for it in the menus, and no branch in the scripts even if it were...so you don't know the filenames. It's possible to write your own script to do so, but (even though I script in TIC), that defeats the purpose of a program like CoPilot. The latest version of the CIS scripts come with a provision to launch a user-definable script at the end of a session (The GEnie version has had that for a while). I haven't tested that feature. However, I have downloaded files through CoPilot and it functions both smoothly and automatically (starting to notice a common theme here?). One major problem I have with CoPilot is that there is no function to go online at a pre-specified time.

If there was the ability to specify in CoPilot to go online at, say, 0300, I'd truly be happy. All he would have to do would be to take the time and pass it to TIC's "waitfor time xxxx" scripting command, launch TIC and let TIC wait for the time and all would be well. Sigh...

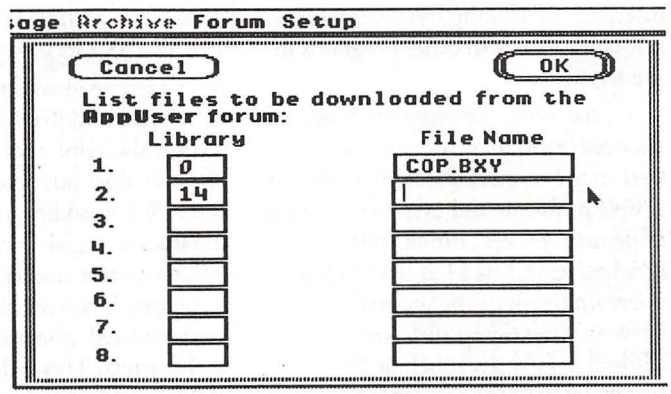

Figure 3

Conclusion

With a few exceptions noted above and a few items not mentioned, CoPilot is a phenomenal program. I originally downloaded it CIS CoPilot from CIS on a Sunday night and by Monday morning, my shareware check was winging its way to the author! The versions of CoPilot that are in downloadable form are partially disabled; upon receipt of the $25.00 shareware payment (or $15.00 for the second one to be registered), Ken will E-mail the password to unlock the program. This ensures that he gets a fair return on the time invested in programming CoPilot. The features disabled don't impair the functionality of the program, only the convenience of it.

CoPilot, I believe, paid for itself with a few weeks. My daily sessions on CIS last 2-3-4 minutes. And since I'm a graduate of Ron Evry's Cheap Computing school, I can't argue with my savings at all.

CoPilot can either be downloaded from the libraries of CompuServe or Genie or is available direct from the author:

Kenneth Gluckman
23308 Park Place Drive
Southfield, MI 48034

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Talking Money

by Dan Slaven (with lots of help from Sarah Slaven)

Talking Money (TM) is another in a series of early learning "Talking Schoolhouse" programs from Orange Cherry Software. It is, like the others in this series, indigenous to the Apple IIgs. (These programs are now being ported to the I*M world.) This program comprises five sections designed to help young learners with the vagaries of our money system. It is aimed at the K-4 audience.

Features

Talking Money is a fairly well-designed program, although like some other early programs in the Talking Schoolhouse series, it does not follow Apple's guidelines for the interface. The IIgs desktop is ignored in favor of a "designer" program-specific interface, ala the "blue" world. It is not, unfortunately, consistent with the "designer interface" in Talking First Reader, nor is it consistent with other programs in the series.

That aside, the program does a reasonable job in introducing youngsters to the monetary system, with simple problems and exercises. The use of pennies, nickels, dimes, and quarters, as well as $1 and $5 bills is the main thrust of the program. However, my 6-year old tester has allowed as how she much prefers practicing with the real articles, preferrably in the nearest toy emporium! Sigh....

The Five Modules

The five modules in the program are: Money Talks, Money Values, Adding Coins, Adding Coins and Bills, and The Cash Register. The program is quite easy to operate - any child (or adult) familiar with the use of the mouse will have no difficulty getting started.

Each module builds on the previous module, and should be worked through in turn. Beginning with "Money Talks", the student learns the names of the various coins and bills. Clicking on each item represented on the screen elicits a vocal response or, as the user's guide puts it "...a warm human voice saying the name of that particular unit of currency." After tiring of this section, which can happen quickly, the student should proceed to "Money Values".

Probably the most important point taught by the "Money Values" module is that value is not necessarily related to the size of the coin or bill. This module also shows equivalent amounts (i.e. $1 = four quarters) and the narrator says the value in dollars or cents when an item is clicked.

The "Adding Coins" module is a good exercise in adding groups of coins with equal or different values. This section also reinforces the fact that size of a coin does not necessarily relate to value. When adding coins, however, the student is given only one chance to select a correct answer from the choices displayed. If correct, the student is congratulated; if incorrect, the message is "Incorrect. This is the correct answer..." and the appropriate choice is highlighted. I felt this part of the program could be a bit more forgiving.

"Adding Coins and Bills" is a logical follow on to the "Adding Coins" module. The exercise is the same, but with paper money added to the problem. The results for correct and incorrect responses are essentially the same as that in the preceding module.

The final module, "The Cash Register", tests the ability of the student to calculate change based on simulated small purchases. If this had been preceded with a module showing all the ways say, a quarter can be divided, it might be a useful exercise. As it stands, I feel the move to this exercise is too abrupt. It could serve as a reinforcing exercise after doing this type of play in the classroom. This module also allows the student only a single opportunity to respond correctly to each question. After completion of the quiz, the student is presented with an animated (color cycling) scoreboard. For scores of 70% or better, additional praise is given.

Technical Stuff

This program, like all of Orange Cherry's early releases, is copy protected and cannot be installed on a hard disk. Later versions may be installed to a hard disk, according to Orange Cherry's tech support, but the programs are still copy protected. Hard disk installation instructions are available upon request. The early version used for this review also will not run by just opening the disk and double-clicking the program icon. To run on my system (under GS/OS 5.03) requires that I reset the startup to slot 5 and re-boot the machine.

How much?

The program costs $52.00 plus shipping and handling if ordered directly from Orange Cherry. That price includes a "free" backup disk. Mail order price ranges around $42.00, but does not include the backup disk.

Recommendations

Given the technical difficulties with this program (I can't even get a screen shot from the copy protected programs!) and the rather curt manner with which it treats the student, I cannot recommend this program. It is rare that I can't find some "redeeming value" in a program, particularly if it has some educational content. This time though, the manner in which the

content is presented seems to put off the young learners it is supposed to attract. This program has not proven popular with students at my co-tester's school, and it is probably her least favorite. All told, this program is just too rude and crude to recommend that any educator part with a piece of his or her budget to acquire it.

Talking Money

Orange-Cherry Software Talking Schoolhouse Series.

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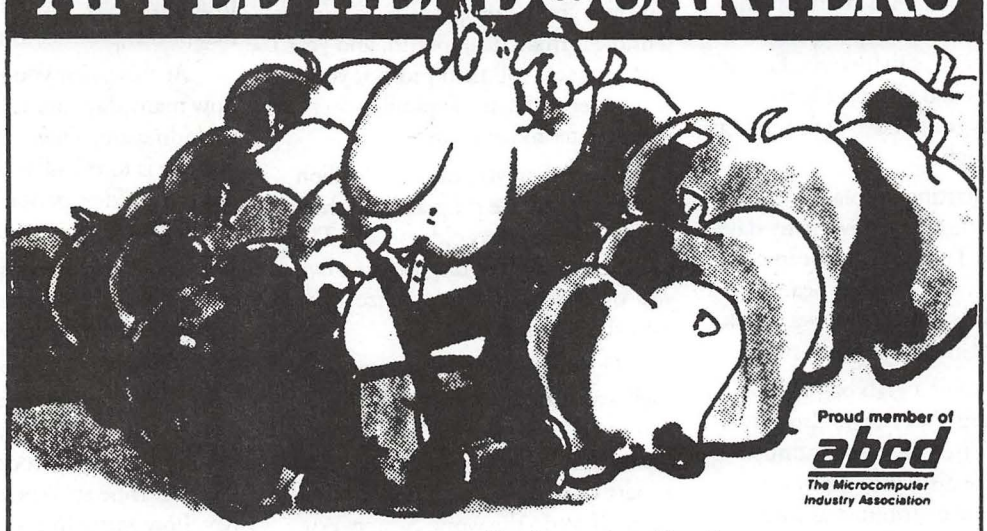

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Amusing Large-Number Activities for Kids

by Phil Shapiro

Young kids have a natural fascination with large numbers. You can use your Apple II and a calculator to develop this fascination. Once a child develops a grasp for the concept of multiplication and division, you can pose all sorts of questions for him or her to calculate. Believe it or not, this type of activity can be really fun. On your part, thinking up creative problems to solve can make the activity intellectually involving for adults too.

Here is a description of a fun little "large numbers" activity to do. This activity works best with children who already have some estimating skills. You can take this activity quite far with fourth graders and older students. Third graders could have their interests whetted, though.

A good starting off place for such activities is to find out how many days old a child is. To do this you can use a great program named Date Search on a disk called Beagle Bag, a freeware disk available from many user groups.

Beagle Bag is a grab bag disk of game programs that Beagle Bros. used to publish. When they discontinued publishing the disk, they graciously allowed it to be distributed as freeware. (Freeware is a close relative of public domain. With a freeware disk, the copyright owner retains the copyright, meaning that nobody else can sell such a disk for profit.)

If your own local Apple user group doesn't have a copy of Beagle Bag, you can easily get a copy by sending $3.50 to the Big Red Computer Club, 423 Norfolk Ave., Norfolk, NE 68701. This price includes postage and handling. And you don't have to be a member to order public domain disks from BRCC.

Once you get your hands on Beagle Bag, boot the disk to the main menu. Then use the right arrow key to move down the menu to Date Search. The Date Search program will ask you to type in two dates. Within two seconds it will give you the number of days in between those two dates.

So, typically, the first date you'll type in will be the kids' birthday. The date is entered according to the standard American format: month, day, and year. (Europeans have a more sensible format: day, month, and year.) The program will then prompt you to enter a second date. Typically you would enter today's date.

Faster than you can say, "trillion dollar deficit," the program will show you how many days old you are. This can cause shrieks of laughter to a five year old kid, who didn't realize he was almost 2000 days old.

The next activity almost suggests itself: calculate how many hours old you are. This is where a calculator comes in handy. But if you don't have a spare calculator, you can get your Apple II to do the work. Simply exit the Date Search program by pressing the letter <Q> twice. At the Applesoft prompt (]), you do calculations by asking the computer to "PRINT 1835 * 24". (The asterisk is the conventional symbol for multiplication on your Apple II.)

After finding out how many hours old a particular person is, you can go one step further and find out how many minutes old a person is. Older kids should be given a chance to make an estimate. See if you can get them to give you a ballpark figure. If they're a little shy, ask them to give you a range of figures, with a possible low estimate and a possible high estimate.

The final step is finding out how many seconds old a person is. You should see the wide eyes of a child who finds out that he or she is over one million seconds old. (You don't need to tell them that a two week old infant is already over one million seconds old.)

You can continue this activity by having the child estimate how many days old YOU are. To help the kid come up with a good estimate, ask them how many times older than them are you. (This will usually be in the range of 5 to 15). Then ask them to multiply this number by the number of days old they are. Estimating skills can be called forth at this point. (You might want to point out that multiplying by 5 is the same as multiplying by 10 and then dividing by 2. Or, multiplying by 15 is the same as multiplying by 10, and then adding half of this product to the product.)

