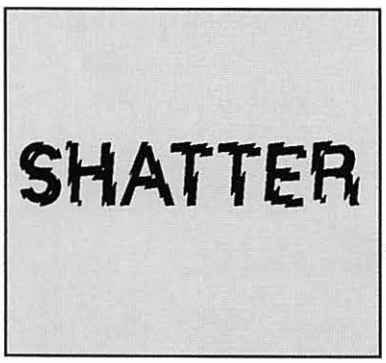
washington apple pi

The Journal of Washington Apple Pi, Ltd.

Volume 12, Number 5 **May 1990**



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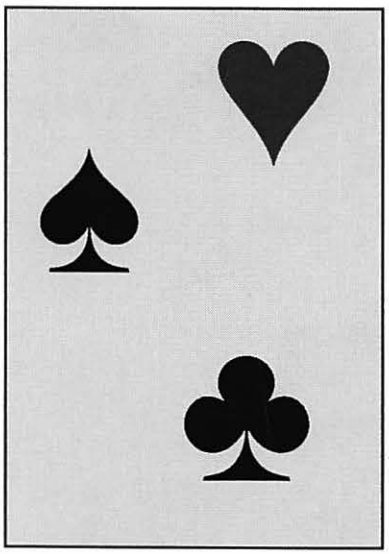

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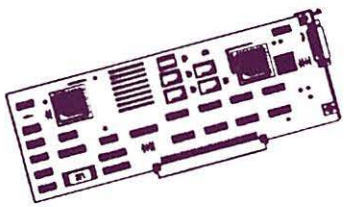

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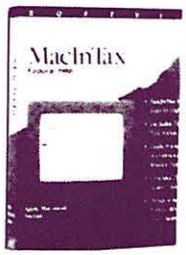

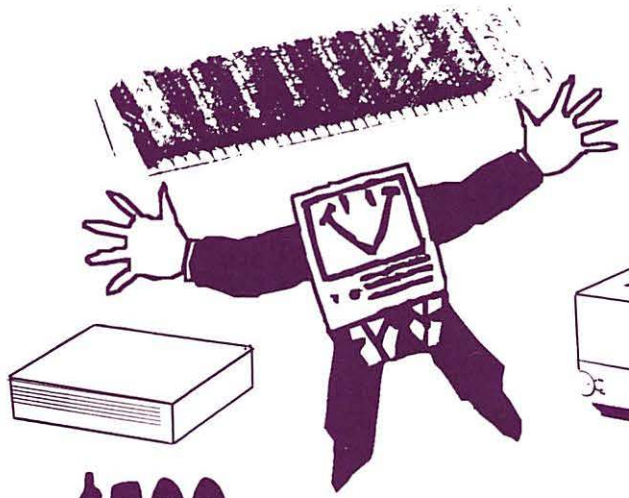

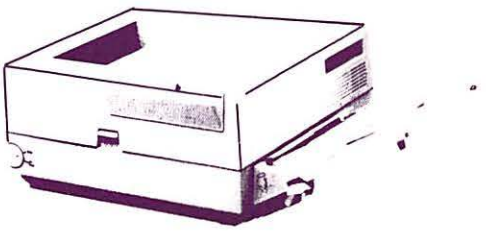

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This issue of the Washington Apple Pi Journal was created on a Macintosh IIcx, and printed on a LaserWriter IINTX.

The program used was PageMaker 3.02; the word processing program was Microsoft Word 4.0; the principal typeface is Adobe Garamond for the articles, and Helvetica and Condensed Helvetica for headlines, emphasis and here and there, where it seemed appropriate or like a good idea at the time, or we ran out of space, which also happens.

Check out the font for this month and let us know what you think of it. Same as last month, actualy, except that it is one point size bigger. For us people with eyes that no longer seem quite so...discerning as they used to be, it does make a difference.

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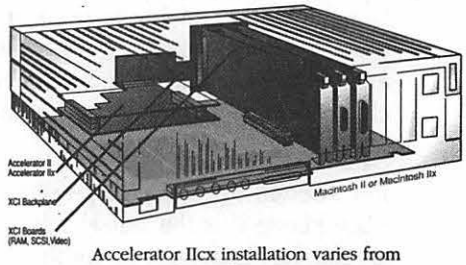

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On elections and such

Annual elections

It's that time of year again.

Last year we went through a series of unpleasant experiences, better left behind us, and we have done exactly that: moved on and begun to heal the cuts and bruises that had been created in earlier, unhappy months. The process has worked well, by and large—monthly meetings have been interesting (some more than others, but that is to be expected, but certainly not capable of raising adrenaline levels to dangerous heights.

WAP is essentially a volunteer organization; we thrive or decline through the quality and dedication of our volunteer members. So it is with the officers and directors of the club—their compensation is to see a difficult job done well, and in fact they do their jobs very well indeed.

But new blood is important as well, and this is where you come in. In years past, WAP had a reputation, whether or not deserved, of being very much an "in-group," held together by ties between old hands (that metaphor needs a lot of work but we are bumping our heads on a deadline, so let it pass, let it pass...), and highly resistant to the efforts of new kids on the block to become involved.

That is clearly no longer the case, and that is the challenge and opportunity that each of us confronts now: it it worth doing more than paying annual dues, going to the occasional (note that we did *not* say "odd") meeting, reading this estimable publication, whose value cannot be measured, perhaps participating in the Telecommunications System, and generally hanging out with people of like minds?

If you are able to answer that question in the affirmative, and we hope that you can and did, then you might want to consider more active involvement in one or another aspect of keeping this organization (which may be the largest Apple user group in the world, and so we will assert it to be such and wait to be proven wrong) going. Excuse the long, semi-breathless sentence, but we got going and it was hard to stop...

So—think about running for office yourself, and if that seems like madness to you, then at least take the time to check out the qualifications and objectives of the people who will be offering themselves as candidates. Forget about name familiarity, but see if you can dig a little behind the familiar or unfamiliar names to see what these people are really interested in doing, and how well they can work with their colleagues. Because, and make no mistake about it, congenial and cooperative efforts pay handsome dividends, whereas combative tactics breed only hostility and ultimate disaster.

Next meeting

Note well, the next meeting to be held, on April 28, will not be at the usual place. (Please don't ask us why we are announcing the location of the April meeting in the June Journal, because it makes our brain hurt—just take it as a given.)We repeat: the April meeting will be held at the Walter Johnson High School in Bethesda, Maryland at the usual time. We have been reliably informed that it is located at 6400 Rock Spring Drive, just off Old Georgetown Road outside the Capital Beltway, and if you want better directions than that, you are going to have to look it up on a map or call the office, because we don't have any. So there.

The Macintosh program will include a presentation by Chris Crawford, who has been writing strategy games for computers since there were computers, it seems, and who gives an entertaining and informative talk. Probably there will be more things as well, but Eric is in San Francisco at MacWorld and even harder to communicate with than usual. The Apple II program will be organized around the topic of hard disk drives.

Now you know everything we do.

Clarification

In the last editorial, we poked what we thought was a gentle jibe at Lee Raesly in discussing some of the eruptions on the TCS about the proposed change in bylaws. Hurt feelings have arisen, and we wanted to take this occasion to indicate that no such intent was present, and that we regret any inappropriate inferences that might have been drawn. We will try to keep our tongues less visibly in our cheeks in the future. It may not work, but we *will* try.

—fmp

Can you read this?

Well then, how about this?

The difference between the two is one point size, and we are extremely interested in your reaction to it. We did receive a fair amount of comment on the new typeface, most of it supportive. But several mentioned that it seemed unduly...small.

So, responsive as ever to our readers, we bumped everything up one point, in the hopes that it will meet the needs of those of us who are increasingly finding our arms a little short when we read. And if it doesn't work, we will experiment yet further.

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The President's Corner

by David Morganstein

Apple Shake-Up. Many of you who read the trade journals are aware of major shakeups in Apple management. This is a disturbing situation that can only result in short term losses as work slows on new product development and sales. As interested parties, we can only hope that the long term picture will brighten; however, the fact that J. Sculley has indicated no new low-end Mac will be produced during the current fiscal year is a not a good omen. Apple needs to take bold action to reassure its oldest and most trusted supporters, Apple II owners, that it is behind them and has upgrade paths, something now glaringly absent.

One Small Step for Apple Computer Owners. Thanks to any of you who joined in our "send Uncle John a piece of your mind" campaign regarding Mr. Sculley's previous 90 day warranty policy. A blow for consumerism has been struck as Apple has expanded the standard warranty to a full year for all equipment purchased as of January 1, 1990.

Articles Always Welcome. If you would like to write a product review, we would appreciate your contribution. To insure you are not duplicating efforts, though, contact one of the editors in advance. Check with Marty Milrod for Mac reviews, Tim McGraw for Apple II reviews or Frank Potter as overall Editor. We have had an instance or two of people submitting reviews of products already reviewed. A quick call can avoid some frustration...

Payments to Members Report. Last Spring, there was discussion of the need for an annual summary of payments made to WAP members for services rendered. This report for 1989 is now available at the WAP office for those interested. You can stop by and examine it, or plunk down a dime to make a copy. Alternatively, you can send a self-addressed stamped envelope to have one mailed to you.

Taxing Subject. I was pleased that the WAP received several bids to prepare our tax submission. A selection has been made and the preparation is now underway. I want you to be aware, however, of a side note to this. Some members are aware that our very dedicated Treasurer received public criticism from one or two members for his preparation of our taxes. One complaint that appeared in a handout was that he received compensation for doing this onerous task. It should be clear from the report mentioned above, that compensation to members is not unusual. WAP has been doing so almost since its inception. Our by-laws permit compensation and provide for open procedures involving board actions.

The membership should know, however, that the three bids we received were all more than 40% higher than the WAP had paid in any of the preceding three years—in other words, we had been paying a below market price for good service. The negative criticism has cost the club something in dollars and, although less tangibly but probably more importantly, in good will among our members. Let's hope that those who enjoy criticizing will consider the damage they do the entire club when they complain for the sake of complaining and not for the purpose of improving our services.

Proposed By-law Changes. At the December Board meeting, a set of by-law changes were proposed for discussion. These changes have been carefully considered by the board members for two months. At the February board meeting they were recommended for approval. They appeared in the previous issue of the Journal for your review before action was to be taken. This kind of care is appropriate for many by-law changes. As you may have read for yourself, the changes re-organize some of the responsibilities of board members. Two new Vice Presidents are proposed, one to manage the office operation and one to shoulder the responsibilities of publicity and community affairs.

In addition, three year limits are placed on many of the board positions, thus insuring a measured turn-over in volunteers. I am of the view that this limitation is very important to a volunteer organization. As it now stands, key volunteers find themselves in awkward positions. They must actively indicate they need to be replaced or the board must take a formal 'decision' to replace them. Both of these alternatives are undesirable and can lead to hurt feelings for those who have given much to the WAP. Changing of the 'guard' is necessary if an organization is to remain vital. New volunteers need to know they can move up to take charge some day or they will, sooner or later, leave to find other ways to express their help. I would hope that every committee head, SIG chair and officer, would plan to find and train their replacement.

The board has taken the time to publish these proposed changes so that all interested parties can state their views. If you have any comments, you can raise them at a main meeting or a board meeting (which are open to all WAP members) or just talk to a board member. We recognize that many members have little interest in these kinds of details and we're trying not to make this a burden to them.

Computers for Schools. We have now gathered more than $35,000 in Giant Food Store receipts. This may be our last plea for contributions from those who have until now, been unable to assist. If you buy at Giant and don't need the receipts for your own kids schools, please save them and send them in or drop them by the office.

Future of the PI. Another reminder that, on the third Saturday in April, we will hold a Future of the Pi meeting. We are seeking your thoughts for topics of discussion and hope you will attend.

Volunteers Needed: We need a few hours of your time. If you would like to give back to the WAP a little of what you have received, here are a couple of ways you can.

Membership Directory. If you have publications skills and can help us put together a membership directory, step right up. We have not issued a new directory for several years and are in need of doing so.

Help at the office. If you have a few spare hours each week, please drop by the office and give us a hand. We can ALWAYs use a few spare ones. There are mailing and stuffings and a variety of very non-technical things that need doing. The office staff love to meet new faces and certainly new hands. Please come by and offer some help. The best approach is to call in first and find out if there are some preferable times for utilizing your energy. In advance, thanks!

May Picnic. On the second Saturday in May we will be holding a picnic at the Cabin John Regional Park. We hope you will be there. We think this would be a way to get to meet more members and perhaps find ways of putting volunteer time to work helping the club. I want to thank Nancy Seferian for offering to help organize the picnic. I know she can use other volunteers. If you can help, call her or leave her a message on the TCS.

Apple IIGS SIG

by Paul Tarantino

Some of us incoming IIgs mavens were somewhat confused at the sight of Alan Hoffman's trusty Apple IIe, surrounded though it was by a large assortment of platinum-colored boxes. As it turned out, however, Alan's IIe was a wolf in sheep's clothing, having been updated in 1986 to IIgs specifications, and boasting a 4-megabyte RAM card, a PC Transporter, a 100-megabyte MacCrate hard drive, floppy drives in several sizes and flavors, and a choice of three (count 'em, three) keyboards. Oh, yes, and two mice.
AND...(pause for breath) a Hewlett-Packard LaserJet IIP printer, the main focus for his presentation. Yes, Virginia (you too, Maryland), it is possible to attain laser-quality hard copy output with your very own IIgs, at much less than the multi-kilobuck cost of an Apple LaserWriter. HP LaserJet IIP prices have eased to below $900 in the local area, putting such extravagances at least a bit closer to possibility for some of us penny-pinchers.

Why a laser printer at all? Even at these prices, it's not an investment suitable for anyone who doesn't need really high-quality printed output, for desktop publishing, professional correspondence, or suchlike stuff. (A laser printer is also eminently suited to the wealthier hacker whose brain is allergic to the squeal of a dot-matrix printer in heat.) At the thousand-dollar level, HP competes with an Epson product, but Alan suggested that it might not be much of a competition, since the Epson will not produce 300 dot-per-inch resolution, and will not accept HP PostScript font cartridges.

The LaserJet is much more compact than its bigger HP brothers, and only half as fast, rated at four pages per minute, quite adequate for most home uses. The standard paper feeder holds 50 sheets, and will accommodate legal paper or envelopes (larger feeder trays are available). The printer comes with 512K RAM, useable as a buffer and/or for the downloading of HP soft fonts (currently useable only in IBM emulation with a PC Transporter).

For those of us not into MS-DOS, the following Apple text programs are known to support LaserJet output: Classic AppleWorks 3.0, WordPerfect 2.0 for the GS, and Printrix and Fontrix (remember them?). If one can cough up another $289 or so for a PostScript cartridge (from Pacific Page or maybe HP), the LaserJet will accept input through an AppleTalk network from any Apple software which produces PostScript output. Beyond that, Epson has announced a plug-in cartridge which will allow the LaserJet to emulate an Epson FX85 or ProPrinter. Further beyond that, a local letter-writing campaign has made HP aware of our interest in IIgs printer drivers for the LaserJet series, but this clearly will take a while to bear fruit. For now, we are limited to those interfaces mentioned above.

Alan also showed off the capabilities of his PC Transporter setup, which could access about 48 megabytes of MS-DOS software, a lot of which is Pretty Good Stuff (and which has no trouble printing out on his IIP). Apple II loyalists were especially jealous of his ability to adapt $79 Sony 3.5" drives for use with the PC Transporter (this probably qualifies as a Handy Hint for PCT owners, except that I didn't get any details about the bits and pieces from Radio Shack which one needs to make it work). Why can't we do that?

The discussion took a side excursion into the mysteries of IBM PC memory allocation; the distinctions (whatever they are) among high memory, extended memory, and expanded memory made my head hurt, so I didn't take very good notes. A lengthy Q&A and the usual feeding frenzy of disk copying followed Alan's very informative talk.

Columbia Slice

by Tim Childers

inly for the programmers and those interested in programming. On the Mac side our guest speaker was Kurt Schmucker, head of Scientific Computing at Apples' Advanced Technology Group. On the Apple II side was HyperStudio, a program with many similarities to HyperCard in that it allows you to easily create interactive programs containing stacks of cards containing text, graphics, and buttons which link you to other cards.

Our guest speaker, literally wrote the book on Object Oriented Programming for the Macintosh (Hayden Press, 1986). He came to show us some of the work his group is doing to make the Mac a platform for advanced scientific computing.They start with the Mac II as their minimum base machine and concentrate on software to do what the Mac does best , namely graphics.

The software they developed was called *Double Vision* and they didn't sell it, they *gave* it away, source code and all. It was developed as a showcase example of how to write a scientific imaging application using MacApp and Object Pascal that followed all of Developer Technical Services' rules to work on all future systems with any mix of processors and monitors. Announced at the August 1989 MacWorld Expo in Boston, it was seeded to developers of scientific software for the Mac. The application consists of about 10,000 lines of code that is both usable in a broad variety of scientific disciplines and yet something unique to the Mac. It is a charting program which charts two separate sets of data which were taken over the same range. An example would be a rectangular area on a map where temperature and air pressure were both sampled at every coordinate. Each data value is mapped to one of 256 colors. Then both rectangles of data are displayed side by side and can be analyzed for relationships. Any selection or action on one region is also shown on the other

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region.

Kurt demonstrated some of the programs developed or being developed using this seed. Students at Stanford developed a program to map the data from ultrasonic measurements of bore holes which mapped the data onto a cylinder rather than a rectangle. A pair of physicists developed a program to analyze 3 dimensional blocks of data. The program gives you unique capabilities to 'slice' and 'dice' a region of data. An example of this would be for visualizing wind currents around an airport. This program was developed in only 9 months by two scientists whose only Mac unique programming training was a 1 day course in MacApp. It should be available commercially Real Soon Now. A company called Spy Glass will be shipping a program which can accept Magnetic Resonance Imaging (MRI) data and create a 3D image of the interior of a patient which can be used by doctors to examine structural details that an x-ray just can't reveal. For example, Kurt showed an image of a human knee that consisted of over 8 Megabytes of MRI data. The company plans to release several other products also utilizing Apple developed technology.

Least but not last was a very special project. Apple, AT&T, NeXT, IBM and dozens of other companies were challenged to each implement a simple dice throwing game using their respective object oriented programming environments. All companies were given the same rules and a limited time. The winning entry was by Apple using MacApp. Kurt feels they won because of all of the extra touches they were able to put in because so much comes standard with MacApp. Not only did they have animation, sound, color, complete support for printing and saving games, computer opponents and a two player version but they also had time to throw in artificial intelligence! One of the two computer opponents included an Artificial Intelligence inference engine which could learn new rules as it competed with a human opponent. The finished game is available for $10 from APDA.

Apple also funded a university to develop a freeware interface to the Cray supercomputer. In the demo he showed a simulation of the effect of solar wind on the atmosphere of Venus. The simulations were done on the Cray and only the resulting 17 Megabytes of animation were sent to the Mac for display. Many universities can apply for free time on a Cray under a program run by the National Center for Supercomputing Applications and this program gives them a vehicle for viewing and manipulating the finished results.

Finally he showed us 3D images of a hurricane. The only special 'hardware' needed was a pair of red and blue plastic glasses like the ones you used to see for 3D comic books. The color screen provided the red and blue images which combined to produce a realistic looking monochrome 3D image.

Most of the programs mentioned above, including source code for some, were given away at the EduCom conference on a CD-ROM called the App*le Science CD*. For information on getting a copy of the CD-ROM for your company or school contact Kurt at Apple. (301) 730–2255.

During the Q and A session he was asked to compare MacApp and MPW and C++ with the Think Class Library available in both Think C 4.0 and Think Pascal 3.0. My own interpretation of his remarks is that he recommended MPW for group efforts and for any project which involved a mix of several languages but praised the Think environment for its ease of use for individual programmers. When asked about System 7.0 he said he was using an alpha version and thought it was great but not complete yet. He said anyone with 2 Meg of RAM and a hard disk would benefit from using it when it was available. He mentioned that the new Finder was rewritten in C++ and combined Multifinder and the old Finder. When asked to speculate on the future he hinted at distributed computing where even non Apple machines could share the load while the user saw only the Mac operating system. He also said something about a new language definition for Object Pascal. Finally he plugged two new books that would be out this year. The first was *Inside MacApp* from Addison Wesley and the second was his own completely revised *2nd Edition, Object Oriented Programming for the Macintosh* from Hayden.

The Apple II meeting covered the revised program HyperStudio 2.0. by Roger Wagner. Tom Cook gave the demo on his IIGS. HyperStudio is a multimedia presentation system similar in appearance to Hypercard.The program works with stacks of cards, each of which take up the size of the screen. Each card has objects on it such a graphics, text and buttons. Clicking on a button can perform one of 3 basic actions: going to another card; playing a sound; or launching another application. The program contains graphics creation and editing tools. It also includes a sound digitizing board and microphone as well as several software utilities for manipulating, editing and using sounds.Cards can contain SuperHiRes graphics as backgrounds. There are various animation effects available as well as various types of transition effects between cards. The program comes with samples of stacks you can use as well as clip art for your own stacks. The major difference between this product and Hypercard seems to be that HyperStudio 2.0 does not include a full blown programming language.

Tom Cook went through some of the stacks provided with HyperStudio as well as some of the public domain stacks available for the program. Then he demonstrated creating your own stack by duplicating the functions of one of the demo stacks from scratch.

After the two meetings a short Club Business meeting was held. I gave out a demo disk of Type Align. Several new people took membership applications for the Apple Programmers and Developers Association. I also announced the special deal on the Apple CD-ROM reader. There was lots of interest but Mike Hira-

suna was the one who was able to come up with the money for the drive. When he gets it he will be bringing it to each meeting for everyone to use. Just as importantly, Pat Cappelaere will be bringing the Boston and Berkeley CD-ROMs of public domain and shareware software. The next meeting will be free form with people encouraged to bring anything they want to demo and with any questions they would like answered. Some topics suggested were: Mac upgrades, tips on MacDraw II and Word 4.0, maybe the videos on the portable and IIci, games, kids software, and definitely lots of Q and A for new users. The Apple II members may cover AppleWorks GS. It will be announced at the meeting whether the May 3rd meeting will be at the Apple office in Columbia.

EdSIG

A small but enthusiastic crowd showed up for the March EdSIG (educational special interest group) meeting. The meeting started off with a spirited discussion on the respective merits of HyperStudio and Tutor Tech. A general consensus was reached that HyperStudio holds great promise, and that Tutor Tech could be highly functional too, were it not for its stratospheric price (over $170).

HyperStudio was then demonstrated on the office's Apple IIGS. It takes a little while to learn how to use the program, since it has so many features. Some of the teachers in attendance remarked that they would not have the time to construct their own stacks, but would be interested in using ready-made stacks in their classes.

Next Carol Vogel gave a demonstration of Crypto Cube, a word game by DesignWare. A discussion ensued as to the educational value of word games. Some felt that word games have little educational merit, while others felt that word games help with spelling, and develop strategy and logic skills.

One person pointed out that the form of the word game can make a big difference. Wheel of Fortune is essentially a word game, in a game show format, while Hangman is a word game in a more academic format. In other words, the hi-res animation of Wheel of Fortune can detract from language skill development.

Sue Racoosin, who teaches language arts in middle school, talked about the best sources for purchasing educational software. She pointed out that one of the best catalogs is by Educational Resources. You can get a free catalog by calling 1–800–624–2926.

Long time Pi member Bernie Benson showed off a simple drawing program he created for his three year old daughter. The program uses a mouse, and draws in many different colors. Bernie explained that the program lacks the features of a full paint program, but serves all the needs of a three year old artist.

The meeting ended with a demonstration of Project Zoo, by National Geographic. Bill Wydro showed how this three-disk simulation program can be used by children in different grades. The object of one of the games is to build a zoo, complete with restrooms, restaurant, and parking lot. The game gives you points, according to the astuteness of your design.

The next EdSIG meetings will be on Thursday, April 26, and Thursday, May 24. Unless otherwise specified, the meetings take place at the Pi office, starting at 7:30 p.m.

If you plan on attending, bring along some blank floppies, as we usually distribute some public domain programs at each meeting.

EdSIG meetings are open to anyone interested in using computers in education. We tend to have a slight Apple II bias, but welcome Macophiles all the same. For further information, call Phil Shapiro, (202) 686–5465.

HyperTALK SIG

by David Mudd

The HyperTALK SIG meets the third Wednesday each month at 7:30 p.m. at the Fairlington Community Center, 3300 South Stafford St., Arlington, VA. To reach the meeting, take I-395 to the Shirlington/ Quaker Lane exit. Follow Quaker Lane up the hill, one block past the traffic light turn right onto 33rd St, which will take you one block to the center.

