

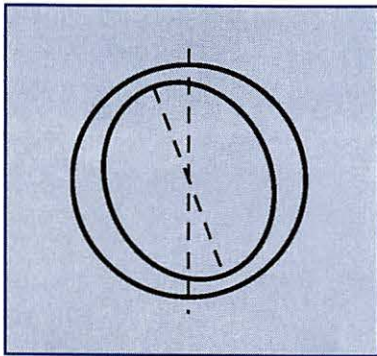
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washington pple pi

The Journal of Washington Apple Pi, Ltd.

Volume 12, Number 1

January 1990



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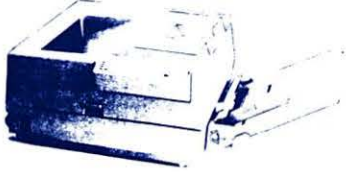
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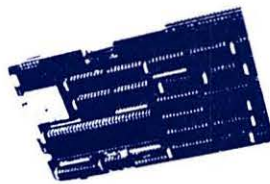
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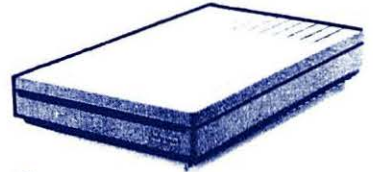
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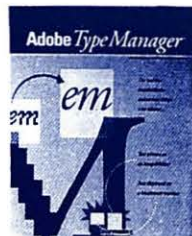
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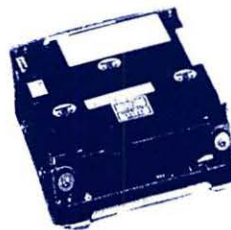
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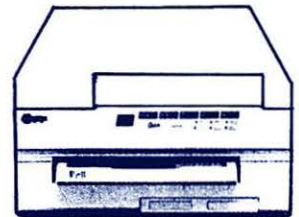
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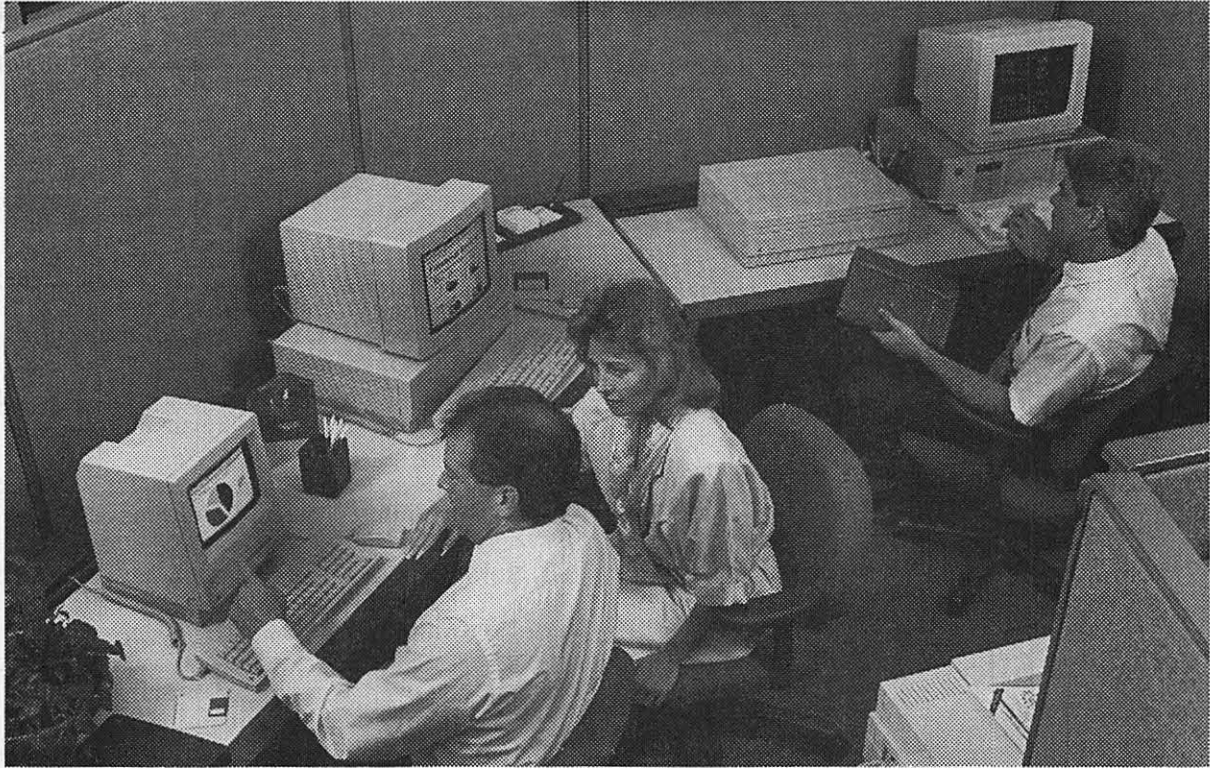
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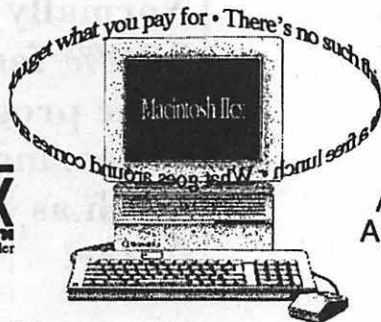
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What can we say?

Out with the old...

This issue begins a new year, and about time, too.

Any way you look at it, the last year for WAP has been, shall we say—interesting. Alarums and excursions and mysterious things going “bump,” right in the middle of the day, have become a way of life. We seem to have survived it all, nonetheless, and now it’s time to get our act together, wouldn’t you say, and begin pulling in the same direction?

The year just past saw a truly poisonous situation develop in the management of the organization, culminating in the removal of a president upon what the great majority of the board felt to be sufficient, and more than sufficient cause. The tremors of that event still reverberate, although the organization, under new management, as they say, seems to have settled down and is concentrating on what it does best—what it was created to do, in fact.

Our primary function is to deliver services and assistance to our members and to the community. We work pretty hard at it, and by and large, we think that we do all right. Not perfect, it must be said—but all right, and maybe a little better than all right. Several people have written in during the past few months to say how much they like the Journal, and an excess of modesty restrains us from repeating them, although they have been much appreciated. (Are you listening out there? Thanks.) We continue to search for ways to improve the Journal, and will listen to most suggestions. Matter of fact, several have written or called to say that they prefer indents at the beginning of each paragraph, and you will see that we have listened.

We just got sidetracked, because we were about to ask you to note the article in this issue by

Walter Knorr, suggesting a way in which Apple and other computer owners can work together to accomplish objectives which we feel confident that all of us can endorse. It worth reading and worth thinking about. And if you want to pick up on his suggestions, give him a call and follow up on it. It would make you feel pretty good about yourself, and it would certainly be helpful to a lot of kids who need help.

We hope that you are saving your Giant (and Safeway) receipts and have given a lot of thought about what to do with them. A number of schools in the area are said to be mounting drives to collect these, and to use them to build up their computer bases. And if your school has no such program, or if you would prefer to use your own purchases to help WAP put together a meaningful contribution, send them to the office.

The Capitol PC Users Group is putting together a similar program, using Safeway receipts, and the office will be delighted to forward any of your surplus receipts to them, in support of their program. It costs you nothing, beyond postage, and it could help some kids cope with the world a little better—so do it. Today.

Letter to the Editor

This is word of advice to anyone considering purchasing, or upgrading to, FoxBASE+/Mac version 2.0: DON’T, at least for the time being.

Version 2.0—which is basically the existing FoxBASE+ relational database manager with the addition of a graphically-based report

generator—is the buggiest program I have ever used (no, Word 3.0 doesn’t even come close). I have just installed my third “bug-fix” release of 2.0, and am writing this after yet another series of “the program has quit unexpectedly” messages.

I won’t bother to exhaustively list my troubles, but they have included numerous random quits and system crashes; the mysterious removal of all data in one field of a database and insertion of same into an adjacent field; the repetition of the same (inappropriate) error message in response to every error when writing code; and the mass disappearance of indexes and relational links attached to report and “view” files. It is extremely aggravating that each new release of the software seems to create as many new problems as it solves.

I have encountered most problems when using the interactive interface, rather than when running program code, but most difficulties would also have cropped up if the commands had been executed from code.

The Fox support people are polite and sometimes helpful. They used to regularly call back the same day if lines were busy when I called, but lately I’ve often waited one or even several days for a callback. Also lately there have been a lot of “Gee, I’ll have to pass this along to the programmers,” and “The next bugfix is supposed to cure that sort of problem” sorts of responses.

My advice is: if you own FoxBase+/Mac v. 1.10 and don’t need the report generator right away, don’t upgrade until the program has been stabilized. If you’re considering purchase of a relational database and must have dBASE program-file compatibility, FoxBASE+ may still be your best choice. Otherwise, *caveat emptor*.

Charles Bethel

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The President's Corner

by David Morganstein

Dear John Letter. As most of us know only too well, Apple is just about the only computer company that offers a mere ninety day warranty on its equipment. (This in spite of the fact that some of the equipment it purchases, relabels and sells as its own, comes with a one or two year warranty.) We consumers can have a one year warranty, of course, through the purchase of an Apple Care policy, effectively raising the sales price by 10%. You have to ask yourself whether Apple has so little faith in its equipment or whether it simply is looking for ways to fill its already ample coffers.

There are rumors that Apple is 're-thinking' the issue and I want to urge each and every one of you to 'help' Mr. Sculley make this decision on the side of the consumer. Sit down now and write a Dear John letter if you think Apple is making a major mistake in its current policy. While Apple has always stressed its uniqueness, here is one area where it should act like everyone else (unless of course it is willing to offer a two-way year policy as standard!).

Giant Offer Reminder. You may recall from last month that the WAP is collecting Giant Food Store receipts from members to contribute Apple computers to our local school districts. We hope to help schools with few or no computers to acquire some. There is virtually no cost or effort on our part to do this, just the few seconds needed to mail or take receipts to the WAP office. Please help in this effort. Please make a commitment to send

in at least one receipt if you are a Giant shopper and don't need the receipts for your own school.

You may also recall that we approached the Capital PC User's Group to work together in this project since Safeway makes a similar offer of credit towards the purchase of IBM equipment. Unfortunately, the CPCUG group decided that they did not want to take on such a project. We hope that there will be other opportunities to work together for the welfare of our community.

Got a Minute? We have wrestled with the issue of providing sufficient information to members about club business. For example, you may recall last fall at a membership meeting, there was a strong sentiment that bylaw changes should be published in the Journal for at least one month prior to being acted upon by the Board. The membership felt equally strongly that it was not necessary that every bylaw change be enacted by the membership instead of by the Board.

This dichotomy of enough information yet not burdening the membership with issues of little interest remains. A suggestion has been put forth that the detailed minutes of Board Meetings by made available to any member desiring a copy but that the detail not be included in the Journal. Members want technical help in the Journal, not WAP business, goes the argument. The solution proposed was that members wishing to have copies of the full details can obtain them by sending a self-

addressed stamped envelope to the office requesting the specific minutes they desire. The Executive Board wholeheartedly supports such an idea, assuming that this would not present an undue burden to the office staff. We are interested in your views. Is this an adequate way for those wishing to be kept apprised of the details to do so? Would you regularly send for copies of the minutes?

By the way, I'd like to take this opportunity to thank our secretary, Chris Bastian, for his extraordinary efforts in recording and disseminating the minutes of Board meetings. In a task that produces little pleasure, Chris has shown great dedication and has contributed much time and attention to the task.

Volunteers Needed: We need a few pairs of hands. First, we need someone who will contact computer stores around the area that do not currently display the WAP Journal. We would like to see the Journal in more locations as one way of helping more people find ways to use their equipment. If you know of stores that do not carry the Journal, please ask the store manager if they would do so. Let our office staff know of any new sites you uncover.

Second, we need some people who can contribute two to four hours a week to help out at the WAP office. There is a tremendous amount of work that must be accomplished and a couple of volunteers would be very helpful. Much of the work involves renewal notices and new member packets. In years past, we have been able to rely upon volunteers who could contribute a few hours a week. Please consider giving a little time. If you can, call the office and ask Nancy, Phil or Ambrose what days/time would best fit their schedule and come by to lend a hand. Considering this is the Season of Giving, make yourself a pledge to help the WAP a little during the next year. The tasks are non-technical and can be done by anyone.

New Members Sought. Do you know any computer users who would benefit by WAP services but

HyperCard SIG

The December Hypercard SIG meeting, held on December 2nd following the Apple Pi General Meeting, featured an introductory tour of Hypercard/Hypertalk capabilities and a demonstration of the full power of Hypercard as a front end to a mainframe computer.

Paul O'Brien, of Apple Federal Systems, presented a stack specially prepared for the meeting in which the message hierarchies of Hypercard were demonstrated, along with customized Hypercard front ends for launching application and for finding information in relational databases. Approximately three dozen Pi members took part in the meeting.

The next SIG meeting, scheduled for noon on January 27 at the USUHS (again following the Apple Pi general meeting) will host a tour of new stacks prepared to assist in navigation through the Environmental Protection Agency bureaucracy. Joe Anderson of EPA will present the stack as an example of how Hypercard can simplify the task of presenting complex information.

At the upcoming February 24 meeting, again scheduled to follow the Apple Pi general meeting, the speaker will be Karen Rall, a programmer knowledgeable about "XCMDs." If you run into something that Hypercard can't do, XCMDs are the built-in "miscellaneous extensions that let you do your own thing in other types of programming languages, and then make a button for it. Karen will demonstrate "Wild Things," which includes a tutorial on creating a window in everyday Hypercard stacks to XCMDs in Fortran, Pascal, C and other languages, in order to speed up functions, customize and expand Hypercard abilities, and add entirely new capabilities.

Again, in the coming meetings, we will be starting at the simplest level and working our way up to the abstruse (or overwhelming), so

there will be something useful for everyone. ☛

Apple IIGS SIG

by Paul Tarantino

Our meeting began with a brisk demonstration and replication of the latest product from FTA, those wild and crazy Frenchmen who have recently given us the Nucleus Demo Disk and Speedy Smith. FTA's newest product is Photonix, a shareware copy program for 3.5" disks which has lots of bells and whistles, and is truly fun to watch. Gary Hayman has provided a detailed writeup of this program elsewhere in the Journal, so I won't provide details here. Suffice it to say that the program was very good at copying itself for the many eager SIG members who remembered last month's Handy Hint and came prepared with blank disks!

Dunham Swift bravely contributed his machinery for the meeting's demos, and another anonymous donor (he may not have wanted to be anonymous, but I neglected to get his name) offered up an AMR 3.5" disk drive (a \$200 alternative to Apple's drive) for our use at the meeting. Worked fine!

Bill Geiger booted up the new and somewhat improved AppleWorks GS 1.1, a \$29 upgrade to the original program, which runs under GS/OS 5.02 and supposedly (we didn't verify it) provides significantly faster printing than its predecessor. AWGS 1.1 will also handle AppleWorks 3.0 files, which its predecessor could not. Bill shared some of his lessons learned on AWGS, and had several recommendations for us, including plugs for a book called "Using AppleWorks GS" by Douglas L. Brown (Addison Wesley) and an article in the July InCider ("Ten Steps to Basic Design," which focuses on the page layout module in AWGS). Among his Handy Hints for this month: some AWGS fonts look better on the screen, others look

better in hard copy. Experiment! As we have seen and heard before, AWGS is hard to use without two 3.5" disk drives or a hard disk, and it is also MUCH happier with more than the 1.25M minimum RAM requirement. (Bill has 2M on his RAM card, and has had far fewer crashes since he upgraded.) The mouse interface in AWGS makes it very easy to adjust column widths in the spreadsheet module, or to design layouts in the database. The AWGS Utilities disk (one of four disks in the package) includes a good testing program for GS memory cards, and a routine on the Tools disk will partition a hard disk. (Will Claris or Apple ever make these available for the rest of us?) In summary, Bill feels that AWGS is powerful and versatile enough to be all the software many of us would ever need, and that it can take a lot of time to learn only because the program can do so much.

Dunham Swift provided a demonstration of the IIGS version of Crystal Quest, a maddeningly addictive arcade game with a bewildering array of sound effects and lots of increasingly frustrating levels of play. Crystal Quest is played almost entirely with the mouse, and all those weird sounds can be enhanced with an MDI stereo card.

Our Q&A session focused on the alternatives available to those who wish to go beyond the one megabyte of auxiliary memory available on Apple's GS card. The possibilities seem to be (1) sell your Apple card at the Garage Sale (or elsewhere) and buy a card that has more capacity, preferably with 1-meg chips (the Garage Sale may be flooded with Apple cards), or (2) buy AE's RamKeeper or Checkmate's MemorySaver, which can handle your old memory card and a new one, or (3) seek some sort of trade-in allowance from someone (like Applied Ingenuity?) for your old card.

At this point, I would normally mention the date and location of the December meeting (18 December at the Dolley Madison Library in McLean), but that will be ancient history by the time you read this, so I will only remind you that in

January we should be back at NIH in Bethesda (don't know the date yet; my calendar doesn't go that far!). Watch for a notice on the GS Miscellaneous board on the TCS, call the office, or call a member and Come On Out!

WorksSIG

by Chris Bastian

Last month the Works SIG Chair thought he had pulled a fast one on the Editor, squeezing in a meeting report JUST before the Journal went to press. This month, the Editor seems to have exacted his revenge by moving the production schedule up a week, so that the Journal will be at the printer before the next meeting is held. [Ed.—the Editor is a real sneaky fellow, and don't you forget it.]

Lacking anything new to report, the Works SIG Chair will be forced to resort to mentioning something discussed at last month's session: Control key surprises.

Works users equipped with a Mac SE or better model may have noticed a "control" key sitting on the left side of their keyboard, which most software packages seem to ignore, preferring instead to utilize the "command" (cloverleaf) key near the space bar. Well, lurking inside the Works source code are several command-key "bonus features" which go unreported in all the documentation and manuals. They are offered here not necessarily as improvements over other keystrokes or menu commands, merely as information to the cautious typist on the lookout for surprises:

CTRL-A: move cursor to the top of document

(in DB, moves to first field of first record)

(in SS, moves to first column of first row)

CTRL-C: carriage return

CTRL-D: moves cursor to bottom of document

(in DB, moves to last field of last record)

(in SS, moves to column IV of last row defined)

CTRL-H: backspace delete

CTRL-I: tab

CTRL-K: move backward one screen (cursor does not move)

CTRL-L: move forward one screen (cursor does not move)

CTRL-M: carriage return

Next month's Journal will report on the last Works SIG meeting of 1989. The first meeting in 1990 will be on Wed. January 17 at 7:00 PM in the Pi office.

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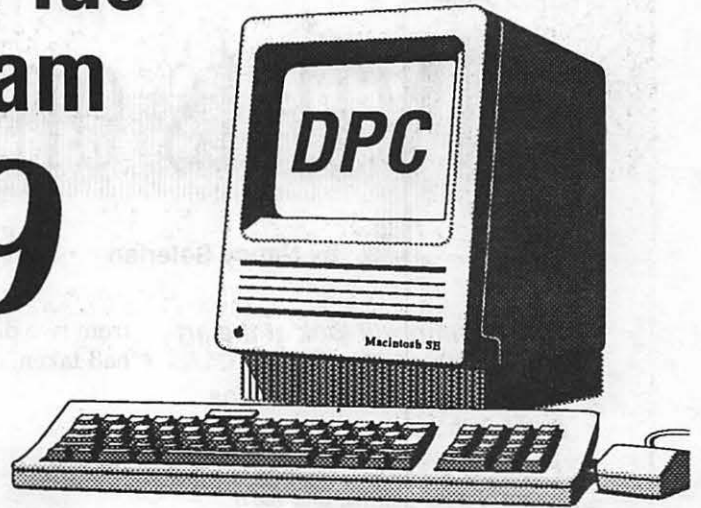
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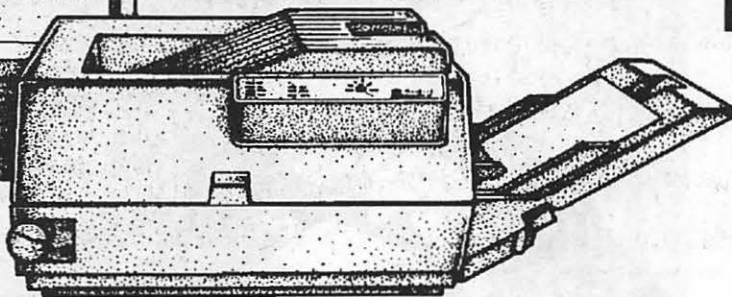
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Artists on exhibit

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.

from two different photos that I had taken, one in Leesburg of an

old barn, and another of a goose in Elkins, West Virginia. No scans were used in this drawing. I just

Art: *Fields* (right), *Old Barn* (below right), *Down the Lane* (opposite left), and *Fishing* (opposite right).

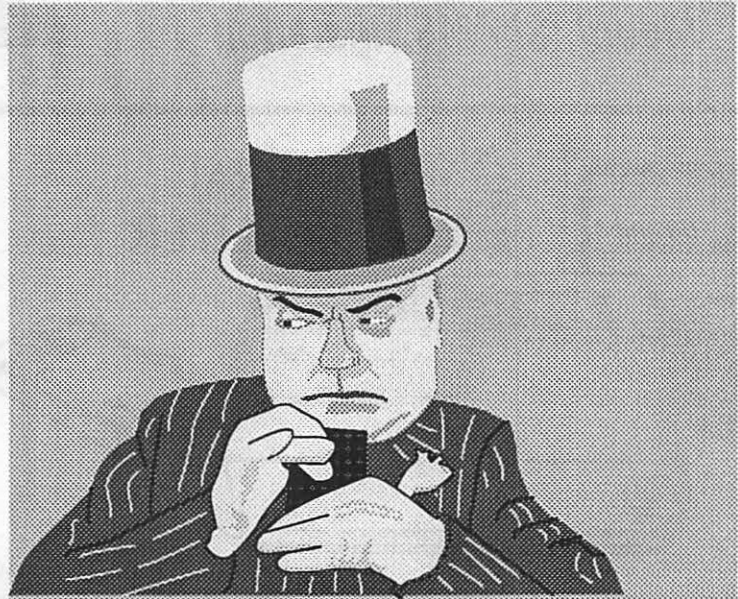
Artist: Jack Chromey, this month's artist, says, "When a friend gave me an introduction to the Macintosh about two and a half years ago I saw it as a way to bring together various approaches. Sometimes I use hand drawings as a basis for computer images, and other times I work out the image on the Mac before drawing or painting with watercolors."

Jack studied at the School of Visual Arts in New York and now works as an electronic publishing specialist for COMSAT and does freelance work from his own studio, Peradam Studio, in Charlestown, WV.

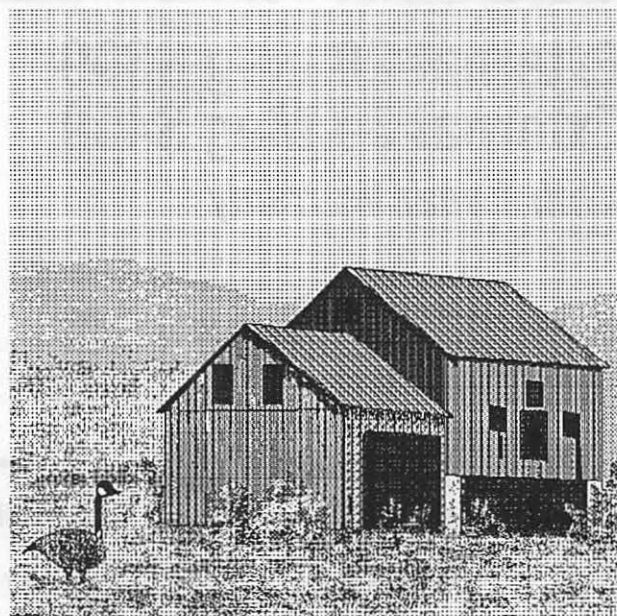
How they were done: "*Fields* started from a scan of W.C. on a postcard which I used as a template in Illustrator '88. From there, knowing that position and proportion were provided for, I concentrated on the values for the various lines and tones involved.

"The detail in the playing card was produced using the pattern feature. I drew a small section of radiating lines, and saved them as a pattern in the paint dialog box. I then drew a rectangle with rounded corners and filled it with the pattern. The trick with a graphic like this is keeping track of which elements need to be in front of others for the desired effect.

"The image *Old Barn* started



Fields



Old Barn

put the photos on my copy stand and worked by eye. The program used was SuperPaint 2.0. Much of it was done in Fatbits, making extensive use of the polygon tool and the paintbucket.

"For *Down the Lane* I looked for an image that would make a good logo. I found a newspaper picture, an ordinary schedule for a league, that had the body angle I wanted. I started in Illustrator to create the image of the bowler and added the lanes. Then I moved to Freehand because Freehand has the Paste Inside option. I next created the circle to round off the logo. Then I placed the bowler over the circle,



Down the Lane

and sent the bowler to the clipboard. Next I selected the circle and chose the command Paste Inside. The purpose of this procedure is to eliminate cropping.

"Illustrator requires more steps to accomplish the same thing. The entire image has to be trimmed first. Then a circle with no fill and a wide white line would have to be created to mask out edges.



Fishing

"*Fishing* was created in Illustrator using the standard drawing tool, the pen, because this tool permits excellent control over the line.

"This picture began as a photo of three people, two of them carrying a canoe. The boy was blowing bubbles. I changed him in the way you see and eliminated the other details in order to simplify the image. Then I traced it on paper to use as a basis for a water color. I would like to have been able to print it on a linotronic, because it would have eliminated some of the banding, making the dots much finer."

Tools: Agfa Scanner gray scale, Mac II, with 5 megs, color monitor, Adobe Illustrator, Freehand, SuperPaint.

To submit art by mail, send it to

Nancy Seferian
1425 Foxhall Road, NW
Washington, DC 20007.

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

Typefaces explained...

I like your face—Part Two

by Jim Donnelly

There are numerous ways of classifying typefaces. Lieberman's "Typorama" makes the first cut between "Standard Faces" and "Special Faces." To many people it seems a little more natural to describe the equator between serif faces and the sans serifs. But no matter where you begin the process, you reach a point at which you have to decide what to do with the "standard serif" faces—the traditional romans in which the bulk of our printed matter is set.

Lieberman's "Standard Faces" are broken down into Sans Serifs, Strong Serifs and Small Serifs. Small Serifs are further divided into Clarity Faces and Book Faces. And Book Faces, in turn, begat Nuanced Faces and Regularized Faces. According to a more usual and much less intricate scheme, the traditional roman types show a progression from old style to transitional to modern.

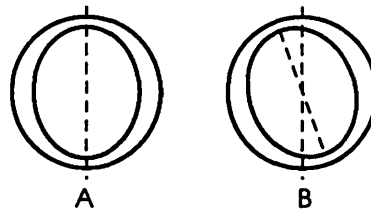
The terms "old style" and "modern" no longer have much to do with the date of a typeface's creation; anyone might sit down tomorrow and design an old style type. And the terms may be deceptive in themselves: for example, the first great "modern" faces were those of Firmin Didot in 1783 and, preeminently, of Giambattista Bodoni in 1789.

There are two principal yardsticks by which a typeface is measured to determine its position along the old style-modern spectrum: (1) the relative weights of the thick and thin lines; and (2) the feature of the curved lines called "stress."

In general, old style faces do not show a very great distinction between their thickest and thinnest strokes; perhaps a two-to-one difference would not be unusual. In general, too, old style types show a

diagonal "stress" in the curved letters.

Imagine the letter O as defined by two ellipses. In an old style design, the long axes of these ellipses do not coincide along a strict vertical as in A below. Rather,



the inner oval will be rotated counterclockwise as in B.

To describe the situation in these terms is perhaps to overcomplicate the issue. The result of drawing a letter to these specifications is shown in C. It simply reproduces with mechanical or electronic drawing tools what was the natural effect of drawing a letter with a broad-tipped pen or a brush. Even the letters on Trajan's Column, the very prototype of the ideal Roman alphabet, were painted on the stone before they were chiselled, and traces of the paint can still be seen.