At this point you might calculate how many days old Grandpa and Grandma are. Then, an interesting exercise is to calculate how many days old is the oldest person alive.

Track down a copy of the Guiness Book of World Records. If memory serves me correctly, there was a Japanese fellow who lived to be about 122 years old.

Once you find out how many days old this fellow is, you might ponder how much food he ate in his lifetime. If he ate 3 pounds of food a day, how many tons did he eat in his lifetime? Other interesting questions might pop into your head. Sometimes kids will spontaneously come up with their own question that they want to figure out. Such creativity should always be encouraged.

This activity could be concluded by having kids try to find out when their next "decimal birthday" will occur. If the kid is almost 2000 days old, see if you can find when that upcoming day is going to take place.

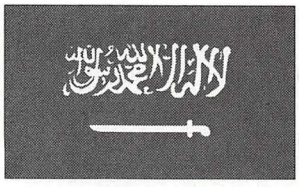
Then have yourself a 2000 day birthday party! You deserve a celebration too, after all, because you've been raising the kid for the past 2000 days.

Once you get a child thinking about large numbers, they'll naturally explore ideas on their own. Other numbers to play with include the distance to the sun (and the speed of light travelling from the sun), the population of planet Earth (and the consumption of resources), and the population of large cities (and quantity of garbage produced daily). Large numbers are all around us, and it's our duty to have a good sense of what is big and what is small.

For people who'd like to explore this subject further, there's an excellent book that's been written on this very topic. Older students and adults will enjoy reading "Innumeracy", by John Allen Paulos. Almost every public library will have at least one copy. Professor Paulos teaches mathematics at Temple University, in Philadelphia, PA. His entertaining book gives lots of amusing examples of "large number" problems he has given to his own college students.

Here's a fun little question for strong math students to calculate. In February, 1992, I will be celebrating my one billionth birth second. Given that fact, how many years old am I today? And what month and year was I born in?

Do you know of anybody who recently missed celebrating his or her billionth birth second? If so, it's not too late to bake a cake. Just don't forget to put a billion candles on it.



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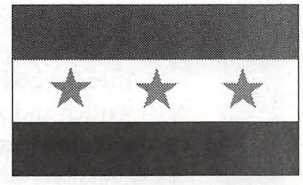

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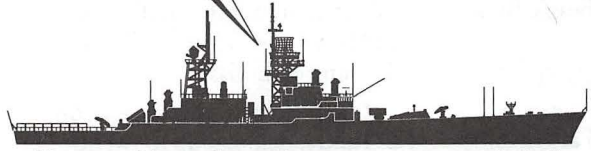

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TimeOut TextTools

by Robert S. Oringel

Every once in a while an application program appears that has long been on the wish list of a prospective user. One such program (at least in this writer's view) is TimeOut TextTools. This program provides the writer of long form manuscripts/books, who chooses to use AppleWorks 3.0 as his word processor with some of the writer's tools which were omitted from AppleWorks.

The need for some of these tools has, until now, forced writers who use Apple II computers to choose a more full-featured word processor—perhaps WordPerfect, WordStar or Wordbench. All are excellent word processors, to be sure, and could easily be chosen over AppleWorks for their serious work.

After the body of a manuscript has been written and accepted by a publisher, there usually follows a series of negotiations between the author and the publisher's editor(s) over who provides such items as tables of contents, glossaries, indices, chapter titles, subtitles and sub-subtitles. TextTools can help the writer more easily fulfill his part of these obligations.

TextTools was written by Mark Munz, Randy Brandt, and Howard Bangerter, and, like all TimeOut modules, is published by Beagle Bros. of San Diego, California.

As its name implies, TextTools is a group of writer's tools. There are eleven of them, but not all are equally useful for every writer. They are, in the order listed in their well written 81 page manual: Glossary, QuickStyles, QuickTabs, MarkMerge, MultiPrint, CopyBlock, SuperFind, Analyst, Indexer, TOC (Table of Contents) Generator, and CR Stripper. TimeOut Utilities, and TimeOut Installation are also found on the disk. And, as with every TimeOut module, both 5.25" and 3.5" disks—always without copy protection—are supplied by Beagle Bros. While the TimeOut TextTools' manual was well written, a couple of the short tutorials included are somewhat obtuse and required rereading to obtain a complete understanding.

A glossary is a list of difficult terms or technical terms accompanied by explanations, often included in alphabetical listing in the back of a textbook. How well does "Glossary" help the writer perform the task of providing a glossary?

The user starts with a very short, albeit somewhat confusing, tutorial. Repeating the tutorial a couple of times, however, led this user to the creation of his own Glossary, using a test glossary and compiler provided with the tutorial. The glossary compiles word processor files, or portions thereof, into Glossary applications. It does work.

*"QuickStyles" allows the user to create stylesheet applications. What Glossary does for text, QuickStyles does for some printer options. This falls within the "Publisher's" domain for this writer, but the application could be very useful to a desktop publishing enthusiast.

* "QuickTabs" improves upon Tab Rulers, defining up to twenty custom rulers.

*"MarkMerge" replaces AppleWorks' mail merge which is performed through the Clip Board, with a more powerful and flexible system. It also permits printing accurately onto a preprinted form. I'll try this one at income tax time.

*"MultiPrint" permits the printing of up to 100 word processor files continuously, even linking files together for continuous pagination up to the AppleWorks limit of 512 pages.

*"CopyBlock" permits fast, multiple columns on a page, within AppleWorks—another help for desktop publishing people.

*"SuperFind" provides the power to find and replace printer options and embedded commands. It can, for example, replace every instance of boldface with underline, in a manuscript.

*"Analyst" looks at the user's writing style by creating a list of all of the words in your word processor document - not just the misspelled ones - and it tells you how many times you used each word.

*"Indexer" generates an index for the user's document or manuscript. An index is an alphabetical list of names, or subjects, together with their page numbers, usually placed at the end of a book. Indexing can be drudgery for a writer with a long manuscript, who up until now had to perform this task manually by re-reading the manuscript and noting manually each word to be included in the index. Then, the writer had to alphabetize the list and supply descriptions for each indexed word from the text. Alternately, the writer could permit the publisher's indexer person to do it, and be charged for the job out of the royalties.

In TextTools Indexer, we used Analyst to create a word list, and then highlight each word wanted in the index. Then behold, the index is created automatically.

*"TOC Generator" automatically creates a table of contents for a group of word processor files. It uses the markers available in the AppleWorks word processor. The user assigns a numerical part number to the marker from a table of marker types and numbers. Then a title for each section is added on the next line if it is desired.

The TOC Generator is activated by choosing it from a menu, and the table of contents appears on AppleWorks' clipboard.

*"CR Stripper," the final utility in the group, allows adding or removal of carriage return markers from a block of text.

I am very pleased to have TimeOut TextTools. I know that I will use several parts of it, again and again, and I would recommend it to those AppleWorks 3.0 users in the writing trade.

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Game review

FACES for the Mac

by Steven Payne

In the beginning there was **Tetris**, the addictive and wildly successful strategy game in which you flip and align descending groups of four blocks into complete rows, against a background of Soviet scenery and to the accompaniment of Russian folk songs. (Of course, you already know this, since by now some version of the game is available on virtually every home appliance!) Then Tetris begat **Welltris**, in which you try similar tricks from a three-dimensional perspective, looking down into a well. Now their Soviet creator, Alexey Pajitnov, brings us the third in his series: **Faces:...Tris III**.

If you can recall the popular "mix-and-match" books and cards of our childhood days (where you might, for example, combine Mickey's ears with Pluto's nose, or a horse's head with a human torso and a fishy tail), then you'll have a pretty good idea of the object of this new game. As in **Tetris**, game pieces fall vertically down the screen against a pictorial background, with music and sound effects to add to the interest. This time, however, the pieces are parts of faces (chins, lips, noses, eyes and foreheads), and fall in pairs, which you can flip or swap with each other by pressing the correct keys. At the beginning of each round, for example, you're likely to start off with a descending pair of chins (no "double chin" jokes, please!). From the keyboard, you can move the pair left or right, swap the position of the pieces with respect to each other, or substitute an different pair of the same face segments. When the segments are aligned in the proper order, the completed face is moved from the playing screen to the window on the left, and you start again. A piece falling into the wrong position (e.g., eyes on a chin) is changed into a plain block. To remove blocks, you must create a new face above it; a "perfect" face (where all the parts are from the same original face) will remove all the blocks below it, while a "mixed" face removes only a single block. The game continues through various levels, at increasing speed, until a column of blocked pieces reaches the top of the screen.

The game can be customized in various ways; from the configuration screen, you can choose to begin at any of 10 levels (universal faces, modern world figures, faces from art, scientists, musicians, historical Americans, literary figures, monsters, historical figures, and American holidays) and can select "Advanced Mode" (pieces fall much faster and the scoring is higher). You can also compete with up to 10 others in the tournament mode, where each player will be confronted with exactly the same sequence of pieces. There is even the option of playing against challengers on remote computers, via modem, network or direct connection. And the program allows you to design your own customized faces for inclusion in the game.

The game package itself includes both black-and-white and color versions, on three 800K Macintosh disks (mostly for the color version's files). At the beginning of play, the program asks for a particular word from the manual; beyond that, there is no disk-based copy protection, so it can be easily installed on your hard drive. This is crucial, for while the black-and-white version will run on any Mac Plus or better, you need at least a Mac II series machine with 2MB of RAM, a 4-bit (or 8 bit) video card, and a hard drive to play the color version.

Unfortunately, as a lowly Mac SE user, I'm excluded from the glorious realms of color gaming. And that leads to my one criticism of **Faces**: that it seems much more difficult to play in the black-and-white mode, because the facial parts and patterns are much harder to distinguish from one another and the background. It's easy to mistake the face segments for part of the scenery (as you can see from the screen shot of "faces from art," if you look closely). Part of the charm of **Tetris**, even in black and white, was that it was visually so simple to see what needed to be done with the falling pieces.

Still, this is a worthy addition to the series, especially if you have access to a color Mac. And there are great little touches: the mouths move, the eyes wink, and eyebrows arch as the pieces fall. Just imagine the fun you'll have combining Gorby's forehead with Margaret Thatcher's face! But—sorry, folks!—so far there's no image of Saddam Hussein to "de-face"; you'll have to add him in yourself. (And why didn't they just call this **Mugtris**?)