As many of you know HyperCard is a program that is bundled by Apple with every Macintosh sold. It is a truly unique program that changes the way you look at information. The program is many different things to many different people. By using HyperTalk, HyperCard's English-like scripting language the non-programmer and programmer alike are able to fashion custom designed, interactive applications.

Each month a small but growing group of very congenial people meet to explore and learn more about using HyperTalk. The meetings are structured to accommodate various levels of user proficiency, from novice to advanced. Bring your questions, problems and expertise with you.

Our March meeting began with a round of Q & A followed by the featured presentation given by group member Mike Rasberry on "CompileIt v. 1.5" the HyperTalk compiler. This upgraded version is faster and offers nearly complete support of the Mac toolbox routines. It also comes with several useful utilities; a stack that will automatically compile several scripts as well as some debugging utilities.

We then took a look at a stack created by one of our attendees that was designed to generate knitting instructions from patterns created in HyperCard and vice versa. It was quite interesting and another example of the many different ways HyperCard is being used.

WorksSIG

by Chris Bastian

Perhaps it was the changing weather, or exhaustion from walking the aisles of FOSE, but a fairly small group attended the March 21 meeting of the Microsoft Works Special Interest Group. Okay, let's be honest: there were two of us who showed up. Nonetheless, a productive session was held, as we plunged deeply into a newsletter design project. Works can do a fairly good job of laying out newsletter material over several pages, but several rules need to be remembered:

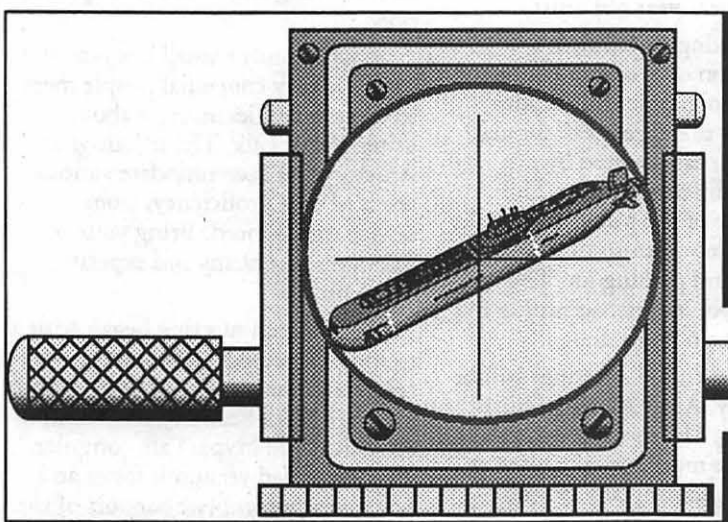
1. Use carriage returns to define as many pages as you'll need. When entering text columns and graphics (in "draw" mode), you cannot scroll past the last point that a carriage return exists in the document.

2. Lay out all your text columns BEFORE entering or pasting text. Once columns have been filled, the time required to refresh the screen after each scroll will increase significantly.

3. Don't forget to hold down the [Option] key when inserting new text columns. This will keep them from disappearing when the next column is added. Use the [Option] key with the arrow to "link" text columns to one another.

4. Put footers (like "continued on page...") in a separate text block, not in the article itself. If you need to make changes in the font selection or size, you won't lose proper positioning of these important notes.

If all goes well, you will be receiving this Journal in the mail the second week of April, so I can tell you that WorkSIG will NOT be meeting the third Wednesday this month as usual, because of a conflicting Board of Directors meeting. Please call me (301/907–8187) for the scheduled meeting time.



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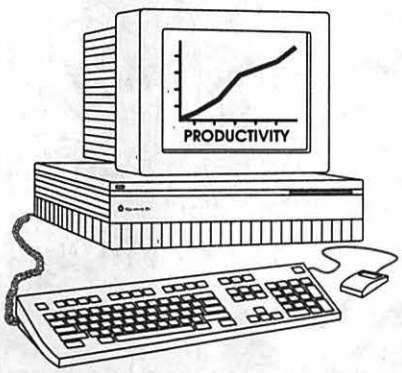

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Artists on exhibit

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.

Art: Scream (below) and Cityscape (opposite)

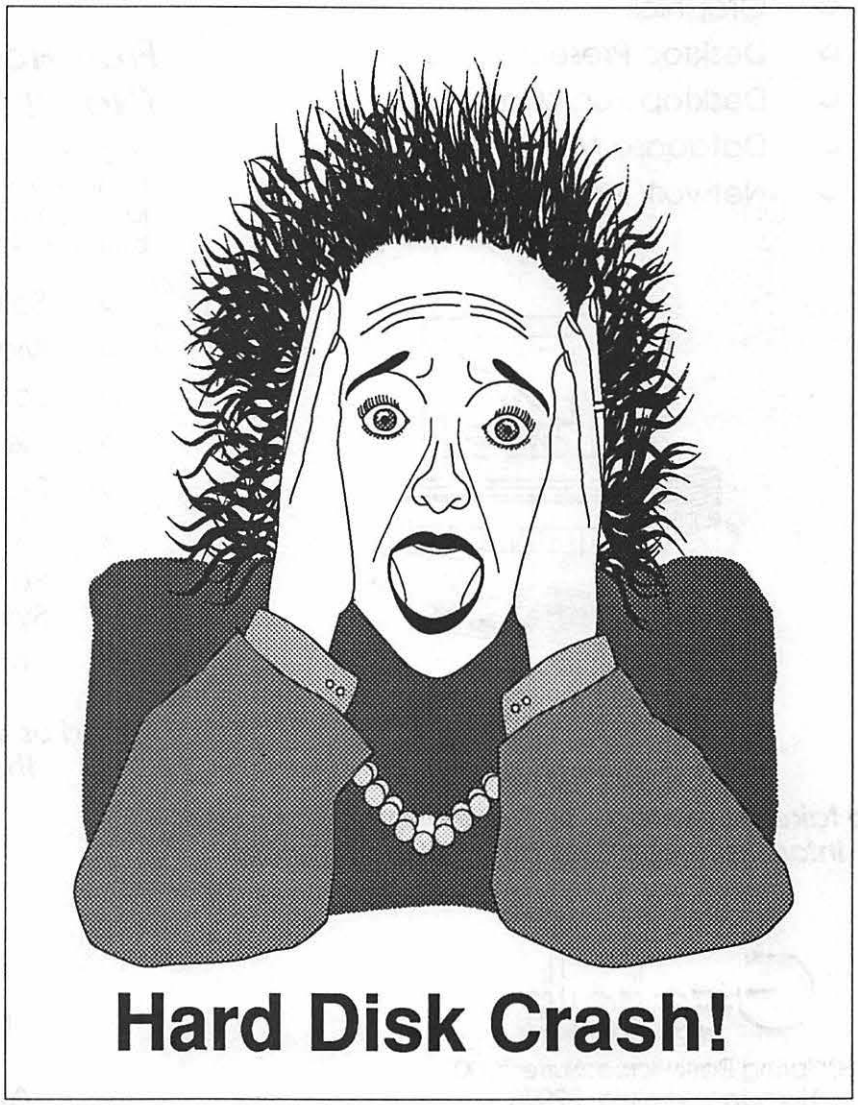
Artist: The art this month was created by Geoff Evans. Geoff is Manager of Laser Publishing Company in Herndon, VA.

How they were done: "The more complicated an image the longer it takes to get a screen image or print and save, so I work with separate elements of different files. I try to perfect each file separately, group and save, then bring all the elements together in a new file. I try to be sure that the image is how I want it, because if I start altering it, that means ungrouping, and disaster may happen. Of course, I will always have the original file to go back to if I mess up. If the various elements need to be scaled to each other, it is faster to work with outlines.

"For Scream, I started with a line drawing of the facial features. The eyes and nose were done by half, then duplicated. The duplicated half was then flipped and mirrored, and the halves were put together. This procedure was also used for the hands, but they were slightly changed so they wouldn't look identical. The body itself is just a screen. The face had to be a white fill so it would sit in front of the body. The hair was done with with three or four different styles of hair, then flipped, rotated and shaded variously until I created a texture good enough to look like hair. The hair was worked on in a separate file, scaled, and pasted it into the final file.

"I planned Cityscape in terms of the parts or elements of the drawing before I began to work on it in Illustrator. I decided which parts to work on together. For instance, the background (sky, moon, and water) was done in its own file, and I imported it first into the final file as it is the back most layer. The cityscape and clouds came next followed by the tree.

"Just the tree itself is about 200K, so after grouping it I took the draw tool and made an outline of it, grouped that, and imported it into the cityscape. I scaled the outline then took it back to the tree file, fitting the tree into the new outline. Therefore, when I imported the tree into the cityscape it was the correct size. Remember to use Option with the scale tool if you want to scale line widths also.



Scream

Cityscape

"Neither the sky nor the cityscape shows through the gaps in the leaves, because the outline referred to above was painted no stroke, then fill white, pasted in back of the tree and grouped with it before importing it into the final file.

"Often when you paste an object on a filled background, some fill will bleed through spoiling the image. To solve this, take the image which will be on top, group and copy it, then select paste in back and without selecting anything else hit command-I, then fill white, no stroke. After this, deselect what you were copying then reselect it, and group. (You can't see what's behind, because it's exactly behind.) Test your results by putting a filled rectangle behind it and do a control-Y."

Tools: "Adobe Illustrator 1.83. (Although 1.93 is a bit faster I had frequent crashes. This may be peculiar to my system configuration however.) Mac Pluses were used with 2.5 Meg each. The drawings were printed with a LaserWriter using one of our 'Publisher' toner cartridges."

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

Please include a disk and hard copy. The disk will be returned to you.

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 6

by Jim Donnelly

Even Adobe Nods—Twice

In last month's issue, I mentioned J. Ben Lieberman's claim that for many years more than half of all advertisements in the American press were set in one or another of the 150 or so typefaces designed by Frederic Goudy, and I expressed skepticism—not because the idea is inherently unlikely, but because I found it hard to believe that anyone, particularly during the era in question, would or could have kept such records.

Two or three days after I sent that article off to WAP, the winter 1990 edition of Adobe's *Font & Function* appeared in the mail, and it outliebermans Lieberman on this point. It seems to be claiming that more than half of all U.S. ads were once set in Goudy Extra Bold *alone* (reluctantly adding that it may have had some help from Goudy Heavyface). That's even harder to swallow.

But most unpalatable of all is the way Adobe describes Goudy Extra Bold: it was "designed by Morris Benton and named after Frederic Goudy." NAMED after Frederic Goudy? It was drawn for the express purpose of serving as a member of the Goudy Old Style family. The forms of the letters are obviously heavier versions of the characters of the original font—so much so that we're probably not supposed to realize that they were not drawn by Goudy himself. Named after Frederic Goudy! Harrumpf.

Backing Up for a Running Start

In the Journal for November 1989, I wrote that a great typeface for book work must retire to the background and become, so to speak, invisible, and that a great display face must at least not be a constant irritant. I later revised that opinion (and that sentence) but I missed the deadline and my revision never made it into print. I had wanted to add: "must not be a constant irritant... unless its purpose is to be an irritant." I thought this clause needed to be added, because I had suddenly remembered about the world's most horrible typeface.

It's a horrible type, but not necessarily a bad one. Indeed, for certain purposes it is probably the best possible choice, and in the right context its effect can be... well, shattering. If, for instance, you were designing a magazine spread for an article entitled STRESS, I don't know what other face you could consider using.

No, it isn't bad; it is merely an atrocity. It's the only type I know of that can induce migraine or throw the digestive process into reverse. I'm aware of it only as a dry-transfer sheet from Letraset. Though Letraset is currently in the process of converting lots of its enormous library of dry-transfer materials to PostScript fonts, I've been watching the ads and I don't think they've yet worked up the courage to tackle this one. It's called Shatter, and it looks a lot like this:

SHATTER

Shatter seems to be a slightly skewed Helvetica clone on which a mad scientist has performed unholy experiments, the mad scientist in this instance being Vic Carless, who did this wicked thing in 1973. In the course of drawing this sample, I formed the theory that this face owes its terribly disorienting tension largely to the fact that the successive "pieces" of each letter move downward from left to right, but the letters themselves are skewed so that the strokes that would normally be horizontal actually slant upward from left to right. The font is thus an exercise in constant frustration. I can't think about it any more, and if you can view it with equanimity all that means is that I've drawn it poorly. It's a horrible typeface, but a very good one.

The Greatest Display on Earth

Opening these pages up to a consideration of display faces by introducing Shatter is a fairly gruesome thing to do, but it underscores in a memorable way Lieberman's basic division of typefaces into Standard Faces and Special Faces.

"Standard Faces," such as Times and Baskerville and Garamond, can certainly be used as display faces, and the usual effect of using them at large sizes in headlines is to lend an air of—not exactly stodginess—dignity would be a better term. They do have connotations, of course, but they do not bellow these connotations at the reader. Garamond, for example, very distinctly alludes to sixteenth-century France, but it whispers this to us while it concentrates on getting its literal message across.

But the "Special Faces" are used exclusively as display faces. Their very purpose is to call attention to themselves, to outdo the competition in grabbing hold of our wandering eyes; and they are usually much less reticent about imprinting their own special connotations on our minds along with the literal messages that they deliver.

Lieberman's book, *Type and Typefaces,* has been cited many times in this series, though on three or four occasions I've questioned some of his statements (e.g., his contention that the Caslon foundry went out of business early in the nineteenth century, which seems demonstrably false). But he makes the whole history of type and printing enormously entertaining. Interestingly, the manual to Fontographer v3.0 includes a short annotated bibliography of typographical works by David S. Rose, who says that if you like "unabashed boosterism" you may find Lieberman fun to read,

despite his inaccuracies. Rose tells us that Lieberman was an enthusiastic amateur printer, but he was much more than that: a Phi Beta Kappa at Illinois, he earned a political science doctorate from Stanford and became a professor at Berkeley and Columbia; he was founder and first president of both the Goudy Society and the American Printing History Association.

Rose is right on the mark, however, when he calls Lieberman enthusiastic. His taxonomy of type, which he called The Typorama and which I've mentioned before, is obviously the work of an enthusiast. Starting with the primary division into Standard and Special Faces, he sorts out all typefaces (and all foreseeable typefaces) into nine categories, 30 classes and 125 styles. Special Faces, for example, include 6 categories, and the category "Adapteds" has four classes. One of these, "Decoratives," has four sub-classes, and one of *these,* "Enhanced," has five styles: Embellished, Filigreed, Floriated, Foliated and Ornamented. This is clearly the work of a dedicated mind; perhaps a bit abnormal, but dedicated.

Shatter, the first Special Face I've mentioned here, tests The Typorama to its limits, but Lieberman has thoughtfully provided the category "Adapteds" with a class called "Constructs"; this class is reserved for fonts that are assembled out of bits and pieces. It seems that Lieberman didn't quite foresee anything exactly like Shatter, but his schema can find room for it readily enough.

As a test of the connotative powers of type, and especially of the "Special Faces," look, just for fun, at Exercise 1. There are no right and wrong answers, but I'd be willing to bet that you will deal with it in the same way that I do. We've all been subjected to the same messages from these fonts, and their associative powers are very strong.

Calling Them As I See Them

You'd probably expect to see the title of **Book 1** set in Playbill, Font E. Playbill is a reversed slab serif (with the serifs actually heavier than the main strokes). Fonts like this are based on early 18th-century French

Exercise 1

The typefaces used for five book jackets somehow got scrambled. Match the five (imaginary) titles shown here with the typeface best suited to the probable contents of each book.

There are no right or wrong answers, but you'll probably feel that one of these fonts fits each topic better than the other fonts do.

Book		Font
1	I RODE WITH JESSE JAMES	A
2	Charlie Lucky Luciano	B
3	BUD ABBOTT & LOU COSTELLO	C
4	William Randolph Hearst	D
5	COLLECTED WORKS OF AUBREY BEARDSLEY	E

and Italian models, and they've acquired some typical uses in this country. Names such as P. T. Barnum and Showboat, as well as Playbill, are indicative of one of the purposes that these fonts are made to serve. A second typical use of the reversed slab serifs can be deduced from names such as Cottonwood and Ponderosa (two new fonts from Adobe) and Branding Iron. Nineteenth century American printers west of the Mississippi must have had huge quantities of these types in stock, if we are to believe what Hollywood has always shown us. These were the typefaces used on every "Wanted" poster that John Ford ever let us look at.

Book 2 is a tough call, but Font C should win by a process of elimination. It isn't inconsistent with the book's title, though it doesn't seem to have much direct bearing on it. This is a Compugraphic face called Nashville, for reasons that I hope were playful. It's a typical boldface slab serif, a clone of Memphis, but the Memphis in question was in Egypt, not Tennessee. Lieberman is careful to distinguish the slab serifs from the early 19th century types called Egyptians. (Why these particular faces were called Egyptians isn't clear; it may merely be due to the fact that Egypt was "in" at the time, no doubt because of Napoleon's activities there.) But the slab serifs do have names like Karnak and Scarab in addition to Memphis, so their designers presumably considered them Egyptians. Although slab serifs fit into The Typorama as Standard Faces, their extra bold versions are pretty forceful. One such font, for instance, is fittingly called Girder. A slab serif of which I forget the name—if I ever knew it—used to be used on the cover of Playboy. So I think that of the fonts shown in Exercise 1, this one best befits Don Salvatore Luciano (though Nashville is a dumb name for it).

Book 3 is easy. There's little doubt that it was meant to be set in Font A, Dom Casual Bold, designed by Peter Dom in 1953. Here we run up against another questionable pronouncement from Lieberman: on page 106 he tells us that Dom Casual was the first cold-type face to be put into hot metal, and on page 119 he tells us that Souvenir was the first fully successful cold-type family to be put into hot metal. It seems either that he forgot what he had written on page 106, or he thinks that Dom Casual is not a fully successful family (which it is). Either interpretation might trouble a writer less exuberant than Lieberman.

For **Book 4**, I would choose Font B, Morris Benton's Cloister Black. Though the first-time printing customer ALWAYS asks for an Old English (or blackletter) typeface, I suspect that's because Old English may be the only style of type that he or she can identify with any confidence. But the real usefulness of these faces is very severely limited. They're still okay for certain kinds of invitations and programs, and they're probably expected on diplomas and other certificates, but other than that they have just one common function: they are traditionally used for newspapers, though not nearly so universally as they once were. The (imaginary) book in the exercise probably has something to say about newspapers.

That leaves Font D to go with **Book 5**, and that should have been an easy one, too. Beardsley was the best-known illustrator of the Art-Nouveau period, and this typeface screams "Art Nouveau!" It's called Bocklin, sometimes Arnold Bocklin, but I have no idea who designed it, or who, if anybody, Arnold may have been.

If your selections differ from mine, well, that's part of the fun. Just be very careful about where you use the blackletter faces; if you splatter them all over, you may well produce some interesting effects, but the snobs will titter in unison and the chances are very good that they'll be right.

A Community Outreach Program

As American as Apple Pi

by Phil Shapiro

About two years ago I had a chance to do some volunteering in the District of Columbia public schools. I was curious to see how microcomputers were being incorporated into the curriculum, so I paid a visit to an elementary school not far from the downtown business district.

As I walked into a third grade classroom, I noticed two Apple IIcs sitting on a table over to one side. Neither of them looked as if they had been used much, and one of them had a full quarter inch of dust covering it.

I inquired as to whether the dust-laden one was broken, and was told that the computer was "not working." I immediately wondered if the real problem was lack of "technical" knowledge. Sure enough, I found the problem in under two minutes. Someone had turned the brightness control all the way down, so whenever anybody booted any software, all they ever saw was a darkened screen.

It sickened me to think that a $600 piece of hardware had been sitting in a classroom—unused—for such a long period of time. But my dismay was tempered by the enthusiasm the children showed, once the computer was up and running.

The point is that we are living in a world of computer haves, and computer have-nots. There's a sore need for members of the Apple Pi, and other user groups, to share some of their expertise in the larger community we live in.

True, all of us are busy with families and work. But sometimes all it takes is an hour or two a week. And if time is one of your most precious commodities, there are other ways to give too. Hardware and software are always in demand. Older hardware, which may seem antiquated in your own eyes, may be perfectly functional in an educational setting.

If your own kids have outgrown a particular piece of software, what better thing to do than to pass it along to inner city children? Perhaps at the next WAP garage sale, someone could set up a box for such donations.

Two weeks ago I started volunteering at an interesting tutorial program set up by the John Wesley AME Zion Church in Washington. The church set up an after school tutorial program for children with working parents. The kids come to a church-owned town house and spend time doing their homework and working with computers.

Currently the tutorial program has one Apple IIGS, three Apple II+'s, and two IBM compatibles. One of the Apple II+'s was generously donated by Pi member Bill Hark. The other two Apple II+'s are on loan from another member of the Pi.

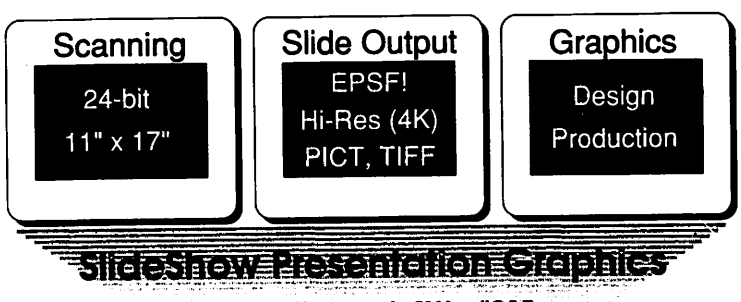
Few of the children attending the after school tutorial program have computers at their homes. And those that do use computers at their school are given no more than an hour or two of computer time each week. The afterschool tutorial program is being coordinated by church member Corliss Grimes. If you have some time or tangibles to donate, you can reach her at: (202) 544-7813 (home) or (202) 724-8728 (work).

Other community projects are also in full swing. Pi member Frank Koczot has been working to get hardware and software for ailing children at the National Institutes of Health in Bethesda. Frank's vision is to get a small computer lab set up, so in-patient children can spend time occupying their minds with adventure games, puzzles, and other educational activities. It sounds like a fabulous idea, well worth pursuing. If any of you are interested in lending a hand, Frank lives in Wheaton and can be reached at (301) 946-1415 (home).

Another "good works" coordinator is Walter Knorr, who has set up the Micro Mentor project, described in the January 1990 Journal (pages 20, 21). Walter's goal is to link up those with skills and tangibles to offer with those who have particular needs. To further this goal, Walter has put together an impressive little newsletter. Walter can be reached at Treetop Publishing, (703) 264-7787.

Also, if anyone wants to chat about giving time and tangibles to the community, my own phone number is (202) 686-5465 (home/office). I'd be happy to talk with anyone with other ideas for community outreach projects.

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



New frontiers

Pachydermic Personnel Predicting

by Peter C. Olsen

A bold new proposal for matching high-technology people and professions

Over the years, the problem of finding the right person for the right job has consumed thousands of worker-years of research and millions of dollars in funding. This is particularly true for high-technology organizations where talent is scarce and expensive. Recently, however, years of detailed study by the finest minds in the field of psychoindustrial interpersonnel optimization have resulted in the development of a simple and foolproof test to determine the best match between personality and profession. Now, at last, people can be infallibly assigned to the jobs for which they are truly best suited.

The procedure is simple: Each subject is sent to Africa to hunt elephants. The subsequent elephant-hunting behavior is then categorized by comparison to the classification rules outlined below. The subject should be assigned to the general job classification that best matches the observed behavior.

Classification Guidelines

Mathematicians hunt elephants by going to Africa, throwing out everything that is not an elephant, and catching one of whatever is left. Experienced mathematicians will attempt to prove the existence of at least one unique elephant before proceeding to step 1 as a subordinate excercise. Professors of mathematics will prove the existence of at least one unique elephant and then leave the detection and capture of an actual elephant as an excercise for their graduate students.

Computer scientists hunt elephants by excercising Algorithm A:

1. Go to Africa.

2. Start at the Cape of Good Hope.

3. Work northward in an orderly manner, traversing the continent alternately east and west.

4. During each traverse pass,

a. Catch each animal seen .

b. Compare each animal caught to a known elephant.

c. Stop when a match is detected.

Experienced computer programmers modify Algorithm A by placing a known elephant in Cairo to ensure that the algorithm will terminate. Assembly language programmers prefer to execute Algorithm A on their hands and knees.

Engineers hunt elephants by going to Africa, catching gray animals at random, and stopping when any one of them weighs within plus or minus 15 percent of any previously observed elephant.

Economists don't hunt elephants, but they believe that if elephants are paid enough, they will hunt themselves.

Statisticians hunt the first animal they see N times and call it an elephant.

Consultants don't hunt elephants, and many have never hunted anything at all, but they can be hired by the hour to advise those people who do. Operations research consultants can also measure the correlation of hat size and bullet color to the efficiency of elephant-hunting strategies, if someone else will only identify the elephants.