As you probably suspect, the typefaces known as "modern" represent an abandonment of these two traditions, to the extent that (1) there is great variation between thick and thin strokes; and (2) the stress of the curved strokes becomes perfectly vertical. Figure D



shows a reasonable approximation of a "modern" O.

I am personally so accustomed to the diagonal stress of the classic typefaces, and so confident of finding it in the text of a book, that a strictly vertical stress sometimes seems to be tilted in the opposite direction. At least in D above, that isn't the case; the stress is vertical, or as nearly so as Illustrator 88 can make it.

There are some additional tendencies to be observed as typefaces proceeded from old style to modern.

First, the treatment of serifs became severely stylized. Bracketing was lost; and, in keeping with the trend towards increasing the thick-and-thin contrast, the serif was often reduced to a simple



line—a hairline at the smallest sizes.

The drawing to the left above is intended to resemble an old style serif, such as might be found at the bottom of the letter I in a type like Garamond. Note that the baseline is not perfectly straight, and that the serif is bracketed on both sides. ("Bracketing" refers to the way in which the serif is attached to the main stroke by means of a sort of gradual join. A machinist might see it as something like a fillet.) The drawing to the right is much closer to the serifs that Bodoni stuck onto the ends of his letters. It clearly betrays the use of drafting tools and shows little interest in resembling a production of the human hand.

Second, there was a definite tendency to standardize the widths of the letters in a font. The alphabets of the Roman inscriptions showed, for example, narrow E, F and S forms in comparison with the other letters, while H, K and N might seem to us disproportionately wide.

The style of typeface known as

old style did not, in fact, begin with the earliest roman types such as Jenson's Eusebius font of 1470. This face, and the work of the other Venetian printers, is influenced by Italian manuscript models rather than by the German blackletter used by Gutenberg (which, however, was also a typical manuscript hand, in the Germanic-speaking countries). The designs of Jenson and Aldus were not yet "nuanced" enough, to use Lieberman's term, to be classified among the old styles.

Although Goudy correctly pointed out that the Eusebius font "has been the inspiration for all fine roman types since 1470," there is a school of thought holding that the first "real printing type" was the work of Claude Garamont in about 1531. The change in the spelling of Garamont's name between then and now is no stranger than the fact that until the 1930s most versions of the typeface known as Garamond were not based on his work at all, but rather on an intermediate creation—the recutting of Garamond by Jean Jannon (c. 1615). Jannon followed his model very well indeed, and most of the supposed Garamonds that followed his lead are very obviously close relatives of genuine Garamond fonts.

In all of this, it should be remembered that the designs passed through yet another stage before they became popular in this century. The work of Garamont was immensely popular during his own day and for a considerable length of time thereafter. But until surprisingly recently it was quite uncommon for more than one typeface to be in widespread use at the same time. What typically happened instead was that a popular type would be almost totally abandoned when a new favorite came into vogue, and that's the fate that befell Garamont's work and its imitators.

In 1914, ATF decided that it was time for a revival of Garamond after a lapse of about two centuries, and Morris Benton and Thomas Cleland undertook to produce a version. What they used as a starting point was a face by Jannon; this was not a mistake on their part

so much as on the part of Arthur Christian, director of The French National Printing Office, who had dragged the type out of storage and definitely attributed it to Garamont.

It speaks volumes about the strength of Garamont's original font that it could have been copied a hundred years later by Jannon, and that Jannon's work could have been copied three hundred years after that by Benton and Cleland and others—yet the flavor of Garamond was not lost.

Garamond, then, is the landmark, and may be considered the first of the old style typefaces

All of the foregoing stuff, admittedly dry as dust, was presented here for a purpose. Last month it was mentioned that the original name of the type from which Bookman is derived was Antique Old Style. One might reasonably suppose Antique Old Style to be an old style type, but that issue isn't cut and dried. Compare Goudy Old Style (E) with Bookman (F). The diagonal stress of Goudy Old Style is very apparent, while Bookman is perfectly vertical. As far as the line weights are concerned, both faces seem to be well within the old style realm. Bookman's serifs, however, appear to be a bit too precisely drawn to qualify as a convincing attempt at an old style design.



The interesting point is that Goudy Old Style was designed in 1915, Bookman in 1860, and yet Goudy's is the more perfect example of an old style design. This should probably occasion no surprise, because Frederic Goudy may have been the most typographically learned type designer that the world has yet seen, while Alexander Phemister, designer of Bookman, may not have had Goudy's access to the original sources any more than he had access to Goudy's acuity. I bring this matter up because I'm working myself up to deliver a full-length Goudy column shortly; I don't want it to seem like unmitigated hero-worship, though that's probably what it will turn out to be.

The modern style, as we have seen, is best exemplified by the work of Didot in France and of Bodoni in Italy. To me, the most interesting stories of the second stage in this development—the transitional stage—take place in England and will have to wait their turn (as will the story of Bodoni's enthusiasm for Ben Franklin). ♣

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Fighting computer illiteracy

The Micro-Mentor Clearinghouse

by Walter Knorr

In the July 1988 Capital PC Monitor, which I edited at the time, I published an article proposing the establishment of volunteer programs to help children—especially those at risk—do creative things with computers. Since then I've been collecting information about such microcomputer-based tutoring and mentoring programs with the idea of starting a clearinghouse. The time has come to expand the effort.

Since August 1988 the Monitor has been publishing requests for donations. In December 1988 we published a sidebar on the Rockville Police Boys and Girls Program under the direction of Matt Mayer. Last month a feature ran on Mayer's remarkable progress to date. (He has a better setup than some computer consultants have in their own area of expertise.)

It's time for computer user groups to share their wisdom and experience—to let children with their tremendous social needs and potential tap into our collective resources...

I have not yet received any information about specific programs that use Apple II and Macintosh hardware and software; and it seems foolish to restrict my information gathering to programs built around MS-DOS equipment, particularly given the large Apple user base in the educational community.

The goal of the Micro Mentor Clearinghouse is to exchange information about volunteer programs that either teach kids about computers or help train their parents so they can teach (or at least keep up with) their children. True, there's a certain degree of competition for resources among non-profit organizations; but it can only be fruitful to take every opportunity to publicize success stories and to advertise programs where computer hardware, software, and volunteer tutors are needed.

By now a number of groups are involved in one way or another in computer literacy campaigns. David Bunnell, publisher of PC and Mac World, for example, is involved with a group in San Francisco. There is a program in Harlem. Giant and Safeway are competing for business by donating computers to schools according to the volume of the cash register receipts they collect. School-business partnerships focusing on computer literacy are sprouting up.

After all, as we gung ho hobbyists know, these little, inexpensive machines can have an enormously liberating effect. And with a little guidance, a computer can become a powerful booster of self-esteem. Volunteer programs in computer literacy for at risk children carry out the educational and charitable mission of user groups, particularly those which, like CPCUG and-

WAP—are registered (in the case of WAP, are still seeking registration) with the IRS as 501(c)(3) nonprofit corporations. Our promised role is to make our society more efficient in its use of personal computers by publicizing or providing training and information.

I maintain that we users of personal computers are extremists in the same way that adolescents tend to be. (Call it arrested development if you must.) We aren't satisfied using a microcomputer just on the job or as a hobby; for us it is a (more or less) socially acceptable obsession. We are licensed, card-carrying junkies.

It is logical and sensible, therefore, that we as a band of enthusiasts, a small army of users with exceptional curiosity and extremist tendencies, should focus our energies on integrating exceptional individuals or groups into the mainstream.

A few years ago I heard a youth counselor do a chalk talk about the three kinds of kids. On top were the overachievers—those who are driven by a need for approval from adults. We see them on television winning awards. They apparently get Merit scholarships and go off to Yale or Stanford. In the middle were the yeomen. They do perhaps less than their best and try mostly to be good boys and girls. They apparently go off to lives of comfort. On the bottom are the resisters, the ones who make life hell because they believe that hell and bad are good words. They act out their struggle with authority by doing outrageous, self-defeating things, sometimes to the point of self-destruction. They either get it out of their system, get prison records, or die or do sufficient damage to ruin other lives along the way. If we are lucky, they go on to join the rest of us.

The counselor's point in this typology was that the top group and the bottom group are just mirror images of each other. Both types of kids were just into extreme behavior, into being *exceptional*. Harnessing this drive in the bottom group meant setting up structures and providing opportunities that let them distinguish themselves. If

that could be done, they could flip and become just like the top group.

Last year I visited Thomas Jefferson High School for Science and Technology in Alexandria, VA—the school where the students have won all kinds of awards, scholarships, and prizes, including a Cray Supercomputer—while it was hosting the first national conference on high schools of science and technology. In attendance were representatives from all over the country, including other local magnet schools (Blair in Montgomery County, Eleanor Roosevelt and Oxon Hill in Prince Georges). David Sawyer, then Assistant Superintendent of Schools for Fairfax County, was speaking that day. Dr. Sawyer made the scary but valid point that this current generation of high school students belongs to one of smallest demographic groups in this country in this century, and that this tiny generation will have to support its parents, who belong to one of the largest such groups.

The burden of education, now more than ever, is to train the imaginations of young people to solve the immense technological and social problems that confront society today. As housing requirements shift, as the face of the retired population changes, as the nation's priorities come up for reevaluation, these students will have to come up with answers as mid-life adults. For us.

Education more than ever is a matter of our own self-interest. Our job now is to transfer our intense, extremist curiosity and fascination to as many members of the rising generation as we can.

My deep suspicion is that some of the bad actors are as likely to make a contribution to those solutions and answers when they grow up and we get old, as some of the current superstars. Obviously, we are placing our bets on the latter; and the world may end up being run by the efforts of the silent, middle group. After all, it is the largest, and does represent stability, as opposed to the extremism of the other two groups.

I maintain that innovative ideas and creative strokes will come from

steady-burning superachievers and born-again miscreants, those whose brains may have to survive crack and other forms of temporary insanity before they go on to distinguish themselves in a field, winning MacArthur grants and Nobel prizes.

Some of the superachievers will burn out (in the Air Force, they call them fast-burners), but many of the current resistors will find a way to flip. Just think of Sylvester Stallone, once a wayward youth, and all he has done—whatever one may think of his work—to dramatize the case of the extremist, the exception, the outsider.

Computer user communities ought to make themselves actively available to our youth, particularly those at risk. For the personal computer, now with all of its friendly software in all manner of applications, is a fascinating, enchanting and remarkably effective tool of individual self-education for exceptional people. Through it we can provide opportunities for adolescents whose creativity has not yet been called upon through formal or informal education.

It's time for computer user groups to share their wisdom and experience—to let children with their tremendous social needs and potential tap into our collective resources, particularly in the area of applications software, where the problems meet the solutions, where overwhelming social issues keep rising up to challenge our imaginations.

We need to learn how to share information about programs that use volunteers to teach and mentor children and their parents about computers. In the future I intend to publish articles on successful programs and identify new programs that are still looking for information. Periodically I will be publishing a list of programs and points of contact for reference purposes.

Success breeds success. Plenty of us can be helpful. There may even be occasional technical payoffs—for example if a program may have hardware or software that we wouldn't otherwise get a

chance to use. In any case, the kids and their parents could use our help. This clearinghouse is only intended as a conduit of information and inspiration and will continue to exist only as long as it serves a useful purpose.

Microcomputer hobbyists have been getting some bad press recently. I think it's time to start doing some useful things for our children and our communities. We don't have to project the image of a club of all-white suburban middle aged gasbag males who hide in our basements, avoiding our wives and children. We can make a useful contribution and we should toot our horns about it.

It bears repeating: spreading computer literacy is one of Washington Apple Pi's main missions. 🍏

Persons interested in participating in (or sharing information with) the Micro Mentor Clearinghouse Project should contact Walter Knorr, c/o Treetop Publishing, 12334 Coleraine Court, Suite 100, Reston, VA 22091-1626; (703) 264-7787.

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Dr. No's... ...Rambling Prose

by Phil Noguchi

...in the beginning

This series of articles on ATM is undoubtedly one of the most time-consuming projects I've done in awhile, and it still is in progress. To me, ATM stands for Adobe's Time Machine for the amount of time I've spent. This month's installment will continue to explore the role of ATM for ImageWriter™ users.

Methods

In the first installment, one major limitation was that I couldn't actually show you ImageWriter printing with ATM to convince you that I knew what ever I was talking about. I don't have ready access to a scanner, and you don't really want to see scanned images of dot-matrix printing, anyway.

In a fit of inspiration, I turned to the program Canvas 2.0. Canvas is a combined draw/paint program that, like Superpaint, offers both a drawing layer and picture layer, albeit on a much grander scale. For example, one can have multiple objects that are either draw or paint in nature; if a paint object, you can specify the dot resolution to be 72, 144, 216, 288, 300 and so forth. Aha! says I. If I create several text boxes and give them different resolutions, perhaps I could simulate the output of an ImageWriter on a LaserWriter. This technique proved to be better than I had hoped: comparing the simulated ImageWriter text to actual ImageWriter text showed them to be very close in appearance; thus, the rest of this article will show simulations of the effect of ATM on both screen and print output.

Basics

Let's start with a comparison of the effect of ATM using Times 12 point. In all these illustrations, 10,

12, 14, 18 and 24 point screen bitmaps are installed in the system.

My hope is that this reproduction will be clear enough to illustrate several points. First, with ATM off, the System will look for a font size exactly twice the size of the displayed font (in this case 12 point), and *if that font is available* will use that font to create a printer font to be sent to the printer. Since a font twice the point size will have better resolution when reduced by two-fold, the 12 point "IW" output looks much better than the "Screen" display. With ATM on, even with a 24 point screen font installed, it will build a printer font based on the outline fonts described last time, and will then reduce it to 12 points; the "IW" display thus has some subtle differences. Note that the letters are slightly smaller in height while the widths are about the same; there are also subtleties in the shapes of the letters. To my eye, in this case ATM makes changes that are relatively subtle and neither seems to be superior.

Note that the "300 dpi" output shows that with ATM off, the

system will still use the 24 point screen font; thus the output is basically identical to the "IW" output. With ATM on, the "300 dpi" output has much better resolution than at "IW" output, a reflection of the fact that the printer font was built using the outline Times font.

More Complex

In the first comparison we saw a relatively uncomplicated set of conditions which showed somewhat marginal improvements with ATM. Look now at the comparison that first set me off in the previous column, that of 10 point Times, with and without ATM:

This figure shows many more differences than the first figure. First, with ATM off, since there is no font exactly twice as big as the 10 point Times, the System simply uses the 10 point font directly as a printer font. Thus, the "Screen" and "IW" output are essentially identical. This, by the way is the ultimate WYSIWYG (although its quality leaves a lot to be desired). With ATM on, the letter shapes being derived from a scaled outline font are much clearer in terms of resolution, but the spacing is awful! Letters such as the "a" and "r" in are run together; "x" and "t" in text are too far apart. In this case 10 point Times with or without ATM is pretty unacceptable, I hope you can understand how disappointed I was.

Note that at "300 dpi", with ATM off, the System now uses the largest font size installed and

Times 12	ATM off	ATM on
"Screen"	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!
"IW"	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!
"300 dpi"	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!



reduces it to 10 points. This handily illustrates why QuickDraw printers need large screen fonts for best resolution. With ATM on at "300 dpi", the text looks pretty good; demonstrably better than without ATM.

Fractional Width Spacing

The manual for ATM suggests that one fix for lousy spacing is to turn on fractional spacing. I did, in fact, try that in both Word 4.0 and MacWrite II 1.1, both of which support fractional width spacing. Fractional width spacing simply means that instead of the print driver using the screen position of a letter to define where it puts a character, the driver will use spacing information contained in a FOND table which can have much finer spacing information, and is not limited to 1/72 in increments. Guess what? Nothing, nada, nichts. Boy, was it frustrating, especially when the people with DeskWriters and LaserWriter IISC's were raving about how fractional width spacing cured their spacing problems.

It turns out that while Word 4.0 does have a fractional width toggle, there is specific code in Word that branches around that toggle when the ImageWriter driver is selected! Whoa, Nelly! No wonder it didn't work. Soon, a patch appeared on CIS to essentially unpatch that patch. Now when I used a patched Word with fractional spacing I got the display at the top of the page.

With ATM off, what fractional spacing does is to make the screen display look funny; this is because while the FOND table can specify to some thousandth of an inch or less, the screen can only display a character at 1/72 inch increments. Thus, some letters get squashed against the other and vice versa. Since there is no 20 point screen font for Times available here, the "IW" output does, in fact, almost exactly mimic the screen display, squashed letters and all. Now I understand why Microsoft patched word to disallow fractional widths with the ImagerWriter driver. The "300 dpi" has better clarity, and unlike the "IW" output has fairly decent spacing.

Times 10	ATM off	ATM on
"Screen"	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!
"IW"	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!
"300 dpi"	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!

With ATM on and fractional spacing on, the 10 point Times "IW" output now looks quite acceptable, and certainly much better than with ATM off. The "300 dpi" output now looks almost exactly like a LaserWriter with built in Postscript fonts, and again, much better than without ATM.

By the way, apparently MacWrite II 1.1 does not show this improvement in spacing. Why, I don't know, but Ric Ford of MacWeek also found the same problem with MacWrite II 1.1.

Times 10	ATM off/frac on	ATM on/frac on
"Screen"	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!
"IW"	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!
"300 dpi"	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!	Some sample text to give you an idea of what ATM can and cannot do. There are obviously a lot of tricks to get the best results!

Summary...for now...

Based on the data presented here, what's the bottom line? Well, if you would rather use 10 point Times than 12 point on an ImageWriter, ATM will improve your output. If you use mostly 12 point type, ATM will probably not make much of a difference. Although not presented here, for larger point sizes, ie about 14-18 on up, ATM will definitely give you much better ImageWriter printing. If you are using a 300 dpi Quick-Draw printer, ATM should give very nice results, in some cases

almost indistinguishable from a true PostScript printer. And in all these case, fractional width spacing must be used for optimum output. This last requirement, by the way, presents a major problem in that not all applications support fractional widths. There are a couple of workarounds that will be described next time.

Next time: finishing up ATM (before it finishes me!), and is the Plus Pak worth it? 🍏



In a Dither

by Lisa MacNerd

What did they expect when they elected MacNerd editor of her high school yearbook? Not volume 75 printed on shiny paper and bound in padded imitation leather. MacNerd's first official act was to fire the printer and announce that the yearbook would be published in the form of an on-line, multi-user database.

After the pictures came back from the photographer, MacNerd and her staff stayed up all night scanning them onto the school's Macintosh IIfx with an Apple scanner, saving each picture in AppleScan's "PICT" format. Even though the scanner could only discriminate 16 levels of gray, and they had scanned at 75 dots per inch to save disk space, the photos looked pretty good on the Apple color monitor. MacNerd stared for hours at the picture of the class president, for whom (should the truth be known) her candle had burned brightly ever since Steve Jobs left Apple.

The LaserWriter output reproduced below does not do the monitor display justice, but you can, perhaps, understand MacNerd's feelings:



"Most Likely To Succeed"

Imagine MacNerd's disappointment when she looked at the same picture on her trusty Mac Plus. Although she knew that a monochrome monitor would not preserve the shades of gray in the original scan, she had hoped that the results would be recognizable. But the high contrast effect was terrible. As a test, she placed the TIFF image into PageMaker, and printed it out. The result was equally bad:



Monochrome

MacNerd was about to call the printer and go back to the old ways when she remembered that AppleScan had a "Halftone" option that might improve matters. At first she thought she would have to re-scan the entire class, but a little experimenting revealed AppleScan's "Convert" feature, which allowed MacNerd to convert the original PICT scan into black and white images that used patterns of dots or lines to preserve some of the original gray detail.

AppleScan had several halftone choices. They were all better than the original un-halftoned picture when printed or viewed on a monochrome screen, but MacNerd felt they still lacked a certain something: (see top of p. 25)

Still fooling with AppleScan, MacNerd saved the original "PICT" scan in "TIFF" format, despite dire warnings that this was a one-way street—AppleScan would save a TIFF, but it would not open it again. The TIFF image looked as bad as the PICT on the Mac Plus, but, *mirabile visu*, it printed rather nicely on the LaserWriter when placed into Aldus PageMaker. (See the first example.)

Not one to give up easily, MacNerd began to roam through the school's vast library of graphics software to see if something else would do a better job of rendering gray into an acceptable monochrome screen image. Incidentally, MacNerd hoped to find an application that could straighten out some of the images that had been scanned from photos that were placed crooked on the scanner.

After many false starts, MacNerd came upon Image, a high-end image processing application by Wayne Rasband of the National Institutes of Health. Image was able to read both the PICT and TIFF files; its "Dither" command did a very respectable job of converting gray to black and white; and it had a "Rotate and Scale" command that helped her clean up the tilted pictures.



According to its documentation, Image "uses the Floyd-Steinberg error diffusion algorithm to convert the current selection to a binary (black and white only) image. Dithering can be useful for exporting pictures to applications such as MacPaint, MicroSoft Word or MacDraw that can only accept binary images. Dithering can also



"2 x 2"



"Bayer"



"Spiral"



"Straight Line"

be used for printing on the ImageWriter, or other non-PostScript printers. The quality of dithered images can frequently be improved by increasing contrast using the Gray Map window before doing the dithering."

Best of all, Image is absolutely free. For example, it can be downloaded by members of Paul Heller's Twilight Clone Bulletin Board ((301) 946-5032).

Although the results from Image were acceptable, and could probably be improved with some tweaking, MacNerd discovered a commercial program, LetraSet's Image Studio (\$275 mail order),

that did a slightly better job without adjustments:



MacNerd was pleased to have found several solutions to the problem of getting good screens and printouts from scanned pictures, but she couldn't help wondering whether AppleScan itself would not have had image rotation and Floyd-Steinberg dithering if Steve were still running things.

—LMcN

Lisa MacNerd (who sometimes writes as "Michael Yourshaw" or "R. Soon Now") raises children, vegetables, and dogcows on an Arlington, Virginia ranch. 🍏

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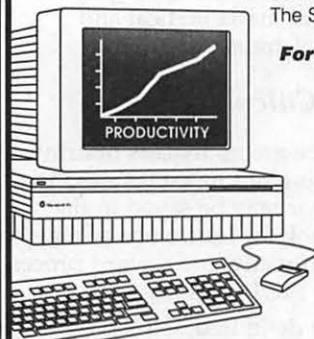
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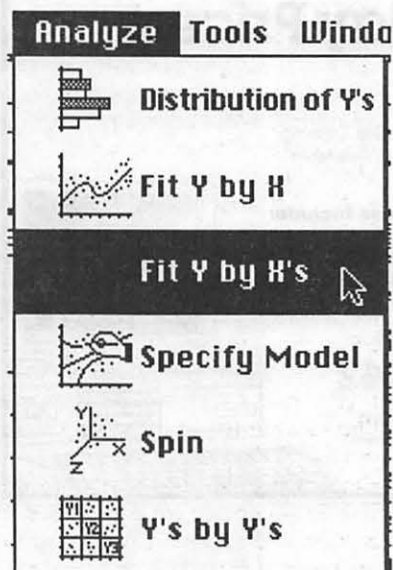


JMP

by Al Best and David Morganstein

JMP is the first product introduced by the "big three" of mainframe statistical computing (SAS, SPSS and BMD). Developed by a small team at SAS Institute, JMP, is designed specifically for the advanced graphical interface and windowing system of the Macintosh. SAS Institute has no plans to just port its mainframe/mini products to the Mac. Yes, JMP is a powerful statistical analysis system but it presents results in a graphical way so that they may be understood and to facilitate insight into the data. Rather than attempting to be all things to all users, JMP eschews the alphabet soup of methods in traditional software packages on the mainframe for a unified, but limited, approach to statistics. JMP developers hope that most of what a data analyst does can be done in JMP.

Documentation



The 464 page documentation of JMP includes an 8 page index and is a welcome relief to an old-time SAS user like ourselves, used to yards of SAS documentation. The manual asserts that JMP can be used with a minimal background in formal statistics. The manual is far more readable than the technical reference material (a.k.a. Users Guide) of SAS. It begins with an 100 page quick-start and tutorial section that reviews each of the JMP analyses. The chapters in this section show how typical analyses are performed on data sets provided on the disk supplied. These instructions seem to be presented well and are followed up with technical and statistical reference sections for each option.

Data Management

The JMP data table is limited by available memory and is shown in spreadsheet form (with rows as observations and columns considered variables). No more than 32,767 rows may be stored but in a 2 meg partition XX rows in a 20 column dataset are available. The column types are numeric, character or row-state (more on this later) but there are no value labels. Variables have one of three levels of measurement: interval, ordinal or nominal and may be named using any 31 characters, including blanks. Levels of measurement can be changed and are automatically taken into account in any analysis. That is, if a dependent variable (Y) is interval then SAS/GLM-like analyses are performed and if Y is ordinal or nominal, JMP uses Logistic regression. Similarly, interval independent variables (X's) are treated as covariates, while

nominal and ordinal X's are treated as classification variables with multiple degree of freedom contrasts. The data table and variables may be labeled with further documentation stored with the data table but this information is not used in any analysis or graphic.

The data values are editable and columns can be resized, hidden, or rearranged. Selected observations can be included or excluded from an analysis. This status of an observation is called its row-state. Row-states include: selected (highlighted), excluded from the analysis, hidden, labeled, one of 16 colors and one of 8 symbols. These row-states can be saved in a column and are assigned either by the usual point-and-click methods or by using program control features. JMP imports blanks and dots as missing values; numeric missing is displayed with a bullet (•) and character and row-state missing are shown as blanks. Missing data are excluded from analyses.

Any column, including a row-state column, can be calculated by a formula using "the calculator," one of JMP's most powerful tools. The calculator functions are accessed via point-and-click methods rather than typing in an expression. To create a new variable and store the standardized value of weight for the males and a missing value for the females, the formula and the calculator appear as in Figure 1. In addition to the usual mathematical functions appearing in the keypad at the top-middle of Figure 1, the calculator includes a lengthy variety of mathematical and statistical transformations.

JMP Calculator

There are no macros or array processing but formulas used in the calculator may be saved in the scrapbook for future use or may be pasted directly into a word processor as a PICT graphic.

Any delimited text file (with or without column names) or SAS transport data set can be imported into JMP. Pasting in individual data values, selected areas of the data table and pasting multiple



rows are all supported. Two types of pseudo-random number generators are available: Uniform and Normal. Other data management features include the following: A JMP data table can be sorted on any of the columns and a new data table can be created as a subset of the highlighted rows, each with a single command. In addition, data tables can be joined (merged) in several ways: by row number, by matching columns, and in a Cartesian fashion where all values in a column of one data table are merged with all values in a column of another table. More than one dataset may be open at once. The Stack command creates a new table by stacking specified columns into a single new column. The JMP data tables can be saved as either a JMP file or as a tab-delimited text file. Only rectangular files are supported and there is no support for higher relational structures or SQL. Files may be exported to tab delimited file (with or without column names) or to a SAS transport file.

Statistical Procedures

JMP calls the six main commands in the Analyze menu statistical "platforms," given below.

Analyze Menu

Columns of the data table are assigned roles: Y (dependent), X (independent), frequency, weight or label. Their measurement characteristics specify how an analysis treats the values. The different kinds of statistical tests are then carried out by each platform. The Distribution of Y platform describes the data in each column by using histograms, box-plots and other graphical and textual reports (such as a table of percentiles and moments similar to Proc Univariate in SAS). Cut-points and the number of bars in histograms may be changed in real time with the hand tool. The relationship between two variables is displayed using Fit Y by X. Scatterplots, side-by-side box-plots, logistic regression cumulative probability plot, or a contingency table mosaic plot are shown; depending upon the measurement characteristics of the Y and X variable pairs (see Figure 2). Other options allow for additional displays (eg. a quadratic

regression line with 95% CI) or additional text reports (eg. an ANOVA table). In contrast with the bivariate displays in the previous platform, the Fit Y by X's platform fits each one of the Y variables by all the X variables selected. Leverage plots and textual reports illustrate the statistical relationships. These general leverage plots show how each point pulls on the hypothesis and illustrates the significance and partial contribution of the effect and collinearity. To allow for more complicated effects of the X's, the Specify Model command provides access to the fit platforms but allows for the full range of univariate GLM model specifications: crossed, nested, interactions, polynomial, and response surface. Effects may be labeled as error effects to be used in the denominators of F tests in repeated measures designs. These same models can be used in logistic regression where the dependent variable is not continuous. Specific contrasts between the levels of ordinal or nominal independent variables may be calculated. In all of these models you can request that residuals, predicted values, leverage values, etc. can be saved as new columns in the data table. The models automatically handle unbalanced designs and inestimable effects. JMP codes factors differently from SAS/GLM in that the model is coded so that it achieves full rank unless there are missing cells or collinearities. The same Type III tests are calculated in JMP but since the parameterization is different, the tests are equivalent to testing that the least squares means are different. A lack of fit test is produced whenever there is a replicated design with an unsaturated model. The Spin platform produces a three-dimensional, spinnable scatterplot of any three numeric columns. A principal components analysis is also an option in this platform. In the Y's by Y's display, all possible pairs of numeric columns are shown in a matrix of scatterplots, correlation matrix, and multivariate distance outlier plot. There is no facility for doing nonparametric analyses (except by doing parametric statistics on ranks) nor is there any of the following: factor analysis,

clustering, time series, SQC, survival analysis. However, in all analyses a column specified as a weighting or frequency variable allows summary data files to be analyzed.