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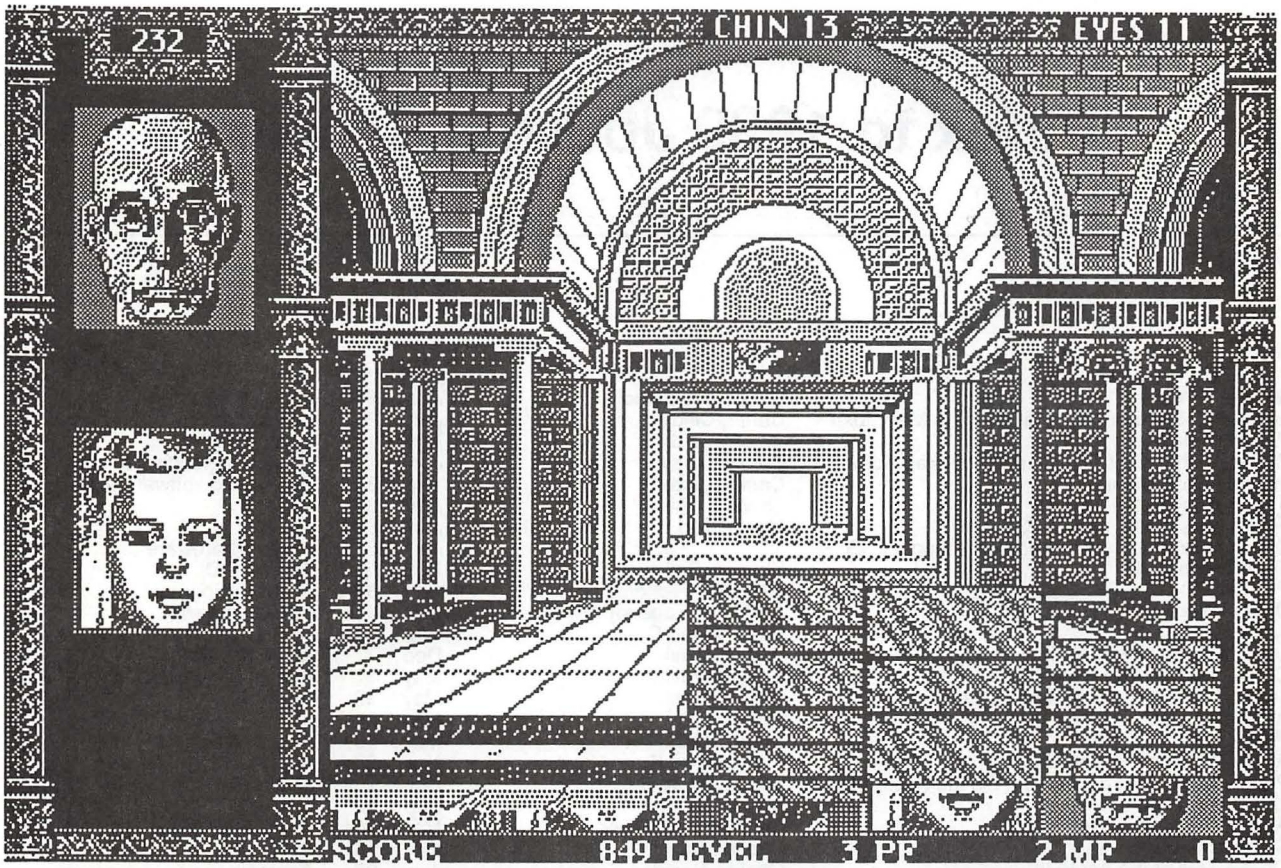
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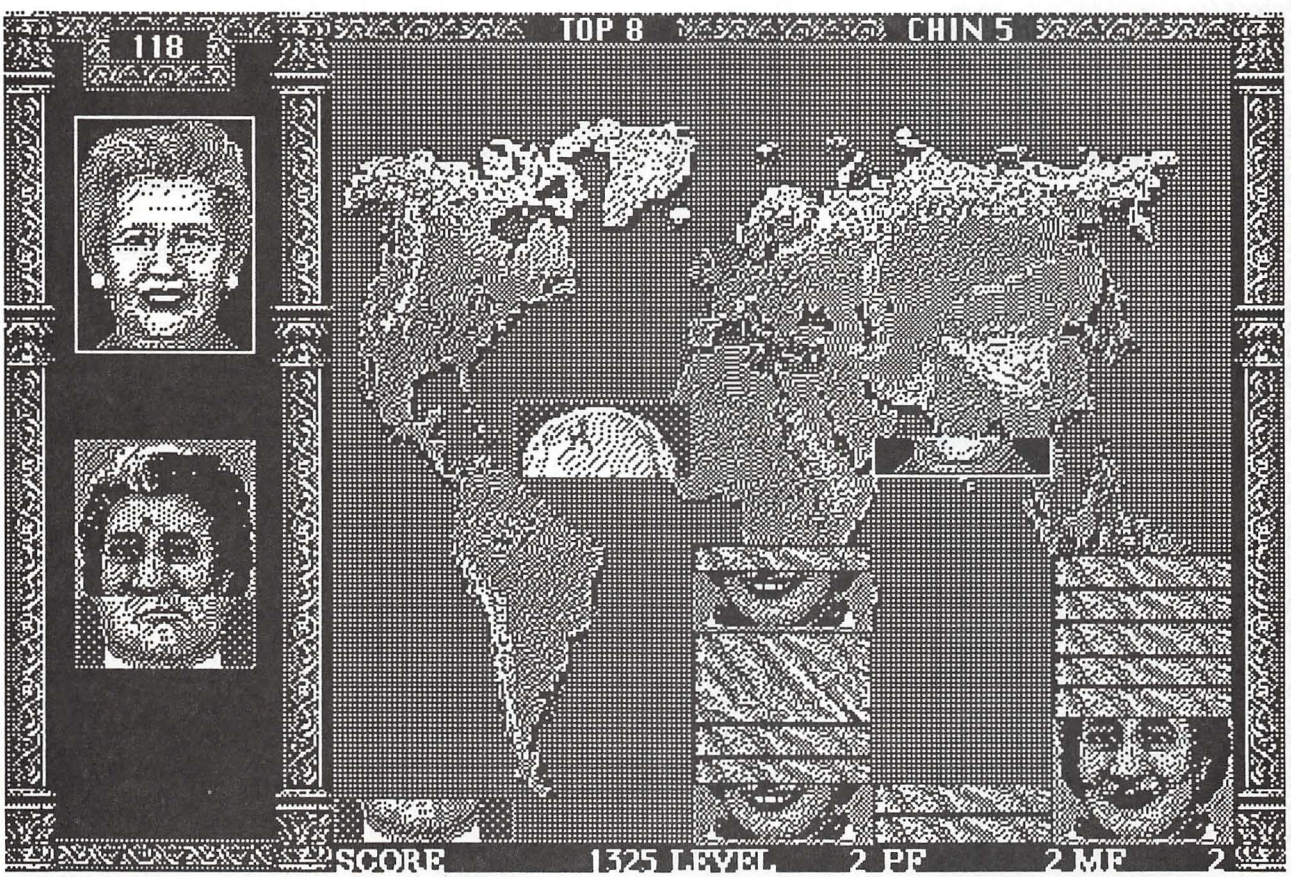
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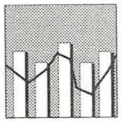

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Classified advertisements can be placed by mailing copy to the business office of Washington Apple Pi. Ltd., 7910 Woodmont Avenue, Suite 910, Bethesda, MD 20814. Be sure to include your WAP membership number and indicate area codes with your phone numbers. Ads must be received by the 1st of each month for inclusion in the following 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.

VOLUNTEERS NEEDED
Your Users' Group needs you!! Washington Apple Pi needs volunteers to coordinate and/or help with the following tasks:

Apple II Tutorial Coordinator

Apple II Disk Annotators
Hotline Volunteers
Mac 400K Disk Coordinator

If you are interested in lending us a hand, please call Nancy at 301/654-8060.

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Apple /// Plus, with Serial Card ///, green screen Monitor ///, external drive, extra new keyboard. Computer and monitor currently under AppleCare (which IS transferable) till 6/29/91. $350. 5 meg Profile and interface card $200. Plus shipping. Stephen Bach 804/286-3466 day/evening.

FOR SALE
Slide film recorder made by Presentation Technology. Sells for $1695. Printwheel, software & demo. Mike Miller 202/806-6737 or 301/262-8246.

FOR SALE
Filmmaker - Professional animation/ presentation program for the Mac. Unopened $375 or best offer. 301/384-6776.

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Apple IIc w/ monitor, stand, printer, int. & ext. disk, mouse, word processor, Print Shop, MousePaint & other software. Todd: 301/770-0399 Rockville, $800.00

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Mac SE, 4 meg, Imagewriter II, 60 meg hard drive, and other extras. $2,200 or best offer. Call Greg at 301/944-0457.

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Apple IIe with two 5.25" disk drives, three 3.5" disk drives, green screen monitor, amdek color monitor w/ television tuner, hayes modem, 1 meg memory board, mouse, speech & sound synthesizer, koala pad, numeric pad and a bunch of software. $1250 or best offer. Call Bob Jordan at 703/352-1440.

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Printer - NEC 5520 with keyboard and 7 thimbles, built like a tank! Stand and tractor feed included. $400 or best offer. Call Bob Jordan at 703/352-1440.

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Mac 512KE. 800K internal/400K external drives. ImageWriter II. MacWrite, MacPaint, Print Shop, with all manuals. Make Offer. 301/474-6434. 9 a.m. - 9 p.m.

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Mac SE/30 - 6 months old, 40 meg HD, 1 meg RAM, ext. keyboard, software with games $3500/o.b.o., call eves. 202/667-9793.

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Explorer Scount Search & Rescue program seeks donations of Macs, SEs, printers, software for network in emergency services incident command mobile operations. Peter McCabe 301/ 596-5554.

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ANNOUNCEMENT
Balloons Software is a new educational software company, founded by Pi member Phil Shapiro. The company makes learning games for the Apple II line. Currently the company is distributing Sara's Number Game, a disk of fun math programs. Pi member discount: $20. For more info, call 202/244-2223.

YOUR AD COULD BE HERE.....CALL (301) 654-8060 FOR DETAILS

WAP Disketeria offerings

Macintosh Disk Library

by Dave Weikert

Mac Disk Catalog

The newest Disketeria Catalog is still available for purchase and is being included in Macintosh New Member packets. The catalog covers all Macintosh disks issued through August 1990 and includes disk descriptions and alphabetical lists of programs and files. The catalog price is $3.00 and it is available at the office or at the monthly general meeting from 8:30 to 9:30. You may also have it sent to you for an additional $1.50 to cover postage; use the Disk Order form in the back of the Journal.

The office has a supplement to the catalog that includes descriptions of all the programs on the disks released since the catalog was last updated. However, it does not include the alphabetical list of files. If you stop by the office, you may copy the supplement for the cost of using the copier. If you are doing business by mail, call the office and ask the staff for the current price.

New and Recent Disks

We have eleven disks this month; four Anti-Virus Utilities series (Mac Disks #1.01C through #1.03C and #1.04B), four Programmers/ Hackers (Mac Disks #14.21A, and #14.23 through #14.25) and three Mac II series (Mac Disks #20.08B, 20.09B and 20.12A).

The most recent disks include Anti-Virus Utilities series updates (Mac Disk #1.05), Desk Accessories series (Mac Disks #2.11 through #2.16), LaserWriter Fonts series (Mac Disks #6.06 through #6.09), INITs/ cdevs series (Mac Disks #9.14 through #9.17), Telecommunications series (Mac Disk #13.10 through #13.12), Programmer/Hacker series (Mac Disk #14.22), System Utilities series (Mac Disks #16.09B through #16.13B), Word Processing Utilities series (Mac Disks #17.04 through #17.06) and a special HyperCard StackWare set of six disks (Mac Disks #19.35 Disks 1 through 6). We also have Apple System Software 6.0.7 (4 disks) and HyperCard 2.0 (five disks).