Politicians don't hunt elephants, but they will share the elephants you catch with the people who voted for them.

Lawyers don't hunt elephants, but they do follow the herds around arguing about who owns the droppings. Software lawyers will claim that they own an entire herd based on the look and feel of one dropping.

Vice presidents of engineering, research, and development try hard to hunt elephants, but their staffs are designed to prevent it. When the vice president does get to hunt elephants, the staff will try to ensure that all possible elephants are completely prehunted before the vice president sees them. If the vice president does see a nonprehunted elephant, the staff will (1) compliment the vice president's keen eyesight and (2) enlarge itself to prevent any recurrence.

Senior managers set broad elephant-hunting policy based on the assumption that elephants are just like field mice, but with deeper voices.

Quality assurance inspectors ignore the elephants and look for mistakes the other hunters made when they were packing the jeep.

Salespeople don't hunt elephants but spend their time selling elephants they haven't caught, for delivery two days before the season opens. Software salespeople ship the first thing they catch and write up an invoice for an elephant. Hardware salespeople catch rabbits, paint them gray, and sell them as desktop elephants.

Validation

A validation survey was conducted about these rules. Almost all the people surveyed about these rules were valid. A few were invalid, but they expected to recover soon. Based on the survey, a statistical confidence level was determined. Ninety-five percent of the people surveyed have at least 67 percent confidence in statistics.

Acknowledgments

This study has benefited from the suggestions and observations of many people, all of whom would prefer not to be mentioned by name.

(MS found in a bottle, washed up on the Twilight Clone)

On laptops...

by Ralph J. Begleiter

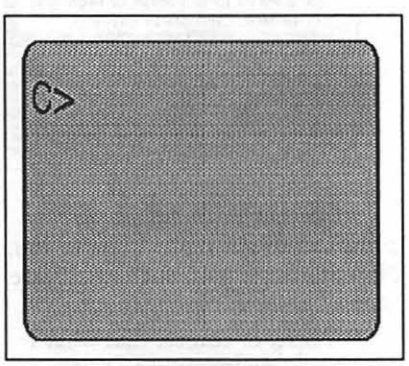
How Sweet It Is!

(apologies to Jackie Gleason)

I've recently had the experience of learning to use a laptop computer, with system software built right into it. No, the laptop isn't a Macintosh. (Can *anyone* really *afford* the laptop Mac, either in terms of dollars or in terms of its non-portability?) The laptop I'm using is based on the well-established and widely used (on IBM machines and their clones) Microsoft system software commonly called "DOS" (which stands for "disk operating system").

This software is *far* more popular than the Macintosh system's. In theory, it's easy to use. After all, the disk and file management software are built right into the machine. No need even to load a disk to get started.

Here's the scenario: Sleek new laptop. Backlit screen. Turn on the power switch... and in a moment...



Oh yeah? What's "C>"?

Welcome to the arcane "command-line interface" system born in the IBM world. Believe me; for a non-computer-hacker, a Macintosh user, there's nothing more intimidating than turning on a laptop, waiting a minute, and then being confronted by a totally BLANK screen, except for the symbols "C>."

It's a far cry from the friendly desktop offered by the Macintosh Finder. There's absolutely *nothing* intuitive or user-friendly about "C>." What does is MEAN? It *stares* at you out of the blue backlit ether, as if *demanding* a response. But WHAT do you type? What *choices* are available to you? How's a body to *know* what to type at the "C>" prompt? What do I do next? Insert a disk? Type a command? What command? What are my choices?

There are *no* pull-down menus. No file lists from which to choose. If you *want* to see a list of files available on the disk, you must (somehow) learn to type (after the "C>" prompt) the phrase "DIR A:" (Don't omit the colon by mistake; the computer won't know what you're telling it to do... and it won't *remind* you, either!) You probably don't want to know what this means, but to give you the flavor of DOS, it means "please show me a directory of all the files on the disk drive which the *computer* refers to as drive 'A'."

(There's no *intuitive* way to know *which* drive is "A," by the way. It's just another one of those mysteries of DOS which users must learn. For some strange reason, the internal memory of my laptop is known to itself as drive C. The floppy disk drive is considered drive A or B, depending on how many disks you're working with [!] and the extension memory cards are known as drive D. Go figure! To be fair, DOS users who've been familiar with the system for years insist there's logic to this, and when they *explain* its origins, it *does* make sense. But it's definitely *not* intuitive.)

The "DIR A:" command will rapidly scroll a list of all files onto your screen. If the file list is too long to fit on the screen, the top of it will disappear off the top of the screen in an instant. No, you can't scroll back to read it! It's a useless command if you're working with a lot of files and a small screen.

If you want to see *all* of your files on the screen, you must type "DIR A:/W" (which stands for "wide" display of the list). Now, in all likelihood, all the files *will* fit on a single screen.

However, you *still* can't exercise any choices. The list is simply there to *look* at. You can't move your cursor over a file name and "select" it (as you can with the Mac).

To *open* a file, you've got to *know* in advance which computer *program* created it. Then you've got to "open" that program. Then, *from within the program,* you must remember the *exact* spelling and syntax of the filename and enter another command to open that file. (In the DOS world, files may have names limited to just eight characters, plus a three-character "extension" which must be preceded by a period. So file names can't be very descriptive or intuitive. And the filenames are bizarre. Some of them, for example, must end with ".BAT" which has some significance to the DOS system.)

By the way, if you type anything *incorrectly,* the DOS system offers you the unhelpful advisory "filename not found," or "bad argument" (whatever *that* means!). It's not very forgiving.

I actually spent two hours one night simply copying the contents of one disk onto a blank one. (This involved "formatting" the disk and copying contents.) The computer doesn't automatically ask you if you want to "format" when a blank disk is inserted. And when you finally *do* discover the exact spelling and syntax of the FORMAT command, it doesn't automatically prompt you through the process. You must enter a different, syntactically complicated command (something like "FORMAT A:/3") for different kinds of formats. Same thing for copying files from one disk to another. You've got to *type in* the names of *each* of the files you want to copy, one-at-a-time, unless you want to copy *all* files on the disk, or unless the *group* of files you want to copy all have

identical characters in their names.

Contrast that to the sheer simplicity and intuitive process (with which even MacNovices are familiar) of "dragging" files graphically from one Macintosh disk to another (regardless of how their names are spelled), or to the automatic and fully-prompted process of "initializing" a blank Macintosh disk.

Now being indoctrinated to the DOS system (because of my exposure to the laptop, I'm rediscovering the beauty of the Macintosh "Finder" or other graphical & menu-driven user interfaces. Choices are available for you. You don't have to recall them. Filename lists are presented to you from which you may take direct action (such as opening a file). And, best of all, *you need not know in advance which program created a document in order to open it.* You may usually simply double-click on a file name and the Mac will automatically *find* and run the appropriate program.

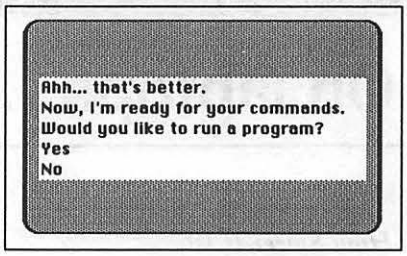
In the DOS world , there has *got* to be some way of making the options intuitively known to the user. Even without a graphical interface (which DOS systems are increasingly coming to imitate), it should be possible to take a lot of the mystery out of running a DOS computer.

A DOS fantasy...

Surely the gurus of the IBM and UNIX world (which use similar "command-line interfaces") are smart enough to direct the computer to start up with a nice, friendly message such as: "Hello. Just a minute, please, while the computer starts up. Please wait..."

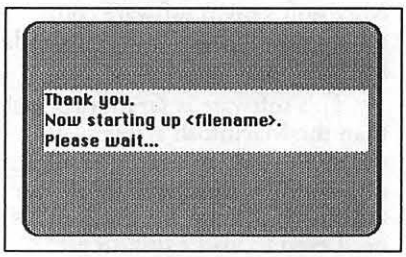
The next item on the screen might be: "Ahh... that's better. Now, I'm ready for your commands. Would you like to run a program? (Yes/No) [NOT "Y/N" but "Yes/No" - make it *intuitive!*]

A DOS fantasy...

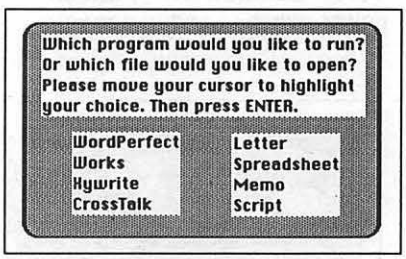


If the user types "Yes," the computer might ask: "Which program would you like to run? Or which file would you like to open? Please move your cursor to highlight your choice. Then press ENTER." The computer would present a list of possible choices, from which the user might choose by moving the cursor.

A DOS fantasy...



A DOS fantasy...



After making a choice, the computer might reply: "Thank you. Now starting up <filename>. Please wait..."

I realize, of course, that what I am suggesting involves a DOS overhaul. But, you can see that it would *not* necessarily involve going *all* the way to the graphic interface of the Macintosh. (That would be ideal, of course, but impractical in the SHORT term.)

I'm convinced it can be done with some simple thought to who the user is.

In the meantime, it's always a pleasure to return to the Mac after a session with my DOS laptop!

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Macinations

by Robb Wolov

War and Rumors of War...

By the time you read this column, (I keep reminding myself that time warps and editor's deadlines keep me at the keyboard at least a month ahead of when you read these ramblings) the Mac IIfx will already have been released and be possibly old news. It has gone through several name changes from when we first hinted of it almost a year ago: the IIex, the F-19 project, the IIxi and finally the IIfx. Regardless of name, this machine is Apple's response to Steve Jobs' NeXT computer.

In fairness, the Mac IIfx is a tour de force for Apple. It is a box which can be put up against any personal computer, head-to-head with few concessions and no apologies. Some might say that it's even aggressively priced, compared to Apple's previous price/performance levels. But, architecturally NeXT did much of it first and got to market first. For those reasons, some may not be able to resist describing it as a NeXT clone. Apple's latest offering to the engineering, CAD/CAM and complex graphics market has a fast advanced CPU with buss and peripheral control off-loaded and placed on custom DMA (direct memory access) chips as well as advanced RAM caching. It is an advanced beast which at this early stage seems to have walked the thin line between technological advancement and backward software compatibility to the previous Macintosh line. That in itself is no mean feat! (A joke in the industry goes as follows: Q: Why did God only need six days to create the universe? A: He did not have an installed user base!)

The IIfx has many of the features (but not all—no digital signal processor and no optical disk) of the NeXT and bests the NeXT in some areas (there is no ignoring the established software library of the Mac). Comparisons to the black cube have already started—as if NeXT held the technological mantle. And that is the rub! Apple must think so. They devote whole sections in their internal sales literature on how to sell the IIfx specifically against the NeXT (they also deal with the Sun SparcStation which is heady competition indeed). Apple has singled out NeXT for feature to feature comparisons in their literature. NeXT claims to be selling only about 1000 machines per month, yet Apple still seems threatened.

While business is business, personalities are personalities. Needless to say, there has been little love lost between Steve Jobs and John Sculley since John orchestrated Steve's departure from the company he helped found. Apple has sold more than a few computers prompted by the image of a company on the razor's edge of technology—and delivering it. This image was created in part by Jobs himself and it's starting to look as though he is trying to attack Apple on this very point.

It was not lost on the industry press that the Mac IIx was released just three days before the roll-out of the then much discussed but still unseen black cube from NeXT. When the IIx was seen to have only marginal performance gains over the now discontinued Mac II, it prompted comment by some that it had been a spotlight-stealing gesture on Apple's part. The "gesture" was not lost on Jobs. In its initial seven months of availability (to be fair you can't count the previous period of limited school developer availability and pre-release beta software) the NeXT was described by the press and pundits as being the architecture of the 90's. This must have hurt the folks at Cupertino. Stories circulated that a NeXT computer along with a Sun Sparc station could be found on the test bench at the Advanced Technologies division at Apple, the home of the then developing IIfx.

I'm going to stick my neck out and predict that this first hardware volley will be the beginning of a protracted conflict between Apple and NeXT. Jobs looks as though he is primed to slug it out on the technology front with Apple. The NeXT has been criticized for being somewhat underpowered for the software burden it carries. The Unix operating system, tamed with the NeXT-Step interface, is an incredibly flexible and powerful system. But, the 25 MHz 68030 is just a little overburdened. Having had some hands-on experience with the NeXT, I can confirm this impression. Things seem to lag just a fraction of a second behind when you expect them to happen. Users develop a tempo, a rhythm when using their machines, and the NeXT seems just slightly out of synch. But, NeXT seems primed to correct this with a still more powerful version. While Apple is rumored to have a 68040 machine on the drawing boards, for possible release in the last quarter of '90 (What! You thought the IIfx was it?), insiders have already started dropping shoes over a summer release of a 68040 NeXT when Motorola makes the chips more plentiful. For the time being, Apple has seen NeXT's wager and has raised them a bit with the IIfx. I predict that Jobs will try to keep Sculley playing catch-up as far as *releasing* advanced hardware is concerned.

Risc chip (reduced instruction set) controlled color for the NeXT is also rumored to be on the near horizon; the lack of which for now is a big selling point for Apple. NeXT has the *potential* to out-gun Apple's Color QuickDraw. You see, Jobs also owns a company called Pixar, and they own a color graphics language called RenderMan. This is a topic in itself. Suffice it to say that RenderMan is to color graphics *and animation* what PostScript is to text and page layout. While NeXT is being very mum about their Risc chip based color graphics board, they have notified their developers that their time would not be wasted in learning to program in RenderMan.

If you have marveled over the special effects in such Hollywood extravaganzas as "The Abyss" then you have already witnessed the power of RenderMan.

The year ahead may shape up to be a slug-fest where both companies will be pushing the performance and price envelopes. Such machines will most certainly not be for your average user. I do hope that Apple does not lose sight of its stated new commitment to its original users, the ones that made it the corporate giant that it is today. More important for Apple is not who first comes out with a 68040 or Risc based machine, but that an affordable Mac be released to the public.

A Mac as cheap as an MS-DOS clone would make first time users, small business users as well as schools (which are starting to leave aging Apple IIs for MS-DOS machines) have to justify the purchase of the clumsy MS-DOS box rather then the Mac—not the other way around. More Macs in the field would mean more developers attracted to write for this market. More developers mean more competition with better hardware and software. The user comes out ahead on all counts. I hope this is not idle, wishful thinking on my part.

System 6.05...A last hurrah?

I've suggested before in these pages that, in spite of comments by Apple that new operating system releases are only needed to accommodate newly released hardware, everyone should generally upgrade. Except for users of Mac 128s and 512s where System 6.XX is too large, most folks can benefit from the bug fixes. There were two pages of Apple acknowledged fixes going from 6.03 to 6.04.

With the release of the IIfx, System 6.05, possibly the last update before the summer release of System 7, was quickly loaded onto my trusty Mac II. I was a bit surprised to notice that window and screen rewrites seemed a bit faster. My imagination? Upgrading a colleague's Mac Plus from 6.03 to 6.05 brought smiles of joy. Not used to the "rhythm" of his machine I was skeptical at first—he was not. He felt that his machine's screen was perceptibly faster and he was delighted! The new MultiFinder (1.2) is 8K smaller then its predecessor and so far seems a bit less fragile in my setup. Ironically, it seems that just as we are approaching the advent of System 7, Apple seems to be getting the kinks out of System 6.

Until next time...

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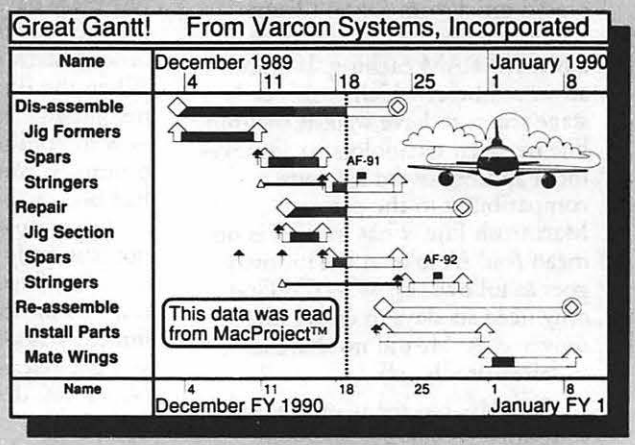

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macGIS Review

by Kim Cimmery

This is the second article reviewing macGIS. Please refer to last month's Washington Apple Pi Journal for the first half.

Last month I introduced you to macGIS and Geographic Information Systems (GIS). I explained that most GIS packages have capabilities to support data entry and edit, analysis, and reporting. Grid-cell GIS packages have very powerful analytical capabilities. I ended with a discussion of using the macGIS Add command to add together four wildlife species high quality habitat maps to generate a composite map reflecting the four habitat areas plus several overlapping ones. The discussion of analytical commands continues this month with more of the arithmetic commands.

Although most of the arithmetic commands look fairly simple, i.e. Add, Multiply, etc. the functions Cover, Minimize, and Maximize may not be clear.

The Cover command acts like a filter or mask. I have used this function to mask out areas that are not of interest or pertinent to a project. For example, you have a data layer that is rectangular in shape. The project area is a watershed which occurs within the data layer. Watersheds have irregular boundaries. One of the data layers must be the watershed boundary. In order to use this layer with the Cover command, every cell within the boundary is coded with a zero and cells outside of the area are coded with a one. When the Cover command is used to generate a display, the watershed boundary map is selected as the first input data layer. Data from subsequent selected data layers will only be displayed (or used) for cells within the watershed boundary (or cells on the first map in the zero category). You have effectively constructed a mask which inhibits the display of data for cells outside of the project area.

The Maximize and Minimize commands work in a similar manner to each other. The output map will contain either the lowest (Minimize) or highest (Maximize) value for each cell from two or more data layers.

There are eight neighborhood commands: Clump, Differentiate, Orient, Radiate, Scan, Score, Smooth, and Spread. Neighborhood commands calculate a new value on an output map as a function of the characteristics of cells adjacent or

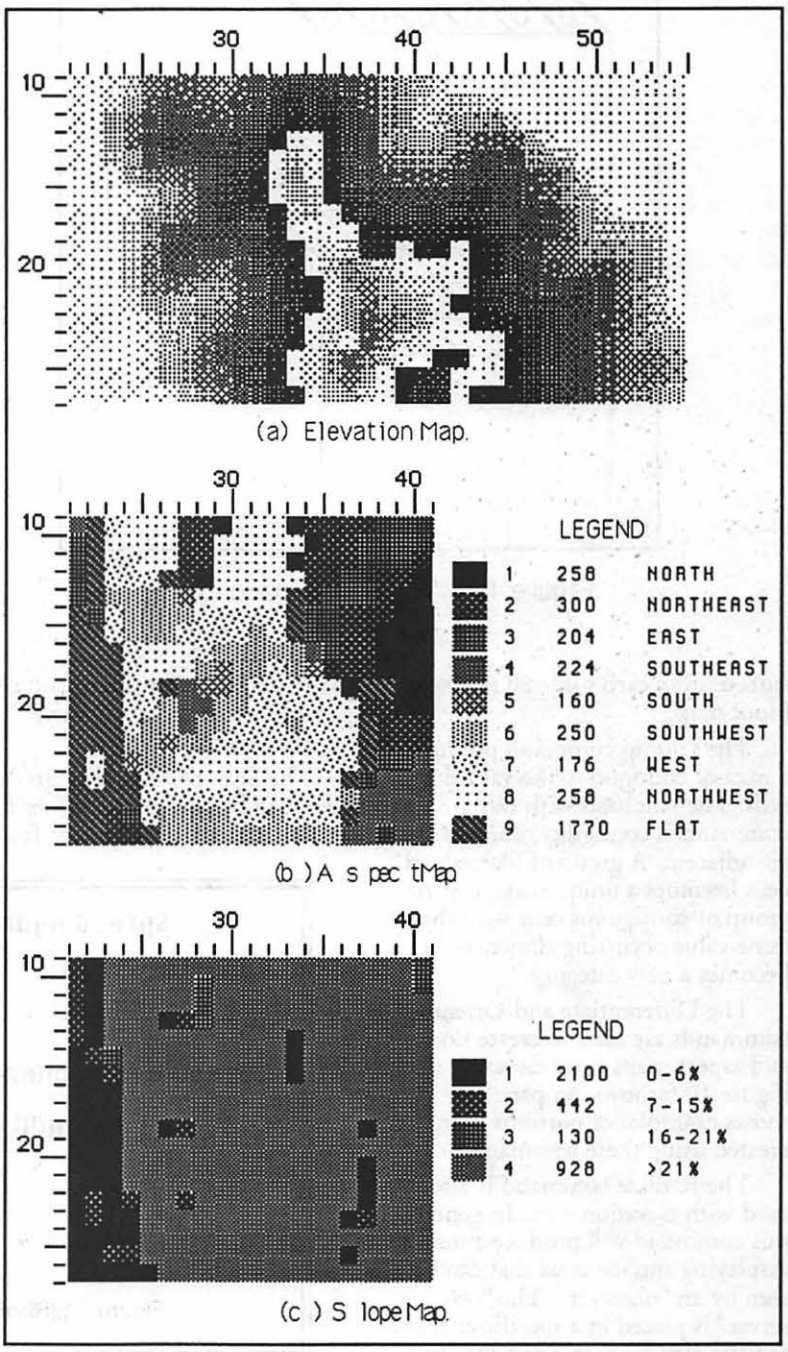

Figure 10. (a) Elevation Map; (b) Slope Map; (c) Aspect Map

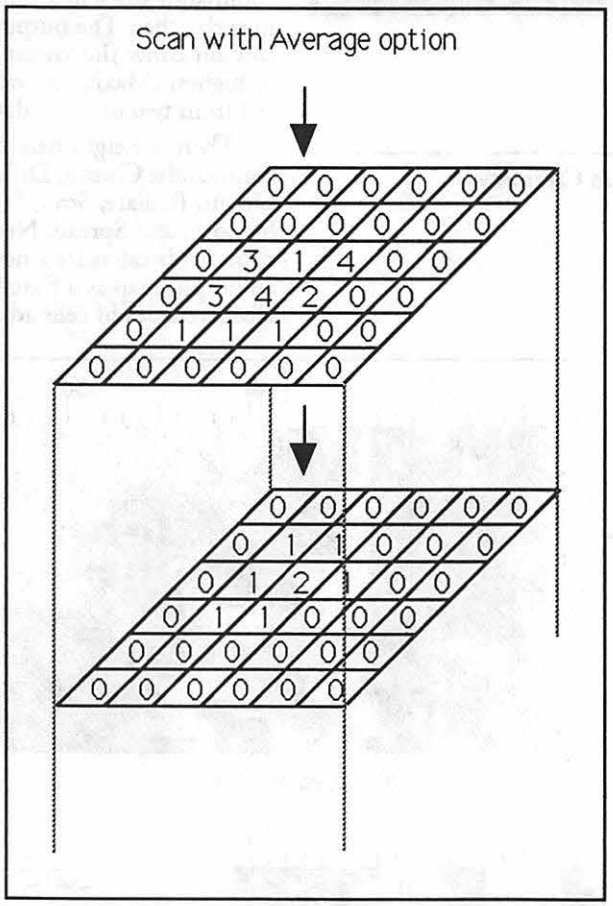

Figure 11. A Scan command example.

surrounding each grid-cell on the input map.

The Clump command produces a map of contiguous like-valued cells. The emphasis with this command is contiguity, i.e. cells that are adjacent. A group of like-valued cells becomes a unique category. A group of contiguous cells with the same value occurring elsewhere becomes a new category.

The Differentiate and Orient commands are used to create slope and aspect maps from elevation data. Figure 10 (ashown on page 25) shows examples of portions of maps created using these commands.

The Radiate command is also used with elevation data. In general, this command will produce a map displaying surface areas that can be seen by an "observer." The "observer" is placed in a specific cell, at a specific elevation, and at a specific height above the ground. Other maps can be used in the analysis to provide screening effects from vegetation or buildings.

The Scan command creates a new map by computing values for grid-cells based on a specific function (e.g. total, average, minimum, maximum, etc.) of their neighborhood. This means that a cell value on a new map is calculated by applying a function, such as average, to all adjacent cells on the old map, and the result of the function, i.e. the average value, becomes the value for the cell on the new map.

The Score command shown below compares the values of the active data layer with those of another data layer on a cell by cell basis. For each category on the active data layer, it summarizes the values of the second data layer which occur over the same set of grid cells. On output, this summary can be presented in cross-tabular form and used to create a new overlay. Output values may be assigned to each region of the first input overlay to indicate the total, average, maximum, minimum, majority, minority, or diversity of its second-overlay values. They may also be assigned to areas defined by particular combinations of input values according to the degree of deviation, proportion, or overlap represented by those combinations.