All of the displays make liberal use of color. Points in one display are shown with identical characteristics in all other displays. As the analyses progress, you can save a display into a MacWrite file which will contain the accumulated graphical displays (as PICTs) and text reports (tab delimited text) from the analysis windows. The displays may not be saved directly, only saved to a MacWrite file or printed. The displays and data table use fonts and styles specified in the Preferences selection of the File Menu but there is no editing of the axes in any display. There is no command language in JMP nor is it possible to save analyses as a style sheet to be used later. Output tables may not be directly imported for further analyses nor is there any By-group processing.

Other

JMP is not "SAS on the Mac." There are over 2 million lines of C code in the SAS System while JMP is a 500+K application. There are thus innumerable features available in the SAS system which are not in JMP. There are also many things that you can do easily in JMP that are unavailable or difficult in SAS. A more detailed comparison had best wait until the product is actually released but a comparison is useful. In general, JMP seems to have many of the features of the following SAS Procs: Print, Freq, Univariate, Corr, Chart, Plot, Means, Univariate GLM / ANOVA / Reg / RSReg, TTest, Logist, and Sort. In addition, many data-step-like features are available through the calculator and data management menu commands. Not bad for three programmers working for a year and a half! The strength of JMP is that it encourages exploration of data while providing clear graphical displays and their classical statistical underpinnings. It is easy enough for a beginner to handle and sophisticated enough for most of the work of a professional data analyst. 🍏

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SuperPaint 2.0	135
MacDraft	169

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RAM Cramp, INIT Wars and the System Heap

Encyclopedia Macintosh

by Robb Wolov

I don't usually get much excited over release of a Macintosh book. Compared to output in the MS-DOS world, Mac books are few and one-dimensional. (Of course, those poor MS-DOS folk need manuals just to get their operating system to work!). Perhaps it's just the nature of technical writing, but like books on tax law changes, there are no major differences among the various books on HyperCard, or on MS Word or PageMaker.

Up to now, The Macintosh Bible by Arthur Naiman proved to have the longest shelf life and use of all my Mac books. It compiled opinions, provided methods to work around problems, supplied thumbnail reviews of any number of hardware and software products. Best of all, the Bible was sold with an obsolescence-protection benefit: two planned and freely distributed updates to the manual.

But, good as it is, I must confess that much of the Bible is, well... basic. First-generation Mac owners and users need a more advanced volume and were looking for something more meaty.

Enter the Encyclopedia Macintosh by Craig Danuloff and Deke McClelland, published by Sybex Press. The publisher boldly states that his targeted audience is not the beginning Mac user. The back cover provides this not so subtle visual clue: a pull-down menu marked "Intermediate & Advanced" with "Beginning" grayed out. This is not hype. If you are not an advanced power user now, you will be, after reading the Encyclopedia!

The Encyclopedia will delight hands-on Mac hackers out there with its useful information. Not only does the book tell you how to

install memory into all Macintoshes (from 128 to IICx models), it provides comprehensive logic board diagrams for each model. Noisy Mac II fans got you down? The Encyclopedia gives the details, serial numbers and instructions for a less noisy replacement model available from Radio Shack. (Not an Apple-approved modification, needless to say!) The authors claim to include the keycharts for every major software package in every major category. That's a pretty hefty claim, but after thumbing through the Encyclopedia, I could find little reason to doubt them. The book contains working instructions for all the major shareware and public domain software and pointed reviews of commercial, shareware and public domain software.

The authors are hard-nosed realists. In anticipation of System 7, they address the ever increasing demands of the new applications and operating systems for random access memory (RAM), and preach the gospel of getting more memory for your Mac. They delve into such esoteric topics as hard disk partitioning and the advantages, disadvantages and differences between SCSI and File System partitioning. They detail which software packages partition which way—something the manufacturers frequently fail to explain clearly.

Need an explanation of the System bomb ID numbers? The charts are there. Need a copy of the codes for the "Sad Mac" icons to trace down which memory chip is bad? They're there too. Simply put, if you need to know something, it's in there somewhere. The book truly is an encyclopedia.

As a pathologist in training, it only seems fitting I be the one to inform you of yet another disease affecting your Mac. No, not another virus, though there is a new variant of the nVir virus making the rounds—Disinfectant 1.3 takes care of it. No, what I am referring to is "RAM Cramp." RAM Cramp is a slowly progressive erosion of functional memory capacity as Apple's system software enlarges or you find yourself using more and more INITs.

My policy has been to always use the latest version of the operating system on my 2 Meg Mac II. Granted, new systems are released to accommodate new ROMs in new models (version 6.04 to be used with the IICi and portable, for example). But, it is also a chance on Apple's part for bug fixes

This was just the case with system 6.04 which had two pages of bug fixes (released by Apple for developer info). Instructions with the new installer program indicate that it is Apple's intention that 6.04 be used on all Macs other than the 128 and 512's. It ran like a champ on my set-up until I loaded SuperCard in color. A friendly message from Silicon Beach reminded me that I need 1500K to open SC in color. What gives? I had 2 Megs! SuperCard opened yesterday—under 6.03! A quick check under the Apple to the "About Finder" menu told the story. System 6.04 was bigger. I had just 1498K available—just under the 1500K needed. RAM Cramp had struck!

A quick pull of my INITs from my System folder and a reboot (such programs as INIT Picker, INIT Manager and Aask serve the same function, to inactivate INITs, without having to physically pull them from the System folder) and I had enough memory to resume my use of SuperCard, but at what cost?

True, I had a few "fluff" INITs—you know, those dealing strictly with cosmetics. But most were working INITs for such applications and DA's as the Big Thesaurus, On Cue, DiskTop and Suitcase II.



It seems that more and more applications are resorting to INITs for some critical aspect of their use, and this is putting the squeeze on the System Heap. True, my SuperCard problems were due to simple lack of memory, but other problems, system bombs and INIT conflicts are due to crowding of the System Heap.

The System Heap is a portion of RAM memory that the operating system sets aside for the use of system software, DA's and INITs (for you purists, DA's under Multifinder use the Application Heap). The size of the System Heap is determined at start-up from a value stored in the boot blocks of the start-up disk. You can check the size by looking at the "thermometers" in the "About Finder" menu. The dark portion is the percentage

of the heap that is actually being used, while the gray area represents open room. To minimize INIT conflicts and other vague, unstable behavior, this unused portion should be at least 25% of the total heap.

What's that you say? Your Mac is acting flaky and your System Heap is full (all black). No problem, you can reset your System Heap with such utilities as Widgets and HeapFixer, both utilities supplied by CE Software with their products. I'm sure there are others available for the purpose.

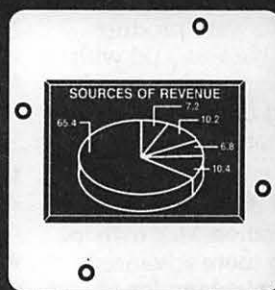
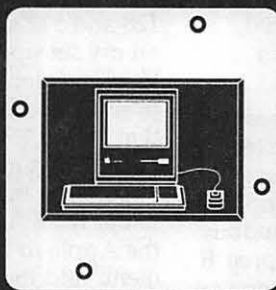
Users shouldn't have to manually "tune" their operating system. Like other aspects of the Mac's OS, time and rapidly increasing user demands have outstripped it. But, then again Apple has acknowledged all of this. That's really what

System 7 is all about—growth.

Until next time... 🍏

Robb Wolov, M.D., is a pathology resident-in-training at the Georgetown University School of Medicine. His areas of interest, besides molecular and orthopedic pathology, are digital analysis of microscopic images and designing computer applications for medical education.

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MultiFinder: Thanks for the Memory

by Ralph J. Begleiter

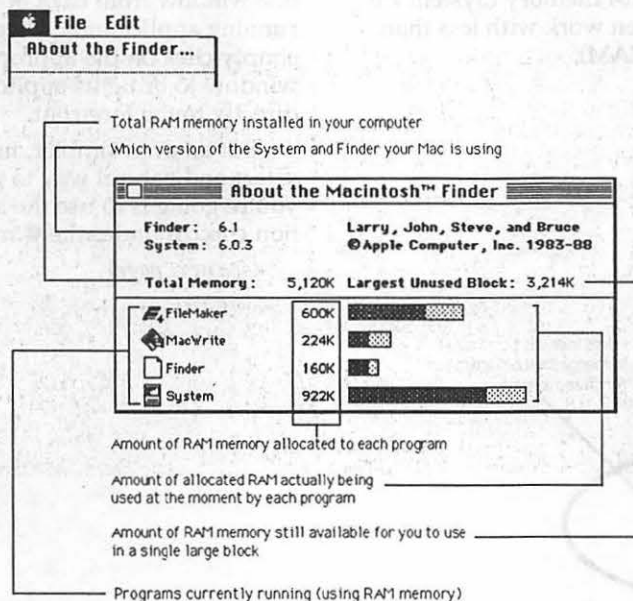
For all the promise of productivity your Macintosh's MultiFinder offers, it exacts a dear price. MultiFinder eats computer memory for breakfast. Unless you've got at least 2MB of RAM memory in your Mac, it's probably wise not even to bother with MultiFinder. You'll only find it frustrating.

If you've got 2MB or more of RAM, MultiFinder offers you a way to keep track of how that memory is being used by your Mac, so you can avoid "out-of-memory" messages and system crashes (or, as MultiFinder likes to call them "unexpected quits").

When you're using MultiFinder (and you have several programs "running" simultaneously) click your way back to the MultiFinder itself and choose "About the Finder..." from the top of the Apple menu. You'll see a small window that looks like this. Take a close look:

This is MultiFinder's memory management feature. It presents a graphic display of how the available memory in your Mac is being used. Beneath the information about which version of MultiFinder and the System you're using is a chart listing each of the computer programs your Mac is running at the moment. Next to each program is a number representing the amount of RAM memory the Mac has allocated to each program. And to the right of that number is a graph displaying how much of that allocated memory is actually being used at the moment by each program.

Just above the chart is a line telling you how much RAM memory remains unused in a single large block. This number may actually fluctuate right before your eyes, as the Mac accommodates the movements of your mouse and other "events" occurring behind the scenes.



In the illustration, you can see that this Mac has more than 5MB of RAM memory available. Running under MultiFinder are three applications (programs): FileMaker, MacWrite and the Finder. But you can see that even the Macintosh System uses available RAM memory. You can also see that there's more than 3 MB of RAM still available to open additional applications or documents.

The key to reading this screen is to be aware that as the graphs get "full," as each application bumps up against its maximum allocated memory, you begin to run the risk of a system crash or an "unexpected quit." As you open documents, especially graphics, you swallow memory in large gulps.

The same thing happens when you try to open another program which requires more RAM memory than the amount available in a single block listed in this screen. (Applications need their memory in single chunks. They can't use it if it's "fragmented" among several memory chips inside your Mac.)

Occasionally, as you open and close documents and (especially) as you open and quit applications, the available memory remaining will become fragmented. The "chunk" of memory allocated, say, to FileMaker will remain as a single block. If you quit Filemaker and MacWrite, their memory "chunks" might not be contiguous. So the next application you try to open won't have all that memory available to it in a single block. MultiFinder doesn't warn you of this problem behind the scenes, unless you look at the "About the Finder..." screen for yourself.

When you run short of RAM memory in a single block and try to open another program which needs that memory, you'll get a message telling you there's not enough memory to open another application (even though you know you've got enough installed to handle the application).

Here's the solution. You've got to quit from all your applications. That will, in effect, "reset" the RAM memory allocations. When you reset, you'll probably be able to open the new set of programs





you were unable to open earlier. It's not a very "elegant" solution. You shouldn't have to quit all your applications just to open a new one. This is exactly the sort of problem computers ought to be able to solve for themselves. Perhaps a future version of MultiFinder will have a revised memory management capability.

By the way, virtually all Macintosh programs are sold to you with a certain amount of RAM memory requirement programmed into them. That is, each program automatically tells the MultiFinder how much RAM to allocate when that program is opened. Manufacturers usually allocate enough RAM to make their programs operate smoothly, but not too much extra, because they want their programs to be able to run on even the smallest Macintosh models with the least available RAM.

But you can reset that RAM allocation number. In fact, if you routinely work with large spreadsheet files, word processing documents or graphics, you probably should allocate more than the standard amount of RAM to the applications which use those documents.

Here's how. From the MultiFinder's desktop, Select the application you want to change. (Don't Open it. Just Select it by clicking it once.) Now choose "Get Info" from the File menu. A small information window will open, describing the application you've selected.

At the bottom of the info window, notice the "Suggested Memory Size" line. This is the memory allocation suggested by the program's manufacturer. Just below it is the "Application Memory Size" line, in which the memory size is enclosed in a box. By clicking in this box, you can change the memory allocation for your program when it is run under MultiFinder. Try adding 100K, 500K or even 1000K (1MB) to an application. You'll discover it usually runs faster, more efficiently. And it's capable of handling those big documents more easily.

By the way, don't try to do this if you're running the regular Finder. The application memory allocation scheme isn't available under the regular Finder. And, of course, don't set the "Application Memory Size" line to be a number larger than the amount of RAM memory you actually have installed! Wishful thinking won't work.

Probably MultiFinder's biggest drawback is its demand for lots of RAM memory, although that's a trend in personal computers in general.

The bad news is that the prospects for the future are for more of the same. Apple's next Macintosh system software release, System 7.0, scheduled to be available in a few months, threatens to demand even more computer RAM memory (System 7.0 won't even work with less than 2MB of RAM).

But the good news is that its improved features sound exciting. They suggest that much of the complexity of the MultiFinder will be simplified, and that many of the add-on features of various System and Finder releases in recent years will be combined into a smooth, single on-screen program for the Mac.

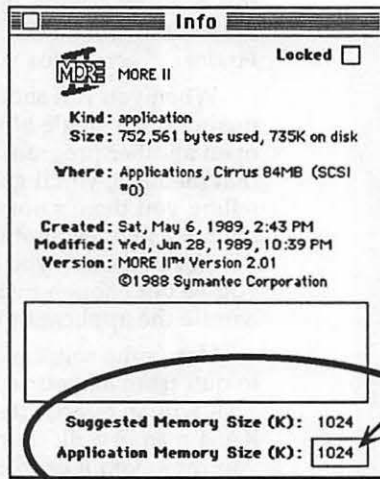
These features will demand memory. But more good news is that RAM memory prices are plummeting. A good shopper can now find 1MB RAM chips for less than \$150 each. If you're willing (or able) to install them yourself, that's good news. If you can't do-it-yourself, you should be able to find computer friends or service departments willing to install them for you. And the memory upgrade is worth the effort and cost.

Before we leave the MultiFinder, here's one more tip you'll find valuable if you learn to use it. Remember that switching among applications on your screen can be inconvenient, at times. That tiny icon in the upper right hand corner of the screen is so small that it's often hard to determine which application it represents. Furthermore, clicking that icon means you must cycle through all the applications you have running, one-at-a-time (and waiting for the Mac to redraw its screen each time).

One alternative is to arrange the windows on your MultiFinder screen to reveal just a snippet of one window from each of your running applications. Then you can simply click on the appropriate window to bring its application directly to the forefront.


But an even simpler, more direct and natural way to get where you're going is to use the application choices under the Apple menu.




(see next page)



Here's the numbertoreset to change the RAM allocation for an application.



This menu appears only when you're using MultiFinder. Choosing the appropriate application from the list at the bottom of the  menu is the quick way to go directly to the program you want, without squinting at icons, searching for windows, or cycling through other programs.

Unfortunately, one of the poor-design "features" of the MultiFinder is that these application choices are located at the bottom of the  menu, which makes scrolling to them more time-consuming and tedious than it should be. Apple has already recognized this, and plans to put these application choices at the top of the  menu when System 7.0 is released in 1990. (A test version of the new MultiFinder with this change is already circulating.) 



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But I Don't Understand...

by David Morganstein and Martin Milrod

I have a plotter. I use the MacPlot Driver that comes with MacDraw. After I successfully plotted a drawing, I could no longer print to my LaserWriter (I use the BackGrounder/Print Monitor for spooling). I went to the Chooser and switched back to the LaserWriter but nothing is printing. What happened?

This one lays squarely upon the shoulders of Claris. They distribute a ReadMe file with their MacDraw and CAD programs, both of which include the MacPlot Driver software. The ReadMe file should be renamed to "ReadMe if you don't want to destroy your system file"—that way it would get the attention it needs. Believe it or not, if you use MacPlot ONCE, you change your system file so that you can no longer use the BackGrounder/Print Monitor programs for spooling LaserWriter output. If fact, as you progressively use it, something really unpleasant goes on in the system file. If you continue to try printing via BackGrounder, you will ultimately destroy your system file!!! The unbelievable thing about this is that Claris has been shipping this driver for almost a year now and has yet to fix this really fundamental problem. We'd like to see a whole mail bag full of complaint letter sent to Claris for this irresponsible treatment of its customers. As of November, they have no date when a non-destructive MacPlot will be shipped.

I have a few INITs that don't seem to work. I put them in the system folder and see their icons on the screen on boot-up, but they don't function. One example is Findswell™2.01. What could possible prevent these INITs from working? Other people tell me

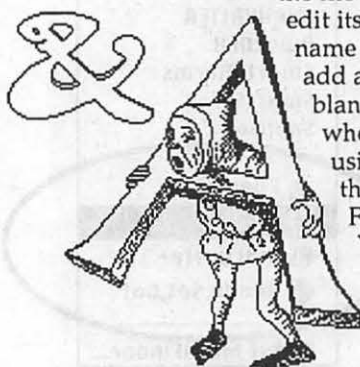


they use them but I don't seem to be able to make them work.

There are a few reasons why INITs and cdevs might not work on your system but will work on others. One is called 'conflicts' and the other is caused by renaming. First, the conflict situation may come about because two or more of these memory resident utilities are colliding in RAM. Not all INITs and cdevs are written with the proper care. (If you think this is a serious problem on the Mac, be glad you don't run MS-DOS where five will get you ten that any three memory resident programs will smash into each other!) The Mac system is pretty well defined for programmers and this kind of 'collision' is fairly rare.

Try removing all INITs and cdevs from your system folder and re-boot with only the one in question. If it works, you know the problem is collision with one of the others. Then you have to figure out which one is causing you grief by putting them back one by one and re-booting. Alternatively, there are several INIT/cdev controllers, AASK being one, which

allow you to select which of these special system folder files you want loaded when your machine boots. These controller programs make the conflict easier to find. If conflict is the problem, try renaming the non-functioning INIT so that it comes earlier in the alphabet. An easy way to do this is to put a blank at the beginning of the name. (You won't be able to just click on



the file and edit its name to add a blank when using the Finder. You will need to use

a utility like the DiskTop DA to do it.) The INITs/cdevs load in alphabetical order. Sometimes by rearranging the sequence in which they load the collision problem can be eliminated.

On the other hand, a second reason for some INIT/cdevs not working is that they HAVE been renamed. (Findswell is just such a cdev). A few of these programs can not have their name changed. Doing so, for example appending the version number '2.01' to Findswell™, will keep it from working.

Whenever I need to find a file that I want to open, I have to navigate through a myriad folders. For example, after opening Word and trying to find a particular Word file, I have to move from the folder in which I store Word up the directory to the desktop, select another folder and work my way back down to find the file. These is real tedious. Is it necessary?

Fortunately, there are several alternatives for eliminating this troublesome situation. Among these are OnCue and Master Juggler which allow you not only to launch an application, like Word or Excel, from a menu but open a file of your choice at the same time! Your favorite applications and data files that can be



opened by them appear in a menu. The data files show up as a hierarchical sub-menu. Each application has its own list of openable files.

A second part of your problem is opening a data file once you are in an application. Here you need first to find the file you want and then to open it. We know of two solutions to this problem, Boomerang, which is shareware, and Findswell, which is commercial. Both of these programs add a button to the usual Open and Save Dialog boxes. Clicking on the button brings you to a window that allows you to search for files or folders whose names contain specified text strings. These utilities directly open the selected files without the need for you to navigate through your directory. Findswell allows you to permanently list a number of frequently used file names so that you need

not even search for them. In addition, when you open Findswell, you will be greeted by a list of your recently opened files. You can eliminate any that you will not need again or make permanent any that you want to see later. Both are clever solutions to a vexing problem.

Why is it that some point sizes appear quite readable on the screen or on paper while others seem jagged? Also, the point sizes that look clear show up as one kind of style on the Font Size menu while the ones that appear jagged show up as another style in the size list.

While the Mac is a grafix machine and offers exceptionally sharp text on screen in a wide variety of fonts, sizes and styles, it can't do this by itself. You have to help it and therein lies the problem.

You must 'install' not just one point size of a particular font family (i.e. New York or Times are font families) but one version of the font family for each size you want to use. Thus, if you want to work with New York 10, 12, 14, 18 and 24 sizes, you must install *five* different sizes of New York into your system file. Of course, you can use utilities like Suitcase or Master Juggler to make these different sizes accessible to your applications without actually installing them in the system file with the Apple-supplied Font DA/Mover utility. When you look at a list of sizes, you can tell which sizes are available by the type style of the point size. Outlined sizes are present and should appear quite sharp on screen or on paper. The ones that are not outlined are not present and will appear as jagged.

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Bits & Bytes

by Lynn R. Trusal

Apple's Wimpy Hard Drive Solution

Last month I spent considerable time addressing problems with Quantum hard disks. Since then, Apple and Quantum have admitted having a problem with 3.5 inch hard disks, but do not acknowledge having any with the 5.25 inch hard disk in the Mac II (as originally manufactured).

As a solution, Apple is supposedly extending its warranty on the disks for two years, until October 1991 (InfoWorld, October 16, 1989). (I say "supposedly" because an October AppleLink message states that owners of failed hard disks with serial numbers between 00335507 and 01250863 are entitled to a new hard disk through June 1990.) It's worth noting that Apple's warranty would parallel the warranty Quantum gives Apple on the drives. The most recent information indicates the warranty will probably last for one year. Apple is offering ROM upgrades for some failed hard disks, to increase the torque of the motor and overcome the sticking problem, but that hardly sounds like a satisfactory solution to me. MacWeek rumors make known that this "band aid" approach is not working as hoped. Upgrade recipients are complaining about slower access speeds, intensified drive noise, and anticipated excessive machine wear.

Once again, Apple has not taken the "high road," admitted a major problem exists, and replaced all 3.5 and 5.25 inch Quantum hard disks that have failed during their first year of service. I wrote (again) to Apple and Quantum. So far only Apple has responded: a spokesperson for John Sculley offered me AppleCard for one year, and most notably,

declined to address my hard disk failure. If you have a Quantum 5.25 inch hard disk that failed, please send the details to me at P.O. Box 2, Walkersville, MD 21793.

Upgrading Apple Scanner

Abaton has released an upgrade card that makes it possible to upgrade the Apple 4-bit (16 gray scales) to 8-bit (256 gray scales). The card costs \$695, and Abaton claims you can install it in 30 minutes. Deliveries can be expected within 48 hours of placing your order. The card comes with a DA that lets you scan from within any application.

This upgrade could lower the street price of an Apple 8-bit scanner to about \$2,100 making it one of the least expensive on the market. As a caution though, bear in mind that your source of output is a limiting factor as well. For example, if the LaserWriter is what you use to output, you will be limited by its 16 to 20 gray scales. At least it's nice to know that a third party vendor has increased the usefulness of the 4-bit Apple scanner.

First Impressions - Macintosh Film Recorders

What follows is not meant to be a review of Macintosh film recorders; MacUser did a better job than I could. Having been exposed recently to three Macintosh film recorders, I would like to share my first impressions.

Not all Macintosh film recorders are created equal. The October issue of MacUser presented the best review of the available technology I've seen, and it rated LaserGraphics LFR as its overall favorite. Publish magazine rated the Matrix SlideWriter as best. I have used the Mirus FilmPrinter,

Matrix SlideWriter, and LaserGraphics LFR. There are definitely differences among the recorders.

As a general rule, don't assume that what you see on the screen is what you will see on the 35 mm slide. Text alignment, font quality, text overlap, color changes, and alignment (graphics and text) are areas that present problems when translating from one medium to the other. PostScript film recorders can address many of these problems but are only just appearing on the market.

All in all, I was not happy with the Mirus FilmPrinter results. Of the three recorders, it produced the worst results: an out of focus image (perhaps adjustable), unsharply drawn fonts, and font color problems.

The Matrix SlideWriter produced decidedly better results with good focus, sharp fonts and good color fidelity compared to the screen. It did produce some text alignment problems, and every fifth slide had a decidedly lighter background color. There were also some streaks in the background which were more pronounced with lighter backgrounds. For some reason, it randomly skipped some slides for imaging. I assume that the slide-skipping problem is readily fixable. Both the Mirus and Matrix did well with gray scale photographs (scanned) that were pasted into the presentation from the Clipboard.

For me, the LaserGraphics LFR yielded mixed results, producing a blurry focus of a logo in the upper left corner, and random jagged lines across about 5 out of 25 slides. I suspect the latter problem resulted from electrical interference of some sort from within the unit. The LaserGraphics LFR in general delivered brighter and more intense colors and bolder and sharper fonts than the Matrix SlideWriter. The 4,000 line resolution of the LFR was crisper than the 4,000 line resolution of the Matrix. At that resolution level, the LFR took 3.5 to 4.5 minutes to image each slide, compared to 10 to 12 minutes for the SlideWriter. MacUser reported the LFR was the fastest of all the recorders it tested.



For good or bad, the only way to evaluate a film recorder is to use it and get the film developed. This process won't work well for Type A's or those preferring "instant gratification." In any case, I strongly recommend that if you plan to purchase a film recorder, have it demonstrated with a presentation that you created using PowerPoint or Persuasion, among other programs. Image the same presentation on several makes of film recorders and compare them. Companies can supply you with hundreds of slides done for and on their system which will look great but don't accept that as the "bottom line." You need to check it out for yourself.

FreeHand 2.02 Upgrade

I recently received the Aldus FreeHand 2.02 upgrade, a minor one as you might guess from the new version number. The upgrade adds an "always draw object-by-object" check box to the "Preferences" dialog box and a "transparent" check box to the "Element information" dialog box. "So what!" you say. These options permit you to watch the redraw of each object on the screen, and they make white areas of a one-bit TIFF or paint image transparent. 12 other changes in the upgrade appear to be mostly bug or feature fixes.

OmniPage 2.0 and 2.1

In my opinion, OmniPage is probably the best optical character recognition (OCR) package available for the Macintosh. I recently watched a demo of the new Xerox product called "Datacopy" but can offer no opinion on the product because I have no hands-on experience with it. The company claims the package is particularly good with bad copy, but bad copy is like beauty, in the eye of the beholder. All OCR packages can read "good" or "excellent" copy faithfully. It is in the middle ground where OCR packages prove themselves.

OmniPage 2.0 can recognize language characters for Danish, Dutch, English, French, German, Italian, Norwegian, Portuguese,

Swedish and Irish/Gaelic. Keep in mind that this is not a foreign language translation program; rather, OmniPage 2.0 hopes to offer faithful OCR of foreign language characters.

This program offers many formats for saving files, including Microsoft Word and Word Perfect, and support for many scanners, including Abaton, Agfa Focus, Dest, Hewlett-Packard, Apple and the Microtek A, C, G, and Q series. Notably absent is support for the many scanners that use the Canon engine, e.g., those from New Image Technology. If you have such a scanner, you have to save each scanned page as an uncompressed file and then open each page up in OmniPage. As far as I'm concerned, it's not worth the trouble unless you're working with fewer than five pages.