Anti-Virus Utilities

Virus Detective (version 4.0.3a) on Mac Disks #1.01C and 1.03C and Disinfectant (version 2.4) on Mac Disks #1.02C and #1.03C are both newly revised this month. They now both detect the ZUC B virus variant. Virus Detective is on Mac Disk #1.01C and Disinfectant is on #1.02C; both of these disks are self starting (boot) disks. Both programs are also on Mac Disk #1.03C along with other popular anti-virus utilities) for the economy minded who want to create their own boot disks.

System Software version 6.0.7 was installed on Mac Disk #1.01C, replacing version 6.0.5, so this should boot on all of the current Mac computers. System Software version 6.0.5 was retained on Mac Disk #1.02C ,since version 6.0.7 did not fit with the larger Disinfectant. Consequently, Mac Disk #1.02C may not boot on the new Mac IIsi but should boot on the new Mac Classic (this has not been tested).

Other program revisions include Gatekeeper Aid 1.1 on Mac Disks #1.03C and #1.04B and PS Vaccine 1.0.1 on Mac Disk #1.04B.

For the Anti-Virus Utilities, I have provided only the names of folders or files when there was no change from the previous descriptions; this was done to save space.

Programmer/Hacker series

This month we received the long awaited "official" release of ResEdit version 2.1 and have included it on Mac Disk #14.21A. In order to fit it on, we dropped ResMaster DA and Resourceror.

By popular request, I have assembled three disks of Color Icons and related files that permit their display. Mac Disk #14.23 includes mostly the new format ic18 resources. Mac Disk #14.24 has mostly the prior cicn format resources which take up a little more memory. Mac Disk #14.25 has a mixture of both cicn and ic18 format resources. The ICN#/cicn/ic18 resources on these three disks may be used with either the Icon Colorizer and SunDesk INITs included on Mac Disks #14.23 and #14.24 respectively. You may install these resources in using either ResEdit on Mac Disk #14.21A or SunDesk Strip on Mac Disk #14.24. If you have a color system, you just have to see the additional richness presented by the color icons.

Mac II series

Two revisions and one new disk complete the offering from the disk fairy this month. The revised disks are Mac Disks #20.08B and #20.09B, the latest versions of Image 1.33 Program and Image 1.33 Source respectively. William Jones has tested and assembled Mac Disk #20.12A which includes those amazing Mandelbrot and fractal displays. Who would have thought that mathematical relationships displayed in color could be so intriguing?

Shareware Resolution

If you haven't already done so, a retroactive New Year's resolution to pay shareware authors for any of their products that you use is in order. These folks put in a lot of effort and their primary reward must come from above (since they don't get much return from users). Please pay the

requested fees if you continue to use any of the shareware that is offered in our (or any) user group library.

Disk #1.01C — AV 1

Anti-Virus Utilities

This disk is self starting and includes the System Folder files. Its is designed for users who want a "canned solution" for their Anti-Virus startup disk. It should be locked when you receive it; keep it locked to prevent the spread of a virus to this disk. Use the Desk Accessory Virus Detective as your primary means of detection.

ReadMeFirst.txt:

Once Upon A Virus-txt: B

Vaccine™ 1.0.1:

Virus Rx 1.6:

VirusBlocade™ II 1.0 Demo *f*: ***Shareware – $30 for fully functional version.***

VirusDetective *f* (v4.0.3a): **VirusDetective™**: 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. Detects files infected by all of the currently known viruses including Scores, nVIR A & B, INIT 29, ANTI, WDEF A & B, CDEF, ZUC A and B, MDEF A (Garfield) and MDEF B (Top Cat) and MacMag (Peace). This version has extended capabilities over previous versions and permits you to easily check out an entire floppy disk library. VD 4.0.3 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 only as there wasn't enaough disk space to also include a copy in this folder. ***Shareware – $35, for license, $40 for license and disk with other demo programs.***

system 6.0.7 *f*: Includes Apple System Software version 6.0.7 with System and Finder 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 use as your primary virus detection, eradication and prevention disk.

Disk #1.02C — AV 2

Anti-Virus Utilities

This disk is self-starting and includes the System Folder files. Its is designed for users who want a "canned solution" for their Anti-Virus startup disk. It should be locked when you receive it; keep it locked to prevent the spread of a virus to this disk. Use Disinfectant as the primary means of detection and removal.

ReadMeFirst.txt:

Disinfectant 2.4: By John Norstad. Detects and repairs files infected by all of the currently known viruses including Scores, nVIR A & B, INIT 29, ANTI A and B, WDEF A & B, CDEF, ZUC A and B, MDEF A (Garfield), MDEF B (Top Cat) and MDEF C, MacMag (Peace) and Frankie. Like Virus Detective, it operates under your control and can scan a succession of floppy disks and create a log file of the results. A menu item permits the installation of a protective INIT in your system folder.

RezTag *f*:

system 6.0.5 *f*: Includes Apple System Software version 6.0.5 with System and Finder with Control Panel device SCSIProbe to provide a self starting disk. The System has been stripped of all possible fonts and DAs. This disk is self starting (booting) for your convenience in use as your primary virus detection, eradication and prevention disk. It may not be self starting for a Mac IIsi; this has not been tested.

Disk #1.03C — AV 3

Anti-Virus Utilities

This disk contains the most popular Anti-Virus application files from Mac Disks #1.01, #1.02 and #1.04 but does not include a System Folder. Its is designed for users who want to "roll their own" Anti-Virus startup disks.

Disinfectant 2.4: By John Norstad. Detects and repairs files infected by all of the currently known viruses including Scores, nVIR A & B, INIT 29, ANTI A and B, WDEF A & B, CDEF, ZUC A and B, MDEF A (Garfield), MDEF B (Top Cat) and MDEF C, MacMag (Peace) and Frankie. Like Virus Detective, it operates under your control and can scan a succession of floppy disks and create a log file of the results. A menu item permits the installation of a protective INIT in your system folder.

Gatekeeper Aid *f* (v1.1): GateKeeper Aid: By Chris Johnson. This cdev is placed in your system folder and is then accessible via the Control Panel after booting. It looks for WDEF, CDEF and MDEF viruses and their variants and erradicates them. GateKeeper Aid Docs in MacWrite format describes the use of the program.

GateKeeper *f* (v1.1.1):

Vaccine™ 1.0.1:

Virus Blocade™ II 1.0 Demo *f*: ***Shareware – $30 for fully functional version.***

VirusDetective *f* (v4.0.3a): **VirusDetective™**: 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. Detects files infected by all of the currently known viruses including Scores, nVIR A & B, INIT 29, ANTI A and B, WDEF A & B, CDEF, ZUC A and B, MDEF A (Garfield) and MDEF B (Top Cat) and MacMag (Peace). This version has extended capabilities over previous versions and permits you to easily check out an entire floppy disk library. VD 4.0.3 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.***

Disk #1.04B — AV 4

Anti-Virus Utilities

ReadMeFirst.txt:

AGAR *f*:

AntiPan 1.1: B

Ferret 1.1 *f*:

GateKeeper Aid *f* (v1.1): **GateKeeper Aid:** By Chris Johnson. This cdev is placed in your system folder and is then accessible via the control Panel after booting. It looks for WDEF, CDEF and MDEF viruses and their variants and erradicates them. **GateKeeper Aid Docs** in MacWrite format describes the use of the program.

GateKeeper *f* (v1.1.1):

Interferon (v3.10) *f*:

Intro to Viruses:

KillScores *f*:

nVIR Assassin *f* (v1.0):

nVIR Vaccination:

PostScript Vaccine 1.0.1 *f*: **Postscript Vaccine 1.0.1:** By Jon D. Clauson. Modifies the Apple Laser Prep file to install a vaccine against Postscript Trojan horses that modify the printer's server password. For Systems 6.0 and later and LaserWriter drivers 5.2, 6.0 and 6.0.1. The documentation, **clearpassword.ps.text**, is in text format. ***Shareware – donation to American Cancer Society.***

Virus Encyclopedia:

ViruSTAK:

Disk #14.21 — P/H 21

ResEdit 2.1

ResEdit 2.1 *f*: **ResEdit 2.1:** Apple Computer. ResEdit is the resource editor produced by Apple Computer. With ResEdit you can make changes to icons, dialog boxes, fonts, menus and other resources. It is a very powerful tool, so powerful that unless you know what you are doing, you can cause edited programs to not operate properly. Only modify a copy of any application or file. For instructions on the use of ResEdit see the HMG™ ResEdit Primer on another disk in this series and ResEdit™ Reference, by Apple Computer ($12.95) distributed by Addison-Wesley Publishing Company, Inc. (APDA #M0015LL/C). **Release Note** is in text format.

Examples *f*: Samples of a resource editor, picker and LDEF. These examples use the MPW environment (3.0 or later), the MPW C or Pascal compiler and the MPW Assembler.

Disk #14.23 — P/H 23

Color Icons 2

Icon Colorizer 1.5.2 *f*: **Icon Colorizer 1.5.2:** By Robert P. Munafo. Operates at startup (it is an INIT) to modify the operation of the system so that color icons are displayed by Finder and other applications instead of the normal black and white icons. It works only on those ICN#s, cicns and icl8s that have been copied into the Icon Colorizer file using ResEdit or Sundesk Stip. **Icon Colorizer 1.5.2 Doc** describes the operation of the program. For color Macs only (Color QuickDraw in ROM).

ic18 *f*: The included folders include ICN# and ic18 resources for files as follows:

Buncha Icl8s *f*: By Andrew Wynn Rouse. Adobe Separator, AfterDark, Boomerang, Compactor, ColorDesk, Disinfectant, Finder, Fortune, INIT Scope, MacsBug, MandleColor, Mathematica, MS Mail, Partition, PhotoShop, Programmer Key, SCSI Probe, StrataFlight, SuperLaserSpool, Switch-a-roo, Timbuktu, TurboCache and Virtual.! Icl8 **Read Me** is in text format. ***Shareware – $0.25 each, $10 the lot.***

Immedium Design *f*: By Tom Poston. 4th Dimension, America Online, Apple System Software 6.0.7, Canvas, Excel, FileMaker II, Illustrator, Studio/8, Think C, WhiteKnight, WingZ and Word. **Read Me!** is in text format. $15 gets you a disk with all current Immedium color icons.

MagiMac Publishing *f*: By Glenn Brown. DA Handler, Disk First Aid, DiskTop, Giffer, Handoff, Heapfixer, Print Monitor, SmartKeys and Termperment 2. **CIcon Notes** is in Word format.

Misc ic18 *f*: Delta Graph, Fastback II, Foxbase, Galax, Mac Tools Deluxe, OmniPage and SoundMover.

New Color Icons *f*: FullWrite, MacDraw II and QuickMail.

Paul Schliesser *f*: Adobe Type Manager and Sum II. **About These Icons (TeachText)** is in text format.

TheToilet 1.1c *f*: By Brian Novack. Color icons to enhance the trash can replacement utility known as TheToilet. **Read Me** is in text format.

Disk #14.24 — P/H 24

Color Icons 3

Color Menu Icons *f*: **Color Menu Icons:** By Ian Shortreed. When installed with ResEdit, places colored icons beside the Finder menu items (except View). **Double Click Me!** is the documentation in application format.

Sun Desk 1.1 *f*: **Sun Desk 1.1:** By Frédéric Miserey, Jean-Michel Decombe and Tom Poston. Alter the way the Finder draws icons on the desktop and in windows to display full-color icons. Sun Desk uses "icl8" color icon resources which use less RAM and are drawn quicker on screen than "cicn" resources. icl8 resources will be supported by Apple in Finder 7.0. **SunDesk Icons** is a file of color icons. **SunDesk 1.1 Docs** is in Word format.