The Smooth command creates a new data layer by interpolating new non-zero values to be assigned to grid cells containing zeroes on the active data layer. For example, if contour lines have been coded from a U.S. Geological Survey topographic map, the Smooth command could be used to interpolate between the coded contours. The interpolations would be based on grid-cell location. The values (the interpolated contour elevations) would be

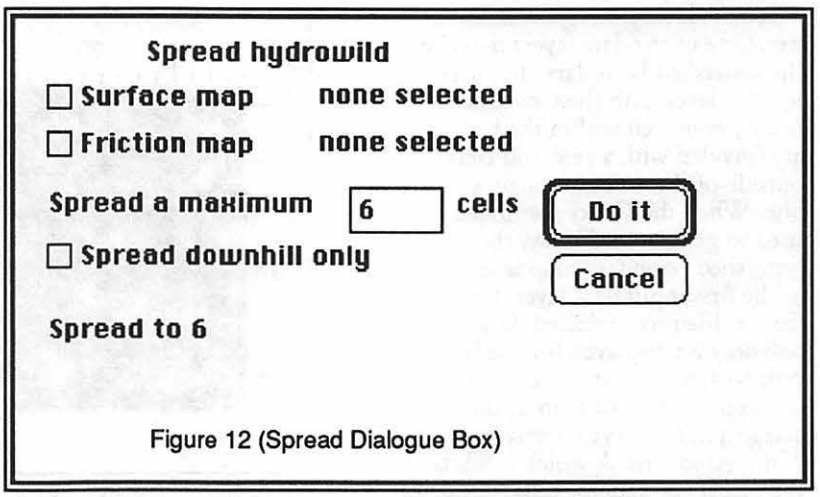

Figure 12 (Spread Dialogue Box)

stored in the cells as the elevation value for the cell.

Spread is used to delineate distance zones from selected cells. Several options can be used with Spread including a surface map such as elevation. If an elevation map is used with a data layer, Spread can be directed downhill or uphill. Here is an example of using the Spread command to delineate a 200' wide buffer strip on either side of a stream.

Figure 12 shows the Spread dialogue box.

Notice that a 6 appears in the box identifying the maximum number of cells to Spread. This illustrates two characteristics of the Spread command. Distance values are provided to the program by identifying cells. Since each cell is a 40' square, the 200' buffer strip will be five cells wide. Actually, the buffer strip will be a total of 400' wide; 200' on either side of the stream. However, Spread will be applied to both sides of the stream so only the distance out from the stream needs to be defined. The number 6 represents the maximum number of cells to spread. The result of applying the Spread command is shown in Figure 13.

Notice that each cell distance out from the stream became a category. I would probably use the Recode command on this map to create a single category called 'Stream Buffer' which would collapse categories 1 through 5 into one.

Reporting

Displaying results from analysis in a grid-cell system is usually the weakest part of the package. The earlier GIS's used line printers for displaying map results. The traditional role of a GIS package is to support management decisions based on the spatial analysis of natural and cultural resource data. Line-printer generated maps tend to have a staircase appearance for displaying boundaries between categories of map information. This causes attention to focus on display characteristics rather than analysis results. This is a problem with grid-cell or raster systems unless the grid-cell size is extremely small. macGIS, being a raster system, suffers from this negative characteristic. However, the problem is somewhat lessened by using very small cell sizes which are possible and feasible with today's low-cost computer memories and large mass storage devices. For the most part, line-printer generated maps were made using alpha-numeric characters and symbols for attribute displays. Dot matrix printers can easily produce visually pleasing patterns.

Hardcopy map generation in macGIS is not very powerful. You have seen some examples of macGIS maps in Figures 5 through 8 and 13. From an analysis perspective, these are perfectly acceptable. Often, however, the need exists to prepare a map that is more visually attractive.

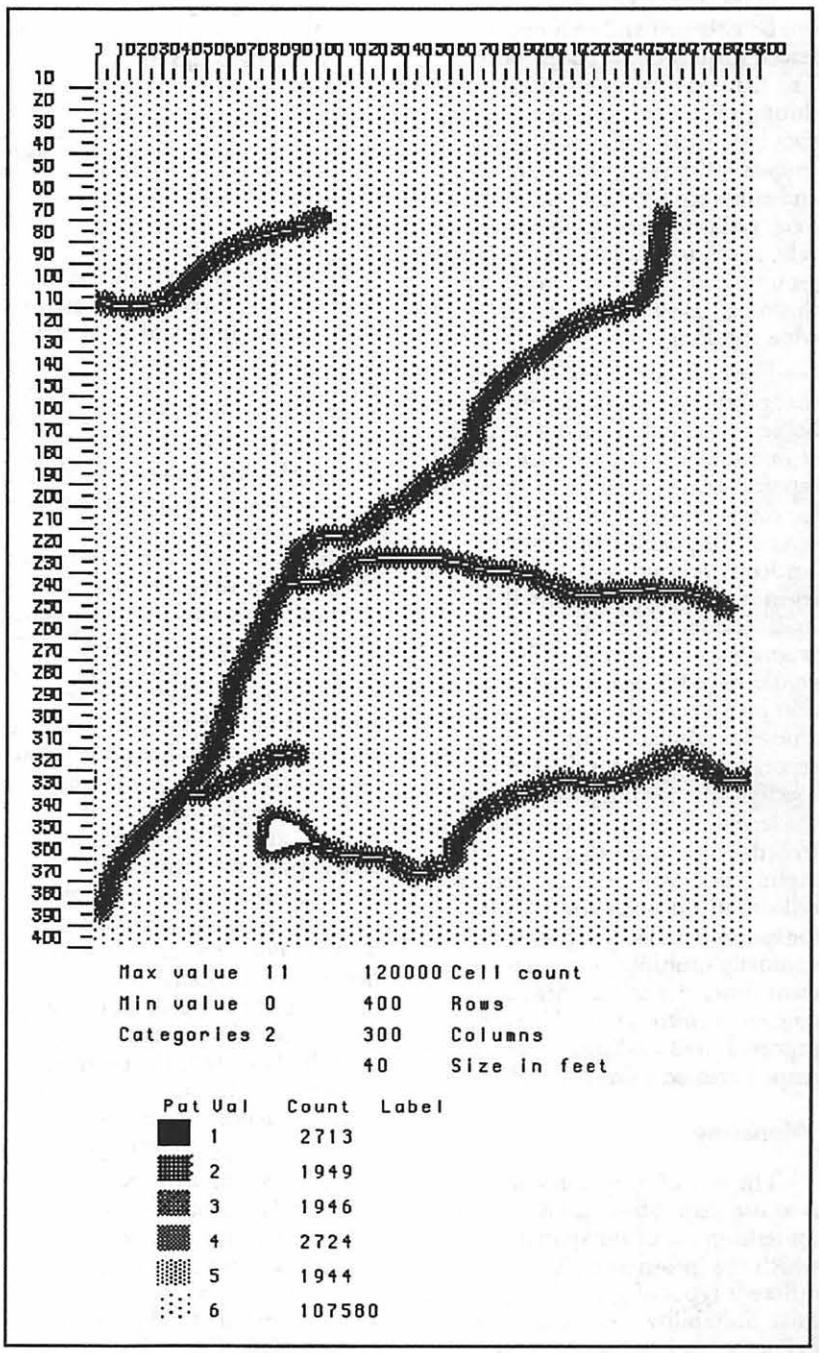

Figure 13. Stream buffer map.

macGIS can save data and analysis maps in PICT format. This allows the user to import the file into Macintosh graphic programs like MacDraw, MacPaint, and SuperPaint. Figure 9 is an example of a map that can be produced when you export a macGIS map as a PICT file and import the PICT file into SuperPaint for generating a final version.

Maps displayed using macGIS can be enlarged and reduced for screen display or hardcopy output. The maps shown in Figures 5 through 9 are reduced in scale. The data base these maps were generated from is 400 rows by 300 columns and contains 120,000 grid cells. Each cell is 40 feet by 40 feet on a side. A cell is equal to .0367 acres of ground area. A full-size map from this data base would be several panels wide and long.

The only command in macGIS that produces non-map output is the Score command. This is a weakness. It would be nice to produce tabular reports listing category information for single as well as multiple data layers. It is possible to produce hardcopy outputs of data layer legends without producing the map itself. It does not come out in a report format, however. The user would have to re-enter the information into a text file in order to create an useful tabular report. Another reporting weakness is the inability to specify units for the count column in the legend. The count units are cells. In order to convert that to a meaningful value, you must calculate your cell size in the units you want to use, for example acres. Then you can manually multiply your acre coefficient times the cell counts and convert then to acres. This is the process I used to display acres on the maps I created using SuperPaint.

Modeling

The role of geographic modeling is to use map information to learn something about the spatial area to which the information applies. Many different types of geographic models exist. Suitability models are used to delineate land and water areas that, based on cultural and/or physical characteristics, are suitable for an activity or land allocations. An activity might be hiking, road construction, boating, etc. Land allocations might include residential, recreation, wildlife habitat, etc. Evaluation models are used to compare alternatives. Subjective weights of perceived value for data categories on cultural and natural resource data layers can be used to evaluate the impact of an activity. For example, suppose that five different routes have been proposed for constructing a transmission line from point A to point B. The proposed routes can be coded up as data layers and combined with other data layers to determine which route will have the lowest level of impact based on the data layer and category weights being used. Another kind of model is the dynamic model. In this model, the GIS is used to project change over time for some action. A good example would be projecting the impact on wildlife populations twenty years from now if a subdivision is constructed today in a forested area. The baseline would be today, prior to construction. The existing vegetation map would be adjusted to a projected map two decades away, by removing vegetation replaced by structures, and changing the age class (and possibly species) based on twenty years of growth. The macGIS commands discussed earlier support these and other modeling approaches.

A model, in macGIS terminology, is a sequence of text-based commands that manipulate maps to generate new information. Text-based modeling commands that can be executed interactively and within a model include the File Menu options New, Open, Close, Save, Save As, Read Commands and Quit and all point, arithmetic, and neighborhood commands. Three ways exist to create models for use with macGIS.

One of the options on the Edit Menu is a toggle for Start/Stop Recording. When Start Recording is toggled, the commands that you execute interactively are recorded in what is called the Command Log window. Figure 14 shows the Command Log window after I opened a map and applied the Recode command to two vegetation cover categories.

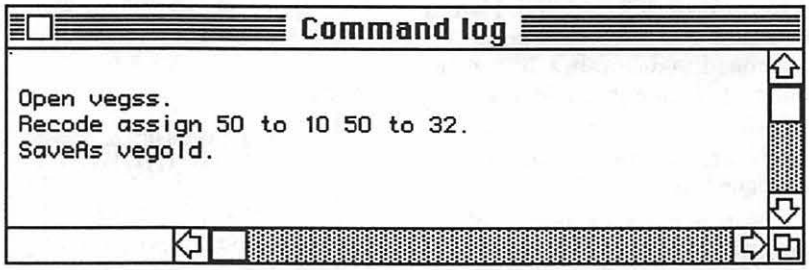

Figure 14. The Command Log window.

After you have executed the sequence of commands that you would like to save for execution on additional maps at a later time, you review the Command Log window contents. You can use standard Macintosh edit commands, for example cut and paste, on the recorded text and make any adjustments you like. Then you can save it as a model by using the Save option on the File Menu.

You can also create a model by typing text commands directly into the Command Log window. When finished, use the Save option and you have created a macGIS model.

A third way is to create the sequence of text commands using a word processor. Save your model using the text-only option. You can access the file using the Read commands option on the File Menu. Figure 15 shows a portion of a model I constructed using WordPerfect.

Discussion

Some hardware and software limitations exist. macGIS temporarily stores the maps on which it is operating in RAM. A Macintosh with 1 MB of RAM will be able to manipulate data layers with up to

```
* Create Deer feed map.
Openvegchbuffmsk.
Recode assign 10 to 1 10 to 1 35 to 33 2 to 5 10 to 75 to 82 to 92
to 1010 to 11 10 to 1210 to 1310 to 1410 to 1510 to 1610 to
1710 to 185 to 192 to 2010 to 2210 to 2310 to 2410 to 2510 to
265 to 272 to 2810 to 295 to 302 to 315 to 3210 to 512 to 5510
to 575 to 582 to 592 to 6010 to 6210 to 6310 to 6510 to 6610 to
7110 to 7210 to 7310 to 7410 to 765 to 785 to 802 to 8210 to
3410 to 35.
SaveAs iwild-cgdrft.
```

Figure 15. A model created with Microsoft Word.

130,000 grid cells, A data layer of this size will take about 260,000 bytes of disk storage. These two limitations mean that the more RAM and the larger the hard disk you have, the greater the number of grid cells that can be effectively analyzed.

Values ranging from -32,768 to +32,767 can be assigned to data layer cells. Only ninety-nine values can be displayed on the screen at one time. The ninety-nine values are displayed using thirty-three patterns repeated three times. Limiting the screen display to ninety-nine values is probably not too significant. The more types of data displayed on a map the more difficult it is for people to interpret its meaning. The limitation on patterns has more potential for being a problem.

None of these hardware and software limitations have presented problems for me yet.

Generating hardcopy output from macGIS does not produce a very pretty map as you have seen. Traditionally, GIS software has had more emphasis on spatial analysis rather than producing pretty output. The capability of exporting a macGIS map as a PICT file, however, and being able to use any of several excellent Macintosh graphics programs to design a nice looking map is powerful. It does, however, take extra time. What I usually do is create a map template and then copy the macGIS map into it and bring the legend information in via a screen capture (when you save a macGIS file as a PICT file, the legend does not get saved and must be saved using shift-puppy dog foot-3).

The authors, Kit Larsen and David Hulse of the University of Oregon, have produced an excellent GIS program for the Macintosh. The analytical capabilities are very good. The user interface allows for users from the novice to the expert to feel comfortable. The expert user will not have to worry too much about how to execute a command or sequence of commands but can start executing models as soon as the data layers have been entered. Rather than spending a lot of time learning about the various commands, the novice will be able to concentrate more on GIS concepts and spatial analysis techniques.

Data entry has always been the most time consuming part in implementing GIS technology. macGIS has streamlined the process somewhat. It would be nice to be able to encode data using the paint bucket. Maybe a future version will support that approach.

In summary, macGIS is suitable for doing effective spatial analysis on the Macintosh. Project areas and cell resolution must be considered when delineating a project area. macGIS is also a good program if you are interested in exploring GIS techniques on your Macintosh. The software comes with a 3600 cell data base containing fifteen data layers ranging from land use to soil erosion.

Availability

macGIS is available from the Department of Landscape Architecture, School of Architecture and Allied Arts, University of Oregon, Eugene, Oregon 97403 or contact David Hulse at (503) 686–3634. The program sells for $300 which includes a program/data diskette and manual. A sample data base is provided consisting of a 3600-cell (one cell equals one hectare) data base with fifteen data layers. Reduced prices are available for Universities and non-profit organizations.

The minimum hardware configuration is a Macintosh with 512 KB of RAM, an 800 KB disk drive, and an ImageWriter printer. One megabyte of RAM and a 20 MB or larger hard disk are recommended.

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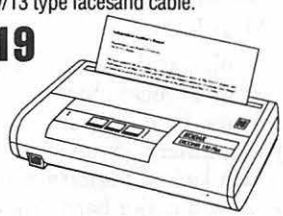

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More Mac Miscellany...

Bits & Bytes

by Lynn R. Trusal

Surprise and Sayonara!

Most of my readers know I am in the U.S. Army and stationed at Ft. Detrick in Frederick, MD. I have been assigned here in two different jobs for 8+ years and it was finally time to move on. I was recently selected for promotion and was offered a new assignment opportunity in Japan. I decided to accept and will be leaving by the 25th of May.

I have enjoyed very much talking with many of you over the past 8 years at WAP monthly meetings or when you called me for Macintosh advice. I want you to know that knowledge is a "two way street" and I often learned new things from you too. My own growth in the computer arena has come over time and with much reading and personal experience. I have attempted to share that knowledge with my readers. As I have often said, what good is knowledge if it isn't shared!

This is not a "swan song" and I will make every attempt to continue the Bits and *Bytes Column* from 7,000 miles away although I may miss several months during the transition period. Yes, I am taking my Macintosh with me (was there any doubt) and mail still does get to and from Japan if somewhat slower (about 7 days).

Even though I am no longer a phone call away, I am still receptive to getting letters addressing questions you may have. I will make every effort to answer them to the best of my knowledge as long as I am not overwhelmed. My new address is at the end of the column, and a first class letter is still only 25¢ thanks to the APO address.

Best of Luck to the Pi

I wish the current leadership of the Pi the best of luck in steering a new course for the future. Remember that any user group is only as good as its members make it and growth of the Pi is dependent on "YOU" the membership being willing to give some of your time as a "VOLUNTEER." Even the huge Bos*ton Computer Society* which is heavily dependent on volunteer help operates its Mac office (13,000+ Mac members) with no more paid staff than WAP has.

The Pi is still not out of the woods yet! Personal egos and agendas must take a back seat to the greater good of the organization. With everyone pulling together, nothing can stop the Pi from becoming a truly great organization again. As the marketplace changes in the coming years, the Pi will also need to change to continue serving its current members' needs. Don't create artificial divisions but instead let the marketplace and the membership roles decide what path to take for the future. Best of luck to all in this endeavor!

An Open Letter to John Sculley

Dear John,

Apple has slipped on its own peel lately! As a stockholder in your company, I am disheartened to see my investment go down the tubes due to a lack of leadership at the top. You have a major hard disk problem on which you have taken the "low road" and now the rats are leaving the ship at an alarming rate including some of the best ones.

I can't help but read about the high salary, huge bonuses, golden parachutes, stock options at below market rates, and home loans you and other "leaders" enjoy. Millions of dollars of salary and bonuses and what do we get as stockholders except a rock bottom price per share?

And besides, what about the millions of Macintosh users who would like to upgrade to a new model or non-Apple owners who would "kill" for a Macintosh but can't afford one. I see them every day at work. Why has the low end of the market been so neglected? Departure of one person doesn't solve a leadership problem. In the military, a Commander is responsible for everything his people do or don't do. You are the commander of Apple and you are ultimately responsible. Get Apple back on track or consider joining the rats leaving the ship! Apple has been through hard times before and it will survive again but it needs better LEADERSHIP and not decisions to buy high priced RAM at a time when prices are dropping.

For those of us who also "bleed six colors" and are now "hemorrhaging a rainbow" we deserve better! How about it?

Sincerely,

A Mac Evangelist

Large Monochrome Monitors

I have wanted a large screen monochrome monitor for some time but was turned off by the high prices and many offerings. Recently more reasonable alternatives have begun to appear. I noticed the Ehman, Cutting Edge, Nutmeg and Mirror Technologies monitors advertised in the Macintosh press.

Ehman is known for its reasonable prices on hard disks and Syquest removable cartridge (44MB) hard disks. A recent article on the company said that they had their sights set on becoming the largest Macintosh peripheral manufacturer. So far their sales have done very well.

The 19 inch Ehman monochrome monitor is 2 page, 72 dpi resolution with a screen refresh rate of 78 Hz. The higher the refresh rate the less screen flicker. A 30 day money back guarantee and a 1 year warranty are standard. The monitor tube itself is made by Hyundai, and you thought they only made Korean cars. It sells for $899 (minus $40 for WAP members) and includes a 1-bit (b&w) video card, cable, tilt swivel and Stepping Out II software. For the Mac Plus or SE installation a $25 dealer installation coupon is included, but dealer installation should not be necessary for the Mac II. Expect to pay $25 to $50 if a dealer installs the card for you.

I was surprised to learn that the Cutting Edge 19 inch monochrome monitor I have seen advertised is the same one as the Ehman except you may pay more for Cutting Edge ($1,495) since Ehman ships direct and avoids retail prices.

The Nutmeg monitor has the same specs as Ehman and also includes Stepping Out II, a video card and stand but retails for $1,195. It may very well be the same Hyundai monitor but I do not know that for a fact.

InfoWorld rated the Ehman monitor a 6.1 out of 10.0 with a "very good" for value, "good" workmanship, "satisfactory" technical support, "very good" setup, "good" documentation, and "satisfactory" image definition. They said the image quality was acceptable but did have some pin cushioning and focus problems at the periphery of the monitor. They did consider it a good value for the money.

Just recently, Mir*ror Technologies* began to offer a 19 inch PixelView two-page monochrome display for the Mac listing for $897 with an additional $30 for UPS ground shipping. The Mirror Technologies monitor is made by Samsung (also Korean) and offers the same resolution and screen refresh rate as the Ehman. Its major advantage is in the software which comes with most of the Radius special features. These include: both screens active, cursor sizing, pop-up and tear-off menus, and a screen saver. In addition a screen copy capability is added along with an anti-glare filter and a 1-bit (b&w) video card. The monitor comes with a 30 day money back guarantee and a 1 year warranty. Mirror Technologies also offers a 15 inch full-page portrait display for $667 with a "flat screen" design not found in the 19 inch model. It is probably comparable to the Ehman in overall quality.

If you always wanted a two-page display, check out either the Ehman or Mirror Technologies. Remember these are monochrome monitors and are not capable of displaying gray scale.

I will let you know what my experiences are with the one I decide to purchase in a later column.

FedForms are Shipping!

Some of you may be familiar with *Federal Clip Art* designed and marketed by One Mile Up, Inc. of Annandale, VA. It was reviewed several months ago in the WAP Journal and I also wrote about the new company in the *Computer Digest*. Now, one of the founders (Bob Fimiani) of One Mile Up, Inc., and a long time WAP member, has founded a new company called FedSoft, located in Springfield, VA. FedSoft designs and markets federal government forms which can be filled out on screen and then printed.

At the current time, an Army and Navy package is being sold but civilian, Air Force and NASA versions are planned. Each package contains over 70 pages of forms which accounts for about 40 total forms. Each of the two packages includes Department of Defense (DD), Standard Forms (SF), several OF forms and a number of either Army (DA) or Navy (NAV) forms. All the forms are high quality encapsulated PostScript (EPS) designed using Aldus Freehand with Adobe's TrueForms used for tabbing between fields.

I think some of the forms are even better than the originals. The applications include a Run Time (fill out) version of Adobe TrueForms, Times and Helvetica fonts in 5-9 point sizes to improve on-screen resolution, and even an OCR-A font for use with the government Message Form DD 173–3. The retail price of each package is $349 but is selling to the government for $298.

I have seen LaserWriter printouts of the forms and they are of excellent quality and very easy to fill out using TrueForms capabilities. You do not need to have TrueForms itself to use the FedForms. The address and telephone number of FedSoft is 5947 Atteentee Road, Springfield, VA 22150, (703) 644–6365 should you desire additional information.

Tips

1. Many software applications permit multiple documents to be open at the same time. Word, Excel, and Cricket Graph are several examples. Other programs such as PageMaker, Double Helix and Pixel Paint do not. What do you do when you need to access two documents in a program that only permits one open at a time? For users who make regular use of Multifinder, have at least 2–4 MB of RAM and excess hard disk space there is an easy solution. For example with PageMaker click on the PageMaker icon once and duplicate it with "Command D." This will name it "Copy of" but you can rename either icon anything you want as long as they are different names. For instance, PageMaker 1 and PageMaker 2. Now open both PM 1 and PM 2 under Multifinder and open a different document within each one. You now have two different files open under PageMaker and you can cut and paste between them using Multifinder. This solution is hardware and software dependent and will not work for Macs which do not have adequate memory to run Multifinder.

Real Bits

1. Falcon MicroSystems has been given a new 3 year GSA contract to be Apple's GSA supplier to the federal government. Until now, Falcon worked with a "yearly" contract and several years ago was on shaky ground for continuation of the contract. Apparently Apple feels revenue growth, which has been doubling yearly, has been satisfactory and that any change would bring too long a "learning curve" to change vendors now.

2. Today, I received Macin*tosh News* and *MacWeek* and happened to notice similar adds from the same company for 1 MB SIMMs. The company was the "Chip Merchant" and the *MacWeek* add said $67 for 80 ns SIMMs while the *Macintosh News* add said $99 for 100 ns SIMMs. These are probably lower now. The buyer should beware and shop around. Don't quote a price when you call the company. Ask them what their best price is and you may be surprised to hear a lower figure than you saw advertised.

Chip prices have continued to decline but at a slower rate. Most available SIMMs now appear to be 80 ns ones and may actually be cheaper than 100–120 ns ones. Faster chips (e.g., 80 ns) are needed

for the Mac IIci but will work in lower models even though you will not get increased performance. The older 120 ns chips originally used in the Mac II are next to impossible to get anymore and may be higher in price if you can find them. Why bother!