Caere is now offering version 2.1 which supports compressed TIFF files. The ability to save "compressed TIFF" files will help save space on your disks.

Double Helix, Version 3.0

Odesta just made another major upgrade to Double Helix, now version 3.0. One major change in this version is support for Network Innovations Corp. CL/1 language which permits Macs to access database information on larger computers. Databases such as Oracle, Sybase, Ingres, DB/2 and SQL/DS support CL/1. Remember that Apple bought Network Innovations Corp. in order to obtain the CL/1 technology which it sees as important to its connectivity solutions.

One of Double Helix's early major drawbacks was its speed which was improved in version 2.0. It's been improved again—up to 120 times. The user interface has also been improved with HyperCard-like features which include button macros to save, print, for example. I have used the program and like the recent changes. The retail cost of the new version is \$595. (Source - PC Week)

Real Bits

1. Apple has decided to abandon the military. No, I don't mean federal sales to military agencies, I mean military PX and BXes. Apparently sales were low and Apple was being pressured by the Independent Apple Dealers Association. As an Exchange customer, I can understand why their sales were low. Apple's prices were too high! I could buy a Mac Plus or SE (no hard disk model)—the only Mac's available for purchase—for several hundred dollars less at any local Apple dealer. No bargains, except for waiver of sales tax, existed at the Exchanges. I can't imagine why the dealers were upset!

2. Expect to see 1 MB SIMMs drop further in price as 4 MB SIMMs reach the market in 1990. Microtech of East Haven, CT now offers 4 MB SIMMs for the Mac at \$1,470 (9 chip parity model) and \$1,320 (8 chip non parity model). This price may have already dropped. (Source - InfoWorld)

3. American Airlines has awarded Apple a \$2.5 million contract to purchase Mac IIx and cx computers to use at its flight control center in Fort Worth, TX. American chose the Mac because of its ability to display information from a variety of sources and its user interface. (Source - PC Week)

4. 3-D Systems in Valencia, CA has developed a technology called "stereolithography" that can create computer-generated 3-D graphics and turns them into a plastic prototype within several hours. The computer directs a laser to trace a 3-D object onto the surface of a vat of liquid polymer. The laser causes the surface of the liquid to harden. The laser then images a fraction of an inch below the surface and repeats the process until hard layers are formed on top of each other. This turns the liquid 3-D model into a hardened plastic model which can be used as a prototype for the finished product. (Source - Business Week)

5. A \$99 CD-ROM containing the Guinness Book of World Records is now available for the Macintosh. It contains the original text, 300 color photos, 20 animated cartoons, music and sound effects.



(Source - *Business Week*)

6. I received an unsolicited catalog from CDA Computer Sales in Califon, NJ (800-526-9939) containing Apple and third party products. A Mac IIcx with 1 MB RAM and no hard disk is listed at \$3499, approximately 25-percent off the retail price. This raises the question "How can a mail order firm sell Apple CPU's?" Does any one know? I heard that Apple ordered (undercover) a Mac from this outfit and the Mac was missing a serial number. Be careful if you are contemplating doing business with CDA!!

7. Apple is being sued by QuickView Systems, Inc. of Los Altos, CA over technology incorporated into HyperCard which, they allege, was part of its product called "Zoomracks." The technology involves the method of displaying records on the screen. Stay tuned. (Source - *PC Week*)

8. Apple and IBM have both revised their dealer price break and market development funds policies to decrease their chance of being sued by smaller independent

dealers who felt the current policy favored large volume dealers. Dealer discounts now range from 35 to 40 percent. (Source - *PC Week*)

9. Microsoft has changed its Macintosh major upgrade schedule for each application from 12 to 18 months and stated that the next version of Excel will accommodate graphics and data on the same page, even 3-D charting. Are they feeling the WingZ heat? (Source - *InfoWorld*)

10. MacAtlas (MicroMaps, Lambertville, NJ 800-334-4291) now offers EPSF versions of maps that can be resized without losing resolution. They can be altered in programs like Illustrator or Free-Hand. List price is \$199, or \$49 for upgrade by existing owners.

11. I still hear about many individuals and organizations who buy inappropriate software or the wrong hardware because they don't inform themselves sufficiently before making a purchase. You can make excellent use of review articles that appear in *MacUser*, *MacWorld*, *InfoWorld*,

MacWeek, and the *WAP Journal* to name a few, to reach buying decisions. By all means, don't just accept the advice of a friend, or read a single article to reach expensive buying decisions!

12. Frederick Computers Plus recently underwent a major shakeup (Nov '89). The Virginia and Pittsburgh (PA) stores were sold, leaving stores in Frederick (MD), Ohio, and Ardmore (PA). The Ardmore store was owned and operated by Mr. Nathanson, the current owner of Frederick Computers Plus. In addition, 26 staff were let go from the Frederick Corporate location. At one time, Frederick Computer Products was the largest independent dealer of Apple and IBM products in the U.S. The exact nature of this consolidation remains a mystery. 🍏

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

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John Love (703) 569-2294

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John Love (703) 569-2294

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ProDOS 8 and 16

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RWTS, Disk structure

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James Edwards (301) 585-3002

Henry Donahoe (202) 298-9107

Word Star

Art Wilson (301) 774-8043

Michael Osborne (301) 894-8903

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Barry Fox (717) 566-6709

General/PaintWorks+

Paul Tarantino (703) 455-7670

//e Upgrade

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APW

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Barry Fox (717) 652-2899

Multiscribe GS

Ray Settle (301) 647-9192

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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

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Jim Frison (703) 525-9395

816 Paint/Writ'rs Ch.El

Andy Gavin (703) 734-3049

Apple II Hardware Epson printers, hard drives, Guy Durant (515) 294-5727

Apple IIGS

Paul Tarantino (703) 451-7670 (before 10P)

Neil Laubenthal (703) 691-1360

Fred Tillman (703) 503-8895

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

- Hotline is for club members only.
- Remember these are volunteers: be courteous; ask for help, not for a job to be done for you.
- Respect all telephone restrictions where listed—no calls after 10:00 PM except where indicated.

Beagle Buddies

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Paul Schlosser (Mt. Airy) (301) 831-9166

Ray Settles (Annapolis) (301) 647-9192

W. T. Cook (Columbia)

Gary Hayman (Greenbelt) (301) 345-3230

Lee Raesly (Adelphi) (301) 220-0717

Harvey Kaye (Bethesda) (301) 299-8994

Allan Levy (North Potomac) (301) 340-7839

David Page (301) 599-7630

VIRGINIA

Kenneth De Vito (Alexandria) (703) 960-0786

Neil Laubenthal (703) 691-1360

JANUARY

- 1 Monday**
7:30 PM PI-SIGoffice
💡 Editorial Deadline—February Issue
- 3 Wednesday**
7:30 PM dPub SIGPEPCO
7:30 PM Mac Programmersoffice
💡 Ad Copy Deadline—February Issue
- 4 Thursday**
7:00 PM Columbia SliceColumbia
7:30 PM GameSIGoffice
- 10 Wednesday**
7:30 PM Board of Directors Meeting.....office
7:30 PM Database SIG/4D.....Computer Factory
- 11 Thursday**
8:00 PM StockSIGoffice
- 13 Saturday**
9:30 AM Annapolis SliceAnne Arundel Co.
9:30 AM Frederick SliceFrederick
Music SIG Call
- 17 Wednesday**
7:00 PM WorksSIGoffice
7:30 PM Excel SIGoffice
7:30 PM Fed SIG..... Call
7:30 PM HyperTalk SIGArlington
- 24 Wednesday**
7:30 PM Apple III SIGCall
7:30 PM AV SIG Studio Tour Call
- 27 Saturday**
8:00 AM AppleWorks SIG Call
9:00 AM WAP General Meeting. Bethesda/CC HS
noon AppleWorks SIG.....Bethesda/CC HS
noon Telecomm SIGBethesda/CC HS
noon HyperCard SIGBethesda/CC HS
- 29 Monday**
7:00 PM Apple Iigs SIG Call
💡 Writers' Deadline—March Issue

Please note the location for the January meeting: Bethesda/Chevy Chase High School, located (as you might expect) in beautiful downtown Bethesda, Maryland. For directions, look it up in the directory or call the office, or just accost a moderately knowledgeable passer-by, looking vaguely hopeful and/or confused (you, not the passer-by).
Works every time.

WAP General Meetings

Monthly General Meetings are generally held on the 4th Saturday of the month at the Uniformed Services University for the Health Sciences Building B, affectionately known as USUHS. It is located at 4301 Jones Bridge Road on the campus of the National Naval Medical Center in Bethesda.

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

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

Meeting Notices

Annapolis Slice 2nd Saturday; Anne Arundel Community College - Careers Bldg. Lecture Hall, Arnold, MD, 9:30 AM.

Apple Iigs SIG Apple IIGS SIG (normally) the Monday after the regular WAP meeting; alternates between Dolley Madison Library in McLean and (NEW) NIH (building 31) in Bethesda at 7:00 PM. (February meeting Dolley Madison, February 26.) 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 in the USUHS cafeteria or other meeting room.

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

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

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

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

January

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

Meeting Notices

Frederick Slice 2nd Saturday; at the library at 110 East Patrick St., Frederick, 9:30 AM.

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

HyperCard SIG after the WAP general meeting; Uniformed Services University of the Health Sciences, Bethesda, 12:00 noon.

HyperTalk SubSIG 3rd Wednesday; Fairlington Community Center, 3300 S. Stafford St., Arlington, 7:30 PM.

Mac Programmers 1st Wednesday; WAP office, 7:30 PM.

MusicSIG 2nd Saturday; call Bill Bittle, 236-9898 for location and times.

NeXT SIG meets monthly. Call Hugh O'Neill, (202) 328-9510.

PI-SIG (Programmer's Interface) 1st Monday; WAP office, 7:30 PM (except for Monday holidays). Call office for information on January meeting.




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

Telecomm SIG after the WAP general meeting; Uniformed Services University of the Health Sciences, Bethesda, 12:00 noon.

Tutorials are held in the WAP office and at the Fairlington United Methodist Church, Rt. 7 and 395, Alexandria. Call the office for the location of any you wish to attend.

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

FEBRUARY

- 1 Thursday**
 7:00 PM Columbia Slice Columbia
 7:30 PM GameSIG office
- 5 Monday**
 7:30 PM PI-SIG office
 Editorial Deadline—March Issue
- 7 Wednesday**
 7:30 PM dPub SIG PEPSCO
 7:30 PM Mac Programmers office
 Ad Space Deadline—March Issue
- 8 Thursday**
 8:00 PM StockSIG office
- 10 Saturday**
 9:30 AM Annapolis Slice Anne Arundel Co.
 9:30 AM Frederick Slice Frederick
 Music SIG Call
- 14 Wednesday**
 Ad Copy Deadline—March Issue
 7:30 PM Board of Directors Meeting office
 7:30 PM Database SIG/4D Computer Factory
- 21 Wednesday**
 7:00 PM WorksSIG office
 7:30 PM Excel SIG office
 7:30 PM Fed SIG Call
 7:30 PM HyperTalk SubSIG Arlington
- 22 Thursday**
 7:30 PM Business SIG office
- 24 Saturday**
 8:00 AM Apple IIgs SIG Call
 8:00 AM AppleWorks Sig Call
 9:00 AM WAP General Meeting Call
 noon HyperCard SIG Call
 noon Telecom SIG Call
- 28 Wednesday**
 7:30 PM AV SIG Call
 7:30 PM Apple III SIG Call

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			

Macintosh

General
 Jeff Alpher to midnight (301) 630-2036
 Bob Wilbur (703) 379-2960
 Donald Schmitt (717) 334-3265
 David Gursky (703) 522-8345

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 David Gursky (703) 522-8345
 Harvey Levine (301) 288-9380

MS-File
 John Love (703) 569-2294
 John Spencer (301) 730-1084

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

ReadySetGo
 Jim Graham (703) 370-5737
 Marty Milrod (301) 464-5981

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 Michael Hartman (301) 445-1583

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 Chuck Sicard (301) 963-2879

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 Mark Pankin (703) 524-0937
 Jim Graham (703) 370-5737
 Dick & Nancy Byrd (703) 978-3440
 Bob Pulgino (301) 474-0634
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 Harris Silverstone (301) 435-3582
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WriteNow
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WordPerfect—Mac
 Curt Harpold (202) 547-8272

General

Franklin & Laser 128
 Bob Martz (301) 795-5689

Games-Apple II
 Charles Don Hall (703) 356-4229
 John Wiegley after 2:15 (703) 437-1808

IBM
 Ray Hobbs (301) 490-7484
 Leon Raesly (301) 220-0717

Math-OR AppIns
 Mark Pankin (703) 524-0937

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Hayes Smartmodem
 Bernie Benson (301) 951-5294

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Music Systems
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 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

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654-8060**

Frederick Apple Core Help Line

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

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

Using Arrays in Excel

by Tim Moore

Arrays in Excel seem to be underused if the articles I read are anything to judge by. An array (also called a matrix) is a rectangular group of contiguous cells designated by specifying the upper-left and lower-right cells with a colon between them, e.g., A2:I4. In this article, I will make use of arrays to demonstrate an interesting family of numbers that you can explore on a spreadsheet.

The numbers I refer to are sometimes called the Hailstone numbers. (Perhaps because they start from a seed and repeatedly rise and fall.) The algorithm used to generate the numbers is:

- (1) If the number is even, divide it by 2 until it is odd.
- (2) If the number is odd, multiply it by 3 and add 1.
- (3) Repeat with the result.

Figure 1 at the right is an example of the hailstone numbers.

This display was created as follows. First set calculation to manual to avoid wasting time while the worksheet updates. Cell A2 is the seed; enter the starting number here. In cell A4 type the formula $=IF(INT(A2/2) = A2/2, A2/INDEX(J1:J12, SUM(IF(INT(A2/J1:J12) =$

$A2/$J$1:$J$12,1,0)),1),3*A2+1)$ and press Command-Return (or Command-Enter). Using the command key places brackets around the formula and causes it to be treated as an array.

Copy the formula from cell A4 to cell C2 and replace the #REF! with A4. Make sure you press Command-Return instead of just Return. Now copy the contents of cell A4 to cells C4, E4, G4 and I4 and the contents of cell C2 to cells E2, G2 and I2. Copy A2:I4 into cells A6:I8. Copy one of the formulas into cell A6 and correct the formula to refer to cell I4.

Enter the table J1:J12 as shown in Figure 1. Now set calculation to automatic and enter a number in cell A2. If you get any fractional results it is most probably because you used Return instead of Command-Return after you clicked the insertion point in the formula bar.

The formula works as follows. If $INT(A2/2)=A2/2$ is false the number is odd. In that case, the next number is $3*A2+1$.

If $INT(A2/2)=A2/2$ is true then we want to divide A2 by 2 until it is odd. First we must find the largest power of 2 which will divide A2. To do this we create an array

	J	K
1	2	1
2	4	1
3	8	1
4	16	1
5	32	1
6	64	1
7	128	1
8	256	0
9	512	0
10	1024	0
11	2048	0
12	4096	0

$IF(INT(A2/$J$1:$J$12) = A2/$J$1:$J$12, 1, 0)$. To see this more clearly, enter the formula $=IF(INT($A2/J1) = $A2/J1,1,0)$ in cell K1 and copy it down to cell K12. Now enter 128 into cell A2. The result should be:

The largest number in column J which produces a 1 in column K is the the largest power of 2 that divides our number in cell A2.

Now all we have to do is find some way of referencing that cell in column J and divide it into A2. Note that the 7th number in column J is the number that we want and that the sum of the 1's in column K is 7. (If you think this is a fluke, think binary.) This is tailor-made for the INDEX function, using J1:J12$ as the array, $SUM(IF(INT(A2/$J$1:$J$12) = A2/$J$1:$J$12,1,0))$ as the row of the array, and 1 as the column of the array.

To give the worksheet a cleaner look, select J1:J12 and make the Number Format two semi-colons. This will make the contents of the cell invisible on the worksheet, but you can still see them if you select the cell.

Will the hailstone numbers ever come down? The answer is yes. No matter what the starting number, the sequence will always end up repeating 4-1-4-1... repeatedly. 🍎

	A	B	C	D	E	F	G	H	I	J
1	Seed									2
2	127		191		287		431		647	4
3	/ / / / / / /									8
4	382		574		862		1294		1942	16
5										32
6	971		1457		1093		205		77	64
7	/ / / / / / /									128
8	2914		4372		3280		616		232	256
9										512
10	29		11		17		13		5	1024
11	/ / / / / / /									2048
12	88		34		52		40		16	4096

MicroPhone II version 3.0

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John C. Dvorak:

"... stunning. Fast, slick; it does everything except slice bread."



SOFTWARE
VENTURES



All The Right Type

by Bob Oringel

"All The Right Type" by DidaTech Software Ltd. of Burnaby, B.C., Canada is an application program which teaches students to "keyboard," or to use the keys for entry on a computer. It was published in 1988, written in DOS 3.3, and it is copy protected.

The copy I received came with a teacher's manual, as opposed to a student manual, with instructions for each step written for Apple II, Commodore and IBM computers. It was confusing to read. The program disk, however, is self explanatory and menu driven.

I must admit at this point that having written three textbooks, I still type with two fingers. This then would be my opportunity to not only review "All The Right Type," but to also learn to use the keyboard properly.

I must further admit then, that after a couple of mornings of attempting lessons which taught me the keys, and which attempted to teach me speed and accuracy, I gave up trying to learn, and returned to my old ways. This review is a two-finger review. I admit embarrassment and shame. The fault, of course, is mine, and not the program's.

Type's main menu plunges directly into typing, offering in order: Intro to Keyboarding, Lessons which teach new keys, Lessons which teach speed and accuracy, Skill Builders, and Tests. Then there follow diagrams of the keyboard, and lesson selection. This is the basic "jump in and do it" style of teaching. No games, no distractions. If you like this teaching style, then perhaps "All The Right Type" is for you. 🍏

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View from the Cat House

by Kim Brennan

I begin this column inspired by Chaos Manor from Byte Magazine.

Is there a clone in the house? One distinguishing feature of Apple computers has been a lack of successful clones, both of the computers and of peripherals. This is good, of course, for Apple, allowing them to keep their prices high, but bad for the consumer who is restricted to buying Apple brand components or risk buying a clone product whose maker may or may not be in business a year later.

One company that has been supplying clone 5.25 inch disk drives for many years is AMR, formerly Micro Sci. Now they have a clone of Apple's 3.5 drive. And a good clone it is, too.

NOTE: This is a clone of Apple's Platinum Appledisk 3.5 used by Macs, GSs and the new IIc+, not the Unidisk 3.5 used by older IIs and Iles. However, the AMR AS800 can be used by IIs if you use AMR's controller board.

Compared to the Apple drive, there are few differences. Those that do exist are for the most part

cosmetic. On my IIs it worked fine to format disks with a 2:1 interleave. It also worked with copy-protected software such as Dungeon Master by FTL, which normally requires an Appledisk 3.5. And the AS800 also has the daisy chain ability that allows one to attach other disk drives to it.

About those differences... When inserting a disk, the AS800 doesn't give the sharp click that is familiar to users of Apple's 3.5 drives. When formatting, there is a faint high-pitched whine that I've never heard from Apple drives. The case of the AS800 drive is metal, rather than plastic, so the drive has that distinctive third-party look to it.

The most significant differences, however, are price and warranty. While Apple's Appledisk 3.5 is list-priced at \$429, the AMR AS800 is list priced at \$225. I paid \$199 plus tax. And though Apple supplies only a 90 day warranty, AMR has a full year warranty on their product.

Since I mentioned it, I'll add a few comments about Dungeon

Master, previously reviewed in the WAP journal. I find it a highly entertaining game. Its only drawback, a somewhat slow speed, is completely alleviated by the addition of a Transwarp GS. Addicting.

The Transwarp GS is a recent addition to my computer. Feeling more than a little rich, I added this accelerator. One curious story I've heard, though, needs to be retold. My Transwarp GS is running at 6.25 MHz. While more than twice as fast as a standard GS, Applied Engineering's advertising claimed 7.0 MHz. Contacting AE's technical support (a difficult thing to do, by the way) revealed that my Transwarp GS was probably not upgradable.

The story told elsewhere (not by AE) is that AE has had such difficulty making the 7.0 MHz Transwarps that it would change its advertising and discontinue claiming 7.0 MHz and merely call it "twice as fast." And I was so hoping for 10MHz. Drats. If you plan on keeping your GS for the long term, though, a Transwarp is not just a good idea, it's a must.

One reason I got the Transwarp GS was to help speed up a task. I recently downloaded all the fonts off AppleLink (which has now been relabeled America Online). There were a lot of fonts. More than 10 megabytes, in fact. It was more than I could put on my 10 meg Sider. To alphabetize all the fonts meant a lot of disk swapping and file transferring. The Transwarp was tremendously helpful.

By the way, I've managed to trim the number of fonts I'll be using to only 2 or 3 meg. Twenty-four different types, more or less. The trimming occurred in three stages. First, I eliminated all the novelty fonts. After this, I printed out samples of the remaining fonts so I could figure out which I liked best. The last stage was to eliminate fonts that were stylistically so close to each other as to be basically the same font. I based my judgments on esthetics as well as the number of different sizes available. Judging is easier said than done, but once done, it is enough for a lifetime, I hope. 🍏



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Change-a-File

by Gary Hayman

The program Change-a-File (v.2.81) does a whole mess of interesting things to make life easier for the Apple II user. Its initial purpose is to change file type or auxiliary type codes. There are many programs that will do this (see my discussion of three of them in my article on p. 31), but this program will "batch process" a group of files. This certainly facilitates converting GS fonts (type \$C8) to fonts that Publish.It! can use (type \$F7) considering the fact that one can change a whole group at a time. It is rumored that Publish.It! 3 will have the built-in capability to use GS fonts, but it is not due out until the Spring of 1990.

Attention AppleWorks users!

The program will also convert AppleWorks word processing files to text and text files to AppleWorks word processing files, and do it in a batch. This means that if you have a group of text files that you want converted to AWP files, rather than loading them in one by one, you can convert them and load them in by selecting the files and sitting back. The process is much faster than working inside of AppleWorks. This is more important for AW 2.x users than AW 3.0 users. When converting to text files with the program, you may choose to have carriage returns at the end of each line or at the end of each paragraph.

Since some people have not upgraded from AW versions 1.x and 2.x to AW 3.0 (what's delaying you?), those individuals will be interested in finding out that this program will convert AWP 3.0 files to AWP 2.x files. You will discover that more and more AWP 3.0 files will be appearing, and if you haven't upgraded or are not using

a program that will convert the files for you you will be behind the AW eight ball. If the AW 3.0 file can already be read by an AW 2.x version, the program is intelligent and will not make the conversion.

If you are in a hurry and just want to read AWP 3.0 files, the program will print them to the screen or even to a printer from within Change-a-File.

Change-a-File also has a mode that will try to repair damaged AWP files. Also, author Harold

Portnoy has included some strippers. One will strip line feeds that follow a carriage return; another will strip line feeds, wherever they are; a third will remove all control characters from the file; while a fourth will remove a specified control character.

Change-a-File is free and is distributed without charge. Documentation is included with the program. Get it from the TCS or a commercial on-line service. If you already have it, you may have an old version. The latest is 2.81 and can be found in the TCS File Transfer Area. I take my hat off to Mr. Portnoy; I have no complaints about the program. (grin) 🍏

The author is currently serving as a Director-At-Large of the Board of Directors, and is Chairman of both the AppleWorks and Apple IIGS Special Interest Groups.

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Cheap computing

by Ron Evry

Recently, Washington Post writer T.R. Reid ran a couple of columns complaining about the use of Apple II computers in the public schools. He assumed that since American businesses have adopted MS/DOS as their system of choice that the kids had better get cracking on their DIRs and COMs and LDXs, because that is what they have to look forward to in the work world. Besides that, he says, most Apple II educational software is "outrageously bad." He claims that it is "slow, poorly designed, given to crashes if some poor kindergartener hits the wrong key."

I'm not sure where Reid gets his information. Maybe he was talking about IBMs? Let me see now... poorly designed...given to crashes...yeah! That's the ticket! He probably mixed up his macro keys and kept printing out "Apple" by mistake! No doubt he hasn't gotten

the hang of OS/2, version 2, yet.

Seriously, though, there is no need to address those particular ludicrous remarks regarding the reliability of most commercial Apple software. No, what needs to be discussed here is the ACCESSIBILITY of the II line. Anybody with a little time on their hands can learn everything there is to know about the innards of the Apple. The beauty of the machine is its simplicity. Even the latest models still use the original Applesoft Basic and the machine has a collection of CALL routines that do much of the programming functions automatically.

This accessibility is the reason why there are by far more programs for the Apple II family than for any other machine. And a good portion of these programs are not on the shelves at your local com-

puter store. That's because they were written by ordinary computer users: people who bought an Apple, discovered how easy they are to work, and began writing programs to meet their own needs. Once these programs were written, they were passed around and improved upon and perfected by other users. There is no reason why everyone can't have access to many of these programs. Most of them are in the public domain. It may not be good "business," but many Apple owners feel a part of a worldwide community, and they like to share their discoveries with each other.

Scrape together about eighty or ninety dollars, or even less if you look in the used market, buy yourself a modem, and get yourself online today. Living in the Washington area, you have access to perhaps hundreds of local Apple II bulletin boards. Some are free, and some charge a nominal fee. Most of them are open to anyone. When you get on a board, the first thing you should do is get that board's list of other boards. Before long, you will have a list longer than you've ever dreamed of! Each of these boards is loaded with free programs, yours for the downloading. All you'll need is plenty of blank disks to put the programs on, and time to use them. You can also get excellent technical advice, good conversation on every subject under the sun, and even find classified ad bargains for anything you may need.

It is way beyond the scope of this article to provide a tutorial in telecommunications. I suggest getting the WAP disketeria disk featuring "Talk Is Cheap" on it to begin with, join the Pi TCS (the absolute best BBS in the area for advice and programs) and get on the phone.

Next time around, this column will take a look at some of the ways you can write your own software for free, even if you don't know a thing about programming! Until then, count your change!

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The Food Processor II

by Bob Oringel

I reviewed the precursor of this program about three years ago. It was a good program then; it is a great program now. Like the original, "The Food Processor," it is a highly specialized, expandable nutrition data base. It is the work of ESHA Research, Salem, Oregon, and is in the \$300 price range, which is reasonable for limited-audience programs.

The original program looked at 1500 foods and 26 nutrients; Processor II looks at 2400 foods and 30 nutrients. There are additional data disks optionally available in specific food areas: Baby Foods & Hospital Formulas, Alaskan Native Foods, and Fast Foods, which looks at an additional 792 fast food items. This data disk includes foods from most of the fast food restaurant chains, by name, as well as from Shasta beverages. I checked Diet Coke and found very few nutrients and 0.6 calories to the cup.

Each food product is numbered for ease of entry, and entry of the number brings the food to the screen. The user is then asked to enter amount, and the program whirs into action. A note on the fast food documentation suggests ignoring its food numbers, and using the food name instead, but adding the supplied fast food number to 2400 (the number of foods on the original list) produces exact results! The documentation also includes an error in the name of the fast food volume. It is FASTF, not /FASTPLUS, but this is a minimal error.

The program is not copy protected (the original program was) and it is available on 5.25" and on 3.5" disks. It appears to be written primarily for nutritionists, in ProDOS format, and its well written, loose-leaf documentation makes clear that very little computer knowledge is necessary for

the user. In its disk handling instructions, particularly when describing transferring the program to hard disk, it asks the user to follow the directions blindly! The Food Processor II is also available in Macintosh and MS-DOS formats.

The program proceeds by setting up a person's nutrition profile, based upon information which you supply. This information includes: your age, your gender, your height, your weight—current or target—and your activity level, ranging from sedentary to exceptionally active. The personal

information which you supply permits the program to calculate and provide a personalized RDA (Recommended Dietary Allowances) printout in chart or spreadsheet form. In addition to calculating the personalized RDA chart, the program provides the nutrient analysis, described earlier, of whatever you eat (or ate), if you supply in specific detail the foods and exact amounts. It will tell you how many calories you consumed. It compares your food intake to your personalized RDA and determines the nutrient and caloric percentages above or below your RDA.