Sundesk Strip 1.2.1 *f:* **Sundesk Strip 1.2.1:** By Morgan Davis Group. Creates a SunDesk Icons file that contains only icons that match those in your Desktop files to save memory and startup time. Also use it to add new icons to your system without using ResEdit. **About SDS...** is in TeachText format. **Mini Gallery** is a collection of color icons described in the TeachText file **About Mini Gallery.**

cicn *f:* These folders include ICN# and cicn resources for files as follows:

cicns and ICN#s *f:* Aask, Big Thesaurus, Crystal Quest, Dialog Editor, Disinfectant, DiskFit, FileMaker II, Mac System Software, QuicKeys, SCSI Tools, SFScrollINIT, SoundMaster, Standard Trash, Stuffit, SuperClock!, Syncronicity, Vaccine, Virtual and Zelmo's.

Mac-in-Phail's Icons Vol. 2 *f:* By Matt MacPhail. Disk Clinic (Shield, Floppy Recover, HFS Recover, Symantec Tools, HD Tuneup, Guardian, Quick Copy, HFS Scanner and My Hard Disk) and Super Paint. **Mac's READ ME** is in text format.

Misc cicns *f:* Aldus Freehand, Folder, MS Word, MicroPhone 2, ResEdit and Stuffit.

Finder/System ic18 *f:* By Paul Schliesser. A collection of ic18 resources for System Software icons. **Words** is in text format.

Disk #14.25 — P/H 25

Color Icons 4

Color Bits 1.0 *f:* **Color Bits <v1.0>:** By Ben Haller, Stick Software. An editor for bitmapped resources; this one is a replacement for CIcon Edit. ***Shareware – $10.***

Color Icons *f:* By Bruce D. Oberheu. A collection of cicns organized into 9 different categories including System releted, spreadsheet, drawing and greaphics, communications and emulation, word processing, system editing, odds and ends, maintentance and utilities and fun and games. **ReadMe.First** is in MacWrite II format.

ic18 *f:* Includes First Aid, Norton Utilities, Pagemaker and Stuffit Deluxe.

ResColors 1.0ß11 *f:* **ResColors 1.0ß11:** By Frédéric Miserey. A series of resources that are added to ResEdit to allow ResEdit to edit cicns. Requires version 1.2 or higher of ResEdit. **Adding ResColor's** is in text format.

Disk #20.08B — Mac II 8

Image 1.33 Program

Image 1.33: By Wayne Rasband. Image can be used for acquiring, enhancing, analyzing, editing, and color coding gray-scale images on the Macintosh II. When complete, it will perform standard image analysis techniques, including densitometry and morphometry. It can currently do histograms, contrast enhancement, density profiling and digital filtering. It also provides many MacPaint-like editing functions, including the ability to draw lines, rectangles, ovals and text. Objects may be drawn either outlined or filled, in any of 256 colors or shades of gray. This application requires at least 2 megabytes of memory and an 8-bit video card. By way of warning, the program will require up to 4 megabytes when using the animation procedure. If you want to try out the animation examples, you must first increase the memory allocation of Image. To change the memory allocation, go to the Finder, select the application and choose Get Info. The memory allocation can then be set by entering the new allocation within the Get Info dialog box. Documentation for Image is included in the file **About Image 1.30 (Word)** is an MS Word document describing an earlier version of Image. **Change History (Word)** and **Changes** are MS Word and text documents respectively.

Bird Movie *f:* Seven animation frames of a bird in flight. Open these files in order from within Image to view the animated sequence. Be sure to increase the memory allocation of Image prior to trying to open all of these files simultaneously.

Ceretec Sagittals and Gel with Plots: Example Image files.

Macros *f:* Eight examples of macros in the built in Pascal like programming language which provides the ability to automate complex, and frequently repetitive, processing tasks.

Palettes *f:* Eleven different gray scale and color palettes for use with Image. Includes: **4 Grays, 8 Grays, 32 Grays, 12 Colors, 32 Colors, Blue-Yellow32, Fire256, Fire32, Ice32, Log Down256, Log Up256, Rainbow256** and **UCLA/NIH.**

Molecule Movie.sit: Eighteen animation frames of a molecule rotating in space. Open these files in order from within Image to view the animated sequence. Be sure to increase the memory allocation of Image prior to trying to open all of these files simultaneously.

Disk #20.09B — Mac II 9

Image 1.33 Source

Image 1.33 Source *f:* Analysis.p, Camera.p, Edit.p, Ellipse.p, File1.p, File2.p, Functions.p, Globals.p, Graphics.p, Image.p, Image.proj, Image.rsrc, Init.p, LeastSquares.p, Macros.p, Macros1.p, macros2.p, User.p and Utilities.p: By Wayne Rasband. Complete Pascal source code and the resources associated with Image 1.33.

Disk #20.12A—Mac II 12

Mandelbrot & Fractals 2

Ani-Mandel 1.2 *f:* **Ani-Mandel 1.2:** By Mark Lankton. An application for viewing the Mandelbrot set and its environs. Choose "**Mandelbrot**" from the **File** menu for a plot of the Mandelbrot set, an extremely odd-looking entity. When it's done, choose "**Animate Colors**" from the **Twiddle** menu and watch the fun. Ani-Mandel docs. is the documentation. ***Shareware - $5 for the documentation.***

C.M.S.E. v. 0/90 *f*: **C.M.S.E.** (Color Mandelbrot Set Explorer). Another approach to the Mandelbrot set, hampered a bit by the fact that the short documentation is *en francais*. But you don't need it to open the application and wander around the small color window which zooms in and out of a Mandelbrot Set. Click either end of the color bar to cycle the colors through the illustration. *Shareware – $5.*

Fractal: By Richard Koch. A simple generator of various black and white fractal curves.

Fractal Contours: By Jim Cathey. Another black and white program which generates a random landscape of mountains, foothills, or foothills and water. (The menu shows a "save as Paint" option, but it's always dimmed.)

fractal islands 5.0: By Scott Berfield. Generates a random fractal landscape of islands in a sea. Can use QuickDraw colors when selected, and can be saved in several formats.

Mandelbrot Microscope *f*: **Mandelbrot Microscope:** By Martin Sanders and William Hembree. A black and white or color Mandelbrot generator.

Mandelbrot Animator: By Harry Guiremand .Allows viewing of files created with Mandelbrot Microscope. Note: bombs (error -37) if it is opened within the same folder with Mandelbrot Microscope.

Super MANDELZOOM 1.07 *f*: **Super MANDELZOOM 1.07:** By Robert P. Munafro. An easily manipulated color Mandelbrot set rendering program that draws very quickly particularly in the lower resolution views. (It will also operate in black and white.) The program permits easy scrolling, zooming in and out, selection of any of six shading tables and a lot of other features that make the program easy and fun to use. The **Super MZ doc (Read me first)**, **Super MZ doc part 1** and **...part 2** is in text format. The extensive documentation will probably tell you more about Mandelbrot and Julia sets than most of you will ever want to know.

Tutorials — February

by Rob Clark

Washington Apple Pi Tutorials Washington Apple Pi provides training to its members on a regular basis. These classes are also available to those who are not— or are not yet— members, at a slightly higher rate. 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. Please note that some classes do not require you to bring your computer with you.

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.

Payment for Courses

The fee for each session are generally $15 for members, $20 for nonmembers. Please refer to specific class for exceptions. Mail or phone in your registration to the WAP OFFICE. We request that you pre-register for the class or classes you wish to take by either sending in the registration form or by phoning your registration into the office. Please do not ask 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.

Apple II e/c Tutorials for February

We're providing the Apple II e/c Introductory Tutorials, a three-part series in February. The courses are held each of the first three Tuesday evenings in February from 7:00 to 10:00 pm at the WAP office. The dates are February 5th for Part I (course # AE 10291), February 12th, for Part II (course # AE 20291), and February 19th, for Part III (course # AE 30291). 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 February

This month's courses, in addition to the three beginning courses, are Introduction to *Learning Adobe Illustrator, Part III, Introduction to Microsoft Word, and Introduction to Microsoft Excel.* Classes are held at the WAP office; please refer to the listing below for more details.

Introduction to Macintosh, Part I **(Course # M10291).** 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 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: Monday, February 11th, 1991, at 7:00 pm.

Location: WAP Office

Fee: $15 for members, $20 for nonmembers

Introduction to Macintosh, Part II **(Course # M20291).** 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: Monday, February 18th, 1991, at 7:00 pm.

Location: WAP Office

Fee: $15 for members, $20 for nonmembers

Introduction to Macintosh, Part III **(Course # M30291).** 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: Monday, February 25th, 1991, at 7:00 pm.

Location: WAP Office

Fee: $15 for members, $20 for nonmembers

Learning Adobe Illustrator, Part III (Course #AI30291). This class is for the beginning user of Illustrator. The class will focus on *Illustrator 88*, but will also cover some of the features of *Illustrator 3.0*, as well. This will be the second of a series of classes designed to fully exploit power of Illustrator. Each class will cover specific technics to boost your skills using the program. *It is not necessary to take these classes in order; completely new techniques are covered each month.* Techniques covered will include masking, blending, etc.

Materials required: Your Macintosh, an external drive, and a copy of Adobe Illustrator.

Date: Saturday, February 9th, 1991, at 9:00 am.

Location: WAP Office

Fee $15 for members, $20 for nonmembers

Introduction to Microsoft Word (Course # MW20291). This class is for those who little or no experience with Microsoft Word. Topics covered are: the many uses of Microsoft Word, Word's environment, a simple demonstration of Word's features, menus and menu commands, window icons, keyboard shortcuts, formatting exercises, and Word's different views of your document.

Materials required: Your Macintosh, an external drive, copies of your Microsoft Word software.

Course Date: Wednesday, February 13th, 1991, at 7:00 pm.

Location: WAP Office

Fee: $15 for members, $20 for nonmembers

Introduction to Microsoft Excel (Course #ME10291). This class is for those who little or no experience with Microsoft Excel. Topics covered are: the many uses of Excel, what Excel is used for, environment, a demonstration, Excel window and tools, menus and menu commands, keyboard shortcuts, advanced features, exercises, and other views.

Materials required: Your Macintosh, an external drive, copies of your Excel disks.

Date: Saturday, February 16th, 1991, at 9:00 am

Location: WAP Office

Fee: $15 for members, $20 for nonmembers

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 _____

WAP Form #CL006 (mod. 7-90) *Mail registration and payment to the above address*

Course Numbers

Please fill in the course number of the class you wish to take...