3. Why waste time waiting for that next software upgrade? Just Fax us your order! That is what Olduvai has proposed for ordering its new version of MultiClip which adds new features. MultiClip is a replacement Clipboard with the ability to handle multiple images at the same time among many other features. For registered owners, MultiClip 2.0 costs $35 including shipping and handling. Call Olduvai of South Miami, fl at 305–665–0671 to FAX them your order. Note, this is not their customer support telephone number, just the order Fax telephone number.

4. I just finished Guy Kawasaki's new book *The Macintosh Way.* I enjoyed it the most of all the Apple related books I have read over the past four years. It is characterized by two traits that I admire very much but seldom see in computer books. Those two traits are "straightforward honesty" and a "sense of humor." He says he still "bleeds six colors" but he is willing to criticize Apple when he feels it is wrong. I guess by now you know I feel the same way!

This is not really a "kiss and tell" book and he takes few pot shots at people but it is very informative none-the-less. He is particularly supportive of user groups and feels companies should bend over backwards to help them. When I finished the book, I couldn't help think Apple has strayed from "The Macintosh Way."

At the end of the book, Guy is even crazy enough to list his on-line mailing addresses and even a personal telephone and FAX number if you wish to contact him. I just had to send him a FAX! Maybe there is hope for the computer field yet! The book is called "The Macintosh Way" by Guy Kawasaki from Scott Foresman and Company, 209 pages, $19.95.

5. Apple may be about to lose another one and this time it's to the Beatles. I previously mentioned the suit by Apple Records against Apple. It was based on a 1981 agreement between the two which allowed Apple to use the Apple name and logo as long as Apple did not encroach on the Beatles' musical realm. With the introduction of the Mac II with its custom sound chip, that seemed to change the equation. The Beatles got an injunction barring Apple Computer from going to foreign countries to void the Apple Records trademark. If Apple eventually loses the larger issues of the suit, it could owe millions of dollars to the Beatles. At the very least it may have to change its name.

Come on Beatles, have a heart. When the Macintosh starts writing #1 songs, then sue, but in the mean time cut me a break! Don't you have enough millions now? Is a sound chip that also does voices and "beeps" really music? You're giving me a "hard days night" and I don't like it. Why don't you play some of your records backwards and leave Apple alone! After all the Beatles aren't even a real group any more and now you want to mess with a $6 billion company. [Source - USA Today, and personal irate commentary (PIC)]

6. It appears my previous recommendation to not purchase a Mac II with the Apple-supplied Quantum hard disk continues to be an excellent recommendation. A recent editorial in *MacWeek* detailed a very high failure rate for the new model Quantum Pro series drives shipping in the Mac IIci. Keep in mind the Pro series is a brand new one from Quantum which offers increased speed by use of caching technology. The problems seem to be with the 80 MB size and reportedly up to 100% of the drives have failed at some sites within the first 30 days. The columnist himself (Don Crabb) bought two Mac IIci's, and each hard disk has failed *three* times.

So far my letters to Quantum about the 5.25 inch drive problem have gone unanswered but I recently wrote again and will let you know if I get a reply. Once again, if you need a large capacity hard disk, consider the Connor Peripherals 100 MB for $639 from MacTel Technology Corp. at 800–950–8411; Club Mac at 714–768–1490 for $629; or $624 from VCP at 714–635–4855. Even a 200 MB Conner is only $989 from VCP. I recommend using a credit card to add some protection when using mail order. (Source - MacWeek)

7. I've been picking on Apple so here is a compliment! Apple has contributed $1 million to a national campaign to increase respect for education in the U.S. That can be translated to thanking and recognizing the contributions teachers have made to our educational system. Apple is sponsoring 30-second TV spots to celebrate excellence in education. Apple will award Mac SE/30 systems with 2 MB RAM, an ImageWriter II printer, a modem and Microsoft Works to 25 teachers nominated from 25 metropolitan areas. Awards will be made in Washington on June 9th.

Such recognition is long overdue and I'm glad that Apple is not only recognizing the importance of education but also recognizing that the schools of America helped keep Apple afloat for many years when the Macintosh was just a "twinkle" in Steve Jobs' eye! [Source - MacWeek and personal congratulatory commentary (PCC)]

8. Looking for a 45 MB removable cartridge Syquest hard disk that's cheap? How about $699 from APS of Kansas City, MO at telephone # 800–233–7550. It comes with 1 cartridge with additional ones only $76. (Source - MacWeek)

Lynn R. Trusal, Ph.D. is in the U.S. Army stationed in Tokyo, Japan and may be reached at the U.S. Army Materiel Command, U. S. Army Science and Technology Center, Far East, APO San Francisco 96328–5000. The opinions expressed in this column are solely mine!

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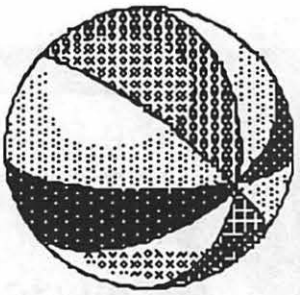

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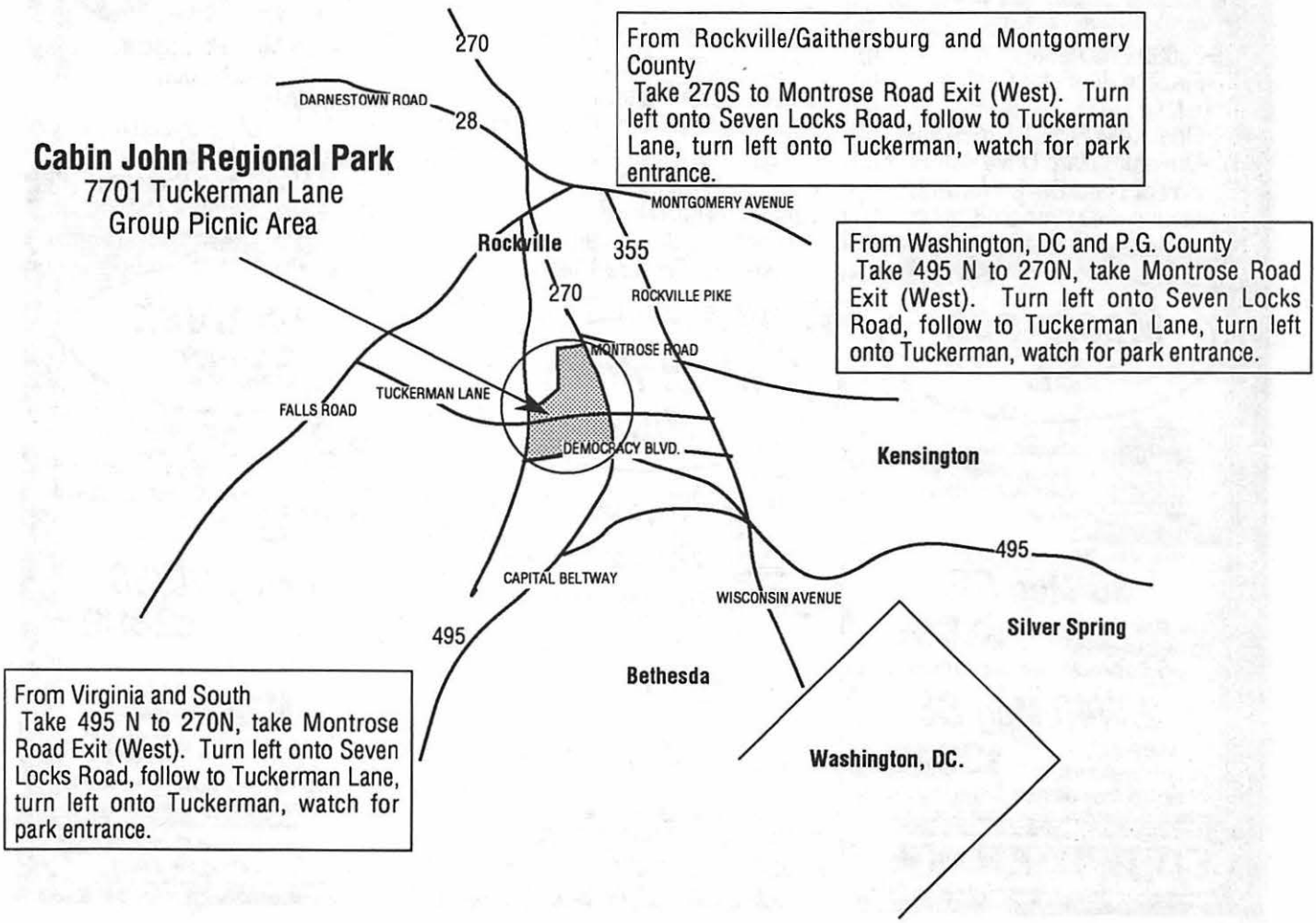

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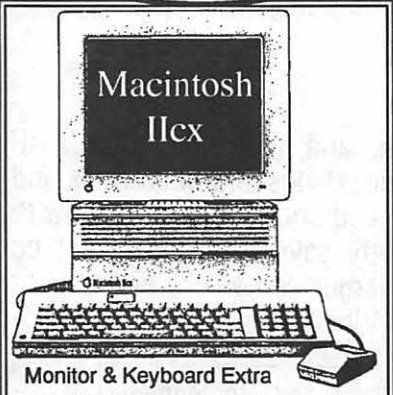

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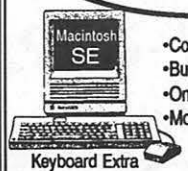

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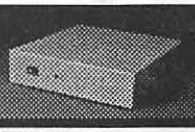

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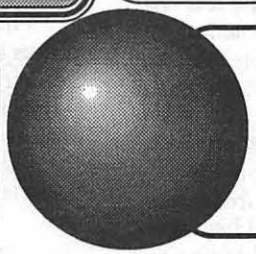

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On the Trail of the Apple III

By David Ottalini,
Apple III SIG Co-Chairman

May, 1990 is a significant month for the Apple III, as it marks our computer's 10 year "coming out" anniversary. It was during the National Computer Conference (NCC) in Anaheim, California ten years ago this month that the III was introduced to rave reviews.

Despite getting stuck in the basement garage of the Disneyland Hotel, Apple's display of the III was the second most popular of the Conference (Yes, IBM was first!). In fact, people had to wait in line 20 minutes just to get near a machine.

Don Williams, Apple's Marketing Manager at that time, described what it was like during a talk at the October, 1987 Phase III Conference in Chicago, Illinois:

(Apple President Mike) Markula perceived that the one way to bring attention to Apple was to introduce the Apple III at NCC, #1, and #2 we had to have some way to get people to come to our booth to see the thing. So what we did was rent Disneyland for one night. And we gave away tickets.

I had booth duty at three o'clock in the afternoon and to get to my station, the only way I could do it was to get my elbows up like this and get to the station. When you came off booth duty, since there was no air conditioning, you just wrung your shirt out. It was so hot and just so many people. Everybody wanted to see this Apple III. We had three of them down there. This was now the prototype. To tell you how realistic we were, Apple was promising 600 dealers an Apple III within 30 days of NCC! We had three of them that we'd made and they were all basically hand made. There wasn't a PC board.

Apple intended to sell the III as a business machine in "bundles" with a choice of software and printers. It was, as "Byte" Magazine called it, "a logical upgrade of the Apple II for use in professional applications like word processing and information management."

But "Compute" Magazine reported the III was also "the ultimate hobby computer," an indication that Apple was still having trouble moving beyond its "Homebrew Computer Club" roots. The III's developer, engineer Wendel Sander, said "What do you expect? They gave me a blank check and told me to go build a computer. It's the ultimate homebrew!"

And Apple co-founder Steve Jobs told "Byte" (lightheartedly, it said) that the III was more than just a business machine: "It's also the ultimate hobbyist computer. The Apple III was conceived primarily to fill in gaps in the Apple II. It will not replace the Apple II by any means. It's designed to enhance it."

Actually that was not quite true. The driving force behind the III's early (and as it turned out, premature) introduction was the fear that the Apple II would stop selling. There were those at Apple who thought the III would do 90 percent of the company's business in a few years, with the II making up the rest (in the education and home markets). As we'll see in future installments of my "Apple III History," those projections turned out to be a little premature!

MOVING ON WITH ON THREE

Just when it seems I've brought you up to date on the doings at On Three there's more to report. First off, there's been yet another address change for ordering On Three products. Bob Consorti's parents finally got their "dream home" built and have settled in to take your orders. The official order address is now: PO Box 1193, Lake Stevens, WA 98258. Order number has also changed and is now 206–334–8001.

As for Bob, he reports from the Windy City that he's now embarking on a new career as a student! As I reported in earlier columns, Bob's wife is currently studying medicine at Loyola University Medical School. Not to be outdone, Bob is now taking classes in Biology. He is still repairing IIIs, however, and working on a few Apple II and III projects (we're still waiting for the GoBack backup utility).

By the way, I just renewed my subscription to "On Three" Magazine and I hope you are a subscriber too. If not, your III SIG is making this offer: order a subscription to On Three (for $20) and you'll get one WAP III PD disk of your choice free (that makes your actual cost just $17). Just bring in a copy of your check or credit card receipt to the WAP office to prove you placed an order. On Three is the only III-specific magazine we have left and keeping it going is one way we can all show solidarity.

THREEWORKS

The latest update to my ThreeWorks disks has now been released. It remains four sides of information about the III, with the centerpiece a 1500 record bibliography of Apple III articles going back to 1980. This version, 3.1.90, includes the 1989 bibliography, and updates a number of the other files.

ThreeWorks requires III EZ Pieces (or AppleWorks) and a 256K machine. It's available directly from Three Cheers Press, 11160 Viers Mill Rd, L–15; #300; Wheaton, MD 20902 for $15.95 postage paid. Maryland purchasers please add sales tax.

PD DISKS DU JOUR

If it's May it must mean more utilities to help you repair problems with your III. This month, we're providing help for hardware and software problems. Disk 1093 has a couple of block edit programs. Disk 1094 is our second Diagnostics disk with a third block editor on the flip side.

Finally, if you are really inter-

ested in delving into what your programs look like, disk 1095 has the Jeppson Disassembler, which will take any Apple III program and disassemble it into assembly code for you. It includes source code and other information. Most of these programs all have help files or other information to get you up and running. But as always, it's a good idea to work on a copy of your program if you need to do a little repair work on it.

Next month, it's time for another Dr. Bloom disk and we'll stir the pot with our first cookbook disk!

AND SPEAKING OF DR. BLOOM...

A final update to disk 1085, "AWEZP," and what it can really do when changing AppleWriter text files into III EZ Pieces Word Processing files from Dr. Bloom himself:

EZP can import an ASCII text file directly, but only the text. An AppleWriter document file contains more than text: all the "dot" commands for page layout and document formatting, not to mention the basic page layout information in the accompanying SYS.PRT file.

If you import an AppleWriter file into EZP as text, you have a whole bunch of dot-command text that must be manually deleted and replaced by EZP cmds. Plus top/bottom line title entries and the like. As a properly lazy sort, I'd rather have a program replace those AW commands with their EZP equivalents. And that is what AWEZP does.

Ever wonder about the compatibility of Apple II and III disks? Dr. Bloom gave an excellent, and rather succinct account of the differences and similarities on the Apple III forum on CompuServe:

On II-III disk compatibility, the answer is a qualified maybe. SOS disks cannot be read by a DOS program. Programs like SOSTRAN (from Sun Remarketing) and PUFFIN III can read files on DOS disks into SOS, with maybe even file conversion. Pascal disks are sort of interchangeable. The III can read II-Pascal disks and format-and-write-to II-Pascal disks. The II cannot read III-Pascal disks that haven't been specially formatted by the III for use by the II. SOS and ProDOS disks are identically formatted.

FINALLY

Many thanks to former Co-Chairman Tom Bartkiewitz who donated some programs and an Apple III disk drive to the SIG. We'll hold on to it as a loaner for those members whose own drive needs to be repaired, and we'll use it in the office as well.

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IIGS Magazine

by Frank Evangelista

With the recent demise of several Apple oriented publications it is refreshing to see someone with the courage to embark on an attempt to go against the trend. GS+ claims to be the first Apple IIGS Magazine + Disk Publication. I have no way to verify if that is so but what does it matter? Any attempt to increase awareness of the existence of our equipment should be welcome considering all that has been happening, or not happening, in Appleland, USA.

As soon as I was aware that someone decided to give up a comfortable living to go into the publication business for my favorite machine, I decided to support the optimist sight unseen. Off went my check and shortly thereafter arrived a jiffy bag containing a 42 page magazine and a 3.5 inch disk. For a new publication it has made a great start. Let me explain some of the features and ask all owners of a IIGS to consider supporting the publisher so he can afford to improve his upstart and add to our enjoyment.

The Publisher, Editor, Steven Disbrow claims all the credit and his Associate Editor, Noreen Ribaric, is said to do all the work. To begin with, the publication is produced on an Apple IIGS using AppleWorks GS v1.1 and an Apple LaserWriter IINT, with the full knowledge that his work (or Noreen's) would have been much simplified by using another program such as Publish It 2. He simply felt that it was important to demonstrate what could be done with a program that a lot of IIGS owners shelled a lot of bucks for.

The issue I received is Volume 1 Number 3 dated January–February 1980. It contains an excellent editorial discouraging software piracy since it will eventually result in less development of Apple programs. As far as I know Apple Pi members are in full agreement with him in that respect. Features include: Tips on Using AppleWorks GS, a beginner's guide to using the Finder, image processing and a beginner's tutorial on programming with ORCA/C. There are reviews of HyperStudio 2.0, Graphic Disk Labeler, Programmer's OnLine Companion, Xenocide, Keef the Thief, Life & Death, ManHunter and the Three Stooges. There are a number of departments which I found very interesting for a magazine's early stages. The Trash Can Award is one which describes the author's opinion of a program that one should not waste money buying. The accompanying disk contains the following: eight graphics which are not compressed so they may be viewed with any GS-specific paint program; a 65-level Arkanoid and a small three level "concept" which game players will enjoy; a compatibility guide indicating some program problems with certain ROMs; an NDA which will read and print text files; eight Finder icons. a demonstration of a small program written in ORCA/C with the source code; a HyperStudio stack which requires the program and a writer's guide for those wishing to contribute to the publication.

The publication is now bi-monthly and costs $15 for the magazine or $36 for the magazine and disk. Discounts are available for multiple subscriptions to the disk and magazine only; not for the magazine alone.

This is our opportunity to help a fledgling entrepreneur get going and give ourselves a little enjoyment to boot. I'm impressed enough to try to get copies of the first two issues. You may contact them at:

GS+ Magazine, c/o EGO / ≠System, P.O.Box 15366, Chattanooga, TN 37415.

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Barry Fox (717) 566-6709

Home Accountant
Leon Raesly (301) 220-0717

Quicken
Gary Hayman (301) 345-3230

Apple SSC
Bernie Benson (301) 951-5294

AppleWorks
Ken DeVito (703) 960-0787
Bob Martz (301) 795-5689
Ray Settle (301) 647-9192
Harry Erwin (703) 758-9660
Gary Hayman (301) 345-3230
Leon Raesly (301) 220-0717

AppleWorks Database
Morgan Jopling (301) 261-3886

Communications Packages

ProTerm
Alan Levy (301) 340-7839

Talk Is Cheap/Pt. to Pt.
Barry Fox (717) 566-6709

DataBases

dBase II
John Staples (703) 255-6955

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

Profiler 3.0
Barry Fox (717) 566-6709

Dvorak Keyboard
Ginny Spevak (202) 362-3887

Hard Disk

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

Corvus Omninet
Tom Vier (BBS) (301) 986-8085

Corvus
Leon Raesly (301) 220-0717

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

Languages

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

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

Machine
Ray Hobbs (BBS) (301) 490-7484
John Love (703) 569-2294

Pascal
Michael Hartman (301) 445-1583

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

Operating Systems

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

CP/M
Art Wilson (301) 774-8043

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

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

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

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

Spreadsheets

General
Walt Francis (202) 966-5742

MagicCalc/SuperCalc2.0
Leon Raesly (301) 220-0717
Terry Prudden (301) 933-3065

Telecommunications
Allan Levy (301) 340-7839

TimeOut Series
Morgan Jopling (301) 261-3886

Utilities:ProSel
Barry Fox (717) 566-6709

Word Processors

General
Walt Francis (202) 966-5742

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

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

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

Mouse Write
Barry Fox (717) 566-6709

Publish.It!
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ScreenWriter II
Peter Combes (301) 251-6269
Gene Carter (202) 363-2342

Word Handler
Jon Vaupel (301) 593-3316

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

Word Star
Art Wilson (301) 774-8043

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

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Barry Fox (717) 566-6709

General/PaintWorks+
Paul Tarantino (703) 455-7670

//e Upgrade
Morgan Jopling (301) 261-3886

APW
Andy Gavin (703) 734-3049
Jim Frison (703) 525-9395
Leon Raesly (301) 220-0717

Deluxe Paint II
Rich Sanders (703) 450-4371

GS BASIC
Barry Fox (717) 566-6709

Multiscribe GS
Ray Settle (301) 647-9192

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

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

VIP-Pro/Multibe
Jim Frison (703) 525-9395

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

Apple II Hardware Epson printers, hard drives,
Guy Durant (202) 363-0366

Apple III

3 Easy Pieces
Tom Linders
Charlene Ryan
David Jernigan

Word Juggler
Tom Linders
Charlene Ryan

- 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

MARYLAND
Scott Galbraith (Frederick) (301) 865-3035
Ray Settle (Annapolis) (301) 647-9192
W. T. Cook (Columbia) (301) 995-0352
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

WAP HOTLINE

CALENDAR AND SIG NEWS

MAY

1 Tuesday
Editorial Deadline—June Issue

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

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

7 Monday
7:30 PM PI-SIG ..... office

9 Wednesday
7:30 PM Board of Directors Meeting ..... office
7:30 PM Database SIG/4D ..... Computer Factory
7:00 PM NeXT SIG ..... Call

10 Thursday
8:00 PM StockSIG ..... office

12 Saturday
10:00 AM Annapolis Slice ..... Anne Arundel Co.
9:30 AM Frederick Slice ..... Frederick
Music SIG ..... Call

14 Monday
Apple IIGS ..... NIH

16 Wednesday
7:00 PM WorksSIG ..... office
7:30 PM Excel SIG ..... office
7:30 PM Fed SIG ..... Call
7:30 PM HyperTALK SIG ..... Arlington

18 Friday
Ad Space Deadline—July Issue

23 Wednesday
Writers' Deadline—July Issue
7:30 PM AV SIG ..... Call
7:30 PM Apple III SIG ..... office

24 Thursday
Ad Copy Deadline—July Issue
7:20 PM EdSIG ..... office

26 Saturday
8:00 AM AppleWorks Sig .....
..... Walter Johnson High School
9:00 AM WAP General Mtg ..... Ditto
noon HyperCard SIG ..... Ditto
noon Telecom SIG ..... Likewise

WAP General Meetings

Monthly General Meetings are generally held on the 4th Saturday of the month at Bethesda–Chevy Chase High School, 4301 East-West Highway, Bethesda MD. Except sometimes, when we hold them other places. As we will in Ppril. We try to give plenty of notice, but when in doubt, call. The place of meeting can, and does, change until we find a more permanent home. If anyone has ideas or suggestions about places that we could meet on a more regular basis, please call the Office and let us know.

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

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

Meeting Notices

Annapolis Slice 2nd Saturday; Anne Arundel Community College - Careers Bldg. Lecture Hall, Arnold, MD, 9:30 AM, 10:00 after April meeting.

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, C Wing, 6th Floor, Conference Room 9) in Bethesda at 7:00 PM. Call Gary Hayman 345-3230 for information.

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

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

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

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

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

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

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

May

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

Meeting Notices

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

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

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

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

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

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

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

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 Ted Meyer (703) 893-6845 to confirm date, time and location.

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

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

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

June

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

JUNE

1 Friday
Editorial Deadline—July Issue

4 Monday
7:30 PM PI-SIG ..... Office

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

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

9 Saturday
10:00 AM Frederick Slice ..... Frederick
10:00 AM Annapolis Slice ..... A.A. Comm. College

13 Wednesday
7:30 PM Database SIG/4D ..... Computer Factory
7:00 PM NeXT SIG ? ..... Call

14 Thursday
8:00 PM StockSIG ..... office

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

22 Friday
Ad Space Deadline—August Issue

23 Saturday
8:00 AM AppleWorks SIG Same as WAP Gen. Mtng.
9:00 AM WAP General Meeting ..... Call
noon HyperCard SIG Same as WAP Gen. Mtng.
noon New SIG ..... Same as WAP Gen. Mtng.
noon Telecom SIG ... Same as WAP Gen. Mtng.