This program will be very useful to people who must watch both their weight and nutrient intake, such as diabetics, and perhaps those who have digestive disorders. 🍏

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AW 3.0 Patcher

by Dale Smith

Mark Munz has created a freeware program distributed by Beagle Brothers to fix a number of bugs in AppleWorks 3.0. The patches in the program have been written by Mark Munz, Randy Brandt, Rob Renstrom, and Alan Bird. It's a "smart program"—just tell it what drive to search and it'll find the first copy of AppleWorks 3.0 on that drive and present it to you to choose to patch or let you select another. Patch what? Well, here are a few bugs that have been identified in AW 3.0:

- AWP Ctrl-codes: in the word processor, inserting the new control codes with calculated page breaks causes the cursor to jump to the top of the file.
- Tab Ruler in Header/Footer: in the word processor, placing a ruler in a header or footer causes AppleWorks 3.0 to continue using that ruler even after the header or footer is done.
- ADB Print more than 1 copy: in the database multiple copies of a report do not print correctly after the first copy.
- ASP Delete more than 255 rows: in the spreadsheet, AppleWorks 3.0 has problems adjusting formulas if you delete more than 255 rows at a time.

• Delete Default Printer: AppleWorks 3.0 has problems if you delete the default printer after adding another one.

• Text to ADB import: if you try at a certain point to cancel the operation of importing a database file from a text file with <returns> as end-of-category markers, you can mess up AppleWorks 3.0 so that neither your files nor the program can be accessed correctly.

• ADB/ASP OA-Right Arrow lock up: in the database and the spreadsheet you can insert text in a category or cell until some of it has disappeared to the right off the screen. If you then jump to a word that's offscreen, you get a total lockup.

• Saving to a locked file: if you save a desktop file to a locked file, both old and new AppleWorks forget to remove the temporary file "AWTEMP0000".

The docs describe each of the bugs listed above more completely. AW 3.0 Patcher will fix all of these bugs. The program uses the AppleWorks interface and has worked flawlessly for me. I am using my patched AppleWorks 3.0 to write this. I can't say that I have encountered any of the bugs above,

because I don't use AppleWorks that much and have never tried anything that pushes the limits noticeably—not even two copies of a database file at one time. Nevertheless, I feel much better working with a program that has the known bugs fixed.

I did find the Patcher extremely easy to use. The main menu of the program gives 4 choices: Patch some AW 3.0 bugs, More information, Version, and Quit. More information gives some info on The AW 3.0 Companion; the Version choice gives the version number, copyright notice, and the credits for each of the patches in AW 3.0 Patcher. Choosing Patch some bugs in AW 3.0 leads to a request for which drive to search. The program searches the drive and shows you the path to the first copy of AppleWorks 3.0 on that drive. If that is the one you want, you accept the path and then you see a list of the patches that will be installed. Another <return> starts the patching and you're returned to the Main Menu when it finishes.

There are several ads for other AppleWorks enhancement programs in the docs too. These include The AW 3.0 Companion (echoes of SuperPatch), DoubleData (double the categories in a database), FlexiCal (a calendar, reviewed in the Pi Journal November 1989, p. 61), and Mr. Invoice (helps with order entry). It's fascinating information, and you might even find one or another of these programs useful for your applications.

This little program is available for downloading from the TCS in the AppleWorks download area. Just log on and get this little gem. You don't have a TCS password? Why, for just \$6 for a year, you can have a TCS password and gain access to many fine downloads such as this one. Oh, but I don't have a modem. Hmm, well I have discussed this patcher with some of the Beagle Buddies and it appears that they will have the program to distribute freely to everyone updating their TimeOut programs. If you're using AppleWorks 3.0, the patcher could save hours of frustration. Happy bug squashing! 🍏

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Photonix

by Gary Hayman

First there was Nucleus, that mind-blowing graphics and sound program (available on the WAP TCS); and now there is Photonix. That French group of fantastic IIGS programmers from Dijon, called the Free Tool Association, has given us a unique, fun to use, fast and powerful 3.5 inch disk copy program par excellence. They call it the ultimate disk copier.

From its initial 16 seconds very fast loading (GS/OS eat your heart out), you pass an announcement screen and leap into a 21st century display control panel the likes of which you have never seen. Your mouse controls a robot's arm (no skimpy looking arrow) which pushes the appropriate buttons causing the proper combinations of disk copy actions.

There are two rows of buttons that the robot's finger might press. You know it has pressed a button, because the button lights up to tell you it has been selected. From the top row, you can format a blank disk in 27 seconds—try that with Copy II+. Touch another button and you can read a disk's prefix without reading the contents of the entire disk. You can select an appropriate interleave factor (2:1, 3:1, 4:1) for source disk and copy disk. You may deselect the sound if you desire, but I suggest to keep it on for the fun of it. Great stuff! You can cause your selections to become default modes for later sessions.

Last but not least is a button that allows you to read about the authors. Don't miss this entertaining presentation. The artwork is fantastic. Watch the rocket ship move in front of and behind objects. The music is straight out of a Herbie Hancock album.

Now on to the second row of buttons that the robot will be using. This is where the majority of the

work is done. The first button will automatically light up when copies are made, showing that disk formatting is taking place. Thus, you can use unformatted disks as your copy disks. When the ZAP button is lit, the copy program will only read blocks that are marked as used in the VTOC of the source disk. This means that if the disk is not full, the disk copy will be slightly faster.

Another button, when selected, will defragment files a la Glen Bredon's Beachcomber, not on the original disk, but on the image in memory BEFORE it is transferred to the copy disk. Watch the graphics as this takes place. You can use these two features in two different ways. Defragment your disk by first using it as a source and using the same disk as a copy disk. If you are making multiple copies of disks, it will greatly speed up the process—which is already fast. Another button allows you to do multiple copies of your source at fantastically high-speed copy rates.

There are two important buttons that set this program apart. The first will check the original disk for a virus. It accomplishes this task in 1.8 seconds. If a virus is present on the original, it will tell you so and then copy the disk WITH THE VIRUS REMOVED. It doesn't affect the original disk at all, although by inserting your original disk as a copy disk, you will have effectively removed the virus. The second significant button signals the verification of the disk to assure that all was copied correctly.

There is a button that will protect your original, forcing you to write-protect it before action can begin. Select this button and forget to write-protect your original, and listen to what the program will tell you in sound as it spits out your disk. Another button is a "disk

shaker" button that, when illuminated, allows you to take out the disk and gently shake it to see if a piece of dust got on the surface if a read or write error occurs. If it had dust on it, and you were successful in removing it by the shake method, you can re-insert the disk and copying will continue at the place the program left off. Other programs will just stop or give you an error indication.

The final button is a special button for a special format. I don't understand it and I don't use it, but I personally think that it will be made clear at a later time by the authors and its purpose will be useful.

Let's look at some time trials. A Transwarp GS was NOT used for these experiments:

Photonix (cold boot to work screen).....16 seconds

Format disk..27 seconds

Copy (no frills)....54 seconds

2nd Copy...27 seconds

Copy (w/virus check and verification)....75 seconds

2nd Copy..47 seconds

Virus check only..2 seconds

For some reason Photonix has to be started from a cold boot in slot 5. All you have to do is go into the control panel and set your start-up slot to 5, quit the control panel and press Open Apple-Control-Reset with Photonix in Drive 1 Slot 5 and you are off to the races. It takes me 11 seconds to do this. Remember to reset it back to your normal setting (if different) when you are finished.

This is a shareware product and is well worth the \$20 asking price. You may download it from the TCS (GS Utilities Area) or may receive it at a IIGS SIG meeting if you bring a blank disk. The authors encourage you to make copies of the disk and to give it to others. 🍏





The Truth About the AppleIIGS

by Phil Shapiro

The AppleIIGS is an amazing computer with astounding features, and scintillating capabilities. Which is exactly why it makes a poor choice for a beginning Apple II user.

The machine is just too darn powerful. It offers too much, confusing and perplexing beginners. It sometimes even frazzles seasoned Apple II users.

Much to the credit of Apple's marketing department, over one

million Apple IIGSs have been sold since its introduction in October, 1986. Many of these IIGSs have entered the homes of busy professionals who don't have the time or inclination to sit down and fuss with the thing.

Other IIGSs have been sold to schools who could have bought three Apple IIc+s for the price of each Apple IIGS. Apparently it's better to have a small, isolated computer lab of a half-dozen IIGSs rather than have three Apple IIs in each and every classroom.

Apple's marketing department has done a sterling job selling Cadillacs to those who need to drive to the corner grocery store.

The trouble with the AppleII GS is that it offers too many options. There's too many hardware configurations for the machine, what with different programs having different memory requirements, not to mention the selection of 3.5 inch drives, which include, among others, the UniDisk and Apple 3.5" drives. If you want to

know the difference between the UniDisk 3.5" drive and the Apple 3.5" drive, that's easy to explain: the UniDisk has its own 6502 chip.

And then there's the Control Panel, a nifty little feature that's easily accessible by pressing Open Apple-Control-Escape. You can choose all types of options from the Control Panel, half of which you won't even understand. Best of all, you can access the Control Panel at any time, except in those situations when you can't; it seems some GS programs, especially games, disable access to the Control Panel.

Just setting the machine up takes some coordination. Let's see: the 3.5" drive plugs into the CPU, and the 5.25" drive plugs into the 3.5" drive. Okay, so where should I put my word processor disk? Where do I put my data disk? Slot 5, drive 1; and slot 6, drive 1, you say? But can't I just save all my documents to RAM disk, and off my computer?

mention BASIC.SYSTEM, subdirectories, and pathnames, by the way?)

Luckily for them, they had steered clear of AppleWorks IIGS, and were content to struggle along with classic AppleWorks. (Did anyone happen to mention fonts, desk accessories, files and folders?)

The best type of Apple II for a beginning Apple II user is either an Apple IIe, or the new Apple IIc+. The IIc+ is the hands-down favorite on price, ease of set up, and ease of use. And just because it doesn't have super high-resolution graphics doesn't mean your child will outgrow it next month. Thousands of time-tested programs run on the IIc+.

The Apple IIe, on the other hand, is more suitable for schools and families with special needs. The eight slots come in handy for plugging in adaptive hardware. Persons with physical or cognitive disabilities need the flexibility of having such an "open-architecture" machine.

All this is not to say that the Apple IIGS is a bad computer. The IIGS is a wonderful computer for those with the time and inclination to learn how to use its many incredible features. It's a fine computer for programmers, hackers, and other nice people. The IIGS is a good thing—but my mother always told me, "Too much of a good thing is not such a good thing." What's true for fudge and banana splits is also true for microcomputers. For many families and schools, the IIGS is not the best Apple II to choose.

Apple's marketing department has done a sterling job selling Cadillacs to those who need to drive to the corner grocery store. It's high time that the real truth about the IIGS be told. 🍏

(The author develops educational software and teaches computers in elementary school.)

Telecommunications for Kids

by Phil Shapiro

What would happen if a large group of children were given free passwords and free access to an electronic bulletin board? What would happen if these same children were allowed to post public messages on the board, to send private mail, and to download text files and public domain programs—all from the comfort of their own homes? You would have something pretty similar to the School Board, operated from the Thomas Pullen Magnet School in Landover, Maryland.

The brainchild of two elementary school teachers, David Kreisberg and John Jennings, the board has been up and running for a little over a year. And so far, the experiment has been a resounding success.

Children from all over the metropolitan area have been calling in. The board averages over 150 calls per week. Luckily, the current growing pains of the board happen to coincide with plans to bring in a second phone line.

David Kreisberg, one of the two Sysops (system operators), describes the dilemma he had when he first thought of starting up the board: "We first planned on using one of the school Macintoshes for the BBS (bulletin board system), taking down the BBS whenever we needed the Mac in one of our classes. But then we found out it was possible to run a bulletin board program under MultiFinder, allowing a student to use the Mac while the bulletin board was still operating in the background."

So, thanks to the magic of MultiFinder, the bulletin board is up twenty-four hours a day, seven days a week. And the Sysops don't have the headache of having to bring the board down and start the board up twice a day.

It took a while to select the

bulletin board software. A number of popular bulletin board systems were considered, including packages for the Apple II and systems for the Mac. Other Sysops were consulted about what was the best software for the best price. Eventually, the choice was made to go with Red Ryder Host, written by the famed Scott Watson, author of the similarly named popular communications program for the Mac.

The current set-up is built around a Mac Plus with 2.5M of RAM and a 20M hard drive. Red Ryder Host takes up so little room that the bulletin board could almost be run off of floppy drives.

After having considerable trouble using an Apple Personal Modem, the board opted to get a 1200 bps Hayes Smartmodem. The Hayes has given trouble-free operation over the course of the past year.

Truth be told, not all the calls received by the School Board are from elementary school children. Teachers and parents also call the board to leave messages for each other. One section of the board, the Educator's Corner, is actually reserved for the use of teachers. The Educator's Corner provides a great forum for local teachers to bounce ideas back and forth. Messages range all the way from professional dialogues to casual social conversations.

Unlike many other professions, teaching is a calling requiring solo practice throughout the entire day. Consultations with colleagues are accordingly rare and infrequent. Any enterprise that helps to bring teachers together is bound to serve an important need. In these days of micros and modems, it makes sense for teachers to "network" electronically.

Calling up the School Board is no big deal, but the Sysops do

recommend that children have adult supervision the first time they log on. The board can operate at 1200 or 300 bps. Unless the child is a fast reader and confident computer user, the Sysops recommend that children call at 300 baud. If children do choose to call at 1200 baud, they should be shown how to stop the scrolling by pressing Control-S (any key will start the messages scrolling again).

The initial log-on procedure takes all of five minutes. The host software will first ask the child to type in his/her first name, last name, and the city where he/she is calling from. Next the child will have to think of a password, from three to eight letters long. It's best that the password be a kept a secret. Adults might have to make suggestions as to possible words for passwords (favorite animals, fruits, and colors all make sense). To add a touch of cryptographic spice, you could suggest to have the password be written backwards (i.e. the word "zebra" becomes the highly mysterious word "arbez").

After entering the password, the child will have to verify the password by typing it again. This time the letters of the password will appear as Xs on the screen. A few other preliminary questions follow, and soon the child is whisked off to the Main Menu of the board. At the Main Menu there are a number of different options, but the most travelled route is the one to the Message Center.

The Message Center itself is divided up into a number of sections: Private Mail, General Discussion, Stories and Poems, Brain Teasers and Riddles, Projects, and Foreign Language. As you might expect, Brain Teasers and Riddles is quite an active board. The Stories and Poems board offers some interesting creative work by local young authors.

A recent discussion on the Projects board centers around a planned "group science experiment" involving the analysis of rainwater by schools at various locations around the metropolitan area. Students will upload the data they collect and then analyze the results. All communications for this group science experiment will be



done through the School Board, so students and teachers will be communicating with no envelopes or stamps. Local phone calls to the School Board, of course, cost the schools no extra money.

The neat thing about the School Board was the decision to make it free for all to use. The decision was not reached casually.

Kreisberg, a computer arts teacher, explains his populist point of view: "The School Board is free because we want to encourage communication between students and students, teachers and students, and teachers and teachers. When ideas are freely exchanged, learning is bound to take place.

And isn't that what education is supposed to be about anyway?"

A third grader sits down to write a public message from her home computer. She must choose her words carefully to sound intelligible to others. She must use proper syntax. She must use proper grammar, so as to draw attention to her ideas, and not the form in which they are couched.

She composes a public message, checks to read her private mail, and then dashes off some replies to her buddies on the other side of the city. Ladies and gentlemen, welcome to the 21st century. 🍏

The author develops educational software, and teaches computers in

elementary school. Comments and feedback about this article are invited via private mail on the School Board.

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Thomas Pullen Magnet School (for Creative and Performing Arts)
700 Brightseat Road
Landover, MD 20785
Red Ryder Host (\$135)
The Freesoft Company
150 Hickory Drive
Beaver Falls, Pa 15010

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Stereograms

by Dirk J. Bakker

It is true that in the realm of computer graphics, there already exist programs and systems that allow for the display of three-dimensional images. Special monitors displaying vector or solid-form graphics are a reality. Unfortunately, this capability is not commonly affordable. There is, however, a type of stereo image that can be used by anyone who owns a basic computer and painting software. This is the old-fashioned stereo pair: remember the type you viewed by way of a stereo viewer, the stereoscope.

If you have a program like DeluxePaint II (DPII), you can discover the magic of creating your own 3-D images and learn something about the way your brain "creates" depth-perception. The program you choose will determine the ease with which you can create these images. The following program features are needed: Copy, paste, fill, show coordinates, brush or 'lasso,' zoom, and make stencil. Cycle, which is a must to view 6 below, and spare page are optional.

If you think you may find it difficult to use, or don't have such a paint program, but wish to view 3-D pictures, then any program or NDA, such as SHRConvert, D.T.Painter, or ShowPic2 will do. (I've found it convenient to use HTE (Herb's Text Editor) to write this and to peek at the graphics from ShowPic2.) There is one last condition though: you must be able and willing to cross your eyes. Okay? Okay.

A file available on the TCS named STEREOPTICS.SHK contains the following group of 320-mode files:

1. blank.pair
2. floating.random
3. receding.random

4. test.random
5. color.squares
6. purple.cycle.3d
7. ski.thunder
8. swirls
9. diving bell, and
10. this text

Since the original material was uploaded, I've carried some of the ideas a few steps further. There is a new version of the STEREOPTICS.SHK file that includes:

11. King.Tut.3D
12. gr.red.random
13. globes
14. sketch.3D
15. horiz.pair.test
16. horiz.pair
17. Vert.pair

Before we get started, let's discuss what is necessary to view a stereoptic image. First, you must view the image pair from a close enough distance, say 15-18 inches. Also, you may find it easier to use a piece of cardboard to help your eyes "fuse" the two images.

As you may already know, the reason this illusion works is that our visual system uses small disparities, or "binocular parallax," between left and right eye views to extract depth. The further away an object is, the less "crossed" (relatively speaking) the eyes have to be to fuse the two images, and the lesser the disparity between the left and right eye views.

Try looking at something like a human head. Have someone face you and hold still while you look at them. Close your left eye. Notice the nose looks as though it "shifted" to the left. Alternate eyes and you see the same degree of difference but this time to the right.

Now concentrate on looking at the ears from the same viewpoint: the "shift" is less. Naturally, the ears are further away than the nose. Anyway, you get the idea.

JULESZ' random dot stereograms (RDS)

Now that you know what you're looking for, let's look at the file named "floating.random." This is one of two files referred to as a Julesz' random dot stereogram (RDS). This one, if you manage to fuse the images successfully, will show a square floating over a field of random dots. Notice that by using this strategy, we can see that it is the degree of disparity, not of convergence, that provides our visual system the necessary clues to perceive depth. Once you've seen the floating patch, load the one named "receding.random." This one will show the square patch recede behind the field of dots.

If you wish to experiment with this, I've included a file called "test.random" which was used in constructing the previous two. Using the brush feature of your paint program, copy a 26 (high) x 29 (wide) pixel sector of the background pattern. (You can engage the coordinates feature in DPII by selecting it from the Edit menu and pressing the number nine on the main keyboard to show them.) Then paste this "brush" to the spare page. In the spare page use the brush once again to copy a 26 x 26 pixel section of this larger piece from its "left side." Switch to the main page and paste it on the left frame in the black hole there (use Zoom to facilitate this). Then go back to the spare page and copy the right 26 x 26 pixel section and paste it to the hole in the right frame.

Now view the image by fusing the pair. Later, if you reverse the order where you paste them (i.e. left copy on right side and vice versa) the effect is the opposite. Notice that the difference between the patches was only three (3) pixels wide. But what a difference! Also note that the gray blocks, located under the frames, demonstrate this as well and provide you with the direction of shift.



COLOR, and Other Pictorial Depth Clues

Naturally, there are other clues which aid depth perception.

Anyone familiar with painting will recognize that colors either recede or advance. Other clues, collectively known as the pictorial or monocular depth clues, include such effects as perspective, obscuration and shadows. I've noticed that a red patch will float over a blue field. Yet, as you will see in the file "color.squares," the disparity, or binocular parallax, is a much stronger stimulus, since the red square is obviously in the background and the blue one is ahead of it.

In addition, you will see other types of images in "swirls" and "ski.thunder." In "diving.bell," you see the intrepid author in a diving bell, an example of the 3-D effect applied to cartooning, and in "purple.cycle.3d" you get to use DPII's color cycle feature to achieve an "animation" effect, as well as viewing it in 3-D.

Your Turn

In order to apply this understanding to making your own 3-D images, I also included a file named "blank.pair." This has two black frames bordered in purple. The dimensions for each are 100 x 100 (using the dimensions displayed in DPII). You can use the brush feature and make a copy of any graphic 98 x 98 (this allows for the purple border) and paste a copy on both sides. Again, as with the random dot patterns, shifting a section either to the left or right will allow you to construct stereo pairs which will have varying degrees of depth either forward or back, respectively.

Once you determine which parts of the image you wish to advance or recede, use the brush in "lasso" mode (you'll see a diamond in the toolbox's Brush Selector icon once you double-click on it), which will allow you to carve around the part you want. The face in "diving.bell" was done this way. Once you have the element you want, you can see the 3-D effect while you (crossing your eyes)

place it on the other frame. I found this method to be a quick and reliable way of checking the accuracy of the placement and the degree of 3-D effect.

Always remember that the images have to align perfectly in the horizontal. To aid you in this, engage the Info Bar with "9" and select the coordinates option on the Edit Menu. The second number refers to the y-axis. You can, while the coordinates are displayed, go to the original, unshifted element, get a reading of the y-axis number there by superimposing the brush on it, then when you place it on the other frame, look to align it horizontally by using the same vertical number. You can also use the x-axis number to guide you in placing the brush. The frames are 114 pixels apart, so if you add this number, plus or minus the number of pixels you want, you can calculate for the horizontal shift and use the x-axis coordinate number as well.

Remember that if you have trouble seeing the brush because the pointer is over it, you can change the position of the brush handle by using the Brush Handle option on the Edit menu. Other interesting effects include using a mismatch (element existing in one frame but absent on the other, which creates a sparkle effect), and "Squeezing" an element so as to have a wider right element compared to its counterpart on the left, which creates a stepped effect in receding. Experiment!

The newer files deal primarily with a free-hand technique using the concepts above. One feature of DPII, which lends itself ideally to drawing 3-D free-hand, is the Symmetry tool. To illustrate this, I've included the file "horiz.pair.test," which demonstrates the effect on a simple free-hand drawing of a tree. Also, it has a series of text numbers that were typed in while the tile's width setting (the separation along the x-axis) corresponded to that particular pixel count. This screen is ideal, I think, to guide you in doing your own free-hand 3-D drawings.

"Horiz. pair" is similar to "blank.pair" except that the separation is slightly different (160, instead of 114). To use "horiz.pair"

in addition to the preliminaries (Info bar, coordinates), be sure to include the following:

1. Invoke symmetry tool's dialog box by clicking on the symmetry icon, while pressing and holding Open-Apple (OA). Once you get the menu, select TILE and Cyclic buttons, and
2. Set these values: Point Order: 1, Tile Width: 160, Tile Height: 200.
3. Choose Make Stencil and mask white and purple, or whatever color you changed your foreground color(s) to. This is so that when the tile feature is engaged, you do not draw anything except within the frames.
4. Choose, by clicking on the Symmetry icon.

Since the separation of the base (frames) is 160, this will become the reference for 3-D separation. Draw as you would normally. Notice that anything you draw in one frame is repeated in the other.

Use tile width numbers greater than 160 whenever you want the element drawn to RECEDE into the background. Use tile width numbers less than 160 to ADVANCE the elements so drawn.

If your eyes can stand it, I've found you can draw while "fusing" the left and right images (L/R). That way you can see exactly the effect as you draw.

The circles in the file "globes" were drawn using the above technique. However, since the "strings" come to one point, these were drawn individually once symmetry was disengaged. I found that combining certain features (particularly brush) was problematic while using symmetry. So be sure to save often.

The file "vert.pair," like "horiz.pair," is a blank for creating a full-screen vertical pair. The base separation in "vert.pair" is 164 pixels. Lastly, "sketch.3D" is an example of a fully hand-drawn 3-D image using the combined techniques discussed above.

If you wish to read further on this effect, I highly recommend the book by Richard Mark Friedhoff and William Benzon entitled: "The SECOND computer revolution—VISUALIZATION," published by

Harry N. Abrams, Inc. I found my copy locally at Franz Bader Bookstore, which specializes in art/visual books.

Also, I found that if you wish to print your 3-D masterpieces, simply print normally and the 3-D effect is retained! That way, you can publish them as well. Now, if we could only make slides of the RGB screen. Uhhmm... that's the subject of yet another project. Enjoy, give your eyes a break once in a while, and upload your 3-D creations to the TCS soon. 🍏



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Best of the TCS - Apple II

by Harvey Kaye

PROTERM

FROM C. A. BONEAU, ON 10/12

Does anyone out there know the tricks involved in getting PROTERM to function in the "Unattended" mode? I've tried everything I can think of (so far), but when I call it from elsewhere, it doesn't acknowledge and cuts me off after several seconds. Has anyone ever done this?

FROM HARRY BACAS, ON 10/12

I use the "unattended" mode regularly. A friend calls up my system to give me messages and programs and to get those I provide for him. It took me a while to get it going, too. You have to specify all those settings in the little menu that appears when you first go to Unattended. As I remember, the one that gave me the most trouble was the Password. I never could get it to waive the password; I just had to specify one and tell my caller what it was. If you can give us more information, maybe we can offer some useful advice. Like what hardware you are using, the steps you go through in configuring Unattended, etc.

FROM DALE SMITH, ON 10/13

I have not had any problems with bypassing the password—just blank that entry in the Unattended parameters box and be prepared to hit "return" when asked for the Password. ProTERM will always request the password, even when it's NULL (nothing); when it is, a "return" satisfies.

APPLELINK

FROM TOM O'HAGAN, ON 10/08

I can't even make connection with Apple Link. When the

software is loading and the word "loading" is on the monitor for 20 seconds or so, the disk stops and I never reach the dial, work off line, screen. I did the first time I booted, but after that no dice. I just tried again 10 min. ago with same result—the disk stops before the loading is complete. I called the help line and they said some IIe's with Zip chips won't work and recommended I remove the Zip chip. I asked the tech rep what she thought was more important, the Zip chip or Apple Link. At least she admitted I might give up AL before the Zip chip. I don't know why it has to have their own terminal software and make things difficult.

FROM HARRY BACAS, ON 10/09

That software changes every time you log on, changes your "password," that is. So, to log on again, you MUST use the software version you used the previous time. You can't go back to an earlier copy and expect it to work. You have to call, as Dale says, and get a new temporary authorization. I mention this for future reference: you must use the software you used the time before or phone in for a new authorization. This means that you can never call in from a backup without first getting a new authorization.

Point-To-Point

FROM ADAM BRIGGS, ON 10/09 02:44PM

I've never used PTP, but there are many other nice programs out there. Unless the automatic unpacking messes up things, you might try downloading the demo version of TIC v3.XX that is in the Apple // utilities section. Also, ZLINK works fairly well. There are two other telecommunications packages in the transfer section—ACT and KERMIT.

KERMIT is DOS 3.3-based, so it causes problems since most files you would receive will be ProDOS based. ACT is ProDOS-based, but it has a few bugs and I find it inconvenient. If you download ZLINK, remember that it is Shareware. If you like it and plan to continue to use it, you must send some mooola to the author.

FROM DALE SMITH, ON 10/09

KERMIT will run in EITHER DOS 3.3 OR ProDOS—however the installation to your particular hardware has to be done in DOS 3.3, since the installation program has not been rewritten.

To John: There is a v3.xx of PTP out now. Beagle Bros. is now marketing the program. I do not know what their upgrade policy is; you'll have to contact them to find out.

ProTERM and MouseTalk are also good, easily setup communications programs that DO let you control the Binary II unpacking and, in the case of ProTERM, packing.

FROM JOHN SENIURA, ON 10/09 09:19PM

Judging from your text, I'd guess that you are new at using the TCS. I use PTP also, but I know of no auto-decompression mode. Some files will do this on their own. Most won't. It could be that you happened to hit one that does. Have you tried to download other files? Try to describe the problem more specifically; perhaps I or someone else can suggest a solution. I find PTP quite a nice program, myself. Very easy to use, with many useful features.