Class # 1 _____

Class # 2 _____

Class # 3 _____

Class # 4 _____

Class # 5 _____

Class # 6 _____

APPLE II DISKS

APPLE SYSTEM DISKS
THESE ARE ALL 5.25" DISKS

APSD-01 Apple II System Disk - Utilities V. 3.1

APPLEWORKS

APWK-01 Desk, Printer and Money Helpers
APWK-02 Food, Lists, etc. (815/816)
APWK-03 Reserved for Tax Templates

COMMUNICATIONS

COMM-01 TCS Instructions 1.05 A & B - Disk 1
COMM-02 TCS Instructions 1.05 C & D - Disk 2
COMM-03 WAPABBS.1 Documentation (121)
COMM-04 WAPABBS.1 (135/136)
COMM-05 DI COMM - Shareware (503)
COMM-06 Kermit 3.78 - Kermit File Transfer
COMM-07 Comm Term and Telecom (808/817)
COMM-08 MicroModem II (SW) - Hayes Term

CP/M

CP/M-01** Master Catalog (401)
CP/M-02 Utilities I and II (402/404)
CP/M-03 Communications (403/409)
CP/M-04 ZCPR2 Install and Utilities (406/408)
CP/M-05 ZCPR2 Docs /Essential Utils (407/410)
CP/M-06 Text Editor and Spreadsht (411/412)
CP/M-07 MDM740 (SSC//7710, & A-CAT)
CP/M-08 Kermit Source and Running Codes
CP/M-09** Kermit Documentation (417)
CP/M-10 Utilities (419)
CP/M-11 Small C. Compiler (420)

EAMON ADVENTURES

EAMN-01 Utilities II and III (220/221)
EAMN-02* Dungeon Designer and City /Clouds
EAMN-03 Beginners Cave (Master) & Alt
EAMN-04* Lair of Minotaur and Cave of the Mind
EAMN-05* Zyphur Riverventure and Castle/Doom
EAMN-06* Death Star and Devil's Tomb
EAMN-07* Caves of Treasure Is. and Furioso
EAMN-08* Magic Kingdom and Tomb of Molinair
EAMN-09* Lost Island and Abductor's Quarters
EAMN-10* Quest and Undergr City (194/195)
EAMN-11* Merlin's and Hogarth Castle (196/197)
EAMN-12* Deathtrap and Black Death (198/199)
EAMN-13* Temple of Ngurct Black Mountain
EAMN-14* Nuclear Nightmare /Feast of Carroll
EAMN-15* Master's Dungeon /Crystal Mountain
EAMN-16* Lost Adventure and Manxome Foe
EAMN-17* The Guantlet and Caverns of Langst
EAMN-18* Future Quest and House of Secrets
EAMN-19* Sewers/ Chi /Slave Pits of Kzorland
EAMN-20* Lifequest and Swordquest (215/216)
EAMN-21* Priests of Xim! and Heroes Castle
EAMN-22* Temple of the Undead and Quest
EAMN-23* Caves/Mondamen &Orb of Polaris
EAMN-24* Death's Gate /Escape From Orc's Lair

EDUCATION

EDUC-01 Education and Personal Education
EDUC-02 Personal Education 2 and Education 3
EDUC-03 Math / Science and Education 4
EDUC-04 Advanced Math and Vectors / Motion
EDUC-05 Albert Camus Int and Elementary Math
EDUC-06 French Vocab/ Tutorial (46/123)
EDUC-07 Boot for L'Hote and L'Hote (48/49)
EDUC-08 Tic-Tac-Toe in French /L'Hote Quiz
EDUC-09 French Poetry Tut and Appollinaire
EDUC-10 Rafel Boot Disk and Rafel (55/56)
EDUC-11 Tic-Tac-Toe in Spanish /Rafel Quiz
EDUC-12 Matute and Lo Fatal (58/59)
EDUC-13 Reading Fun (Shareware) (505)
EDUC-14 Language Arts Treasures
EDUC-15 Floppy Book 1
EDUC-16 Computration Game /AW Temp
EDUC-17 Algebra Tutorial and Bagels Disk
EDUC-18 Newton's Apple (Cocaine)
EDUC-19 Newton's Apple (Teeth)
EDUC-20 WAP Stack and Tutorial Demo

FORTH

FRTH-01 Assembler/Disassmbler /Screen Editor
FRTH-02 Go Forth Tutorial and Fig/Forth 78
FRTH-03 Forth and Floating Point Arithmetic

GAMES

GAME-01 Games A and B (102/107)
GAME-02 Games C and D (111/128)
GAME-03 Games E and F (162/164)
GAME-04 Keyboard and Paddle Games (72/74)
GAME-05 Pinball and Arcade Games (142/157)
GAME-06 Text Adv /Mystery House (SIERRA)
GAME-07 Educational Games G and H (508/509)
GAME-08 Sports and Utilities / Games (143/160)
GAME-09 Adventures /Game Room (811/812)
GAME-10 Haunted House (176/810)
GAME-11 Mostly Games /Wizard Worker I

LOGO

LOGO-01 Logo Tool Kit and \DocS (145/146)
LOGO-02 Sample Disk and Dallas Apple Logo

MISCELLANEOUS

MISC-01 SS (Coin Collect) and Misc. (95/115)
MISC-02 Miscellaneous (119/120)
MISC-03 Miscellaneous and Recipe Files
MISC-04 Glaq and No Name Yet (129/175)
MISC-05 Special Databases /Jim's Data Base
MISC-06 Misc and Applesoft /AppleWriter IIe)
MISC-07 Astronomy Short Programs (506)
MISC-08 Griffith and Weise Astronomy (507)
MISC-09 Aviation - General (Disk 1 of 2) (514)
MISC-10 Aviation - Navigation (Disk 2 of 2) (515)
MISC-11 Gardner's Assistant (518)
MISC-12 Music and Sights / Sounds (71/126)
MISC-13 Merry Christmas and Happy Holidays
MISC-14 Graphics and Cat Graphix (108/171)
MISC-15 Print Shop Graphics (172)
MISC-16 Color Graphics for Fun/Science / Engi.
MISC-17 Plots / Graphs and Charts / Graphs
MISC-18 Business/Math Stat and SS (70/90)
MISC-19 SS (Investment) and SS (Business)
MISC-20 Business A and B (104/113)
MISC-21 Investments A and B (153/154)
MISC-22 Spreadsheet A and Miscellaneous
MISC-23** Riley's Personal Instrumentation (173)

PASCAL

PASC-01 AttachBios for Pascal 1.1 and Utilities
PASC-02 Crypto / Graphics and Bios / Printers
PASC-03 Misc and Read/Write DOS / Printers
PASC-04 Catalogger and Hires Printing / Lisp
PASC-05 Puffin / Holiday Music -CPM-Pascal
PASC-06 3D Education /Drill /Hackers Stuff
PASC-07 Stocks / Weightwatch/Guerilla Guide
PASC-08 Pascal / To & From DOS /(133/314)

PILOT

PILT-01** Pilot Language (167)

UTILITIES

UTIL-01 New Member's Disk - 2.01 A/ B (821)
UTIL-02 New Member's Disk - 2.01 C/D (822)
UTIL-03 Utilities A and B (100/101)
UTIL-04 Utilities C and D (112/118)
UTIL-05 Utilities E and F (124/132)
UTIL-06 Utilities G and H (138/43)
UTIL-07 Utilities I and J (44/77)
UTIL-08 Mach. Lang. Utilities and One-Key DOS
UTIL-09 Beginners Choice /Intermediate Utils.
UTIL-10 Diversi Copy and Diversi DOS (45/130)
UTIL-11 Additions to ProDOS and Zap Utility
UTIL-12 Utilities A (ProDOS) and File Cabinet
UTIL-13 Imageworks (174/807)
UTIL-14 DOS 3.3 System Master and Tutorial
UTIL-15 Visi-Trend / Visi-Plot and Calculink
UTIL-16 AppleSoft Tutor and Picture Packer
UTIL-17 AppleWriter Utilities (168)
UTIL-18 AppleSoft Programs and Love's Follies
UTIL-19 "Old" New Member's Disk (134)
UTIL-20 JoyReader (Shareware) (819)
UTIL-21 Large Type JoyReader (SW) (823)
UTIL-22 DB Master V. 5 - Program Disk
UTIL-23 DB Master V. 5 - Sample Files /Docs

APPLE IIGS DISKS

THESE ARE ALL 3.5" DISKS

IIGS SYSTEM DISKS

GSAS-01 System Disk V. 5.0.3
GSAS-02 System Tools V. 5.0.3

IIGS COMMUNICATIONS

GSCM-01 FreeTerm GS (2003)
GSCM-02 SnowTerm

IIGS DESK ACCESSORIES

GSDA-01 Desk Accessories I (2020)
GSDA-02 Desk Accessories 2
GSDA-03 Desk Accessories 3
GSDA-04 Desk Accessories 4
GSDA-05 Desk Accessories 5
GSDA-06 Desk Accessories 6

IIGS FONTS (10 DISK SET $30)

GSFT-01 Fonts A-1
GSFT-02 Fonts A-2
GSFT-03 Fonts B-1
GSFT-04 Fonts B-2
GSFT-05 Fonts C-1
GSFT-06 Fonts C-2
GSFT-07 Fonts D-1
GSFT-08 Fonts E/F-1
GSFT-09 Fonts G-1
GSFT-10 Fonts H-1

IIGS GAMES(5 DISK SET $15)

GSGM-01 Mean 18 Golf Courses 1 (2007)
GSGM-01 Mean 18 Golf Courses 2 (2018)
GSGM-03 Bouncing Bluster Boot Disk
GSGM-04 Bouncing Bluster Data and Docs
GSGM-05 Bouncing Bluster Consn Set

IIGS GRAPHICS(16 DISK SET $48)

GSGX-01 Demo Disk A (2002)
GSGX-02 Slide Show I (2004)
GSGX-03 Slide Show 2 (2016)
GSGX-04 Slide Show 3 (2017)
GSGX-05 Nucleus Graphic Demo (2024)
GSGX-06 GIF Graphics 1
GSGX-07 Pics and Utilities 1
GSGX-08 Pics and Utilities 2
GSGX-09 Pics and Utilities 3
GSGX-10 Pics and Utilities 4
GSGX-11 Modulae
GSGX-12 Paula Abdul demo
GSGX-13 Pics and Utilities 5
GSGX-14 Slide Show 4
GSGX-15 Slide Show 5
GSGX-16 Nucleus Graphic Demo

IIGS HYPERSTUDIO (12 DISK SET $36)

GSHS-01 HyperStudio System - Demo
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
GSHS-11 Misc. HS stacks 1
GSHS-12 Misc. HS stacks 2
GSHS-13 Arizona Stack Disk 1
GSHS-14 Arizona Stack Disk 2

IIGS ICONS (7 DISK SET $21)

GSIC-01 Finder Icons 1 (2022)
GSIC-02 Finder Icons 2 (2027)
GSIC-03 Finder Icons 3
GSIC-04 Finder Icons 4
GSIC-05 Finder Icons 5
GSIC-06 Finder Icons 6
GSIC-07 Finder Icons 7

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 MUSIC (7 DISK SET $21)

GSMU-01 SoundSmith and Songs
GSMU-02 SoundSmith Songs 1
GSMU-03 SoundSmith Songs 2
GSMU-04 SoundSmith Songs 3
GSMU-05 SoundSmith Songs 4
GSMU-06 SoundSmith Songs 5
GSMU-07 Diversi Tune (C) Songs 1

IIGS MISCELLANEOUS

GSMS-01 New Member's Disk (2000)
GSMS-02 Demo Source Code 1 (2005)
GSMS-03 Demo Source Code 2 (2006)

IIGS SOUNDSIIGS MISC.