25 Monday
7:00 PM Apple IIGS ..... Dolly Madison Library, McLean, VA
Writers' Deadline—August Issue

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

28 Thursday
7:30 PM EdSIG ..... office

CALENDAR AND SIG NEWS

WAP HOTLINE

Macintosh

General
Jeff Alpher to midnight (301) 630-2036
Donald Schmitt (717) 334-3265

Art & Video
Nancy Seferian (202)333-0126

Borland Products
Doug Ferris day only (800)826-4768

Databases
Fourth Dimension
Bob Pulgino (301)474-0634

FileMaker II
Tom Parrish (301)654-8784

Helix
Jim Barry to midnight (703) 662-0640
Harvey Levine (301) 288-9380

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

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

Graphics
General
Bill Baldridge (301)779-8271
Jay Rohr (301)655-0875

Adobe Illustrator
Ling Wong (703)378-5102

Canvas
David Gursky (703)522-8345
Bill Baldridge (301)779-8271
Tom Parrish (301)654-8784

MacDraw
Tom Berilla (301)434-3256
Tom Parrish (301)654-8784
John Spencer (301)730-1084

HyperCard
Holger Sommer (301)474-3467
Rick Chapman (301) 989-9708

Inside Mac
Jon Hardis (301)330-1422
John Love (703)569-2294

Languages
Pascal
Michael Hartman (301)445-1583

Machine
Ray Hobbs (301)490-7484

MS BASIC
John Love (703)569-2294

MacMoney
Chuck Sicard (301)963-2879

MacProject
Jay Lucas (703)751-3332

Spreadsheets & Graphics
General
David Morganstein (301)972-4263
Bob Pulgino (301)474-0634
Tom Cavanaugh (703)750-9449

Excel
David Morganstein (301)972-4263
Mark Pankin (703)524-0937
Jim Graham (703)370-5737
Dick & Nancy Byrd (703)978-3440
Bob Pulgino (301)474-0634
Tom Cavanaugh (703)750-9449

MultiPlan
John Boblitz (301)356-9384
John Love (703)569-2294

Telecommunications
General
Allan Levy (301)340-7839

ThinkTank-More
Jim Graham (703)370-5737
Tom Parrish (301)654-8784

Word Processors
Word
Marty Milrod (301)464-5981
Harris Silverstone (301)435-3582
Tom Cavanaugh (703)750-9449

WriteNow
Bill Baldridge (301)779-8271

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 Applns
Mark Pankin (703)524-0937

Modems-General
Allan Levy (301)340-7839

Hayes Smartmodem
Bernie Benson (301)951-5294

Practical Peripherals
Allan Levy (301)340-7839

Music Systems
Ray Hobbs (301)490-7484

Printers-General
Walt Francis (202)966-5742
Leon Raesly (301)220-0717

MX-80
Jeff Dillon (301)662-2070

Stat Packages
David Morganstein (301)972-4263

Stock Market
Robert Wood (703)893-9591

Volunteer on the Hotline

Call us (so we can call you) 654-8060

Frederick Apple Core Help Line

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

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

Warning!
¡Achtung!

Do NOT

(1) Pass Go

(2) Collect $200

(3) Go to Bethesda–Chevy Chase High School for the meeting on April 28

(4) all of the above.

The meeting will be at another place altogether: Walter Johnson High School, 6400 Rock Spring Drive, Bethesda. (Just off Old Georgetown Road, outside the Beltway)

Please call the office for directions, if you need them.

The Inpert's Corner

by Allan M. Bloom, Ph.D., CDP

Catalyst is the granddaddy of hard disk program selectors for the Apple III. A hard disk and Catalyst (or its Selector III competitor) make old Sarah (the code name under which the III was developed) a machine with plenty of power and ease of use. I'm among the first Catalyst users, having bought Serial Number 177 in 1982. I've become quite a Catalyst inpert over the years. Let's share some of that inpertise this month.

Mail List Manager under Catalyst gets a little confused about disk numbers. It thinks the onboard drive is D2. It also thinks your hard disk is D1 and your outboard disk is D3. That's because it really works with Pascal "unit numbers" instead of SOS device names. The Pascal "boot device" is number "4." Catalyst does its thing partly by fooling Pascal into thinking that your hard drive is the boot drive (Pascal Unit 4). Pascal, being flexible in this regard, just renumbers the other disk drives it encounters. And MLM gets confused. That's not all bad. MLM needs two "outboard" drives to merge files. Under Catalyst, if you have one outboard drive, MLM thinks you do have two outboard drives.

You can format an MLM disk in the outboard drive if you lie to your system and tell it that you have three Disk III drives. And if your FTMD3 driver is active. Avoid the temptation. The "phantom" drive messes with Backup III's head, and it presents you with marvelously screwy defaults. Besides, there is a limit on the number of drivers Pascal can handle. It is lower than the SOS limit. As you add fun and useful things like Desktop Manager and Trackball to your SOS.DRIVER file, Pascal can "lose" your favorite devices. Don't add phantom drives, and do "inactivate" any FMTDx drivers you can't use.

Hopping to another topic, the automatic Catalyst installation procedure for Business BASIC doesn't really work with BASIC 1.23, the latest version. It sure looks like it works, but afterwards you cannot directly invoke a BASIC program from the Catalyst menu. You pop directly to the BASIC command line and must type RUN HELLO yourself. The fix is easy. After letting Catalyst install your BASIC, use System Utilities to copy the vanilla BASIC from your master disk over the Catalyst-installed version (.D1/SOS.INTERP to CATALYST.BASIC).

You can run a boot diskette without leaving the Catalyst environment. Set up a Catalyst menu entry that reads as follows:

1. Display name: D1 Boot Disk
2. Interpreter path: D1/SOS.INTERP
3. Extra drivers: GRAFIX,.AUDIO
4. Character set path: Press RETURN
5. Screen: Press RETURN
6. Keyboard path: Press RETURN
7. Initial prefix: D1
8. Max files allowed open: 3
9. Program path: Press RETURN

The item "3" drivers are those that I don't keep in my main SOS.DRIVER file. Pick your own, if any. Max files (8) is set at 3 for recalcitrant Pascal programs. If you want to run a program that only exists on boot disk, first put that boot disk in the onboard drive, then invoke "D1 Boot Disk" from the Catalyst menu. When you're through with that program, quit or exit (or "double-apple ESCAPE" if you must), and you return to the Catalyst menu.

This works fine for most programs. It fails if you don't have the right set of main and extra drivers, if the program uses a special character set file, or if the program wants a loader disk in D1 and a program disk in D2. However, if it works, it is less bother than leaving Catalyst, booting the program, and then rebooting Catalyst. It is particularly handy for something like ON THREE's Lazarus file undeleter. Lazarus is too big to run from Catalyst on a 256K machine under full Pascal, but it works under "D1 Boot Disk."

The "double-apple ESCAPE" sequence is a neat way of (1) getting back to the Catalyst menu and (2) messing up your hard disk's directory if you mis-use the feature. A damaged hard disk directory, much like a collision at sea, can ruin your whole day. As a rule of thumb, don't use "double-apple ESCAPE" unless it is utterly necessary. It is mostly nothing less than a danger-fraught shortcut. Do yourself a favor. Eliminate the temptation. Edit your Catalyst menu and change almost every entry's Item 8 (Max files allowed open) to an asterisk (*). This disables the "double-apple ESCAPE" feature. Don't mess with the Catalyst "system" entries—Catalyst Edit, Apple II Emulation, and System Reboot, or with the "D1 Boot Disk" entry if you have it.

This will be a nuisance if you have programs that truly cannot be left any other way than via "double-apple ESCAPE." If you're locked out, you'll have to power down your system and set that entry's "Max files" value back to what it used to be. It's hardly ever necessary. I've got a variety of programs on my menu and I've disabled "double-apple ESCAPE" for every one.

There's been a certain amount of scare talk lately about how Catalyst can trash files, and how you should get Selector III instead. Selector III does not have anything like Catalyst's "double-apple ESCAPE," so you can't misuse the feature. That also means you can't get out of some programs under Selector. A few minutes of asterisk-entry will give you the same non-feature for less cost.

Disabling "double-apple ESCAPE" adds work to leaving many Pascal programs. Take System Utilities as an example. You must press Q)uit from the System Utilities main menu, then press Q)uit again from the Pascal command line, then press Y)es when asked if you truly want to leave Pascal. A bore, yes? Don't pout. There is a solution.

Your WAP III SIG now offers a "runtime Pascal" for Catalyst that has two advantages. First, "runtime" launches programs some 30 percent faster than "full" Pascal. Second, it is a keystroke saver. Quitting a Pascal based program under "runtime" returns you immediately to the Catalyst main menu. Get your check writing fingers limbered up! It's Disk 1042, "GUCSPAR by Bloom" and includes full documentation.

Institutional Research, Virginia Tech, Blacksburg VA 24061, 2303 San Marcos Street, Blacksburg, Virginia 24060; Office: (703) 961–7921 Home: (703) 951–2025 CIS: 76656,1514; BITNET: IRBLOOM at VTVM1

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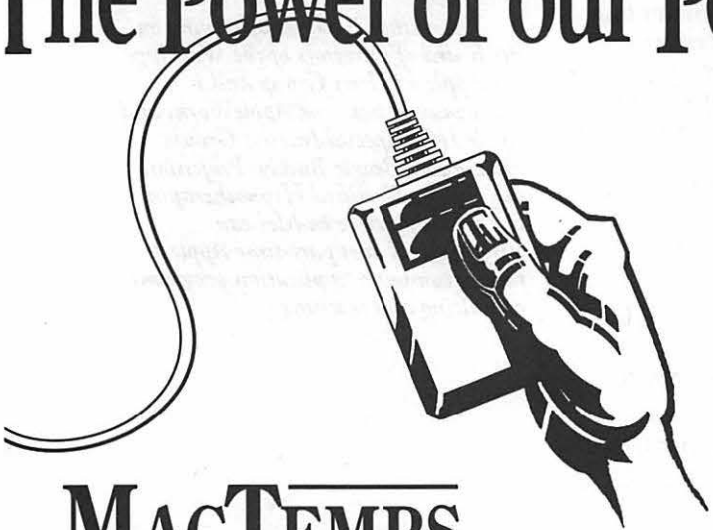

MACTEMPS
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The UltraMacros Primer

by Gary Hayman

FIRST came the Bible; then the Dictionary; followed by the Encyclopedia.

Mark Munz's new book, "The UltraMacros Primer: How to Use TimeOut UltraMacros" is really a combination of all three—in the kingdom of AppleWorks. It is where you go to get the "Word" on macros, especially the new additions. It is what you turn to when you look up a particular meaning of one of the "tokens." It is what you read when you desire in-depth details of UltraMacro use—with examples.

Macros, as you may or may not know, are those short computer instructions that take the place of many long and involved key strokes. When you are using them, like a certain automobile manufacturer is saying these days, "You have an ADVANTAGE." Things happen automatically for you. Instructions are accomplished speedily and correctly and your AppleWorks productivity is highly accelerated.

The book really started as a series of articles in the "AppleWorks Forum," an excellent monthly publication of the National AppleWorks Users Group (NAUG), Canton, Michigan. It developed over a period of 15 months with the articles being published monthly. The reception of these articles by the AppleWorks (classic)/UltraMacros users was remarkable and Mark was approached to publish them in book form.

Although the Primer contains the articles that appeared in the "Forum," they have been updated and much new information has been included—especially concerning the recent changes and additions to UltraMacros.

The first of 19 chapters begins with a chapter on getting started with macros and ends with advanced programming. As you read you are taken by the hand through elementary steps that are so well presented it is a joy to read and learn at the same time.

When difficult concepts begin to surface, Mark is there with appropriate examples and figures, not only to explain things in such a way that you comprehend better, but to give you reference tables and charts that will aid you in your future macro writing. There is a generous supply of short macros that not only demonstrate the concepts, but that you can use for yourself. You will be pleased with the abundance of examples and hints that are liberally placed throughout.

I have tabbed my copy in about a dozen places and find myself with the Primer at my side as a ready reference when I am developing a multitude of macros for myself or others. I have yellow highlights throughout the book to attract my attention as I use it again and again. Sorry, I won't trade my now dog-eared copy for your new one.

There are some important informational tables that are either presented in an improved manner, or do not exist in the original manual that accompanies UltraMacros, such as:

- Commands UltraMacros Adds to AppleWorks
- Solid-Apple Macros Built into UltraMacros
- Keyboard Equivalents of UltraMacros Tokens
- Control Codes That Work With <msg>
- ID# for TimeOut Modules
- Selected Memory Locations in AppleWorks 2.1 and 3.0
- UltraMacros 3.x Labels
- IIGS Keypad Values

There is an excellent section on how to use the new features of UltraMacros 3.x and, in fact, "is the only game in town" where you can learn about such new things as: asr; exit; msgxy 0, 128; peekword; indirect string referencing; #dbselrecs; #false; #menuhor; etc. Even at this, the book does not contain some of the very newest developments, such as "& PATH" and others which came on the scene after publication.

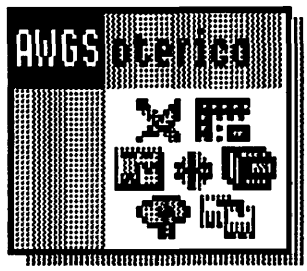
I suspect that we will be seeing future additions to the "Primer" by Mark as Randy Brandt, UltraMacros genius developer, continues to improve and add to the program. Randy and Mark have worked together on several major projects and Randy reports that he has the greatest respect for Mark's abilities and states, about Mark, in the Forward to the "Primer," "...Writing powerful macro programs like Mr. Invoice has taught him (Mark) virtually all there is to know about UltraMacros."

I would give this book five stars, a "ten," or whatever the top rating is these days. It really is a "must" book if you are into UltraMacros.

"UltraMacros Primer" is available from NAUG, Box 87452, Canton, Michigan 48187 for $17.95 if you are a member (you should be) and $19.95 if you are not. There is an additional $2.00 shipping fee in each case. Some mail order houses serving the Apple II market also carry the book.

The author is currently serving on the Board of Directors of the Washington Apple Pi Users Group and is Chairman of both the AppleWorks and Apple IIGS Special Interest Groups. He is also a Beagle Buddy. Professionally, he is a Certified Hypnotherapist in private practice in McLean, Virginia and does part-time Apple II family computer application programs consulting and teaching.

AppleWorks GS-oterica: The Article



Compiled & Edited by David Wood

More Hints Than You Can Shake A Mouse At

This article is, you guessed it, a compilation of a variety of Hints, Tricks, and Easy Ways of Doing Things in AppleWorks GS. Some of these are just reprints from the manuals; even the greatest timesavers only got one or two mentions. Some of these are ways around specific problems, like posting things from word processing documents onto the TCS (if you call it; if you don't, you should) or working with huge formulas in the spreadsheet or database. Maybe you're trying to create something in the Graphics module, but it doesn't quite work or look the way you expected. Whatever, it's my hope that you'll see it in an AWGSoterica compilation sooner or later.

If you like any of these tips, or you have your own to submit, please tell us, and we'll try to scrape together a bunch more. Also (cheap plug coming up), a few of us are busily compiling interesting demonstration and application files for AWGS (myself included), and some others are considering starting up an official AWGS SIG within WAP. If you'd like to get involved in either of these, leave a message (or your donations to AWGS: The Project) at the office. Someone (probably me) will be in eventually to process them...

• *Data transfer like unto a lightning bolt!*

by Claris

Those people who don't read instructions, or use more than one module of AWGS, should take note: If you have two windows open, and you want to Cut something from one and Paste it into another, then you don't have to use Cut and Paste. Use instead the AWGS "hot copy."

Highlight the source information (however much you want). Then, hold down the <control> key and drag the highlighted stuff to the other window. The cursor will turn into a lightning bolt. When you release the mouse, the information you're dragging will be inserted at the lightning bolt.

It's much faster than Cut and Paste, and it won't destroy what you have previously Cut to the Clipboard, but it has one limitation: the point where you want to insert the stuff must be visible in the destination window. The Communications module is the exception to this (see below).

• *Text transfers to the TCS, and A Way to Generate Signatures*

by Chris Hutmire and David Wood

If you call the TCS, or any bulletin board, you may post messages. And rather than think them up on the board's editor, you may want to use the word processor before you log on, and organize your thoughts. On the TCS, for instance, you'd think it'd be a simple matter to <C>ut the text from the WP and <P>aste it into the CM, wouldn't you? Anyplace else, it could be. But the TCS does something different: when you press <return>, it delays a half second or so while it stores the line you just entered. During that time, AWGS is still sending characters which the TCS is ignoring until it's done. The result: A mess.

We of the TCS have a fairly simple solution:

1. Compose your messages offline in the AWGS' WP module. Make absolutely sure that each line ends with a full carriage return; this will save you from pressing <return> after each paste later.

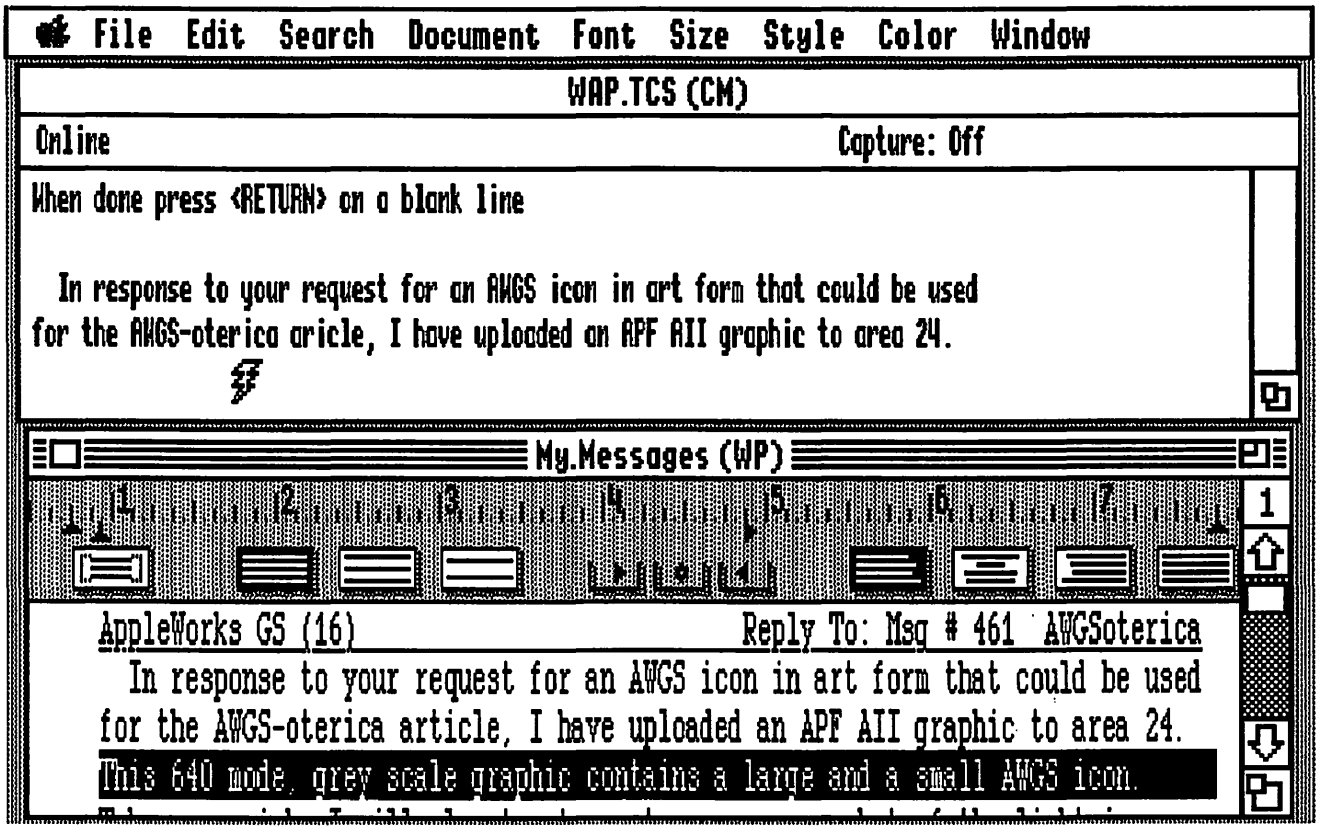
It's also important to keep each line below maximum length. Eighty (80) columns is the standard for many bulletins boards, but the TCS's word wrap will kick in when the line exceeds column 78. If you set the left margin marker at 1" and the right margin marker at 7" then each line will only hold 80 characters of the Monaco 9 font. Some people have complained about the readability of Monaco 9, so you may want to experiment with other fixed-width fonts, like Courier 10 or 12. Repeat the string "1234567890" and set the right margin just after the eighth eight (so the 79th and 80th characters move down to the next line).

2. Open your telecommunications (CM) document and size it so that it fills the top half of your screen. Open the WP document containing your messages and size it so that it fills the bottom half of your screen. Or reverse them, whatever you feel comfortable with.

3. Log on to the BBS of your choice (the TCS, please). Enter the editor as if you were going to type a message in yourself. But don't type anything yet.

4. Highlight the appropriate line of the message. If you haven't posted any of the message yet, this would be the first. You can do this any number of ways, but the best is to click in the left-hand margin in front of the line, and drag straight down, to in front of the next line. The first should now be highlighted, carriage return and all.

5. Transfer that line to the TCS. You could do this by: A) Cutting from the WP window, selecting the CM window, and Pasting, or B) use the hot copy, detailed directly above. The advantages of the hot copy are: The WP window stays selected



(none of this wasting time switching windows), and you don't have to be particular where you put the hot copy in the CM window.

You see, whatever is pasted to the CM window, and wherever it's put/released, it'll just appear at the bottom of the window almost as if you'd typed it yourself (see below). With method 5B, it's just Highlight-Drag several times and your message is sent off.

6. Continue to cut and paste single lines of text until the entire message has been transferred to the CM window.

Sometimes, the line that appears in the CM window may be missing the first few characters when you Paste/Copy them in. Don't worry; the BBS is getting all of them, even though it isn't echoing them. The only time a board may choke on characters is after the carriage return or word wrap, when it's storing the one line and can't accept anything from the next. If you're worried, list the file. On the TCS, that's "L" when in the editor command mode. Anywhere else, look it up.

Also note that some boards' editors are capable of receiving characters as fast as AWGS can send them. Before you try the one-line method, try sending two or three lines together. If characters are missing from the listing (not on the screen, from the message as it would actually appear on the board), you need to use the one-line method. If not, then try highlighting your whole message and sending it in one lump. The best shortcut is to avoid any tricks completely.

Now, I also mentioned signatures. If you can write single messages to post on the board, why not dig up one of those fixed-width fonts and start composing a text graphic for your name? Or a picture? Or steal quotes from William Blake? You got the IIGS to be creative. Now create!

• *Order in the Database!*

by Claris

You've just created a database. You've slaved for hours (okay, minutes) making sure everything in the Form section is laid out attractively. It contains spaces for First Name, Last Name, Street Address, City, State, Zip, and Phone Number.

But instead of working top to bottom, left to right, it has the nerve to ask you City, Last Name, Zip, First Name, Phone Number, and City. An otherwise perfect DB ruined by a stupid little bug! Infocom should call it: Bureaucracy: A Nightmare Come True.

Wrong. Go to the List format, and if you'll read the tops of the columns, you'll see they're in exactly the same order as the Form is asking for them. There's the trick: Rearrange those, and you can set the order in which things are requested.

And how do you do that, you ask? Hold down the <option> key and drag the column to where you'd rather put it. In no time, you'll have everything where it belongs, or at least you'll have no excuse for complaining about it...

• *Caveat Template...*

by David Wood

A few words of caution on DB Templates: 1. They contain none of the DB's actual data—just how it's arranged. The template stores the locations of the items in the Form format, the order and size of the columns in the List format, headers, footers, and report formats. Nothing

more. 2. The names of all of the subjects of the creating DB are stored in the template. This is an annoyance; if any new subjects are created, or any are deleted, or any are renamed, the DB will not recognize the template as belonging to that particular database. Create your bunches of templates only when you're sure you won't need to add anything more fields to the DB.

• *Formulas which are Too Big for their Buffers*

by Claris and David Wood

Well, you've finally done it. You started typing, and in a matter of seconds, you've shot completely off the right side of your formula-editing line. You can no longer see what you're typing.

There are two AWGS modules that use formulas: the Database and the Spreadsheet. You can have a SS formula up to 255 characters long, or a DB formula 127 long (why, when the cell references in the DB are longer?), but each buffer will only display about 1/3-1/2 that. There are two ways around this particular problem:

1. (DB&SS) Write the formula backwards. It's hard to have a formula that long without having a bunch of parentheses in it. Write the contents of the rightmost parentheses, then the next parentheses to the left, and so on.

2. If you're really in a snarl, create a Word Processing document and edit your formulas there.

(SS) Use <open-apple>-A to Select All you've typed on it, and Cut and Paste (or Hot Copy) it to the WP file.