GAME BBS

FROM ADAM BRIGGS, ON 10/09 02:50PM

There is an area BBS devoted to on-line games. It is called "The Overboard" and the sysop is Eli Staples. If Eli doesn't have the game, he can probably get it. The number is 117-759-4607. After you log on, yell for the sysop and ask him. His father sometimes answers the page, and he might not know about it. Ask for Eli, and if he isn't around, leave a note to him.

FROM ADAM BRIGGS, ON
10/11

Glad to see that you're a good guy and not an IBM weenie. Still, call Eli. He's into those online game things. Also, to everyone: New Apple // board on the way, Peak 3. Some friends and I are running it from a gs we found lying around in our school. (We have Macs now). Unfortunately, we are stuck with Anet v1.3 for a while, and also, we have no hard drive (yet), so no file transfer. I put it up to test today, and it worked very well. Then I crashed it...it will take me about 5 minutes to fix, so it'll be up REAL soon. Message areas are Peak 3 (chit-chat), Mountaineering (name says it all), Crack On IBMs (I couldn't resist). Once we get the hard drive, there will be some file transfer, and I will add beaucoup de message areas. Well, if anyone knows of a better BBS program than ANET (for the GS) that I can get REAL cheap (like under \$30), PLEASE TELL ME. Or, if it's PD, as soon as Peak 3 is up leave me a message there and U can upload it.

SENIORNET

FROM SAM KNUTSON, ON
10/12

Dave we met the SeniorNet folks this spring in Boston at Applefest. I talked at length with their director at that time as they were seeking a site/sponsor in this area. We offered to do what we could. The organization brings together Senior citizens to learn about computers. They favor Macintoshes but use Apple II's, MS-DOS machines and a few others. They have a special arrangement with Delphi, I think, for their telecommunications.

TO.TELECOM

FROM LEE RAESLY, ON 10/14

I received the Manual (and more disks) to TimeOut Telecomm today. Really great program. Easy to install, and seems to work great! A pretty big buffer, and you can specify "save to clipboard" (limited only by memory, as usual) or "file."

I have set the buffer to 4096 lines (about 50 K if my calculations are right) and it is much bigger

than MouseTalk's buffer. (I know, Dale, not like ProTerm!) Now I am going to try to learn the scripting techniques next. Am using TransWarp GS, and WOW! Does that make everything (even this Modem) work the screen update fast!!!

FROM HARVEY KAYE, ON
10/14

I HAVE BEEN using TO Telecom for a few days and really like it. It sure is nice being able to telecommunicate while remaining in AppleWorks.

FROM KEN DE VITO, ON 10/
15

Yea. I tried out TimeOut Telecomm. It's great to be able to log on while still in AppleWorks. That is the biggest advantage to me. Others are that many AppleWorks commands are used within Telecomm. It ain't no ProTerm. It has a long way to go before getting there, but it is a good version 1.0.

FROM PAUL SCHLOSSER, ON
10/15

I managed to call out with TimeOut TeleComm, even though it was stopping me with a "can't initialize modem" error. I answered "no" to the "try again" message, and was able to dial out via the open-apple-control-T option (which forces TeleComm into terminal mode). I'm going to experiment with nvRam settings (in my modem) to see if TeleComm will initialize it correctly. I was able to download from the TCS with TeleComm. It's a bit strange in the way it operates, though. It starts the transfer using a filename TC.TEMP. After the download is finished it asks you what file name to save the file with.

FROM DALE SMITH, ON 10/
15

Did you do anything like altering the cursor blink times in UltraMacros in addition to configuring TeleComm?? I have had absolute failure on all systems (TCS and others). The download starts, locks into a particular mode—ProDOS Xmodem/checksum for example—transfers a block or two, then starts erroring like mad. One time I did get it to go with constant repeat sends due to error(s) on each and every block

transferred. Testing is not complete though, and maybe some configuration option is causing the problem.

FROM PAUL SCHLOSSER, ON
10/15

No, I only configured several of the items in TeleComm itself. In fact TeleComm and Utilities are the only things I had installed during my testing. I finally found the reason TimeOut TeleComm (I'm using it now) would not initialize my Practical Peripherals modem. Adding '&C1' to the initialization string solved the problem. My guess is that TeleComm wants the modem to monitor the data carrier, while ProTERM (and other) programs do it themselves. Should I be using 'X3' or 'X4'? X4 sounds better, since the modem waits for a dial tone. TeleComm seems pretty nice so far, although the screen updates don't seem to be as smooth as in ProTERM.

FROM PAUL SCHLOSSER, ON
10/15

I could not download from the TCS using the 'P' (Xmodem/Checksum ProDOS) protocol. Didn't make any difference if 'Ascii Express Mode' was on or off in TeleComm. I did download successfully using the 'X' (Xmodem Checksum) and 'C' (Xmodem CRC) protocols. However, in both cases TeleComm ended the transfer, asked for a filename to save with, and completed the disk save. I had to send a control x to let the TCS know that the transfer was done. (I assume the d/l'ed files are okay, I haven't checked them yet.)

Also, I'm still getting 'can't initialize modem' message, but answering 'yes' to the 'try again' question apparently does initialize the modem, since I next get the dial menu, and can dial out.

(BTW - if TeleComm locks up during a transfer, press control-reset. Then load TeleComm again. Answer 'no' to the 'can't initialize modem' message. Then enter open-apple-control-T, and send a control-x to the TCS.)

FROM DALE SMITH, ON 10/
16

I already had "&C1" in my init string; I use X4 and I also have

"&D2" for faster disconnect. I think the "&C1" prevents me from having some problems on PC Pursuit and such networks that other ProTERM users have complained about: ProTERM going OFFLINE when they see a "NO CARRIER" from a modem other than the one they have next to their computer.

FROM DALE SMITH, ON 10/16

Yes, I figured out that I could use TeleComm to recover itself. I wasn't quite sure about what it would do, like forcing a disconnect when the TCS was trying to send still, but it doesn't do that.

FROM PETE COSTA, ON 11/02

I'm disappointed in the fact that I can't create a "macro" (maybe you call 'em "scripts") that I can initiate while online for simple things like a signature or a repetitive code (such as my PC Pursuit logon name and password each time I dial a new node). NOW, if it's IN the manual someplace between pages 33-36, PLEASE embarrass me and point it out! Remember, this is for use DURING the online session, not just at the point of initial connection! That is the only way I see "scripts" functioning (one-time only-type operation).

FROM DALE SMITH, ON 11/02

If you are referring to TimeOut TeleComm, I don't think it's there. The "macros" seem to only be for a logon script. Sorry.

FROM PETE COSTA, ON 11/03

Yes, I WAS referring to TO.TeleComm. I can't figure out why such a GRAND amount of fields are in each database entry just to SIGN ON! I thought I was missing something!! Darn!

TELECOMMUNICATIONS PROTOCOLS

FROM DAGOBERT SOERGEL, ON 10/14

Could someone please enlighten me about the differences between x modem, y modem, kermit, and other protocols? My

communications software supports them all and so do all of the BBS's that I want to up/download to/from. Which should I use? Which is faster? More accurate? Thanks.

FROM DALE SMITH, ON 10/14

The protocols you mention mainly differ in their efficiency (speed). They are all good at catching errors, though the CRC error checking in XModem/CRC, 1K Xmodem, 4K Xmodem, and Ymodem (Batch) is somewhat more accurate. It'll catch many errors that will sneak through the checksum error checking. However, I have never had a bad file due to transfer errors, so the extra errors are rarer in occurrence. You could run into them on a VERY noisy line, but you'd probably be better off trying a reconnection instead of persisting with a very noisy line.

As for speed, use Ymodem Batch, Xmodem 1K (or 4K, if available), Xmodem (128 byte) [also called Standard Xmodem], Kermit—in that order from faster to slowest. Do not use Kermit if you can avoid it. It's much slower than the others in its standard forms.

Which should you use? Use the fastest protocol that will work!

MicroCom Network Protocol (MNP)

FROM DALE SMITH, ON 10/28

I have the PM2400SA, but not the one with MNP error correction. I got mine before that was added. (Wouldn't you know it, though I don't think I'd really use it much. You never know for sure what the other end has, and it seems you'll get more reliable connections with it OFF unless you KNOW the other end is running with MNP.)

As for the M3 option, I recalled the system after giving my modem the command to see how that differed from M0. Now I know. You hear only the connection handshake with M3 and nothing with M0. It does work for me, BUT I had to give the command TWICE before I got the OK from my modem. Be sure you get the OK (or the 0, if you're set for result codes)

before proceeding. If it works manually, then you might want to insert it into your INIT string for whatever program you're using.

FROM KEN DE VITO, ON 10/28

Twice, huh? Maybe that's my problem. I'll try it that way and also manually. I initially had ATM 3 and only it in my Init String. Now I'll find out if it'll work manually or what.

FROM PETE COSTA, ON 10/30

I saw that the new Applied Engineering EXTERNAL modem has an MNP optional feature for \$89 when you order the hardware. What is this MNP thing anyway? The literature doesn't spell it out. Can you?

FROM DALE SMITH, ON 10/30

MNP is a form of hardware-based error correction and in some of its modes it also adds data compression for faster effective throughput PROVIDED the files are capable of being further compressed. (Files already compressed don't gain much and might even lose in throughput if they get larger). It will ONLY work if the modems on BOTH ends (or in the case of using a network like Telenet, Tymenet, PCPursuit, ALL modems in the chain) have the feature available. The modems will do some handshaking at the time of connection to determine the highest level of MNP that is available in the connection. This handshaking can cause some problems with a non-MNP modem, when trying to connect. If you do get it, remember that you can turn it ON and OFF; so, you're not stuck with having to use it when you don't want to. You'd have to decide whether it's a feature that you'd have a use for.

FROM KEN DE VITO, ON 10/31

To add to Dale's response, MNP stands for MicroCom Network Protocol. I understand that there are 9 levels of MNP and if you are really deep into this stuff, I'll upload a file describing each and every one of them. The level you want at 'our' level is "5." Anything more is 'exotica.'

APPLEWORKS 3.0

FROM DOUG RUFF, ON 10/03

I am new to AppleWorks, having bought version 3.0 only a few days ago. Perhaps someone out there can give me some help with a couple of problems: (1). In the Word Processing module, I reconfigured the printer codes to print in Elite, which I prefer to Pica, but the Word Processor wraps around too soon, leaving me with lines that are too short for the smaller Elite typeface. How can I get the program to allow longer lines? (2). When importing ASCII files, the shorter AppleWorks line lengths causes the text to scramble around (see Problem No. 1). In addition, the text ends up peppered with mysterious pound sign (#) symbols. What are the # symbols there for? Is there a quick way to get rid of them? (3). Is there an easy way to print the address on an envelope when I finish a letter? Or should I stick with Bank Street Writer Plus, which "does envelopes" very efficiently?

FROM LEE RAESLY, ON 10/04

#1. is due to Characters per Inch (CI). Increase CI to 12.

#2. # signs were Control codes in the other file. AW only allows CHR\$(13)'s (carriage returns) into the file. All others are changed to #. Do a global Replace to get rid of them.

#3. TimeOut has a VERY easy Envelope addresser in one of its modules. Check on the Beagle Buddies/TimeOut Board for what disk they are on.

FROM DAVID JENKINS, ON 10/04

#1. Even if you use a compressed font capable of printing 132 characters per line, AppleWorks will only display 80 characters per line on the screen. The word wrap you see on the screen is not the word wrap that will be printed.

FROM PETE CROSTA, ON 10/05

Perhaps some clarification, because it sounds like you MAY be new to ApWks in general:

#1. The default on CHARACTERS PER INCH (cpi) for screen viewing is 10cpi (Pica). When you

want to use Elite, which is actually 12cpi, you may change the screen setting by simply using open-apple-O (letter, not zero), type CI, hit RETURN, type 12, hit RETURN, and you will now have the size you will be printing to. As someone already stated, you can't get more than 80 characters per line on the screen.

#2. With regard to the #'s, all the above information on it is correct. You may get rid of them via two methods (that "I" know of): First, before entering ApWks, get a copy of a utility program called TEX (I don't know if it is online here or not, should be). Select "Strip linefeeds" from the menu, and the signs will disappear without a hitch. Or, once IN ApWks, you may use the open-apple-R to REPLACE them with a blank space (I never use that method), OR you can create a macro to FIND and DELETE.

#3. On the matter of the envelope, it has already been recommended about the TimeOut series in DeskTools by Beagle Bros.

FROM HARRY BACAS, ON 10/05

In addition to the good advice given you by others, here is how to keep the lines from wrapping too early on the screen. After you press OA-O to see the printer Options, you type CI (for Characters per Inch) type 12 and <Return>, as Pete Crosta says. Then you need to fix the default margins, which are still making the type wrap too soon. You do this by typing RM (for Right Margin) <Return> and then typing 0 (Zero), for example, for no margin at all. That way your screen will fill up (well, up to 77 characters across), before wrapping. Nevertheless, the screen may not show you the actual length of line that will be printed. For example, if you have an 8-inch wide paper and you set margins to 1 inch left and 0 inches right, that leaves 7 inches to print. And 7 inches at 12 characters per inch makes 84 characters, more than your screen can show.

AppleWorks Secrets

FROM DAN WHITE, ON 10/07
Gary Hayman has shared with me one of The Great Secrets of the

AppleWorks Universe (it was just a matter of asking the right question). This tidbit was given me on the promise that I share it with the rest of TCS. Here goes.

Ever have AppleWorks hang during boot up on the "GETTING STARTED" screen? Next time it does that, look at your printer. \$10 says that your printer power is ON, but your printer is OFFLINE (or your SELECT light is OFF). Turn it on. AppleWorks is, for reasons unknown, waiting for the printer.

FROM GARY HAYMAN, ON 10/18

It's not the printer on/off line condition, it is the Select being "off" while the printer is "on." The problem only occurs when this condition exists and then you run AppleWorks.

FROM DON HANSON, ON 10/08

Found the screen! Disappears on its own during a 3.5 disk load. Cannot duplicate the problem you describe. Mine loads, works on Line, off line, whatever. Maybe a small advantage to still using version 2.0! (I knew there had to be one somewhere.) Thanks for the tip anyway. Got me to look closer at the screen while loading.

FROM DON HANSON, ON 10/20

You lost me! What is the difference between Select and On/off line? On the printers I am familiar with the switch that puts the printer "ON LINE" is either labeled, or referred to as the "SELECT" switch. Do you have a Select Switch that does something else? What does it do?

FROM DALE SMITH, ON 10/21

By "On/Off Line" Gary was referring to the ON/OFF switch—the power switch. If the printer is OFF (and that is OffLine too), AppleWorks will not hang; but if the printer is ON but is not Selected (also an OffLine state), AppleWorks will hang.

FROM GARY HAYMAN, ON 10/21

On the ImageWriter II the top switch on the right side is labeled "on/off"; it is the power switch. The second switch down is labeled

"select"; it places the printer on and off line when the power switch is on. It is the condition of power switch on and select switch off which causes AppleWorks 2.x to hang when being booted.

FROM DON HANSON, ON 10/24

I am once again stating, for whatever it is worth—as info, gee whiz, or help in solution—that MY SET UP absolutely and categorically DOES NOT HANG under those conditions, or any other printer switch setting.

FROM GARY HAYMAN, ON 10/25

I hear you talking, but some of the rest of us have the problem. It is easily solved, as I have mentioned. Just make sure that the select light is on or all lights are off on the ImageWriter printer when you load AppleWorks 2 x. I guess you are just lucky.

AppleWorks 3.0 Tabs

FROM TOM O'HAGAN, ON 10/08

I was using the new decimal tab feature in AW to type a column of numbers. When I got to the last number I used OA O and "set underline begin," typed the number then used OA O to "set underline end." I then issued a cr and entered text, used the tab key to go to the numbers column and repeated this procedure so that I would have an underline above and below the total for the column. When I printed the document, the two numbers that I underlined were offset to the left by one character, making the column all messed up. Does the caret (^) for the underline use a space that forces to the left? If that is the case, I would think it would force to the right, unless the decimal tab forces it left. Any ideas how to solve the problem?

FROM HARRY BACAS, ON 10/09

I haven't tried out your spacing problem yet, but I can give you one tip. Instead of using OA-O to start or end underlining, it is faster to use CTRL-L to start and end. Use OA-Z then to see what you have done.

Real TABs

FROM JIM SUTHARD, ON 10/09

Are these so-called "real" tabs the "CONTROL-I"? Why does anyone see them as an advantage?

FROM HARRY BACAS, ON 10/10

The new tabs have several features. One is that you can arrange columns of figures on the decimal ("decimal tab.") Another is that you can change the tabs to affect just part of the document or the entire document. You can do this directly from the point where you want them to take effect. You can change tabs as you go along, to produce different formatting in different parts of the document.

You use OA-T to set or clear stops. This brings up a menu of choices. Other new features are "center" tabs and "right" tabs, in addition to the usual "left" tab.

ReportWriter

FROM ROCKY RAGANO, ON 10/10

Looking for feedback on this package from Beagle Bros., e.g., is it compatible with AppleWorks 3.0? What is its best discount price? What are its capabilities?

FROM GARY HAYMAN, ON 10/11

I have ReportWriter and have been playing around with it some. Lee Raesly gave an excellent presentation of ReportWriter at the last WAP general meeting and showed how he was using it in his business. Ray Settle wrote an excellent introduction article which appeared in the last Journal.

It is really fantastic, but not easy to learn unless you have some experience with relational data bases. What it does is allow you to gather information from a variety of spreadsheets, databases and word processing documents and have what you gather put automatically into a report. It has enormous power that I have not as yet investigated, or understand, at this point. The original version required you to have the files on the desktop, so 12 files was the limit. NOW, WITH THE TIMEOUT

UPDATE TO 3.0, THE FILES CAN REST ON THE DISK. (Are you reading this gag.)

I would only recommend the program if you had the need and were going to use it. Don't buy it just to play around. It will take some time to learn, but you will find the tutorial very helpful. I would imagine that there will be some tutorials (live) available for this one.

AW 3.0 Speller

FROM DAVE HARVEY, ON 10/13

Just got AppleWorks 3.0 in the mail yesterday and found the Speller provided lacking compared to Sensible Speller. My biggest complaint is that there's no provision for listing words that are in the main dictionary. One of the nice features of Sensible Speller, and probably other spellers as well, is that if you're not sure how to spell a word—or maybe you're working on a crossword puzzle—you can type the first letter(s), then a wildcard, and then the last letters and get a listing of all the words that fit that description, e.g. "d=ing" would list dieing, dealing, driving, etc. Another missing area is word treatment. AW provides no option to ignore words with numbers, or to treat punctuation, such as quotation marks and en dashes in words such as in-laws or can't. Hopefully, the speller will improve, but I'm not holding my breath since Claris has indicated it doesn't plan to issue any new revisions to the program

FROM PAUL SCHLOSSER, ON 10/13

I've seen messages on GENie saying that the TimeOut Quickspell program is more powerful than the spell checker built in version 3.0 of AppleWorks. I haven't tried it yet, but the best approach may be to use Quickspell with v3.0, bypassing its built-in spell checker.

FROM GARY HAYMAN, ON 10/15

The spellchecker in AW3.0 seems to zoom in on your word quicker, but does not give you as many alternatives as Quickspell does. The new spellchecker doesn't

provide a list of words that you can check at the beginning from which you could decide whether to check, add, or go through the document word by word. I like the old method better.

As you already know, but perhaps others should be aware, Beagle has an update to QUICKSPELL that is almost FREE—\$2.00 service charge if you use the Beagle Buddy system; fee is made via check (which goes to the WAP). So all owners of Quickspell can get their copies updated to work with AW3.0. So now everyone can have the best of both worlds.

Also, a Claris representative of high stature told me that Claris has no intentions of updating AW3.0. It wants to get out of the Apple II field. This means that all changes will be made by third party vendors—and, I suppose, that that means Beagle, Brandt, Muntz, and other AppleWorks Development Association (ADA) people. (P.S. I know you knew all this, but have used your message for this little forum.)

FROM PETE COSTA, ON 10/16

It seems that more and more people I talk to (in and out of my user group) are opting NOT to use the built-in spell checker, but the good ol' QUICKSPELL application. That, btw, is the direction "I" am taking.

FROM GARY HAYMAN, ON 10/17

I haven't had any problems. Remember, you can use your Quickspell instead of using the OA-V as a spelling checker. The new Main Dictionary is much larger than the Quickspell dictionary. I like the way Quickspell gives you a list of words in the beginning. The display technique is more useable for me. I will be using the updated 3.0 version of Quickspell with the AppleWorks Main Dictionary. I believe it is a better combination.

Lee told me that he is having trouble with TeleComm as far as an XMODEM transfer is concerned. I have not tried it as yet. Maybe Lee will make some comments.

FROM JIM PENDARVIS, ON 10/17

I have just spent an interesting session with the built-in spelling checker in AppleWorks 3.0. Here are some of the more interesting curiosities:

checked, couple, contains were flagged, but "unable to find suggestions";

clue resulted in the suggestion "slue";

dictionary, doesn't, disk were flagged, and then offered themselves as suggestions;

data is "not in the main dictionary"; this message came when the word was typed in as a replacement;

I know that some people are going to stay with Quickspell. After this experience, I guess I'll be one of them.

FROM GARY HAYMAN, ON 10/18

You will notice that the new MAIN.DICTIONARY is a much larger BIN file and contains more words. Also the spellchecker in AW 3.0 does better phonetic sounds. I still want to play around with both, so I have TO.QUICKSPELL in my TO menu.

FROM HARRY BACAS, ON 10/18

I sure am puzzled by your message. I captured it, loaded it into AppleWorks 3.0 and ran the internal speller on it. The only words the speller challenged were "Msg," "Pendarvis," and one other that I forget. It did not challenge any of those you list: checked, couple, contains, clue, dictionary, doesn't, disk or data.

There's something strange here. How were you running AppleWorks? Have you altered the dictionary or done some patches to the program? I am using UltraMacros and a half dozen of John Link's patches. And when I ran the speller on the same words that your speller boggled at, my speller accepted them happily. You should look further into this before giving up on the internal speller. Something is haywire.

APPLEworks 3.0 Printing

FROM LOUIS SAPIENZA, ON 10/22 02:38PM

Has anyone had any problems with printing more than one copy of a database report with AW 3.0. It seemed to be working ok when I got it but all of a sudden when I try for two copies I get one and a tenth copy. I have checked all files. This seems to be a universal problem. 2.1 works ok with the same file. I have tried versions without Timeout added. Almost positive it is not a hardware problem, because I have used all my drives with 2 1 and 3.0. Old version of 2.1 works ok on my laser 3.5 drive. Thought that might be it. What's left is to copy from master and see what happens.

FROM DALE SMITH, ON 10/22 06:58PM

This is a well known bug in AppleWorks 3.0 acknowledged by Claris. Their work around is to dump the DB report to a WP file and do a multiple print of that. Some loud screaming about the bugs you encounter would help too.

MAIL MERGE PROBLEMS

FROM SCOTT MATHESON, ON 11/01

I am a librarian trying to mail merge overdue notices. I want to print more than one note (of 3.5 inches) on a sheet of paper. I have set the patten length on the Apple Works to 3.6 inches, but the program will still only print one note to the page. Can you help me?

FROM LOU PASTURA, ON 11/01

Go to the printer setup and answer "No" to the "Accepts top of page commands" question. That should prevent the unwanted form feeds.

FROM LEE RAESLY, ON 11/01

Set up a new print page, and tell it not to accept "top-of-forms." That is where you are getting your problem, I think. Set the PL (Page Length) within the file to 3.5 inches. Should now work fine.

APW C Help !!!

FROM ROBERT LAMACCHIA,
ON 10/12 09:01PM

My son has been trying to write a program in APW C that will take an input from the keyboard (or a file) and write it out to the screen. The program will work, except everything is echoed. He tried using the `getchar()` and the `scanf()` functions, but he always gets the echo. Is there any way under APW C to "turn off" the automatic echo to the screen? We have looked in the APW C manual and the APW manual and cannot find any reference to this problem. We are running this under GS/OS System 5.0. Would this make a difference? Any and all help/comments appreciated.

FROM HARRY ERWIN, ON
10/13

You have just encountered an APW bug—standard input is automatically echoed to the screen. I put together a set of screen tools to get around that problem.

FORTH and FORTH SIG

FROM DAVID WOOD, ON 10/
17

On the FORTH front, I'm looking at very soon shelling out the extra \$15 for an upgrade on my GS16FORTH. The new version comes with a complete desktop interface, and its source is primarily arranged in straight text files. Sounds real good. Stay tuned for a report on it.

For that matter, I wonder if it's possible to design a shell to manipulate the CP/M environment in big ways... Only time will tell.

FROM DAVID WOOD, ON 10/
23 11:15PM

Today, I mailed the mail order for my GS16FORTH update. Among the new version's features are:

- * A full desktop interface
- * The ability to read and compile from any text or text-based file (including AppleWorks)

And other stuff I can't remember because the flyer is currently sitting across the room from me. But it looks good, and I've already

started writing a simplified description of the FORTH language to possibly stick in the Journal. Would anyone here be interested in yet another SIG?

FROM DAVID WOOD, ON 10/
25 11:32PM

Lessee.. Two (minimum) willing people, a common interest. I think we have what we need here. How do we form a SIG?

I'm actually serious about it! Call me a FORTH Evangelist (with the exception of that bit about taking millions of dollars and reselling property several times over), but I think people would be interested in this wonderful language of ours if only they knew about it!

Which version of FORTH are you using, Adam? I've been considering getting the PD FORTH in the Disketeria so I could write a proper tutorial. That, and maybe it packs a few surprises that the big bad commercial FORTH I've ordered doesn't have.

Unfortunately, I've never written a tutorial before, and I'm not up on all the technical buzzwords which I should use to describe FORTH. Is there someone here who understands and likes FORTH, and knows something about writing lessons? If we can find someone willing to do the writing, we could get the things published in the WAP Journal. Possibly, the tutorial could be written to go along with the PD FORTH in the office, spurring sales of that. I see us going into business over this.

FROM CHRIS BASTIAN, ON
10/26

If you're interested in forming a SIG, you'll need to submit a request for recognition to the Board, from at least 5 members. The only obligation is that you meet regularly and provide a news report to the Journal. The next meeting of the Board will be on the second Wednesday of November (I don't have a calendar handy.) If you'll be at the meeting Saturday, make an announcement and see if you can get the bodies together then. If you won't be there, I'll have Eric tell people to contact you.

FROM ADAM BRIGGS, ON
10/26

I have both PC/FORTH v3.1 and GraFORTH][. GraFORTH][is very old, and as the name suggests, implements graphics. PC/FORTH is ok, but it's REALLY slow. I can't stand it. For demos, make 'em menu driven and use as much fancy graphics as you can. Not much else to it. For a demo, flaunt how easy and powerful FORTH is. If you do get PD FORTH, if you upload it, I'll try to help you with the demo, but, as I mentioned, my thing is assembly, not FORTH...I won't be too much help.

FROM EUCLID COUKOUMA,
ON 10/26

I was interested in FORTH back in 1982 when I first had a //e. Shortly thereafter, I became interested in FORTH and shortly afterward I found several Forth disks in the library (all public domain). Also a Forth SIG formed about that time. I guess it died later on. If you check the old issues of the Pi Journal you should find a number of articles on Forth. These are possibly of historic interest only. But Forth seems to keep coming back. I never got beyond the limitations of that almost prehistoric Forth and switched to Pascal and C, but Forth has always impressed me as a very interesting language. It has a few features that seem to reoccur in other languages later on (most notably QuickBasic 4.0 and after for IBM clones). It is good to hear that Forth has grown also. Maybe it is time to go Forth once more.

SYS TYPE FILES

FROM ADAM BRIGGS, ON
10/02

Just out of idiot curiosity, how would I go about making a SYS type file? Is there some easy way I could modify my BIN machine language files so that they are SYS files?

FROM TOM VIER, ON 10/03

I think it should load at \$2000, but I'm not sure that is an absolute rule. You should exit with a QUIT call and reset the stack on entry, maybe. Sorry I'm so rusty. There probably is a Tech Note on it.

Check the Dloads. Anyway, you can make the file SYS with the Type parameter. Like this: BSAVE MY.SYSTEM, A\$2000,L\$xxxx,TSYS.