GSSN-01A Sounds 1 (2014)
GSSN-02A Sounds 2 - Nostalgia (2015)
GSSN-03 Sounds 3
GSSN-04 Sounds 4
GSSN-05 Sounds 5 - Simpsons 1
GSSN-06 Sounds 6 - Simpsons 2
GSSN-07 Sounds 7
GSSN-08 Sounds 8
GSSN-09 Sounds 9
GSSN-10 Sounds 10

IIGS TUTOR TECH

GSTT-01 WAP Stack- REV. (2019)

IIGS UTILITIES

GSUT-01A Utilities 1 (2001)
GSUT-02 JumpStart Program Sel V. 3
GSUT-03 Utilities 2 (2028)
GSUT-04A Utilities 3 (2029)
GSUT-05 Utilities 4
GSUT-06 ZZ Copy - v 2.12
GSUT-07 Utilities 5
GSUT-08 UtilityWorks GS
GSUT-09 Utilities 6

APPLE ///DISKS

THESE ARE ALL 5.25" DISKS

/// ACCOUINTING

3ACT-01 Easy Accounting
3ACT-02 Easy System and Accounts Rec.
3ACT-03 Easy System and A/Cn. Ledger

/// 3EZP & AW TEMPLATES

3AWZ-01 AW - EZP Bus Templates
3AWZ-02 Checkbook Plus by Lomartire

/// 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
3BSB-07 BASIC 1.23 & Utilites / Auto BASIC Editor by Boston

/// GAMES

3GAM-01 Games 01 (1001)
3GAM-02 Games for Kids (1007)
3GAM-03 A Cap'n' Magneto - Revised 1/89

/// GRAPHICS

3GRX-01 Sketchpad and Slideshow
3GRX-02 Fig Factory Manual (1069)
3GRX-03 Fig Factory - Black and White
3GRX-04 Fig Factory - Color (1071)
3GRX-05 Raster Graphics Tool Kit (1072)
3GRX-06 3-D Modeling Tool Kit (1073)
3GRX-07 Chartmaker III (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)
3GRX-13 Graphics Disk 05 (1079)
3GRX-14 Graphics Disk 06 (1080)
3GRX-15 Calendar by Bloom (1081)
3GRX-16 Typewriter Art Disk 01 (1082)
3GRX-17 Typewriter Art Disk 02 (1083)
3GRX-18 Poster by Bloom (1084)
3GRX-19 Raster Demo / Tmapio
3GRX-20 Icon Demo / Tfont
3GRX-21 Trixelmap Demo / Mask Demo
3GRX-22 Tmem Demo / Trects Demo
3GRX-23 GIF Graphics 01
3GRX-24 GIF Graphics 02
3GRX-25 GIF Graphics 03
3GRX-26 GIF Graphics 04
3GRX-27 Grafixworks 1 and 2 (Shareware)
3GRX-28 Grafixworks 3 and 4 (Shareware)
3GRX-29 Sign by Bloom

/// INFORMATION

3INF-01 AWAP III SIG PD Catalog - 7/1/90
3INF-02 ANew Member's Disk - 7/8/90
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 III's Company - Disk 01
3INF-08 Best of III's Company - Disk 02
3INF-09 The Best of Bloom (1035)
3INF-10 Impert's Corner by Bloom (1096)
3INF-11 Phase III Conference Plus! (1047)
3INF-12 Best of Ottalini - Disk 01 (1040)
3INF-13 Best of Ottalini - Disk 02 (1058)
3INF-14 Best of Ottalini - Disk 03 (1059)
3INF-15 Best of Ottalini - Disk 04 (1087)
3INF-16 Best of Pair BBS
3INF-17 Reviews by Bloom
3INF-18 III Cheers (Boot and Program)
3INF-19 III Cheers (V 1 and 2)

/// MISCELLANEOUS

3MSC-01 File Cabinet / Sort Directory (1046)
3MSC-02 Contributions - Disk 01 (1053)
3MSC-03 Contributions - Disk 02 (1061)
3MSC-04 Contributions - Disk 03 (1086)
3MSC-05 Le Grayhaven Cookbook Plus!
3MSC-06 Double Boot - SOS and ProDOS
3MSC-07 Apple III Demo Disk 01
3MSC-08 Apple III Demo Disk 02
3MSC-09 Apple III Demo Disk 03
3MSC-10 Apple III Plus Demo - Pascal
3MSC-11 Best of Salerno
3MSC-12 Apple II Boot Disk

/// REPAIRS

3REP-01 Apple 3 Diagnostics - Disk 01 (1013)
3REP-02 Apple 3 Diag - Disk 02/Block Edit
3REP-03 Repairing your Apple III (1088)
3REP-04 Brain Surgeon (1089)
3REP-05 Disk Map (1090)
3REP-06 Disk Check and Pro Health (1091)
3REP-07 Vindicator and Catalyst Fixer (1092)
3REP-08 Block Editor and Block Byter (1093)
3REP-09

/// TELECOMMUNICATIONS

3TEL-01 Telecom - Disk 01 (1063)
3TEL-02 Telecom - Disk 02 and Access III
3TEL-03 Telecom - Disk 03 (1065)
3TEL-04 Kermit III (1066)
3TEL-05 XModem III (1067)
3TEL-06ATerminALL Manual - 7/89 (1032)
3TEL-07ATerminALL Program - Revised 1/89
3TEL-08 WAP TCS Disk

/// UTILITIES

3UTL-01 System Utlities and Data (1004)
3UTL-02 Apple II Emulation - Disk 01 (1043)
3UTL-03 Apple II Emulation - Disk 02 (1044)
3UTL-04A SOS Drivers - revised 9/90 (1052)
3UTL-05 Basic Boot Disk (1014)
3UTL-06 Basic Utilities - Disk 01 (1002)
3UTL-07 Programmers Power Tools (1056)
3UTL-08 Applecon (1016)
3UTL-09 Diskmaker and Appleseeds (1045)
3UTL-10 Basic XT and Basic Utilities - Disk 02
3UTL-11 The Retriever (1023)
3UTL-12 Power Print III (1024)
3UTL-13A Disk Window III Plus - 2/89 (1025)
3UTL-14 Source Window and Data Window
3UTL-15 Powercat and Basic XRF (1027)
3UTL-16 Basic Extension (1031)
3UTL-17 Power Keys DM Plus (1034)
3UTL-18 RAM Plus III and Two-n-Fro III /128K
3UTL-19 Basic GTO (1051)
3UTL-20 Custom Font Manual (1037)
3UTL-21 Custom Font (1038)
3UTL-22 Fonts - Disk 01 (1039)
3UTL-23 Disk III Backup by Bloom (1011)
3UTL-24 Gucspar by Bloom (1042)
3UTL-25A ASCIIDIF by Bloom - 4/88 (1028)
3UTL-26 Mail List Manager Manual by Bloom
3UTL-27 MLM Utilities by Bloom - Disk 01
3UTL-28 MLM Utilities by Bloom - Disk 02
3UTL-29 MLM Utilities by Bloom - Disk 03
3UTL-30 AppleWriter to 3 EZP by Bloom
3UTL-31 Pascal Menu Maker (1054)
3UTL-32 Catalyst Release
3UTL-33 Reformatter III

/// WORD PROCESSING

3WDP-01 AppleWriter (1006)
3WDP-02 Footnote III (1003)
3WDP-03 Ink Well Manual (1029)
3WDP-04 Ink Well Program (1030)
3WDP-05 AppleWriter Demo
3WDP-06 Script III - Pascal Text Editor

THESE ARE ALL 3.5" DISKS

APPLE II DISKS

APPLE SYSTEM DISKS

2APS-01 System Disk - Utilities V. 3.1

COMMUNICATIONS

2COM-01 TCS Instructions 1.05
2COM-02 Applenet V. 1.3

EDUCATION

2EDU-01 Newton's Apple / Cocaine & Teeth

TECH NOTES

2TEN-01 IIGS-GSOS-About-Index
2TEN-02 IIc-IIe-IMWR — etc.
2TEN-03 FTNS-STDS-Tidbits

UTILITIES

2UTL-01 New Member Disk 2.01
2UTL-02 DB Master V.5 (Shareware)

MACINTOSH DISKS & WAP DISKETERIA ORDER FORM

Anti-Virus Utilities
___ 5 disk set: $15
___ 1.01C - AV 1
___ 1.02C - AV 2
___ 1.03C - AV 3
___ 1.04B - AV 4
___ 1.05 - AV 5

Desk Accessories
___ 16 disk set; $48
___ 2.01B - DAs 1
___ 2.02B - DAs 2
___ 2.03B - DAs 3
___ 2.04B - DAs 4
___ 2.05B - DAs 5
___ 2.06B - DAs 6
___ 2.07B - DAs 7
___ 2.08B - DAs 8
___ 2.09B - DAs 9
___ 2.10B - DAs 10
___ 2.11B - DAs 11
___ 2.12B - DAs 12
___ 2.13B - DAs 13
___ 2.14B - DAs 14
___ 2.15B - DAs 15
___ 2.16B - DAs 16

FKeys (Function Keys)
___ 2 disk set
___ 4.01A - FKs 1
___ 4.02A - FKs 2

ImageWriter Fonts
___ 15 disk set; $45
___ 5.01 - IW 1
___ 5.02 - IW 2
___ 5.03 - IW 3
___ 5.04 - IW 4
___ 5.05 - IW 5
___ 5.06 - IW 6
___ 5.07 - IW 7
___ 5.08 - IW 8
___ 5.09 - IW 9
___ 5.10 - IW 10
___ 5.11 - IW 11
___ 5.12 - IW 12
___ 5.13 - IW 13
___ 5.14 - IW 14
___ 5.15 - IW 15

LaserWriter Fonts
___ 8 disk set; $24
___ 6.01 - LW 1
___ 6.02 - LW 2
___ 6.03 - LW 3
___ 6.04 - LW 4
___ 6.05 - LW 5
___ 6.06 - LW 6
___ 6.07 - LW 7
___ 6.08 - LW 8
___ 6.09 - LW 9

INITs & cdevs
___ 17 disk set; $51
___ 9.01 - I/C 1
___ 9.02 - I/C 2
___ 9.03 - I/C 3
___ 9.04 - I/C 4
___ 9.05 - I/C 5
___ 9.06 - I/C 6
___ 9.07 - I/C 7
___ 9.08 - I/C 8
___ 9.09 - I/C 9
___ 9.10 - I/C 10
___ 9.11 - I/C 11
___ 9.12 - I/C 12
___ 9.13 - I/C 13
___ 9.14 - I/C 14
___ 9.15 - I/C 15
___ 9.16 - I/C 16
___ 9.17 - I/C 17

Miscellaneous
___ 2 disk set
___ 10.01 - M 1
___ 10.02 - M 2

Paintings (MacPnt)
___ 5 disk set; $15
___ 11.01 - P 1
___ 11.02 - P 2
___ 11.03 - P 3
___ 11.04 - P 4
___ 11.05 - P 5

Digitized Sounds
___ 31 disk set; $93
___ 12.01 - S 1
___ 12.02 - S 2
___ 12.03 - S 3
___ 12.04 - S 4
___ 12.05 - S 5
___ 12.06 - S 6
___ 12.07 - S 7
___ 12.08 - S 8
___ 12.09 - S 9
___ 12.10 - S 10
___ 12.11 - S 11
___ 12.12 - S 12
___ 12.13 - S 13
___ 12.14 - S 14
___ 12.15 - S 15
___ 12.16 - S 16
___ 12.17 - S 17
___ 12.18 - S 18
___ 12.19 - S 19
___ 12.20 - S 20
___ 12.21 - S 21
___ 12.22 - S 22
___ 12.23 - S 23
___ 12.24 - S 24
___ 12.25 - S 25
___ 12.26 - S 26
___ 12.27 - S 27
___ 12.28 - S 28
___ 12.29 - S 29
___ 12.30 - S 30
___ 12.31 - S 31