(DB) The line editor on the DB won't let you Select All when you're editing a formula. Instead, triple-click on the line, and that will select the entire line the same way. Then cut and paste it to temporary storage as the above hint suggests. Because the formula for a field is entered in a dialog box, Hot Copy won't work.

In either case, you may use Cut and Paste to put it back into the Spreadsheet or Database when you're done. And I suggest you keep a copy of the AWGS Reference book handy; all the formulas are in the back.

• *Quick-Start AWGS*

by David Wood

If you're short of memory, or don't have an accelerator, then the "Configure" menu item is a crap-shoot. You're gambling a few minutes of load time that the next time you enter AWGS, you'll need the modules you've selected. If you select one you don't need, you wait while the program loads it at the start. If you miss one you need, then you'll not only wait while it loads up, but in all probability you'll have to swap disks (unless you have a hard disk).

Here's a way to control your odds: 1. Delete AWGS.CONFIG from your program disk/directory. 2. Start up AWGS. 3. Go into "Configure" and select a layout you think you'll need in the future. This will create a new AWGS.CONFIG. 4. Leave AWGS (that's right, the Configuration file was all we needed). 5. Rename AWGS.CONFIG to something that describes which modules it loads. There are two schools of thought in renaming to describe the configuration. A boldly descriptive name like "WPSPDDGR," or binary representation, like "AWGS.111010" to represent the first, second, third, and fifth modules (yes WP, yes SP, yes DB, no PL, yes GR, and no CM). 6. Repeat from step 2, unless your disk is full, you've created all the Configure files you'll ever need, or you're just tired of it. What you've done, beside filling up a disk with 0.5-1K files, is to create a library of Configure files.

To start AWGS with just the modules you want: 1. If it exists, delete the current AWGS.CONFIG. If you don't know which modules it loads, delete it anyway. 2. Choose the Configure file which represents what you want to load, and Duplicate it. The copy will be called "AWGS.CONFIG." If you can't find one that loads exactly what you want, then use one which doesn't load anything you need (i.e. when you need WP, SP, and PL, choose WP and PL instead of WP, SP, DB, and PL). 3. Start AWGS and enjoy!

• Does Basic Geometry Escape You?

by David Wood

Dedicated drawing programs, like Activision's Draw Plus and Beagle Brothers' Beagle Draw allow you to change the shapes of polygons at certain times by dragging their points around. You have no such ability on the Graphics module of AWGS, so some figures are a little difficult. But they don't have to be. Here are two that would otherwise be murder to get right:

For a triangle, draw a square, Duplicate it, and set it next to the original such that they share an edge. Go to the polygon tool, and draw from the top point where the squares meet, to the bottom left corner, and double-click on the bottom right. After you have the triangle, you can flip, color, or stretch it any way you like. Thanks to integer division, though, the more it's stretched, the more likely it won't stay a perfect triangle.

For a hexagon, draw the triangle above. Duplicate it twice, and place them so all three corners share one point. Select the polygon tool, and connect the outer corners of the triangles. I've gotten good enough to perhaps take on a polygonal challenge from readers.

• Lock your templates

By Chris Hutmire

Lock your templates and any file that you do not want changed. If you try to save a file that was locked, AWGS will instead display the message: "Access to file not allowed." A Standard File Dialog box will then appear, allowing you to save the file using a different file name.

You can lock said files by using the "Get Info" option in the Finder, and clicking in the "Locked" check box. Otherwise, check the documentation of whatever program launcher you're using.

• The Control Panel's Paper Waste Option?!

by Chris Hutmire

The Open-Apple-Period option will stop printing and return you to AWGS regardless, but if you have the Buffering option set under the Printer Port Control Panel item, it won't work nearly as fast. AWGS prints (and stops printing) optimally when everything under the Printer Port item is set to defaults.

• For Better Color, you might try Better Text!

by David Wood

Printing in the Graphics module has probably been an adventure for everyone. Of the two screen modes, what you want should determine what you select in the printer dialog box, but perhaps not in the way you think:

The Graphics module runs in 640 mode, which is twice as precise as 320 mode (I'm sorry, it just had to be said). In the space that one 320-mode pixel fills, two 640-mode pixels fit, side-by-side. And because of the 640 mode dithering, each half is limited to a small number of colors.

So when you draw some text, a few lines, and a solid block of what looks like dark green, and print it out using Better Color, what you'll see is a solid block, composed of black and green stripes. That's actually the way it looks on the screen as well, but the monitor blends them together. The text and lines look typically blocky.

If you print using Better Text, a number of surprising things happen. Sure, the text looks better: that's because it draws the text twice as big on a page twice as large, and shrinks it (see below). But the line looks smoother too: it was drawn twice as long and thick on the same twice-as-large page. And the color is properly blended, as if you printed it in natural colors in 320 mode. I'm not sure how it works, but it does.

Unless you're one of those people who can tell the difference between a Left Grey and a Right Grey, you'll never want to use Better Color again. Unfortunately, Better Text takes up more memory and time to set up, but the results for regular work are very good.

• Double The Fonts, Double The Fun!

by David Wood

You've looked at Better Color and Better Text in the the various modules. When you use Better Text, some fonts look much smoother, but some larger ones still look just as blocky as they did before. Why, you may ask?

When you select Better Text, the GS doesn't just print out the contents of the current window. It creates a "cache window" twice as large and, therefore, draws everything from the original window but twice as large. Then it prints it at half size. It's a bit like the Steven Wright one-liner "Last night, I came home, and everything in my apartment was replaced by an exact duplicate."

Let's say it's a Page Layout document, and you've used a lot of Helvetica 12. You print in Better Text, and it creates the cache window, draws all the graphics at double size, and writes out all the text, at double size: Helvetica 24. Then it prints it out at half size, making it look like Helvetica 12 again, except that it's a lot smoother because it's a reduction of a larger font.

But what about those headlines that look so blocky? You did those in Helvetica 24. Helvetica 24 looked good as type, but why not as headlines? Well, they were drawn double size as well on the cache window. That means it read in your Helvetica 48—what, you don't have a Helvetica 48? Well, not to worry, the Font Manager can create a new one by doubling the Helvetica 24 (Aha!).

If you can get your hands on an honest Helvetica 48, and you install it, you'll find the Helvetica 24s look much better. The same goes with Shastons, Genevas, Couriers, Timeses, and New Yorkseseses: install a 2X point font, and the X point font will look better in Text mode.

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Filling Up a GS

by Kim Brennan

I finally got my CDC Wren III 150MB hard disk on line. It is very nice, but getting it on line is quite a story. I originally had intended to get an internal 100MB hard disk, either the Applied Engineering (AE) Vulcan or the Applied Ingenuity (AI) InnerDrive. The going prices in January for either of these drives was around the $1,000 mark.

Towards the end of January however, a Mac IIcx owner was selling a used CDC Wren III hard disk for $980. Since the Wren was a SCSI hard drive, very fast and had a 150MB capacity, this looked like a good deal to me. I already had the Apple II SCSI card and the drive came with a terminator built in and the necessary cable to hook it up to my GS.

After several frustrating weeks, in which I learned that my Apple SCSI card needed a ROM upgrade and other sundry problems, I finally made the decision to get a different SCSI card to get the Wren on line. The ideal card would be the Fast-Kache by Ohio Kache Systems (OKS) that I talked about in my January column; unfortunately I learned that OKS had decided the Fast-Kache was not an economically viable product and had canceled production plans.

However, OKS still made the Multi-Kache board, which is similar to the Fast-Kache in concept. The Multi-Kache is intended primarily for floppy disk drives, but you can get a piggy back board that gives the Multi-Kache a SCSI port. So after a brief period of lingering doubt I went ahead and ordered the Multi-Kache with the SCSI option and with the full one megabyte of cache. Even as I wrote this column Apple announced a new SCSI board to replace the old one. The new Apple fast SCSI board is similar in operation to the Multi-Kache but does not use caching and is strictly for SCSI devices. The new Fast Apple II SCSI board retails for $129 list. It is already being discounted. This is probably why the Fast-Kache project was discontinued by OKS.

About a week after ordering the Multi-Kache arrived, but I was so close to getting the Apple brand SCSI board (old style) to work with the Wren that I put the Multi-Kache aside simply noting its arrival. What had happened was that one night, when I was carefully not attempting to put the hard disk on line, the hard disk came on line. I was prompted by the Finder that the device in SCSI1 was not recognized by the system and did I wish to format it? Of course, I said yes. After several hours of patient waiting I finally decided that the drive had become lost again.

On the next weekend, after continuing frustration with the Apple brand board, I finally decided to install the Multi-Kache. The Multi-Kache board is as large a board as you are ever likely to install in a GS. In fact it is so large that it hangs out over the lip of the front just a bit. It is still possible to put the lid on but if the Multi-Kache is inserted in some slots you must bend the card somewhat to get it past the cover tabs that stick up in front of your GS case. Apple IIe (or plus) owners would not have this difficulty.

I might as well include some other observations about the Multi-Kache board. The board supports the old-style Disk II 5.25" drives as well as all of the daisy-chainable 5.25" and 3.5" drives. The Duodisk drives will not work with a Unidisk 3.5", however. There is a maximum of eight devices (each floppy counts as a device) or 4 floppy disk drives. Each partition on a hard disk counts as a device. OKS makes a disk expander, which fits into another slot and allows ProDOS 8 to see another two devices on the OKS mapped to the slot where the disk expander resides. Note that there is a limitation within ProDOS 8 that only allows two devices per slot. The drives are still attached to the Multi-Kache. If the Multi-Kache is in slot 5 however, ProDOS 8 will see it as a Smartport and will automatically map 2 devices to slot 2. This does not require the disk expander board.

As big as the Multi-Kache is it does not make use of the surface mount technology that is used on AE boards, such as the Transwarp GS or PC Transporter, or that is used on the motherboard of the GS itself. This is too bad; with space at a premium inside a Apple II, case surface mounting would allow the board to be slimmer and shorter. However, surface mount would also make the board more expensive and difficult to repair. There are always trade offs; I just happen to be in a situation where space is at a premium.

The SCSI option on the Multi-Kache sticks out somewhat from the end of the board, such that it will, in all most likelihood, block the next slot in your computer. However...

As I said, space is very valuable to me. In my GS I had 3 meg of RAM, a PC Transporter, a Transwarp GS, a MDIdeas Stereo card, a Digitizer (no slot) that came with HyperStudio and the PC Transporter's RGBColor board (another no-slot board). In addition to this I had been running a Sider (with its own controller board) as my boot disk. Adding the Multi-Kache into the GS meant that I had 6 slots filled with boards and one slot blocked (by the RGBColor board). Cables were all over the place. It was a very tight fit, but I managed to get everything in,

all the cables flat, the cover on, and all the external cables hooked up. Of course, it didn't work.

Okay, I thought, maybe I don't have all the slots selected correctly. I double checked the control panel and all was correct there. I had slot one set to printer port, slot two set to My Card (temporarily using the Sider as a boot device with the controller card in slot two), slot three was set to Built in Text display (but the Transwarp GS was really there). Slot four was set to Mouse Port (but was blocked by the RGBColor board anyway). Slot five was set to My Card and had the Multi-Kache installed in it. Slot six was empty (blocked by the SCSI option on the Multi-Kache) but was set to My Card anyway. Slot seven was set to My Card and had the PC Transporter in it. On the outside (power supply side) of slot 1 was where the HyperStudio digitizer card was mounted. On the outside of the case I had stereo cords going to the MDIdeas card, a monitor hooked up to the RGBColor board (which was hooked up to the standard GS RGB port), and various disk drives hooked up to the various interface cards. A 3.5", 5.25" and the Wren were hooked up to the Multi-Kache card.

When I booted the Sider, it would crash after scanning the drives. After some brief pondering, I set slot five back to Smartport. Then the Sider booted normally. My first thought was that I had gotten a bad Multi-Kache (which was in slot five). After several more days of frustration with the Apple Brand SCSI board, I decided that I would ask someone at OKS about my problems.

OKS has a direct connect section on America Online (formerly Applelink). So I carefully prepared a message offline and logged onto America Online ready to send OKS my problems. I never sent my message. Reading through the message traffic I encountered a scenario that could very well be the source of my troubles. It seems that early Transwarp GSs had a conflict with the Multi-Kache board. OKS, in the message, spelled out how to identify the problem Transwarps.

After logging off I quickly confirmed that my Transwarp was the culprit. U29, a socketed chip on the right side of the card, is labeled TWGS2A-1 on the problem Transwarps. I contacted the AE tech people (a difficult task) and was promised that they would send me the latest version (TWGS2B-1). In the meantime, though, I would be Transwarpless.

So after removing the Transwarp GS I was up and running. But, there were yet a few more hiccoughs before I had my GS running smoothly again. Here seems an appropriate place to note that the performance of my GS is roughly the same with a Transwarp and a slow hard disk as it is with a standard speed GS and high speed (and cached) hard disk. With both it is very fast.

The Multi-Kache has three jumper pins to control options. One of them controls whether or not the Multi-Kache will use Direct Memory Access (DMA) to speed the transfer of data. Some memory cards do not fully support DMA past the 1 megabyte boundary. If you have only 1 megabyte on your memory board then you don't have to worry. AI memory boards work fine. So do Revision D AE boards. AE may also be able to update earlier revision memory boards, so check with their technical people about any upgrading. Another jumper controls prereading of disks, also called background reads. When this is enabled the Multi-Kache will attempt to keep its cache memory full by reading as much information as possible off your disk. This seems to be of most use for floppy disks. The last jumper controls background writing. When this jumper is enabled the Multi-Kache will store data written to your disk first in its cache memory, and then return control to your computer as fast as possible, meanwhile writing to your disk as fast as your disk can handle the data. I had to disable this last option. It was causing all my ProDOS 8 programs to crash whenever they tried to write multiple files to a disk, though a soft reset brought them back okay. This occurred on both floppy (3.5") and the Wren hard disk.

In the end I finally decided that for compatibility with ShrinkIt! I would attach my 3.5" drive to the standard Smartport. The reason for this was different than the crashing mentioned above. ShrinkIt! is a ProDOS 8 program and so would only recognize the first 4 devices on the Multi-Kache when the Multi-Kache was in slot 5. And only the first two devices when the Multi-Kache was in slot six. When I would boot the Wren using the Multi-Kache, the 3.5" drive would come up as Multi-Kache device six. ProDOS 8 could never find the drive since it wouldn't see past two or four depending on which slot the Multi-Kache was in.

Since I wanted to boot from the Wren as well as use the 3.5" drive off of the standard Smartport, this would involve moving the Multi-Kache into slot six, which was the only available slot so to speak. Since the PC Transporter was in slot seven, the SCSI option board on the Multi-Kache was going to make things a bit tight. The Multi-Kache with its cables (one for the floppies, unused now, and one for the SCSI) was now pushing against the PC Transporter, which was now leaning very close to my memory board. However, the cables from the Multi-Kache acted as spacers between the Multi-Kache and the PC Transporter preventing actual contact between the two boards. They also caused the Multi-Kache to flex somewhat. Between the PC Transporter and the memory board I have another cable (for the Stereo output) which also does double duty as a spacer. It all works, but it hardly looks professional.

I guess the next thing I am going to have to take care of is computer generated heat. While I have two fans (the Apple internal one plus a System Saver) the computer can still occasionally overheat. Not too surprising considering what the inside looks like now. What I may end up doing is to modify the System Saver by installing a larger fan. Otherwise I may be in for a long, hot summer.

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

INTERFACES & BUFFERS & CLOCKS

- ProGrappler (parallel printer interface w / graphics) . . . 85
- Grappler c / mac / gs (use most parallel printers from your serial port) . . . 95
- Practical Peripherals Graphicard (parallel interface w / graphics) . . . 59
- SeriAll (serial interface for modems or printers) . . . 89
- Microbuffer Mini (32k--512k printer buffer) . . . 85
- Applied Engineering Timemaster H.O. (clock card, supports ProDos time / date functions) . . . 85

)(-series Software

WORD & PAGE PROCESSING

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

SPREADSHEETS

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

DATABASE

- pfs:File w / Report . . . 75

HOME & BUSINESS ACCOUNTING

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

COMMUNICATIONS

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

MISCELLANEOUS SOFTWARE

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

Mac Hardware

LASER & INKJET PRINTERS

- General Computer Personal LaserPrinter (QuickDraw-compatible, six fonts) . . . 1549
- Personal LaserPrinter Plus (as above, w / seven additional fonts) . . . 1649
- Business LaserPrinter (6 ppm, Postscript, 2-meg) . . . 2995
- WriteMove (QuickDraw-compatible inkjet printer) . . . 525
- HP DeskWriter (QuickDraw-compatible inkjet, 300-dpi) . . . 899
- NEC LC-890 (8 ppm, Postscript / HP emulation, 3-meg, dual-bins) . . . 3199
- Qume CrystalPrint Publisher (8 ppm, Phoenix Postscript, 3-meg) . . . 2895

HARD & FLOPPY DRIVES

- Peripheral Land PL 20 / 30 / 50 / 100 Turbo (1:1 SCSI for Plus, SE) . . . 525 / 575 / 625 / 1049
- PL 50i / 100i / 200 / 250 Turbo (1:1 internal for II series) . . . 499 / 949 / 1349 / 1599
- Infinity (40-meg removable disk, also reads IBM floppy disks) . . . 1049
- Infinity Optical Disk (570-meg read / write removable, SCSI) . . . 3949
- TurboFloppy 1.4 (1.44-meg floppy, read / write Mac & IBM disks, SCSI) . . . 325
- CMS 20 / 30 / 60-meg SCSI . . . 435 / 495 / 649
- 100-meg internal, SE, II) . . . 925
- DaynaFile (360k floppy, reads and writes IBM disks) . . . 475

68020 / 030 ACCELLERATORS

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

MISCELLANEOUS HARDWARE

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

Mac Software

WORD & PAGE PROCESSING

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

SPREADSHEET

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

DATABASE

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

GRAPHICS

- MacDraw II . . . 269
- Claris CAD . . . 529
- Adobe Illustrator 88 w/ Adobe Typeface Manager . . . 285
- Swivel 3D . . . 319
- Cricket Draw / Graph / Paint . . . 185 / 125 / 125
- SuperPaint 2.0 . . . 135

HOME & BUSINESS ACCOUNTING

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

MISCELLANEOUS SOFTWARE

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

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IIGS Goodies

by Ted Meyer

It's been a while since I've been able to get much written; Two sons under three years of age have seen to that. My IIGS hasn't been completely dormant, though. Late at night I've been working on some GS font disks for WAP's Disk Library. I've also been involved with getting ready for AppleFest, which is much closer to Washington this year. Read on for the facts.

AppleFest

AppleFest will be held from 10 a.m. to 6 p.m. on Friday, May 4th, and Saturday, May 5th, and from 10 a.m. to 4 p.m. on Sunday, May 6th. It is going to be held in the Garden State Convention Center in Somerset, New Jersey. The entrance fee for exhibits only is $10, and the fee for the exhibits and conference is $45. For more information look at the ad in this Journal.

WAP will be there and we will have a booth again this year. We are looking for volunteers to help man it. If you're going to be there, and would like to lend a hand, give me a call at (703) 893-6845. Manning the booth is a fun way to meet people and get the feel of the show.

Also, Lee Raesly is organizing a van pool to travel up to the show on Saturday, May 5th. Give him a call at (301) 220-0717 or send him a message on the TCS to see if seats are available.

Traditionally, AppleFest has been a twice yearly meeting of Apple II enthusiasts, alternating locations between Boston and San Francisco. This year, AppleFest has been moved to the New York metropolitan area and is being colocated with "ComputerFest," an IBM and Commodore computer show. There is a fear that this may water-down the "Apple II-ness" of the show.

I believe that it may be for the better. Apple will be present and I think they'll be working hard to make an impression in a much more competitive arena. If you go, expect to see: demonstrations of the Apple II Video Overlay Card and the new SCSI card, lots of innovations by third party developers, and some kind of Apple product announcement. If you go, hope to see: System Software V6.0, Hypercard GS, and increased Mac data and disk compatibility.

Hope to see you there!

Fonts

I've been working on font disks for WAP's Disk Library for some time now. Finally the fruits of my labor are at least partially available. Fonts that have names that start with the letters A through H are now available in the Disk Library. A total of ten font disks are available. The letters I through Z are being worked on and should take less time to become available. If you find any problems with a fonts disk please let me know.

The fonts on the new library font disks must be removed from the disk and be properly installed on a System Boot Disk. Once installed correctly on a boot disk, these fonts may be used with MultiScribe GS, BeagleWrite, Draw Plus, Beagle Draw, Top Draw, Deluxe Paint II, PaintWorks Gold, AppleWorks GS, AppleWorks (with Beagle Brother's SuperFonts), and others. See below for installation instructions.

Fonts will have a file type of $C8 when cataloged from Applesoft BASIC. The Finder will represent font files with an icon that has an old english "F" on it. Hundreds of font files (dozens of font families) are found in the FONTS folders on the new disks. A list of the fonts on these disks is provided in the table below.

To install fonts, the $C8 (Font) files must be moved directly into the Fonts folder in the System folder of your boot disk. To be available to your word processing or graphics program the fonts *must* be on the disk with which you STARTED UP your computer.

After you have placed these files into the boot disk's Fonts folder, you can start your application up and the new fonts should be available. If you have a hard disk, you may copy the entire Fonts folder from any of these disks to your boot disk's System folder. Renaming your current Fonts folder to something else (like FONTSX) and then placing one of the FONTS folder from these disks into your boot disk's System folder will allow you to try out all of the fonts on one of the new disks in your application.

Getting the best printout

Fonts can add a lot of style, flair, and impact to whatever you are producing with your computer. However, if fonts are used incorrectly or haphazardly they can detract from the information that you are trying to present and actually lower the quality of your document. Using fonts well produces professional-looking documents; using them clumsily will produce an amateurish product.

Make the fonts fit the situation. A whimsical letter to a friend or relative might call for a bunch of snazzy fonts, but for serious work don't use too many different fonts in a single document. Try to limit yourself to two or three different font families, one or two conservative, easy-to-read ones, and maybe one with a little more impact to call attention to titles or headers. Changing font sizes generally looks better than changing the font.

Get the highest quality printout you can for your final draft. There are a variety of things to remember in producing the best possible printout. In the Page Setup option on the File menu click on the "Condensed" button before you print. Most fonts are designed for this mode of printing. When printing, be sure you click on the "Better Text" option of the print dialog window.

Choose the fonts and font sizes in your document carefully. When

installing a font be sure to install all of the possible point sizes for any family. The more font sizes you have installed and available the more options you will have for generating a good-looking printout. Here's why: When printing in "Better Text" mode, your IIGS will look for a font that is twice the size of the one that you actually chose for printing. If found, your GS will make your printer condense the larger file down to half its size and use it for printing instead. This provides double the resolution for the printed output. (It also doubles the printing time so save it for your FINAL document.)

Here's an example. Suppose I have three sizes of the Times font installed in my Fonts folder: 9, 12, and 18. I write a document using Times at 9 point and at 12 point. If my document is printed using "Better Text" mode, the 9 point text will probably be easier to read than the 12 point text. This is because the 18 point Times will be condensed and used for the printing of the 9 point text. The 12 point text will look "jaggy" in comparison.

Make it a practice to use fonts and font sizes that have double-size fonts available for them. If you want to use 14 point Times make sure 28 point Times is installed. Some fonts only have one size available. Use these sparingly. When you put new fonts into your Fonts folder, put the *entire* font family, every point size, into the folder. This will greatly expand your printing options.

If you are running from 3.5" disk drives and don't have a hard disk, it is recommended that you choose fonts carefully. Create multiple system boot disks for your different kinds of word processing requirements. Have a disk with Courier 9, 10, 12, 18, 20, and 24 or New York 9, 12, 18, 24, and 36 available for business typing. Have another with larger fonts for vu-graphs. Have a disk with Venice or Zapf Chancery and some fun fonts for other activities. Keep a basic font like Geneva on all your boot disks. Many applications will use this font as the default.

ImageWriters often have problems printing the first line or two on the first page of a document. If possible, try putting a blank line or two at the beginning of the first page of your document. This usually allows the printer to properly align the paper holes in the sprockets. Before you invest time in a printing session, doing a paper eject (form feed) will ensure that the paper is correctly in place.

Problems

I've tested at least one point size of every font family on these disks. I have not tested every character of every size font. I have also not tested every font with every possible application. Some applications may have problems with specific fonts and font sizes. The larger font sizes and font file size are the most likely to cause problems. Some software is not able to manage font sizes greater than 48 or 72 point. Save your document before you start adding fonts not previously tested with the software that you are running.