FROM DALE SMITH, ON 10/03

Tom and Adam: The BSAVE command (unless patched) does not do a CREATE function. So before doing the BSAVE you also have to: CREATE MY.SYSTEM,TSYS. The type parameter is NECESSARY or the file would be a DIR file. Then do the BSAVE as you (Tom) suggested. You actually don't have to worry about the Address parameter as SYS files automatically load at \$2000 as I understand it.

FROM JIM PENDARVIS, ON 10/03

SYS files do have to load at \$2000. If your BIN are meant to run from a different location, then you will have to relocate them properly. Also there are requirements for setting the 'power-up byte' and the system bit map for memory allocation. All of this stuff can be done up-front and then discarded leaving your program to run normally.

FROM ADAM BRIGGS, ON 10/03

OK, Thanks. Know of any books that'll give me the specifics?

FROM JIM PENDARVIS, ON 10/03

Beneath Apple ProDOS by Don Worth and Pieter Lechner is a great place to start. It includes example code that you can use for some of the stuff.

FROM TOM VIER, ON 10/04

Gee, I've done lots of ProDOS BSAVES without CREATEs. Is that only for a TSYS BSAVE?

FROM DALE SMITH, ON 10/04

Check into Sandy Mossberg's article in his "Disassembly Lines" column where he disassembled BASIC.SYSTEM. When he did the BSAVE section, I think he covered that and came up with two different patches to BASIC.SYSTEM, one to cause BSAVE to go thru the CREATE routine if the file did not exist, and another to combine the strengths of BSAVE in v1.0 and 1.1,

while eliminating the weaknesses by using the Byte parameter as the "key." That's what I'm remembering. I must admit that usually when I do a BSAVE, it has been with an existing file and because of that memory, I have always in other situations CREATED the file first in a separate step. Seems like a simple "proof of principle" experiment will answer any question for both of us, which I'll do using v1.2 of BASIC.SYSTEM later today.

FROM JON THOMASON, ON 10/04

The answer is that it's for all types of files EXCEPT the simple BIN type. SYS needs a Create, \$C1 needs a Create.

FROM DALE SMITH, ON 10/04

I guess I should go refer to my Applesoft manual from time to time. That never occurred to me, the BIN files that is.

FROM JON THOMASON, ON 10/05

Your AppleSoft manual won't do you piddly for that. The only manual I know with that information (and it's presented thoroughly and well) is BASIC Programming with ProDOS.

FROM DALE SMITH, ON 10/06

That IS one, or rather two, of my "ProDOS" references and it is where I would have looked for the BSAVE info. I guess I'm lucky that I have the book where the info is. Now all I have to do is occasionally go back to look at it.

BASIC Program Needed

FROM KEN DE VITO, ON 10/16 08:49

I need a BASIC program to do the following:

Write a program that will raise a number X to the Nth power. Your data for this program should be:

X = 6.0, N = 4

X = 2.5, N = 6

X = -8.0, N = 5

This is not a Quiz. I need it for a friend and I ain't a BASIC programmer (or any other kind for that matter).

Thanks in Advance!

FROM JON THOMASON, ON 10/16

BASIC has a function for that: the caret. Use it like you'd use a multiplication operator. For example:

```
...10 INPUT "Enter x:"; X
   20 INPUT "Enter n:"; N
   30 PRINT "x to the nth is ";
X^N
```

Did I just do someone's homework?

FROM PHIL SHAPIRO, ON 10/18

Jon's answer is right on the money, but you should also be informed that the Apple II has a limit on the power to which a number can be raised. The biggest number the Apple II can deal with is 10^{38} , give or take a billion. 10^{38} is pretty big in terms of distances and numbers around our own planet. But once you get into astronomy, 10^{38} is the about the distance to the corner grocery store. Also, the smallest number which the Apple II can deal with is 10^{-38} , which just happens to be the current budget for Apple II R&D in Cupertino. <grin>

Convert bet.A2<->MAC

FROM MARK WHEATLEY, ON 10/15

With all of you complaining that the Apple // Tech notes are on MAC disks, I'm puzzled that nobody tried to convert them. That's a problem that one of my friends has, but in the direction of Apple // to MAC, specifically AppleWorks WP files to Mac MS Word. Anybody know of an elegant solution? (It is not elegant to convert everything to ASCII text & use comm. programs.)

FROM RICK ZEMAN, ON 10/15

What about the Apple File Exchange on the Mac System Disk?

FROM TOM VIER, ON 10/16

I believe the notes have been converted and some are available in the Dload area. I don't know how current we are. P.S. If any of the GENIE or CIS reps pass through here, please let us know.

FROM JON THOMASON, ON 10/16

1). The technotes have been released in ProDOS form for a short while now. Sam Knutson has been nice enough to upload them here periodically. I don't know if we have the very latest yet...

2). There's a module in (I believe) the Mac Utilities area called WORKS..WORKS (some Mac person entered "Works->Works," which was converted by the TCS to say "WORKS..WORKS") which works (sorry) alongside the Mac system software's "Apple File Exchange" program to convert AppleWorks files to Microsoft Works on the Mac. I've used it many times. MS Word reads MS Works files, or MS Works saves as MS Works (IBM) files. Very handy set of tools. Unfortunately, Works->Works doesn't cover the new AppleWorks 3.0, but someone from the MS Works SIG has been telling me on the Mac Conference that they have a way of converting them that doesn't involve Works->Works. Good luck.

APPLEWRITER

FROM RONALD EVRY, ON 10/06

I've got the complete Prodos version of Applewriter II, including the tutorial disk and manuals...If nobody is publishing it anymore,

does that make it public domain? I can make all of the backups I need, unlike the 3.3 version which was copy protected.

FROM SAM KNUTSON, ON 10/12

Even though the program is no longer being published, it is NOT public domain. However, there are some good equivalents in the domain such as Freewriter and FREDwriter.

FROM RONALD EVRY, ON 10/14

That's just a downright shame about AppleWriter ProDos not being available anywhere. Personally, I think that it is the easiest to use, fastest and best word processor for ANY machine. Unlike AppleWorks, Multiscribe, and all the others, your finished product is straight ASCII, not proprietary, and doesn't need translating to upload and download. It even has a built in communications mode!

Maybe someone along the line can get with Apple to find out if they have any plans to do anything with Applewriter. If a copyright is used to keep a program OUT of the public's hands, there may be some restraint of trade issues involved. I don't know for sure, though, 'm not a lawyer, but I know a good piece of software when I see one.

(By the way, FREEWRITER and

FREDWRITER are brain-damaged, compared to AppleWriter.)

FROM SAM KNUTSON, ON 10/14

LIFE IS NOT FAIR.

Seriously though, write a polite letter to Apple Computer Inc. expressing your opinion and see what they say. Other than lacking WPL, I think that Freewriter and FREDwriter are comparable to AppleWriter for light to medium duty users. For power WP users, I agree that AppleWriter is a classic especially when you patch the heck out of it like Don Lancaster suggests. Better yet, why don't you write an article for the Journal: Compare and contrast all three as alternatives to AppleWorks and make your plea for public domain distribution of this gone but not forgotten killer WP.

FROM GARY HAYMAN, ON 10/19

Between Betsy and me, we have an Apple][+ and an Apple IIGS at home and a matching pair at the office. We run AppleWriter (DOS 3.3) version on the][+s and AppleWorks on the IIGSs. You would be surprised how many times, either at home or the office, both machines are doing word processing at the same time. Though now I use AppleWorks 3.0 exclusively, Betsy uses both AppleWriter and AppleWorks. AppleWriter is still an excellent program, even my DOS 3.3 version. Your article would be great for the Journal. I just collected some information and published an article in the Journal about using AppleWorks on e][+. There are many people out there who are buying some of the old machines and people are selling and are running across old software and need some help, just as we did when the software was new. Articles of this nature would be very helpful.

Harvey Kaye has been a member of WAP since 1985. He has served on its Board of Directors three times, is a sysop on the TCS, and has prepared an Index of the Journal for the years 1985-1988. When not engaged in WAP activities, he practices law in the computer, patent, trademark and copyrights areas. He mainly uses an Apple IIGs.

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As the TCS Turns, Mac Version 1.1

by Lou Pastura

As promised in the last column, each month I hope to give you a summary of information extracted from recent messages to the WAP teleconferencing system (TCS), add a few myself from other sources and a dash of my own comments.

Quantum Leaps, Quantum Crashes

One subject I touched on in last month's column was failure of a large number of 3.5 inch Quantum hard drives that Apple had installed in new Macs, and Apple's offer of a free fix. The following excerpts from Apple's service notice provide more details.

"Some Quantum 3.5" 40 MB and 80 MB Hard Disk Drives may experience intermittent boot up problems. Only drives with specific variation codes have the potential to exhibit this failure. Apple is offering a Repair Extension Program for customers who do have or have had problems or concerns regarding hard disk drives with the specific variation codes listed below. The program is effective through October 1991.

"Any hard disk assembly that has PROM version 7.9 01 or earlier located on the hard disk controller board and has variation codes 0032, 0034, or 0058 should have the PROM replaced with version TA.2 01 or later.

"This program does not cover the exchange of the entire HDA, only the PROM. Any hard disk drive that cannot be repaired by replacing the PROM is not eligible for this Repair Extension Program."

If yours is one of the affected drives, I strongly urge you to get the PROM replaced. Also, and this is good advice any time, back up your drive frequently before and after the fix. Messages left on the

TCS and other places point to minor problems with the fix. These messages did NOT suggest that the fix did not work, only that the fix appeared to cause, at least at first, heavy disk activity and some minimal slowdown of performance. The problems appear to go away after a week or two.

Do any of you have direct experience with the fix? Let me know. I'd like to provide the details to the Journal readers.

Looking Good in Print

Also last month, I used a little ink discussing new low cost (relatively speaking) 300 DPI alternatives to the LaserWriter. Since then, I've had some time to put my DeskWriter through its paces, and must say it is a nice compromise for those of us with champagne tastes and a beer budget. I haven't had a chance to spend any time with Adobe Type Manager (ATM), but recent TCS messages about ATM and the DeskWriter suggest that the combination produces type quality that is outstanding, but that print speed suffers compared to using Hewlett Packard's own fonts. If you need fonts in addition to Times, Helvetica, Courier and Symbol that are packaged with the DeskWriter, and you can't wait for Apple's own Royal font technology that's due out with System 7.0, ATM is a less expensive, albeit slower, alternative to HP's font package.

Atari Laptop

While perusing various online services this month, I've noticed a lot of discussion—and speculation—about the new Atari Stacy laptop and its potential market niche as a poor man's portable Mac. I don't think anyone's

actually seen one of these machines yet, but if it lives up to the hype being generated, it shouldn't take much to gin up a Mac Plus—compatible with the Stacy, a plug-in emulator board and a set of Mac Plus ROMs (available from a number of sources in the used computer market). I wouldn't suggest that this hacker's delight would perform like Apple's pride and joy. However, at about \$2,000 per copy, it won't cost like Apple's own either. I actually got to spend some time with "the real thing" while on a recent flight. What a truly delightful experience. I was equally glad that the machine belonged to a seat mate, however, so that HE had to lug it off the plane!

My Monthly Commercial Message

Yes, it's time for another TCS commercial. As a parting note, Paul Schlosser, a new Mac user long of AppleII fame, has begun collecting and posting messages from the Mac section of the GENIE information service to the WAP TCS. In addition, Paul is willing to transmit your questions to the hardware and software vendors represented on GENIE who are willing and able to respond quickly and expertly to inquiries regarding their products. Join us on the TCS and see what you've been missing! 🍏

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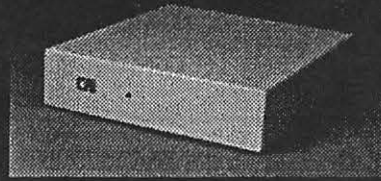
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The Play Room

By Steven Payne

With the rise of Nintendo and the mad scramble for the IBM gaming market, these are hard times for Apple and Mac gamers. Nevertheless, the news is not all bad. Here are some of the new and forthcoming titles to get us through the hard times ahead!

Spectrum HoloByte (2061 Challenge Drive, Alameda, CA 94501) is now offering a Mac version of **Welltris**, a sequel to **Tetris**, one of the most addictive strategy games of recent memory. **Pipe Dreams** (Lucasfilm Games, P.O. Box 2009, San Rafael, CA 94912, \$39.95 list) is a new spatial strategy game, staying ahead of the flowing 'flood' as you build an ever lengthier pipeline. We've seen intriguing ads for **Task Master** (XOR, 7607 Bush Lake Road, Minneapolis, MN 55435) and **Citadel: Adventure of the Crystal Keep** (Postcraft International, Inc.), both apparently new fantasy/role-playing adventures for the Macintosh. Let's hope Mindscape's new graphic adventure, **Star Trek V:**

The Final Frontier (P.O. Box 1167, Northbrook, IL 60065, \$54.95 list), previewed at last August's main Pi meeting, really *is* better than the movie! Other new graphic adventures for the Mac include **Time and Magik** (Level 9/Datasoft, \$35 list) and **Manhunter: San Francisco** (Sierra, \$49.95 list), both favorably reviewed in a recent **QuestBusters** issue. **Bomber** (Inline Design, Mac) is a new flight simulator that has won glowing reviews in Europe. **Carrier Command** (Microplay, 180 Lakefront Drive, Hunt Valley, MD 21030), a naval simulation, should be "out soon" for the Mac, along with **F-15 Strike Eagle** (Microprose) and the long-awaited **Harpoon** (Three-Sixty). Springboard's timely **Hidden Agenda** (7808 Creekridge Circle, Minneapolis, MN 55435) lets Mac owners try their hand at running a Central American country while avoiding rebels, assassins and coup attempts. **Cosmic Osmo** (Activision, 3885 Bohannon Drive, Menlo Park, CA 94025) is another Hyper-

Card adventure along the lines of **The Manhole**. Activision is also offering an upgrade for the classic strategy game **Shanghai**, with full support for Mac II color. Card players, meanwhile, may be especially interested in **Cribbage King - Gin King** from Software Toolworks.

Owners of Apple II series machines can look for the fantasy/role-playing game **Dragon Wars** (Interplay, 1575 Corporate Drive, Costa Mesa, CA 92626), as well as **Pool of Radiance**, **Curse of the Azure Bonds** and **War of the Lance** inSSI's Advanced Dungeons and Dragons series. Sierra's **Perils of Rosella** has been converted for the Apple II. **Kriegsmarine** (Simulations Canada, P. O. Box 452, Bridgewater, Nova Scotia, Canada B4V 2X6, \$60 list) simulates tactical naval combat in the Atlantic from 1939 to 1944.

Accolade's graphic spy adventure **The Third Courier** is available for the GS, as is Cinemaware's **The Three Stooges**. And with all due apologies for my unfamiliarity with the Apple side, there are plenty of other good products previously mentioned in previous columns which my GameSIG co-conspirators will be reviewing in the future. So if you're looking for frivolous ways to waste your Christmas bonus, don't despair. We're here to help you! 🍏

GameSIG news

A few hearty souls braved winter storm warnings to attend the monthly GameSIG meeting on December 7th (Pearl Harbor Day, appropriately enough). No new gaming software had been sent to the Pi Office, so there was nothing to distribute for review, a problem we soon hope to solve by more aggressive requests to the software companies; by next time we should have some interesting new products.

Chris Bastian showed us **Dark Heart of Uukrul** (Broderbund, Apple II series), which he described as "everything you've already seen in an adventure game," best suited

to beginners (see the review in this issue). Jeff Stetekluh previewed version 1.0b of his Mac game **Robot Tanks**, which means that he is just about ready to release the product, as soon as he updates the documentation. As usual, Jeff won our regular **Robot Tanks** tournament.

The highlight of the meeting was the chance to share adventure mapping hints and techniques. Chairman Paul Moore showed us some of the first maps he ever compiled, even before he discovered that *squares* were best for representing rooms with exits north, south, east and west (imagine trying to find your way out of oval rooms?). Others had highly stylized and artistic maps for the early **Zorks**. The meeting "degener-

ated" into a discussion of favorite adventure game bugs (like the fact that in early versions of **Zork II**, it is possible to order the fishtank to leave the room).

All of this suggested the theme for our first meeting of the new year, to be held at the WAP Office at 7:30 PM on January 4, 1990. We're asking anyone who so wishes to bring favorite characters from some fantasy, role-playing or adventure game, to show the others what makes them so special (e.g., exceptionally strong or weak, or otherwise bizarre). Or you might want to bring a game with a particularly interesting bug (especially those that work in the player's favor). Should be fun! We hope to see you there. 🍏

Mac Disketeria

by Dave Weikert

New Year, New Pricing

Our cost for blank diskettes has dropped enough so that we may now permanently reduce the prices of disketeria disks. From 1 January on, all disks are priced at \$4.00 per disk or \$3.50 per disk in quantities of five or more. Special pricing is available for selected complete sets of series; see the disk order form in the back of the Journal for pricing.

Mac Disk Catalog

The disk catalog, current through June, includes a list of disks and titles, a new introductory section, descriptions of files on all the disks, a list of files on the disks sorted by alphabetical order by file name and an second list sorted alphabetically first by file type and then by file name. The catalogs cost \$3.00 at the meeting or office; add \$1.50 for mailing.

New and Recent Disks

We have three new disks and three revised disks this month. The new disks are three more disks in the series of INITs and cdevs Series. The revised disks are the Anti-Virus Utilities, Mac Disk #1.01B through #1.03B.

Recent disks include FKeys (Mac Disks #4.01A and #4.02A), the first of the INITs/cdevs Series (Mac Disk #9.01), the first of the Miscellaneous Series (Mac Disk #10.01 - Excel Templates), a Telecommunications disk featuring WAP's own TCS (Mac Disk #13.09) and the revised Adobe Screen Fonts series (Mac Disks #18.01 through #18.16) which include NFNT ID numbers.

Anti-Virus Utility Update

The three disk in this series have been reorganized and up-

dated with the latest programs available to us. New programs include Disinfectant version 1.5 and Virus Detective version 3.1a; both of these are now on Mac Disk #1.01B. The educational stacks on viruses previously on Mac Disk #1.01A have been moved to Mac Disk 1.02B to make room for the larger Disinfectant and Virus Detective files. Mac Disk #1.03B replaces #1.03A; this is an administrative change reflecting correction of a program notes mistake.

Disinfectant and Virus Detective both recognize the new "Jude" and "WDEF" viruses. Disinfectant also deals with a conflict between the Scores virus and Apple's system software 6.0.4 release. When Scores infects a 6.0.4 System file, it damages it in such a way that it cannot be repaired properly. Disinfectant has a special check for this situation and issues an error message informing the user of the problem.

More INITs and cdevs

William Jones, our number one Mac Disketeria annotator, continues his exemplary annotation efforts with three more disks of the INITs and cdev Series. As Bill says in his introduction to the series:

"What are INITs and cdevs? INITs (also called Startup Documents) are small programs which, when placed in the System Folder, are run on system startup to modify the operation of the System File, Finder, or a subsequently opened application. cdevs (or control panel documents) are similar, except that they also show up in the Control Panel, where they often can be turned on or off or customized. These programs often have to be loaded in a particular order to work (e.g., either before or after other INITs or cdevs). In the absence of any other instructions,

they load in alphabetical order by name. However, various programs, including ChooseCDEV in this collection, can be used to alter the order of loading."

If you see Bill, don't forget to thank him for his fine efforts. His testing and annotation is really one of the main keys to the success of our fine disketeria.

HyperCard StackWare & Externals

David Condit, our HyperCard librarian, is looking for help. He has over 50 disks with stacks and XCMDs/XFNCs needing evaluation (and annotation if they are good enough to be included in the Disketeria). Give David a call at (703) 349-8752 if you can help. There are also a number of volunteers who have received stacks for evaluation and annotation and have not returned them. You know who you are so give David a call and let him know when you will have them done. It's been a while since we've seen any new StackWare in the library but if David gets the help he needs, we should see some real soon now.

Donations Still Needed

Most of the programs in our Mac Disketeria are archived on five inch 20 Megabyte Bernoulli cartridges or on 45 Megabyte SyQuest cartridges. This includes material already issued as well as downloads waiting to be tested, annotated and assembled onto disks. Because of the expense, the club has been able to purchase only a limited number of these cartridges. I have used a number of my own cartridges but am running low and the programs keep coming in. If anybody has any of either type that they would be willing to donate or loan on a long term basis, I (and the club) would be eternally grateful. You may leave them at the office to my attention or give me a call at (301) 948-9646. The Bernoulli cartridges may be from IOMEGA, Mountain Computer or Bering; the SyQuest cartridges may be from PLI, CMS, MassMicro, LaCie or a number of other vendors. Thanks.


About Shareware Requests

In the spirit of those new year resolutions, please honor authors' requests for shareware fees if you decide to add shareware programs to your software library. Shareware is an important distribution channel for low cost software and it is important to encourage authors to use this channel by paying them for their efforts.

Disk #1.01B — AV 1

Anti-Virus Utilities

ReadMeFirst.txt: By Dave Weikert. This text file describes the results of running Interferon 1.3, Virus Detective 2.0, Virus RX 1.4a1 and some other virus detection programs on disks that have the WAP INIT file installed.

Vaccine™ 1.0.1: By Don Brown, CE Software Systems. Intercepts any suspicious attempts to modify applications and systems files and requests operator confirmation of each change. This is a cdev type file, so copy it into your system folder and access it through the Control Panel (under the  menu). Setup instructions are provided when you select Vaccine from within the Control Panel. The space in front of the file name places it at the head of the list of cdevs so that its associated INIT resource is loaded before any other at boot time.

Disinfectant 1.5 f: Disinfectant 1.5: By John Norstad. Detects and repairs files infected by all of the currently known viruses including Scores, nVIR, Jude, AIDS, INIT 29, ANTI, WDEF and MacMag (Peace). Like Virus Detective, it operates under your control and can scan a succession of floppy disks and create a log file of the results. **announcement** is the text file documentation.

Repair 1.5: By Steve Brecher. This application repairs files infected with the nVIR virus. You must first determine if a file is infected using a virus detection utility such as Virus Rx version 1.3 or later (this disk has ver 1.4a2).

Virus Rx 1.5 f: Virus Rx 1.5: By Apple Computer, Inc. Scans selected drives or folders for any damaged applications, INIT, cdev

and RDEV files, invisible files, altered system files and altered applications. Creates a text file that includes an analysis of what it has found. The Teach Text document **Release Notes** describes what Virus Rx does and provides some useful guidance for reducing your risk of exposure to any virus.

Virus Detective™ f (v3.1a): Virus Detective™: By Jeffrey S. Shulman. This Desk Accessory scans a disk, folder or file to detect a virus. It includes the capability to search for operator entered strings and to write a log file to disk. This version has extended capabilities over previous versions and permits you to easily check out an entire floppy disk library. **VD 3.0.1 Doc (MacWrite)** is the terse but comprehensive documentation on the theory and use of Virus Detective. *Shareware — \$35, for license, \$40 for license and disk with other demo programs.*

system 6.0.3 f: Includes Apple System Software version 6.0.3 with System, Finder and associated system files to provide a self starting disk. The System has been stripped of most fonts and DAs and the DA Virus Detective has been installed for your convenience in using this as your primary virus detection, eradication and prevention disk.

Disk #1.02B — AV 2

Anti-Virus Utilities

ReadMeFirst: By Dave Weikert. This text file describes the results of running Interferon 1.3, Virus Detective 2.0, Virus RX 1.4a1 and some other virus detection programs on disks that have the WAP INIT file installed.

AGAR f: AGAR: By Bill Krimmel. This very small program just sits on your disk waiting to be infected. Check it from time to time to see if it has been modified by a virus. **AGAR Picture** is a MacPaint document of the program listing. See the **AGAR Doc** for Bill's offer to disassemble any virus and report on its action and removal techniques.

AntiPan 1.1: By Michael Hamel. This application finds and removes the nVIR and Hpat viruses from infected disks. It also installs an nVIR immunity feature to the

System file (unless the target disk is locked) without asking first. This would not be our preferred anti-virus utility since we don't like programs that mess with the System file or which modify other files without asking.

AntiViral 1.0 f: AntiViral 1.0: By Chris Klugewicz. An application to help prevent your computer system from succumbing to a viral infection. It monitors the size of applications and alerts you when applications change size between one run of AntiViral and the next. **AntiViral 1.0 Doc (MW 4.5)** is the documentation and **Sample AntiViral List** is an associated file. *Shareware — \$10.*

Ferret 1.1 f: Ferret 1.1: By Larry Nedry. Scans a selected drive for files infected with the "Scores" virus and permits you to repair the infected file or skip over it. See the brief **Ferret 1.1 docs** for how to do it.

GateKeeper f (v1.1.1): GateKeeper: By Chris Johnson. This cdev is placed in your system folder and is then accessible via the Control Panel after booting. It monitors the types of action that viruses take and limits the system response to prevent infection. GateKeeper creates a log file for later analysis and diagnosis of virus attacks. A description of the program and help information is found by clicking the question mark when the cdev is selected at the control panel. **GateKeeper Release Notes** and **GateKeeper Introduction** describe the privileges needed by selected applications.

Interferon (v3.10) f: Interferon: By Robert J. Woodhead. Scans all on line or selected volumes for files with any of a number of known and generic virus characteristics. An eradicate option performs a similar scan but attempts to delete infected files. The **Interferon (READ ME)** documentation is necessary to understand the results of the scan. *Shareware — free, but contributions to the Vision Fund are solicited.*

Intro to Viruses: By Robert I. Wright. A HyperCard stack that describes the prevention, detection and eradication of viruses. The

content is good but some of the descriptions are somewhat dated in terms of what virus strains they prevent, detect or eradicate.

KillScores f: KillScores: By anon. Scans a selected drive for any files infected with the "Scores" virus, automatically removes "Scores" and then repairs the infected program.

The Scores Virus: by Howard Upchurch. This documentation provides an excellent description of the "Scores" virus and its operation and the steps necessary to eradicate it using ResEdit or KillScores.

nVIR Assassin f: Assassin: By Pete Contier. Scans volumes for the nVIR virus and destroys it. **nVIR Assassin docs (TEXT)** describes what Assassin does and **nVIR description** tells you about the technical characteristics of the nVIR virus. *Be forewarned, if you have Smart Alarms installed in your System (which has an INIT 32 resource) it will be eradicated also because nVIR Assassin thinks that all INIT 32s are nVIR resources. Other programs may also install INIT 32s in the System; make backups first since nVIR Assassin does not ask before destroying what it believes to be an infecting resource.*

nVIR Vaccination: Examines one selected file at a time for the nVIR virus and eradicates it.

QuickScores! DA f: QuickScores! DA: By Anthony M. Tuorto. This DA provides a fast and efficient way to check the current operating system file for the SCORES virus. QuickScores! examines only the system file for the virus because SCORES always attacks the system file first, after invading any disk. **QuickScores! Docs** is the documentation.

RWatcher f (v1.0): RWatcher: By John Norstad. This is a virus detection INIT for protection against Scores and nVIR. RWatcher was written for non-MPW programmers needing limited virus protection but not willing to use Vaccine because Vaccine complains whenever an attempt is made to create a CODE resource. **User Doc** describes the program and its operation. **Notes** describes the results of testing RWatcher against Scores and two different strains of

nVIR. **RLIS Template, RWatcher.a, and ShowInit.a** are a ResEdit template and source code provided for the programmer.

Sniffer f (v1.0b1): Sniffer: Scans selected drives or folders for any INIT files and creates a text file of what it has found. **Sniffer Docs** describes what Sniffer does and how to interpret the text file.

Virus Encyclopedia: By Henry C. Schmitt. This HyperCard stack is an excellent tutorial on the different types of viruses, what they do and most of the Anti-Virus Utilities useful to combat them. Virus encyclopedia covers virus prevention, detection and removal and repair of viral infected applications and other files. This stack covers the "Peace", "Scores", "nVIR", "Dukakis" and "INIT 29" viruses. It is also an excellent stack in its own right.

VirusSTAK: By Joe Zobkin. This is another tutorial on the spread and control of viruses. It is very good but it does not have the quality or quantity of information of Virus Encyclopedia. VirusSTAK covers the Scores and nVIR viruses and six of the anti-virus utilities.

Disk #1.03B — AV 3
Anti-Virus Utilities

ReadMeFirst: By Dave Weikert. This text file describes the results of running Interferon 1.3, Virus Detective 2.0, Virus RX 1.4a1 and some other virus detection programs on disks that have the WAP INIT file installed.