Telecommunications
___ 9 disk set; $27
___ 13.01 - T 1
___ 13.02 - T 2
___ 13.03 - T 3
___ 13.04 - T 4
___ 13.05 - T 5
___ 13.06 - T 6
___ 13.07 - T 7
___ 13.08 - T 8
___ 13.09 - T 9
___ 13.10 - T 10
___ 13.11 - T 11
___ 13.12 - T 12

Programmer/Hacker
___ 25 disk set; $75
___ 14.01 - PH 1
___ 14.02 - PH 2
___ 14.03 - PH 3
___ 14.04 - PH 4
___ 14.05 - PH 5
___ 14.06 - PH 6
___ 14.07 - PH 7
___ 14.08 - PH 8
___ 14.09 - PH 9
___ 14.10 - PH 10
___ 14.11 - PH 11
___ 14.12 - PH 12
___ 14.13 - PH 13
___ 14.14 - PH 14
___ 14.15 - PH 15
___ 14.16 - PH 16
___ 14.17 - PH 17
___ 14.18 - PH 18
___ 14.19 - PH 19
___ 14.20 - PH 20
___ 14.21A - PH 21
___ 14.22 - PH 22
___ 14.23 - PH 23
___ 14.24 - PH 24
___ 14.25 - PH 25

Miscellaneous Utils
___ 11 disk set; $33
___ 15.01A - MU 1
___ 15.02A - MU 2
___ 15.03A - MU 3
___ 15.04A - MU 4
___ 15.05A - MU 5
___ 15.06A - MU 6
___ 15.07A - MU 7
___ 15.08A - MU 8
___ 15.09A - MU 9
___ 15.10A - MU 10
___ 15.11A - MU 11

System Utils
___ 13 disk set; $39
___ 16.01B - SU 1
___ 16.02B - SU 2
___ 16.03B - SU 3
___ 16.04B - SU 4
___ 16.05B - SU 5
___ 16.06B - SU 6
___ 16.07B - SU 7
___ 16.08B - SU 8
___ 16.09B - SU 9
___ 16.10B - SU 10
___ 16.11B - SU 11
___ 16.12B - SU 12
___ 16.13B - SU 13

Word Processing Utils
___ 6 disk set; $18
___ 17.01 - WP 1
___ 17.02 - WP 2
___ 17.03 - WP 3
___ 17.04 - WP 4
___ 17.05 - WP 5
___ 17.06 - WP 6

Adobe Screen Fonts
___ 16 disk set; $48
___ 18.01A - AF 1
___ 18.02A - AF 2
___ 18.03A - AF 3
___ 18.04A - AF 4
___ 18.05A - AF 5
___ 18.06A - AF 6
___ 18.07A - AF 7
___ 18.08A - AF 8
___ 18.09A - AF 9
___ 18.10A - AF 10
___ 18.11A - AF 11
___ 18.12A - AF 12
___ 18.13A - AF 13
___ 18.14A - AF 14
___ 18.15A - AF 15
___ 18.16A - AF 16

HyperCard StackWare
___ 40 disk set; $117
___ 19.01A - SW 1
___ 19.02A - SW 2
___ 19.03 - SW 3
___ 19.04 - SW 4
___ 19.05 - SW 5
___ 19.06 - SW 6
___ 19.07 - SW 7
___ 19.08 - SW 8
___ 19.09 - SW 9
___ 19.10 - SW 10
___ 19.11 - SW 11
___ 19.12 - SW 12
___ 19.13 - SW 13
___ 19.14 - SW 14
___ 19.15 - SW 15
___ 19.16 - SW 16
___ 19.17 - SW 17
___ 19.18 - SW 18
___ 19.19 - SW 19
___ 19.20 - SW 20
___ 19.21 - SW 21
___ 19.22 - SW 22
___ 19.23 - SW 23
___ 19.24 - SW 24
___ 19.25 - SW 25
___ 19.26 - SW 26
___ 19.27 - SW 27
___ 19.28 - SW 28
___ 19.29 - SW 29
___ 19.30 - SW 30
___ 19.31 - SW 31
___ 19.32 - SW 32
___ 19.33 - SW 33
___ 19.34 - SW 34
___ 19.35 - SW 35 †

Mac II Series
___ 11 disk set; $33
___ 20.01 A- M II 1
___ 20.02 A- M II 2
___ 20.03 A- M II 3
___ 20.04 A- M II 4
___ 20.05 A- M II 5
___ 20.06 A- M II 6
___ 20.07 A- M II 7
___ 20.08 B- M II 8
___ 20.09 B- M II 9
___ 20.10 A- M II 10
___ 20.11 A- M II 11
___ 20.12 A- M II 12

HyperCard Externals
___ 5 disk set; $15
___ 21.01 - HE 1
___ 21.02 - HE 2
___ 21.03 - HE 3
___ 21.04 - HE 4
___ 21.05 - HE 5

System Software 6.0.5
___ 5 disk set; $15
___ SS1.ST
___ SS2.PT
___ SS3.U1
___ SS4.U2
___ SS5.NI

System Software 6.0.7
___ 4 disk set; $12
___ SS1.ST
___ SS2.PT
___ SS3.U1
___ SS4.U2
___ SS5.NI

HyperCard Update 1.2.5
___ HC & Stacks - HC.01
___ HC Help - HC.02
___ HC Ideas - HC.03

HyperCard Update 2.0
___ 5 disk set; $15
___ HC Program- HC.01
___ HC Help - HC.02
___ HC Stacks - HC.03
___ HC Stacks+ - HC.04
___ HC Tutorial - HC.05

Serially Numbered
___ Disk 30/92
___ Disk 74/75
___ Disk 77/78
___ Disk 80/84
___ Disk 85/89
___ Disk 91/95
___ Disk 96/104
___ Disk 105/106
___ Disk 108/128
___ Disk 134/143
___ Disk147
___ Disk 150/151
___ Disk 153

19.35† 6 disk set; $15

HyperCard Upgrade requires HyperCard proof of purchase; any of original disk, first page of manual, receipt or previous HyperCard Upgrade disk.

Mail this form with your check to:
Disketeria
Washington Apple Pi, Ltd.
7910 Woodmont Ave., Ste. 910
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
	Singles		
___	**4 or less @**	**$ 4.00 =**	_____
___	**5 or more @**	**$ 3.50 =**	_____
___	**Sets (marked above)**	**$ (above)**	_____
	+ Postage - $ 1.00 /disk, max $ 5.00		_____
___	**Disk Catalogs**	**$ 3.00 =**	_____
	+ Postage @ $ 1.50 ea.		_____
	TOTAL AMOUNT		_____

Name

Box Number, Apartment, Suite, etc.

Street Address

City State ZIP Code

Daytime telephone Evening telephone

Washington Apple Pi, Ltd. 7910 Woodmont Avenue, Suite 910, Bethesda, MD 20814 (301) 654-8060

Membership Application

Please type or print:

Name _____ Home phone # _____

Company _____ Work phone # _____

Address _____ 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.

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

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.

	Join Group	Volunteer
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		

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 photo-copy 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

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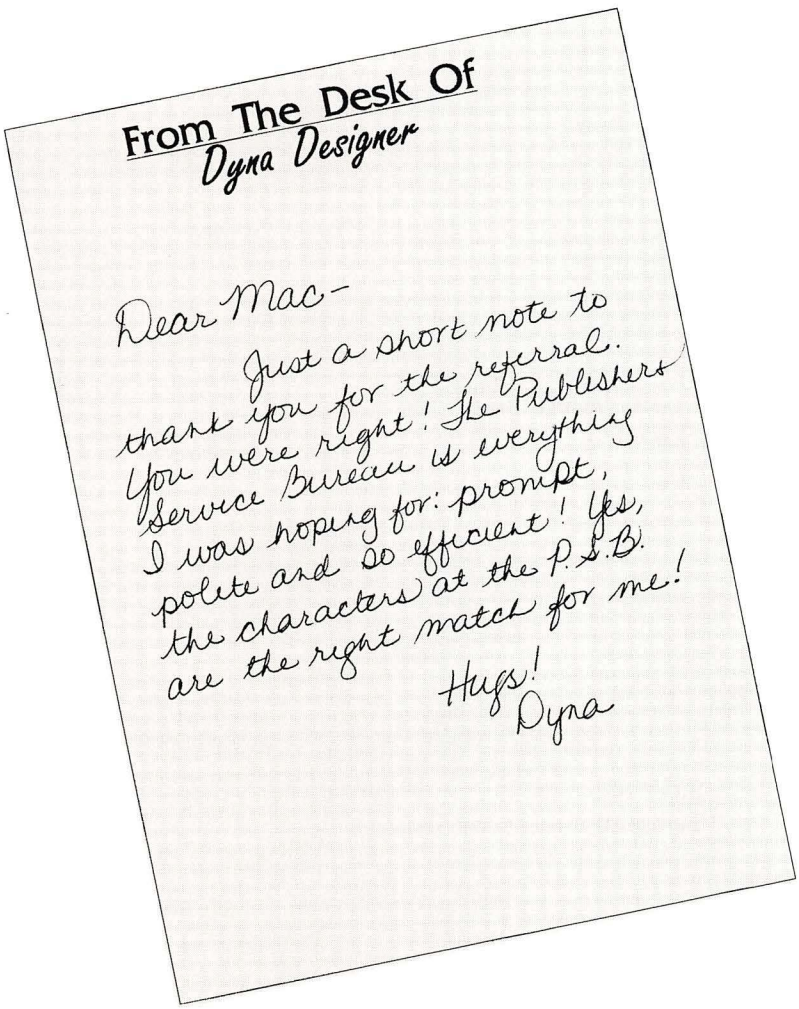

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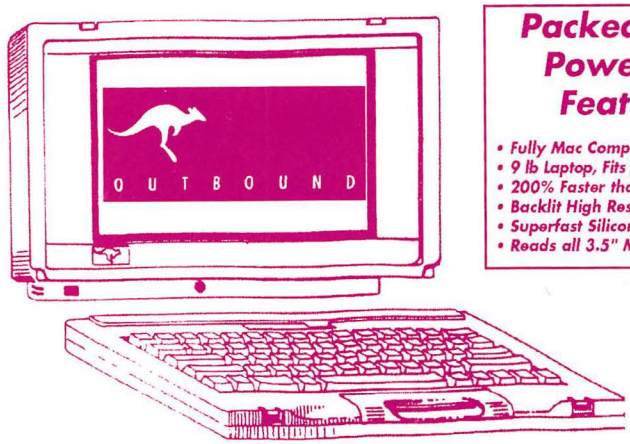

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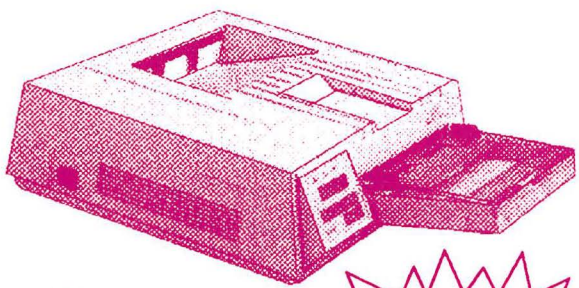

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