Security Patrol f: Security Patrol: By Steve Seaquist. Anti-Virus applications and source code from Washington Apple Pi's own ace programmer. Source code is provided for two different compilers, TML Pascal I (.pas suffix) and TML Pascal II (.p suffix). This material was the basis for the February 1989 MacTutor article and we weren't permitted to distribute it earlier because of Steve's agreement with MacTutor.

VCheck f: VCheck: By Albert Lunde. Detects software viruses by checking for changes in the contents of the active system folder, the boot blocks and all applications on connected volumes. **readme** describes the program and its

change history. **VCheck.p** is the source code.

Virus Docs f: 5/10 Dealing with Viruses, ANTI Report, ANTI.TXT, new Virus Info, Viral Resources and Viruses by Apple: Six documents of recent origin that contain useful technical information on viruses and their propagation and prevention.

Disk # 9.02 — I/C 2
INITs/cdevs

CapsINIT f: CapsINIT: By James Nitchals. Causes the shift key to produce lower case letters when pressed when the Caps Lock is on. **CapsLockInit.Asm** includes author's notes and assembly language code in text format.

Clock Adjust f: Clock adjust: By James Nitchals. Keeps Mac clock accurate by adjusting its value every week by a set number of seconds. **ClockAdjust Docs** is the text format documentation. Not tested.

cmd9 f: cmd9: By Bill Toleman. Causes macro files for the Mac 101 keyboard written with the Master Strokes DA to be opened automatically upon entering an application. Not tested. For users with Mac-101 keyboard. **Cmd9 Information** is the documentation in text format. **Shareware - \$2.**

Color Cursor: By Mathias Urlichs. Turns the standard arrow cursor into an attractive rainbow-colored one. For Color machines.

CrashSaver INIT f (v1.0): CrashSaver INIT: By Jack Mello. Allows a return to the Finder after a system error bomb by pressing the interrupt button, instead of requiring a restart. See the documentation, which explains that this was rewritten as an INIT from an earlier **CrashSaver Key F-Key** version, which is also included here. **CrashSaver INIT.info** and **CrashFKEY.Note** are the text documentation. Not tested.

Curlers f (v1.0): Curlers: By Tom Phoenix. An INIT that causes the typing of the appropriate open or closed (" and ") quotation marks (and single quotes) instead of straight quotes. **Curlers manual** is the text documentation.

Cursors: Causes the wristwatch icon to be fully functional (both the

minute and hour hands spin).

CursorWrap: Causes the cursor to "wrap;" that is, when it runs off the top, bottom, or side of the screen, it immediately appears on the other edge of the screen.

Date: By Andy Jeffrey. Changes the way the date appears in the listing of files by name or kind in the Finder; set it from the Control Panel.

Dawn f (v2.0.1): Dawn: By Fred Price. A cdev which allows the rotation of startup screens and startup sounds. The pictures and sounds may be linked. Assigns correct colors to color pictures. The separate INIT ¶DawnRestore is needed if sounds are played after INITs. See the ****Dawn 2.0.1 READ THIS**** text format documentation for known incompatibilities. *Shareware - \$20.*

DFaultD 1.01 f: DFaultD 1.01: By Jon Gotow. Links applications or sets of applications to specific default folders. **DFaultD Docs** is the MacWrite documentation. *Shareware - \$7.*

Dimmer 1.3 f: Dimmer 1.3: By Charles Lakos. A screen dimmer with selectable idle time available in either the titled INIT or the Desk Accessory **Dimmer.DA**. **About Dimmer** is the MacWrite documentation. Not tested. *Shareware - \$10.*

Dragger 1.4 f: Dragger 1.4: By Oliver Steele. Changes the appearance of a window being dragged from an outline to a solid or ghost as configured, if memory permits. Doesn't work in color. **Dragger 1.4 Doc** is the text format documentation.

Earth 1.0 f: Earth 1.0: By Stefan Bilaniuk. Replaces the apple symbol in the menu bar with a spinning globe. **Earth Info** is the text format documentation.

Enchanted Menus 88: By Fred Reed. Causes menus to pop up at random places.

Facade f (v1.0): Façade: By Greg Marriott. An INIT and the **FaçadeIcons** file which can replace the generic hard disk icon if the hard disk is renamed with the name of one of the icons. The icon names are set out in the **Using Facade** documentation in MacWrite format.

FetchIt f (v1.2): FetchIt: By Scott Silverman. An INIT that will allow several useful functions in the Standard Open and Save Dialog box; pops up a menu when the volume name is clicked on; allows a user to specify a text string which will be used to search all the files within a folder for a file with that text. **FetchIt Doc** and **FetchIt Doc.txt** are the MacWrite and text format documentation respectively. Didn't seem to work on a Mac Plus. *Shareware - \$5.*

FFP control f: FFP_control: By SGIL. Replaces the SANE calls in the Macintosh with a faster mathematics library. It performs all calculations in REAL*4 precision (32 bits instead of SANE's 80 bits) which results in a nice speed improvement for FORTRAN applications running on an SE or Plus without the floating point coprocessor. **Read Me** is the text format documentation. *Shareware - \$30.*

File Count f (v1.00b): File Count: By Rod Kline. File Count modifies the maximum number of open files in the boot blocks. Database programs and other applications with several clients may need to do this in order for client machines to access the File Server. **File Count (Readme)** is the text format documentation. Not tested.

Fish! (v1.1): By Ed Fries. Converts the desktop background on a Mac II to an animated display of swimming fish. The fish may be edited and new fish added. For Mac II family.

FixTimeout (v1.0): By Arborworks. Not tested. Apparently intended to solve a timing problem, but not obvious. If any of you out there in Macland know what this does, let us know.

FlashWrite f (v1.0): FlashWrite: By Andrew Welch. A text editor as an INIT. Has a good many features, such as font, size, style and color control, and allows for direct editing of text on the clipboard. **FlashWrite Docs** is the documentation in application format, just double click to open it. *Shareware - \$10.*

Flex (v1.0): By Ben Heller. A screen blanker with a line curve

design. *Shareware, but there's no clue what the fee is.*

Fontsie 3.05 f: Fontsie 3.05: By Loftus Becker. An INIT which allows access to fonts not stored in the System file. Use the **Configure Fontsie** application to configure the INIT per the **Fontsie 3.0 Doc** documentation in MacWrite format. *Shareware - \$10; \$15 for latest version.*

Fresh Start f (v1.0.0): Fresh Start: By Bob Hablutz. Aids in the management of the Macintosh System Folder by allowing the user to move files out of the system folder, while still allowing code to find the files by a normal system folder search. Additionally, it aids in the management of INITs, by allowing the disabling and reordering of INITs without the necessity of file movement or renaming. Not tested, but sounds promising from the **Fresh Start Documentation** in MS Word format. *Shareware - \$25.*

FWP Diddler f (v1.2): FWP Diddler: By Fred D. Reed. An INIT to allow OnCue™ and other utilities that use or alter standard menus to work with FullWrite Professional. **FWP Diddler.doc** is the documentation in text format.

FWPurge f (v1.0): FWPurge: By Kent Irwin. An INIT which cleans up (deletes) temporary files in the System folder created by FullWrite Professional versions 1.0 and 1.1 (Files with the name "VMxxxxx."). **FWPurge Instructions** is the text format documentation. Not tested.

GEO Colormap: A color replacement for the map cdev on Apple System Software Utility Disk 2. Couldn't get it to work; anybody out there with a working copy or instructions on what it is compatible with?

hierDA '84 f (v.9984): hierDA '84: By Jörg Brown. Although the cdev in the folder is named **DA Menuz**, this is the latest "pre-release" version of hierDA, the convenient tool which attaches hierarchical menus to the items in the apple menu and lets you pop up all the menus anywhere in the desktop. This is perhaps the most useful item in this series of disks. **hierda release notes** is the documentation in text format.

HigherMenus 2.0 f: Higher-

Menus 2.0: By Dean Yu. When a hierarchical menu item is selected with the (programmable) command keys selected, the sub-menu is added to the menu bar. Not compatible with Master Juggler. **HigherMenus 2.0.doc** is the text format documentation. *Shareware* - \$5.

HMenufix: The Info box says that this is the Hierarchical Menu Fix for 512K Macs with third party SCSI. Not tested. For 512K w/ third party SCSI.

IBeep2 f: IBeep2: By Riccardo Ettore. Performs a function similar to that of the 'Sound' file found on System 4.1 and later, i.e. it lets you pick an alternative to the standard sound of the Macintosh beep. The difference is that while Sound will only work on a Mac II, IBeep2 is for Plus and SE users. **IBeep2 User Guide** is the text format documentation. Apparently now unnecessary given the Sound cdev with system 6.0.3. For Mac Plus and SE using systems earlier than System 4.1.

IconWrap INIT f (v1.1): **IconWrap INIT:** By Ken McLeod. An INIT that will "wrap" INIT and cdev icons around the Mac screen on startup to begin a new row when the edge of the screen has been reached. Doesn't work with nonstandard icons or color icons (cicn resources); must load before icons reach right side of screen. **IconWrap.doc** is the text format documentation.

IgniSound V1.3 f: IgniSound V1.3: By Steve Bollinger. Plays a beep sound upon startup. **Igni-sound Docs** is the documentation in MS Word format. *Shareware* - \$10.

Disk # 9.03 — I/C 3
INITs/cdevs

Fortune f: Fortune: By Arthur Britto II. Displays one of a large number of fortunes on startup; can be configured to display only "regular" or "obscene" fortunes. **(Pause)** is a separate INIT which allows other INITs to load while you read the fortune of the day. Perhaps the largest cdev in captivity; it's 624 K!

immortality 0.95 f: immortality 0.95: By Ron Risley. Automati-

cally calls up a selected desk accessory each time a new application is launched, just as though selected from the Apple menu. As it configured, it launches Thunder!; if you want to launch something else, you have to reconfigure Immortality with ResEdit per the documents. Not tested (I don't have Thunder!). We don't know why there are two similar icons in this folder; they both seem to be the same.

In Use (v1.0b3): By Sam Barone. Shows (with a small blinking square to the left of the apple in the menu bar when a specific SCSI device (or all connected SCSI devices) is in use.

infiniDrag: By Jörge Brown. Allows windows from early applications which otherwise would appear only in the upper left hand corner of a large-screen monitor to be moved anywhere on the screen. For large screen users.

Init cdev 2.0 f: init cdev v2.0: By John Rotenstein. 'init cdev' will provide a list of all the INIT (StartUp), cdev (Control Panel) and RDEV (Chooser) files in your System Folder and let you turn them on and off. This free program performs a similar function as Aask! and INITPicker. **About init cdev** is the documentation in text format. *Shareware - Picture postcard of your hometown.*

Init Manager Demo f (v1.0.0): **Init Manager Demo:** By Bob Hablutzl. A tool designed to help users of large numbers of INITs organize their files. It works by allowing the user to specify the folders to execute INITs in. At boot time, in addition to the INITs in the system folder, the INITs in the specified folders will be run. In addition, the INIT manager allows a user to skip the INITs not in the system folder on the next boot, and can log the activities of the INITs. **INIT Manager Demo Documentation** is in MacWrite format. *Demomare - it will not execute or log the INITs in the selected folders. To obtain the complete working version of the INIT Manager, send \$20.*

Insure f (v1.0): **Insure:** By Paul Mandel. Reminds you of the last time that you backed up your disks

and allows you to launch a backup program. **Insure Doc** is the text format documentation.

key Ahead f (v0.1): keyAhead: By Ron Risely. Nearly all applications flush keystrokes from the Mac's event queue when they launch. keyAhead will prevent applications from ever flushing key down events. **About keyAhead 0.1** is the text documentation.

Disk # 9.04 — I/C 4
INITs/cdevs

Icon Colorizer f (v1.2): **Icon Colorizer:** By Robert P. Munafo (documentation by Damian W. Grabowski). Displays a replacement set of multi-color Icons for a variety of programs on the Desktop. Icons can be modified in ResEdit following the instructions in the documentation. **Icon Colorizer Doc** is the MacWrite format documentation. For color Macs.

KeyMenu f (v1.00): **KeyMenu:** By E. Jason Scheck. Allows menu selections from the keyboard in a manner similar to MS Word 3.01. You may select and drop down any menu and select any menu item without using the mouse. **Key-Menu Doc.word3** is the MS Word formatted documentation.

Laser"Quotes" f: Laser "Quotes"™: By Deneba Systems, Inc.. Generates left and right quotes (","), apostrophes, and the Chicago font symbols for the command key, check, diamond, and apple. **Laser"Quotes" Docs** is the MacWrite format documentation.

last boot 1.0d2 f: Last Boot 1.0d2: By John Martyniak. Displays the time of the computer's last boot and how long it was on. **ReadMe.note** is the text format documentation.

LockDisk f (v1.0): **Lock Disk:** By Brian Bechtel. Changes the system disk to read-only status. **LockDisk Documentation** is the TeachText documentation.

LockOUT™ f (v2.0): **Lock-OUT™:** By Beyond™ Inc. A medium-security password protection system for the Mac. When enabled, requires the entry of a password to log on. **Lock-OUT™ 2.0 DA** and **LockOUT™ 2.0 FKey** can be used to protect the system without shutting it off.

LockOUT 2.0 Release Notes 2 is the TeachText format documentation.

Logger f (v2.0): **Logger:** By Ricardo Batista. Creates a text file in the System Folder containing entries showing when files were created, opened, changed, closed, etc. Doesn't record applications opened from the Desktop under MultiFinder. **About Logger 2.0.TEXT** is the documentation. *Shareware - \$10.*

Logout f (v1.0): **Logout:** By John Rotenstein. Shows Mac usage time on shutdown. **About Logout** is the text format documentation. *Shareware - A postcard of your hometown.*

Long Date: By Don Leeper. Modifies the order in which date information is maintained in folders in which files are displayed by name, kind, date, etc. *Shareware - \$5.*

Mac II Video Card Utility f: **MacII Video Card Utility:** By Apple Computer. A "Monitors cdev Extension" which may be of assistance in obtaining interlaced, RS170-compatible video output signals from a Macintosh II-class machine equipped with the Macintosh II Video Card. It may support 1,2,4, and 8 bits-per-pixel interlaced video. Not tested. Not supported by Apple; lots of disclaimers in the Video Utility **Read Me** TeachText format documentation. For Mac II family with Apple video card, special cable.

MacEnvy f (v1.0): **MacEnvy:** By Ken McLeod. Displays information about the hardware/software

environment in which it is running. **MacEnvy.Doc** is the TeachText format documentation.

MacPassword™ 3.20 f: **!MacPassword™:** By Art A. Schumer. Affords password protection of files on a hard disk by preventing access to them by users who don't have the password. Three levels of protection are available, as well as other features, including virus protection. See the extensive **MacPass.new**, **!MacPassword™ (Text)** and **!MacPassword™ Addendum** documentation. Also included is **!MacPassword™ DA**, which allows files to be protected without shutdown and rebooting. *Demoware - works for only 60 days and some features are disabled until keycode is ordered. \$35.00 in U.S.*

MacPuke INIT f: **MacPuke:** By Daniel Green. Makes an offensive sound when a disk is ejected. **About MacPuke** is the MacWrite format documentation.

MacWait f (v1.2): **INIT.MacWait:** By Bob Finch. The "watch" hands spin just like more recent systems. For systems 3.0 (or later). **READ ME FIRST!!!** is the text format documentation.

MainWDEF: By Eric and jbx. An alternate window definition for those who want their screen to look as if it is enclosed in a black plastic cube. (See also NeVR.)

MemUtil™ f: **MemUtil:** By James Finnigan. A Desk Accessory which displays the amounts of the application and system heaps that have been used. The **MemUtil Init Resource** must be in the system folder for the DA to work.

MenuClock101 f: **MenuClock101:** Places the time near the right edge of the menu bar even on large monitors and leaves room for the MultiFinder icon. The time disappears if it would overlap an application menu or when a screen saver is active. **MenuClock101.doc** is the text format documentation. Not tested.

MenuClock f (v2.2): **MenuClock:** By Steve Christensen. Shows the time (or date) on the right edge of the menu bar. It hides itself when screen savers are active or when it would encroach on an application menu. Change the configuration in the Control Panel. **MenuClock Notes** is the MacWrite format documentation. Not tested.

Menu Clock v.3.1 f: **Menu Clock v.3.1:** By David Philip Oster. Installs the time on the right edge of the menu bar. **Menu Clock Doc** is the MacWrite format documentation. Not tested. *Shareware - \$5.*

MenuPicture f (v1.01): **MenuPicture Init:** By Douglas S. Wyatt. Allows FKEY combinations to be executed while the mouse is down, so that (for example, you can take screen shots (Shift-Command-3) while a menu is displayed. **MenuPicture.wrt** is the MacWrite format documentation.

MenuTime INIT(Multi-Finder): Puts a non-definable clock in the menu bar. Puts the clock in the spot it would appear on a Plus or SE even if a wider monitor is available; overwrites program menus if they overlap.

MFMenu+ f (v1.3): **MFMenu+:** By Fred Reed. A hierarchical menu for use with or without MultiFinder. Similar to On Cue™, but doesn't save application lists between reboots. **MFMenu+ Notes** is the text format documentation.

MFTIME Init: Another non-definable menu-bar clock. Unlike MenuTime, above, works properly on large screens

Modem Init f (v2.0): **Modem Init:** By Darik Datta. Sends a Hayes command string to a modem on startup. 300 baud and 1200 baud versions furnished. **Modem Init Docs** is the MacWrite format documentation. Not tested. Note: command string to be sent has to be added in ResEdit. *Shareware - \$5. 🍏*



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 175 No Name
 500 Master Catalog Listing
 501 Utilities: Beginner's Choice
 502 Utilities: Intermediate Users
 503 D-Comm***
 504 Database***
 505 Reading Fun
 506 Astronomy Programs
 507 Griffith Observatory
 508 Educational Games G
 509 Educational Games H
 510 Education - Math
 511 DOS 3.3 System Master
 512 DOS 3.3 Tutorial

Eamon Series
 180 Dungeon Designer
 181 Beginners Cave
 *182 Lair of Minotaur
 *183 Cave of the Mind
 *184 Zythur Riverventure
 *185 Castle of Doom
 *186 Death Star
 *187 Devil's Tomb
 *188 Caves of Treasure Island
 *189 Furioso
 *190 The Magic Kingdom
 *191 The Tomb of Molinar
 *192 Lost Island of Apple
 *193 Abductor's Quarters
 *194 Quest for Trezore
 *195 Underground City
 *196 Merlin's Castle
 *197 Horgrath Castle
 *198 Deathtrap
 *199 The Black Death
 *200 The Temple of Ngrurt
 *201 Black Mountain
 *202 Nuclear Nightmare
 *203 Feast of Carroll
 *204 The Master's Dungeon
 *205 The Crystal Mountain
 *206 The Lost Adventure
 *207 The Manxome Foe
 *208 The Gauntlet
 *209 Caverns of Langst
 *210 Future Quest
 *211 House of Secrets
 *212 Sewers of Chicago
 *213 Slave Pits of Kzorland
 *214 Alternate Begin. Cave
 *215 Lifequest
 *216 Swordquest
 *217 Priest of Ximl
 *218 Heros Castle
 *220 Utility II
 *221 Utility III
 *223 Temple of the Undead
 *224 Quest for Holy Grail
 *225 Caves of Mondamen
 *226 Orb of Polaris
 *227 Death's Gateway
 *228 Escape From Orc's Lair
 *229 City in the Clouds

Pascal (See also 133)
 300 PIG0: ATTACH 1.1/BIOS
 301 PIG1:

302 PIG2:
 303 PIG3:
 304 PIG4:
 305 PIG5:
 306 PIG6:
 307 PIG7:
 308 PIG8:
 309 PIG9:
 310 PIG10:
 311 PIG11:
 312 PIG12:
 313 PIG13: Guerrilla Guide
 314 PIG14:
 (PIG0;PIG2;PIG4; and
 PIG11: are reissues)

CP/M
 401 Master Catalog
 402 Utilities 1
 403 Communications
 404 Utilities 2
 405 Utilities 3
 406 ZCPR2 Install
 407 ZCPR2 Documentation
 408 ZCPR2 Utilities
 409 Modem 730
 410 Essential Utilities
 411 Text Editor
 412 Spreadsheet
 413 MDM740AB (SSC&Comm)
 414 MDM740CD (7710 & A-Cal.)
 415 Orig. 350 Pt. Adventure
 416 Kermit Source Code
 417 Kermit Documentation
 418 Kermit Running Code
 419 Utilities: Z83, REZ, VDE
 420 Small C Compiler

Forth
 700 Assembler/Disassembler
 701 Full Screen Editor
 702 GoForth Tutorial
 703 Fig-Forth
 704 Floating Point Arithmetic

ProDOS Volumes
 802 Utilities (A)
 803 Filecabinet
 804 Shareware
 806 ZAP
 807 Imageworks
 808 Comm-Term
 810 Haunted House
 811 Adventures Disk
 812 Toddlers and Kids Game Room
 813 TAWUG-1
 814 TAWUG-2
 815 TAWUG-3
 816 TAWUG-4
 817 Telecom
 818 AppleWorks Tax Template IRS
 1987***

Apple IIGs
 3 1/2" DISKS

2001 Utilities & Pictures A
 2002 Demo Disk A
 2003 Freeterm
 2004 Slide Show I
 2005 Demo Source Code 1
 2006 Demo Source Code 2
 2007 M18 Courses
 2008 Odd Bits I
 2009 GS Fonts I
 2010 GS Fonts II
 2011 GS Fonts III
 2012 AppleWorks Tax
 Template IRS 1988***
 2013 Odd Bits II
 2014 Sounds I
 2015 Sounds II Nostalgia
 2016 Slide Show II
 2017 Slide Show III
 2018 Mean 18 Courses
 2020
 2021
 2022
 IIGS Systems Disk

Apple III Disks

WAP /// SIG PD LIBRARY
 1000 WAP /// SIG PD Catalog
 1001 Games 1
 1002 Basic Utilities 1
 1003 Footnote ///
 1004 System Utilities & Data Disk
 1005 New Member Disk
 1006 Word Processing and WPL
 1007 Games for Kids
 1008 The Best of MAUG
 1009 The Best of the Source
 1010 The Best of TAU
 1011 D3.Backup
 1012 Sketchpad and Slideshow
 1013 A3 Diagnostics
 1014 Basic Boot Disk
 1015 Best of ///s Company
 1016 AppleCon
 1017 Pohlman Disk 1
 1018 Pohlman Disk 2
 1019 Pohlman Disk 3
 1020 Pohlman Disk 4
 1021 Pohlman Disk 5
 1022 Basic XT and Basic Utilities
 1023 The Retriever
 1024 Power Print ///
 1025 Disk Window ///
 1026 Source Window and Data Window
 1027 Power Cat and Basic XRF
 1028 ASCIIDIF by Bloom
 1029 Ink Well Manual
 1030 Ink Well
 1031 Basic Extension
 1032 TerminALL Manual
 1033 TerminALL
 1034 Power Keys DM+
 1035 Best of Bloom
 1036 Ram+3/Two-N-Fro /// 128K
 1037 CustomFONT Manual
 1038 CustomFONT
 1039 Fonts Disk One
 1040 Ottalini Articles: Disk 1
 1041 Capt'n Magneto
 1042 GUCSPAR by Bloom
 1043 Apple // Emulation: Disk 1
 1044 Apple // Emulation: Disk 2
 1045 Disk Maker/AppleSeed
 1046 File Cabinet/Sort Directory
 1047 Phase /// Conference Plus!
 1048 Mail List Manager Utilities by
 Bloom
 1049 Mail List Manager Utilities by
 Bloom
 1050 Mail List Manager Utilities by
 Bloom
 1051 Basic GTO
 1052 SOS Drivers
 1053 Contributions Disk #1
 1054 Pascal Menu.Maker
 1055 Best of ATUNC
 1056 Programmers Power Tools
 1057 Best of ///s Company: Disk 2
 1058 Ottalini Articles : Disk 2
 1059 Ottalini Articles : Disk 3
 1060 3EZP/AW Business Templates
 1061 Contributions Disk #2
 1062 Graphics Disk #1
 1063 Telecommunications Disk #1
 1064 Telecommunications Disk #2
 1065 Telecommunications Disk #3
 1066 Kermit ///
 1067 XMODEM ///

Footnotes

* Requires disk #181 to start game
 ** Set of 3
 *** Shareware: Pay author fee to
 continue using after trial period.

Anti-Virus Utilities 3 disk set 1.01B - AV 1 1.02B - AV 2 1.03B - AV 3	INITs & cdevs 4 disk set 9.01 - /C 1 9.02 - /C 2 9.03 - /C 3 9.04 - /C 4	Telecommunications 9 disk set; \$27.00 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	Adobe Screen Fonts 18 disk set; \$48.00 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	Mac II Series 14 disk set; \$42.00 20.01 - M II 1 20.02 - M II 2 20.03 - M II 3 20.04 - M II 4 20.05 A - M II 5A 20.05B - M II 5B 20.06 - M II 6 20.07A - M II 7 20.08 - M II 8 20.09 - M II 9 20.10 - M II 10 20.11 - M II 11 20.12 - M II 12 20.13 - M II 13	Serially Numbered Disk 76 • Disk 77 • Disk 78 • Disk 79 • Disk 80 • Disk 84 • Disk 85 • Disk 89 • Disk 91 • Disk 92 • Disk 95 • Disk 96 • Disk 104 • Disk 105 • Disk 106 • Disk 108 • Disk 123 • Disk 134 • Disk 143 • Disk 147 • Disk 150 • Disk 151 • Disk 153
Desk Accessories 10 disk set; \$30.00 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	Miscellaneous 1 disk set 10.01 - M 1 Paintings (MacPnt) 5 disk set; \$15.00 11.01 - P 1 11.02 - P 2 11.03 - P 3 11.04 - P 4 11.05 - P 5	Programmer/Hacker 1 disk set 14.01 - PH 1	Miscellaneous Utils 13 disk set; \$39.00 15.01 - MU 1 15.02 - MU 2 15.03 - MU 3 15.04 - MU 4 15.05 - MU 5 15.06 - MU 6 15.07 - MU 7 15.08 - MU 8 15.09 - MU 9 15.10 - MU 10 15.11 - MU 11 15.12 - MU 12 15.13 - MU 13	HyperCard StackWare 29 disk set; \$87.00 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	HyperCard Externals 4 disk set 21.01 - HE 1 21.02 - HE 2 21.03 - HE 3 21.04 - HE 4
FKKeys (Function Keys) 2 disk set 4.01A - FKs 1 4.02A - FKs 2	Digitized Sounds 31 disk set; \$90.00 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	System Utils 8 disk set; \$24.00 16.01 - SU 1 16.02 - SU 2 16.03 - SU 3 16.04 - SU 4 16.05 - SU 5 16.06 - SU 6 16.07 - SU 7 16.08 - SU 8		System Software 6.0.3 6 disk set; \$18.00 SS.ST SS.PT SS.U1 SS.U2 SS.LW 6.0 SS.32 Bit QDraw	
ImageWriter Fonts 15 disk set; \$45.00 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				HyperCard Update 1.2.2 HC & Stacks - HC.01 HC Ideas - HC.02	
LaserWriter Fonts 5 disk set; \$15.00 6.01 - LW 1 6.02 - LW 2 6.03 - LW 3 6.04 - LW 4 6.05 - LW 5		Word Processing Utils 3 disk set 17.01 - WP 1 17.02 - WP 2 17.03 - WP 3		Serially Numbered Disk 28.1 • Disk 29 • Disk 30 • Disk 31.1 • Disk 32 • Disk 35 • Disk 41 • Disk 45 • Disk 46 • Disk 54 • Disk 55 • Disk 56 • Disk 74 • Disk 75 •	

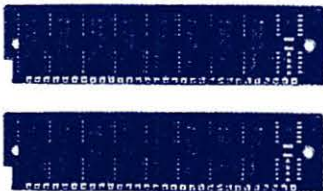
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Number of Disks	Member Price each	Extended	Name
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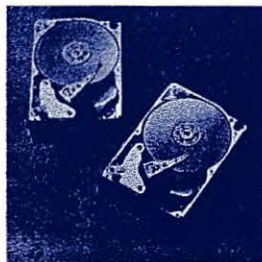
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