Later in this article is a table of the fonts available. Included is the family number. These are included to help avoid problems. Be sure that you never install fonts with different names but the same font family number. This can cause conflicts and can confuse your software. Each disk also contains a short Applesoft BASIC program that can be used to create a table similar to the one in this article for any folder containing fonts. This program is called Font.Lister and requires you to input the whole ProDOS pathname of the font folder and the name of the text file that will contain the font table.

Be aware that some fonts only have upper or lowercase characters included in them. If you install and select a font in your application and nothing appears when you start typing, try the caps lock key. It's possible that there are no lowercase characters available. A lot of fonts have more characters available when the option key is used in conjunction with other keys. Using the option key and the shift and option key combined can produce some surprising characters. Some fonts have diacritical marks or characters available by using the option key. For instance, if you would like an accent (') placed over a lowercase "e" some fonts may allow this by typing option-' and then "e." The accent may not appear until the "e" is typed so a user may enter option-' multiple times not realizing that he is adding multiple invisible accents into the document.

The files PRODOS, BASIC.SYSTEM, DOGPAW, and STARTUP are on the disks to allow them to be self-booting and to display a text file. This text file is called READ.ME and contains a lot of the information in this article. It is a standard text file and can be read and printed out by a variety of applications such as AppleWorks (any version).

A 640 mode Apple Preferred Format (APF) graphic of most of the font families called FONTS.GR is also included as an example of what the fonts on each disk look like. You can use any GS graphic program that can read 640 mode APF files to view it. A higher quality printout of the contents of all the font disks is available for viewing at the Washington Apple Pi office.

The following is a table of the fonts that are in the FONTS folders on these disks. The table includes the name of the file that contains the font, the font family number for comparison with other fonts, the font's point size, the font's name, and the size in kilobytes of the font's file.

ELECTION NOTICE

This month (April), Washington Apple Pi begins its annual election procedure for Officers and members of the Board of Directors. Elections will be held next month for a President, two Vice Presidents (Apple II and Macintosh), a Secretary, a Treasurer, and 11 Directors-at-Large, who will take office on July 1. Article IX, Section 1 of the Bylaw states that:

"Nominations for President, Vice President, Secretary, Treasurer, and Director-at-Large shall be submitted during the month of April. The nominations may be made at the April Regular Membership Meeting or sent by mail to the Secretary through the Corporation's office."

Members may be nominated for one or more positions, and self-nomination is permissible. Rules governing the conduct of the election will be discussed at the April Board meeting, and will be made available to anyone interested.

IIGS FONT TABLES

WAP LIBRARY

Font File Name	Font Family #	Font Size	Font Name	Font FileSize (K)
Volume: /WAP.GS.Fnts.A1				
ARLINGTON.36	113	36	Arlington	17
ARLINGTON.24	113	24	Arlington	8.5
ARLINGTON.20	113	20	Arlington	7
ARLINGTON.18	113	18	Arlington	6
ARLINGTON.14	113	14	Arlington	4.5
ARLINGTON.12	113	12	Arlington	4
ARLINGTON.10	113	10	Arlington	3
ARLINGTON.9	113	9	Arlington	3
ARAGON.24	32283	24	Aragon	10.5
ARABIC.24	215	24	Arabic	13.5
APPLEI.18	32274	18	Apple I	5.5
APL.24	32697	24	APL	8.5
APL.12	32697	12	APL	3.5
ANTIPART.36	32502	36	Anti Particles	7
ANTIPART.24	32502	24	Anti Particles	4
ANTIPART.20	32502	20	Anti Particles	3.5
ANTIPART.18	32502	18	Anti Particles	3
ANTIPART.12	32502	12	Anti Particles	2.5
ANTIPART.10	32502	10	Anti Particles	2
ANTIPART.9	32502	9	Anti Particles	2
ANGLICAN.18	32517	18	Anglican	4
ANDOVER.12	181	12	Andover	2
ANDOVER.9	181	9	Andover	2
AMSLAN.18	32268	18	Amslan	5
ALISON.24	32586	24	Alison	7.5
ALICE. 24	70	24	Alice	7.5
ALICE. 18	70	18	Alice	5
ALICE .12	70	12	Alice	3.5
ALICE. 9	70	9	Alice	2.5
ALGEBRA.24	129	24	Algebra	8.5
ALGEBRA.20	129	20	Algebra	8.5
ALGEBRA.14	129	14	Algebra	5
ALGEBRA.12	129	12	Algebra	4.5
ALGEBRA.10	129	10	Algebra	3.5
ALEXIS.24	34	24	Alexis	5.5
ALDOUS.36	32273	36	Aldous	5.5
ALDOUS.24	32273	24	Aldous	3.5
ALDOUS.18	32273	18	Aldous	2.5
ALDOUS.12	32273	12	Aldous	2.5
ALDERNEY.48	32585	48	Alderney	29
ALDERNEY.36	32585	36	Alderney	26.5
ALDERNEY.28	32585	28	Alderney	15.5
ALDERNEY.24	32585	24	Alderney	12
ALDERNEY.20	32585	20	Alderney	9
ALDERNEY.18	32585	18	Alderney	8
ALDERNEY.14	32585	14	Alderney	5.5
ALDERNEY.12	32585	12	Alderney	4.5
ALDERNEY.10	32585	10	Alderney	3.5
ALDERNEY.9	32585	9	Alderney	3.5
ALBUQUERQUE.24	98	24	Albuquerque	17.5
ALBUQUERQUE.20	98	20	Albuquerque	15.5
ALBUQUERQUE.18	98	18	Albuquerque	11.5
ALBUQUERQUE.12	98	12	Albuquerque	6.5
ALBUQUERQUE.10	98	10	Albuquerque	5
ALBUQUERQUE.9	98	9	Albuquerque	4.5
AKASHI.12	32275	12	Akashi	5
AGUAMUNDO.24	32584	24	Agua Mundo	14
AGUAMUNDO.12	32584	12	Agua Mundo	5
ABERDEEN.24	54	24	Aberdeen	7
ABERDEEN.12	54	12	Aberdeen	3
ABBEYDECO.28	51	28	Abbey Deco	8.5
ABBEYDECO.14	51	14	Abbey Deco	3.5
Volume: /WAP.GS.Fnts.A2				
ARMONK.24	32270	24	Armonk	5
ARMONK.12	32270	12	Armonk	2.5
ART.DECO.12	128	12	Art Deco	3
ART.DECO.9	128	9	Art Deco	2.5
ART.DECO.48	128	48	Art Deco	23
ART.DECO.36	128	36	Art Deco	14
ART.DECO.24	128	24	Art Deco	7.5
ART.DECO.18	128	18	Art Deco	5
ART.NOUVEAU.36	32612	36	Art Nouveau	23.5
ART.NOUVEAU.24	32612	24	Art Nouveau	12
ART.NOUVEAU.18	32612	18	Art Nouveau	7.5
ASCHAM.9	201	9	Ascham	2.5
ASCHAM.12	201	12	Ascham	2.5
ASCHAM.10	201	10	Ascham	2.5
ASCII. 12	68	12	ASCII	6.5
ASCII.CITY.12	32613	12	Ascii City	5.5
ASKEY.18	32698	18	AsKey	14
ASL.FINGERS.24	32267	24	ASL Fingers	8.5
ASL.FINGERS.36	32267	36	ASL Fingers	14.5

ASL.FINGERS.48	32267	48	ASL Fingers	20.5
ASL.FINGERS.18	32267	18	ASL Fingers	5.5
ASL.FINGERS.14	32267	14	ASL Fingers	4
ASPEN.48	184	48	Aspen	32
ASTAIRE.9	32599	9	Astaire	2.5
ASTAIRE.24	32599	24	Astaire	6
ASTAIRE.18	32599	18	Astaire	4
ASTAIRE.12	32599	12	Astaire	2.5
ASTROBIO.24	32699	24	AstroBio	11
ASTROBIO.12	32699	12	AstroBio	4
ASTROLOGY.24	32700	24	Astrology	7.5
ASTROLOGY.12	32700	12	Astrology	3
ATHENA.24	32614	24	Athena	10
ATHENA.12	32614	12	Athena	4
ATHENS.18	7	18	Athens	5
ATHENS.72	7	72	Athens	30
ATHENS.48	7	48	Athens	15
ATHENS.36	7	36	Athens	9.5
ATHENS.24	7	24	Athens	6.5
ATHENS.12	7	12	Athens	2.5
ATHENSLITE.12	249	12	AthensLite	4
ATHINAI.12	32600	12	Athinai	3
ATLANTIC.CTY.36	205	36	Atlantic City	22
AUST.ECON.9	32297	9	Austin Econ	3.5
AUST.ECON.24	32297	24	Austin Econ	10.5
AUST.ECON.20	32297	20	Austin Econ	9
AUST.ECON.18	32297	18	Austin Econ	7
AUST.ECON.12	32297	12	Austin Econ	4.5
AUST.ECON.10	32297	10	Austin Econ	4
AUTHOR.28	75	28	Author	11.5
AUTHOR.48	75	48	Author	27
AUTHOR.36	75	36	Author	17
AUTHOR.9	75	9	Author	2.5
AUTHOR.24	75	24	Author	6
AUTHOR.20	75	20	Author	5.5
AUTHOR.18	75	18	Author	5
AUTHOR.12	75	12	Author	3
AUTHOR.10	75	10	Author	2.5
AVANT.GARDE.24	33	24	Avant Garde	10
AVANT.GARDE.18	33	18	Avant Garde	6.5
AVANT.GARDE.14	33	14	Avant Garde	4.5
AVANT.GARDE.12	33	12	Avant Garde	4
AVANT.GARDE.10	33	10	Avant Garde	3.5

Volume: /WAP.GS.Fnts.B1

BABY.TEETH.18	32423	18	Baby Teeth	4
BABYLON.18	32298	18	Babylon	2.5
BANGKOK.12	32601	12	Bangkok	3.5
BANGKOK.24	32601	24	Bangkok	7
BANNER.48	161	48	Banner	22
BANNER.24	161	24	Banner	7
BANNER.IT.48	191	48	Banner Italic	29
BANNER.IT.24	191	24	Banner Italic	8
BARCODE39.9	139	9	Bar Code 39	3
BARCODE39.18	139	14	Bar Code 39	5
BARCODE39.12	139	12	Bar Code 39	4.5
BARABOO.72	32672	72	Baraboo	30
BARABOO.48	32672	48	Baraboo	11.5
BARABOO.36	32672	36	Baraboo	7.5
BARRINGTON.14	32673	14	Barrington	2.5
BARRINGTON.12	32673	12	Barrington	2.5
BARRINGTON.10	32673	10	Barrington	2
BARTLETT.48	32674	48	Bartlett	20
BARTLETT.36	32674	36	Bartlett	11.5
BARTLETT.30	32674	30	Bartlett	9
BASEL.48	183	48	Basel	15.5
BATAVIA.48	32675	48	Batavia	23.5
BATAVIA.36	32675	36	Batavia	14
BATAVIA.24	32675	24	Batavia	7.5
BATAVIA.14	32675	14	Batavia	4
BAUHAUS.20	32615	20	Bauhaus	7
BAUHAUS.10	32615	10	Bauhaus	3
BELLEVUE.8	32701	8	Bellevue	2.5
BENEVENTAN.24	32508	24	Beneventan	6
BENEVENTAN.12	32508	12	Beneventan	3
BERKELEY.18	32299	18	Berkeley	4.5
BERLIN.12	32424	12	Berlin	3.5
BEVHILLS.10	192	10	Beverly Hills	3.5
BEVHILLS.9	192	9	Beverly Hills	3.5
BEVHILLS.48	192	48	Beverly Hills	32.5
BEVHILLS.36	192	36	Beverly Hills	21.5
BEVHILLS.28	192	28	Beverly Hills	14.5
BEVHILLS.24	192	24	Beverly Hills	9.5
BEVHILLS.20	192	20	Beverly Hills	7.5
BEVHILLS.18	192	18	Beverly Hills	6.5
BEVHILLS.14	192	14	Beverly Hills	5
BEVHILLS.12	192	12	Beverly Hills	4
BEV.HILLS.L.72	32616	72	Beverly Hills Large	30.5
BEV.HILLS.L.36	32616	36	Beverly Hills Large	9.5
BILLSDING.30	32504	30	Bill's Dingbats	15
BLACK.SHADOW.48		48	Black Shadow	9.5
BLOCKBUSTER.36	32262	36	Blockbuster	15

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BODONI.9	86	9	Bodoni	3
BODONI.24	86	24	Bodoni	10
BODONI.20	86	20	Bodoni	9.5
BODONI.18	86	18	Bodoni	7.5
BODONI.14	86	14	Bodoni	4.5
BODONI.12	86	12	Bodoni	4
BODONI.10	86	10	Bodoni	3.5
BODONIULT.36	32602	36	Bodoni Ultra	18
BODONIULT.24	32602	24	Bodoni Ultra	9
BODONIULT.14	32602	14	Bodoni Ultra	4.5
BODONIULR.18	32602	18	Bodoni Ultra	6
BOISE.18	199	18	Boise	8.5

BOLD.1.48	32278	48	Bold 1	16.5
BOMBAY.24	32518	24	Bombay	8.5
BOMBAY.12	32518	12	Bombay	4
BOOK.36	32676	36	Book	7.5
BOOKMAN.9	14	9	Bookman	3
BOOKMAN.24	14	24	Bookman	9.5
BOOKMAN.18	14	18	Bookman	6.5
BOOKMAN.14	14	14	Bookman	4.5
BOOKMAN.12	14	12	Bookman	4
BOOKMAN.10	14	10	Bookman	3.5
BORDER.12	62	12	Border	4
BORDERLINE.18	32714	18	Borderline	5
BOSTON.9	32256	9	Boston	3.5
BOSTON.48	32256	48	Boston	16.5
BOSTON.24	32256	24	Boston	11.5
BOSTON.20	32256	20	Boston	10
BOSTON.18	32256	18	Boston	8.5
BOSTON.12	32256	12	Boston	4.5
BOSTON.10	32256	10	Boston	4
BOSTONII.9	32257	9	Boston II	3.5
BOSTONII.24	32257	24	Boston II	12.5
BOSTONII.20	32257	20	Boston II	10.5
BOSTONII.18	32257	18	Boston II	8.5
BOSTONII.12	32257	12	Boston II	4.5
BOSTONII.10	32257	10	Boston II	4
BOUTON.24	83	24	Bouton	10.5
BOXIE.10	32269	10	Boxie	3.5
BRAILLE.24	7	24	Braille	4
BRAILLE.12	7	12	Braille	2
BRAILLE.ENG.24	24	24	Braille.eng	8
BRENNERO.24	32347	24	Brennero	10.5
BRENNERO.12	32347	12	Brennero	4
BROADWAY.24	205	24	Broadway	8
BROADWAY.18	205	18	Broadway	7
BUBBLES.24	202	24	Bubbles	11.5
BUBBLES.14	202	14	Bubbles	5.5
BUGATTI.9	128	9	Bugatti	2.5
BUGATTI.24	128	24	Bugatti	7.5
BUGATTI.18	128	18	Bugatti	4.5
BUGATTI.12	128	12	Bugatti	3
BULLETS.12	32562	12	Bullets & Boxes	2
BZ.9	8	9	BZ GS	2.5

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CACTUS.DECO.36	53	36	Cactus Deco	8
CACTUS.DECO.18	53	18	Cactus Deco	3.5
CACTUSDELUXE.48		61	48	
Cactus Deluxe	8.5			
CAIRO.9	11	9	Cairo	3
CAIRO.36	11	36	Cairo	21
CAIRO.18	11	18	Cairo	6.5
CALDWELL.9	123	9	Caldwell	3
CALDWELL.24	123	24	Caldwell	9.5
CALDWELL.18	123	18	Caldwell	6
CALDWELL.12	123	12	Caldwell	4
CALENDAR.36	32484	36	Calendar	7
CALENDAR.24	32484	24	Calendar	4
CALENDAR.18	32484	18	Calendar	3
CALENDAR.12	32484	12	Calendar	2.5
CALGARY.36	143	36	Calgary	13.5
CALIG.ROMAN.24	202	24	Calig.Roman	8.5
CALISTO.18	32282	18	Calisto	5.5
CALLIGRAPHY.48	129	48	Calligraphy	16.5
CALLIGRAPHY.36	129	36	Calligraphy	10
CALLIGRAPHY.24	129	24	Calligraphy	5.5
CALLIGRAPHY.18	129	18	Calligraphy	4
CALLIGRAPHY.12	129	12	Calligraphy	2.5
CAMBRIDGE.36	147	36	Cambridge	11
CAMELOT.24	100	24	Camelot	8
CAMELOT.12	100	12	Camelot	3.5
CANBERRA.24	63	24	Canberra	9.5
CANBERRA.12	63	12	Canberra	3.5
CANDY.24	32301	24	Candy	5
CANTERBURY.14	32519	14	Canterbury	3.5
CANTON.24	32617	24	Canton	9.5
CANTON.12	32617	12	Canton	4
CARMEL.18	187	18	Carmel	7.5
CARTOON.12	203	12	Cartoon	2.5
CARVEL.24	32379	24	Carvel	10.5
CASEY.18	35	18	Casey	4.5
CAVANAUGH.36	32618	36	Cavanaugh	13.5
CAVANAUGH.18	32618	18	Cavanaugh	4.5
CELTIC.18	32284	18	Celtic	3.5
CELTIC.12	32284	12	Celtic	2.5
CELTIC.36	32284	36	Celtic	10.5
CELTIC.24	32284	24	Celtic	5.5
CENTURA.9	132	9	Centura	2.5
CENTURA.36	132	36	Centura	11.5
CENTURA.24	132	24	Centura	5.5
CENTURA.18	132	18	Centura	4.5
CENTURA.12	132	12	Centura	2.5
CENTURY.24	101	24	Century	5.5
CENTURY.18	101	18	Century	4
CHANCERY.24	32285	24	Chancery	7.5
CHARLESTON.10	227	10	Charleston	2.5
CHARLESTON.12	227	12	Charleston	3
CHARLESTON.14	227	14	Charleston	3.5
CHARLESTON.18	227	18	Charleston	4.5
CHARLESTON.20	227	20	Charleston	5.5
CHARLESTON.24	227	24	Charleston	6
CHARLESTON.28	227	28	Charleston	7.5
CHESS.24	32587	24	Chess	12.5
CHICAGO.12	65533	12	Chicago	3.5
CHICAGO.14	65533	14	Chicago	4
CHICAGO.18	65533	18	Chicago	6
CHICAGO.24	65533	24	Chicago	9
CHICAGO.36	65533	36	Chicago	19.5

CHICAGO.48	65533	48	Chicago	30
CHICAGO.9	65533	9	Chicago	3
CHICAGONIGHT.12	32286	12	Chicago By Night	4.5
CHIRIDGE.12	32489	12	Chicago Ridge	3
CHIRIDGE.14	32489	14	Chicago Ridge	3.5
CHISYM.28	32505	28	Chicago Symbols	2.5
CHISYM.36	32505	36	Chicago Symbols	3
CHISYM.40	32505	40	Chicago Symbols	3.5
CHISYM.48	32505	48	Chicago Symbols	4
CHISYM.10	32505	10	Chicago Symbols	1.5
CHISYM.12	32505	12	Chicago Symbols	2
CHISYM.14	32505	14	Chicago Symbols	2
CHISYM.18	32505	18	Chicago Symbols	2
CHISYM.20	32505	20	Chicago Symbols	2
CHISYM.24	32505	24	Chicago Symbols	2.5
CHICMATH.12	65	12	ChicMath	4.5
CHICMATH.18	65	18	ChicMath	7.5
CHICMATH.24	65	24	ChicMath	10.5
CHICMATH.9	65	9	ChicMath	3.5
CHUBBY.24	163	24	Chubby	11.5
CHUGACH.12	32304	12	Chugach	3.5
CIAO.12	32305	12	Ciao	3.5
CIRCUITS.14	32520	14	Circuits	4
CIRCUS.12	130	12	Circus	3.5
CIRCUS.18	130	18	Circus	4
CIRCUS.24	130	24	Circus	9.5
CIRCUS.36	130	36	Circus	12
CIRTH.48	204	48	Cirth	13
CITY.10	106	10	City	2.5
CITY.12	106	12	City	3.5
CITY.14	106	14	City	3
CITY.18	106	18	City	3.5
CITY.20	106	20	City	4
CITY.24	106	24	City	7.5
CITY.9	106	9	City	2.5

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CLAIRVAUX.10	32521	10	Clairvaux	3.5
CLAIRVAUX.12	32521	12	Clairvaux	4
CLAIRVAUX.14	32521	14	Clairvaux	4.5
CLAIRVAUX.18	32521	18	Clairvaux	6.5
CLAIRVAUX.20	32521	20	Clairvaux	7.5
CLAIRVAUX.24	32521	24	Clairvaux	10
CLAIRVAUX.28	32521	28	Clairvaux	12.5
CLAIRVAUX.36	32521	36	Clairvaux	22
CLAIRVAUX.40	32521	40	Clairvaux	24.5
CLEAN.10	32702	10	Clean	3.5
CLEAN.12	32702	12	Clean	4.5
CLEAN.18	32702	18	Clean	7.5
CLEAN.20	32702	20	Clean	9
CLEAN.24	32702	24	Clean	11.5
CLEAN.9	32702	9	Clean	3.5
CODE.3.OF.9.18	55	18	Code 3 of 9	4.5
CODE.3.OF.9.24	55	24	Code 3 of 9	5.5
CODE.3.OF.9.30	55	30	Code 3 of 9	7.5
CODEX.14	32466	14	Codex	2.5
COLOGNE.10	32619	10	Cologne	2.5
COLOGNE.20	32619	20	Cologne	5.5
COLUMBIA.10	32522	10	Columbia	4
COLUMBIA.12	32522	12	Columbia	4.5
COLUMBIA.14	32522	14	Columbia	5.5
COLUMBIA.18	32522	18	Columbia	6.5
COLUMBIA.20	32522	20	Columbia	9
COLUMBIA.24	32522	24	Columbia	12
COLUMBIA.27	32522	27	Columbia	12.5
COLUMBIA.30	32522	30	Columbia	18.5
COLUMBIA.36	32522	36	Columbia	22
COLUMBIA.9	32522	9	Columbia	3
COLUMBIAHT.12	214	12	Columbia	4
COLUMBIAHT.18	214	18	Columbia	6
COLUMBIAHT.24	214	24	Columbia	10
COLVILLE.9	32287	9	Colville	2
CONGO.18	232	18	Congo	5
CONGO.24	232	24	Congo	8.5
COOPER.18	38	18	Cooper	3
COOPER.9	38	9	Cooper	2
COPENHAGEN.12	189	12	Copenhagen	4.5
COPENHAGEN.18	189	18	Copenhagen	7.5
COPENHAGEN.24	189	24	Copenhagen	12.5
COPTIC.10	210	10	Coptic	3
COPTIC.20	210	20	Coptic	7.5
CORVALLIS.12	32003	12	Corvallis	3.5
CORVALLIS.9	32003	9	Corvallis	3
COURIER.10	22	10	Courier	3
COURIER.12	22	12	Courier	3.5
COURIER.18	22	18	Courier	5
COURIER.20	22	20	Courier	6.5
COURIER.24	22	24	Courier	7.5
COURIER.28	22	28	Courier	9.5
COURIER.9	22	9	Courier	3
COVENTRY.12	32306	12	Coventry	5.5
CREAMY.10	226	10	Creamy	2.5
CREAMY.12	226	12	Creamy	3
CREAMY.20	226	20	Creamy	5
CREAMY.24	226	24	Creamy	6.5
CRETE.12	32467	12	Crete	3
CRETE.9	32467	9	Crete	3
CROSS.24	32289	24	Cross	10
CROSSFIRE.18	32425	18	Crossfire	4
CROSSFIRE.24	32425	24	Crossfire	5.5
CUNEIFONT.12	32624	12	Cuneifont	2
CUNEIFONT.14	32624	14	Cuneifont	2.5
CUNEIFONT.18	32624	18	Cuneifont	3
CUNEIFONT.24	32624	24	Cuneifont	4.5
CUPERTINO.12	190	12	Cupertino	4.5
CUPERTINO.24	190	24	Cupertino	13.5
CURSIVE.12	32307	12	Cursive	4.5

CURSIVE.24	32307	24	Cursive	12.5
CYRIL.12	80	12	Cyril	5
CYRILLIC2.12	32426	12	Cyrillic II	3.5
CYRILLIC.LT.12	32625	12	Cyrillic Light	3.5
CYRILLIC.LT.24	32625	24	Cyrillic Light	9
CZECH.GREGS.12	32563	12	Greg's Czech	4.5
CZECH.GREGS.24	32563	24	Greg's Czech	12.5
CYRILLIC.12	45	12	Int'l Cyrillic	4.5
CYRILLIC.24	45	24	Int'l Cyrillic	10.5
COSMO.BK.LC.72	32620	72	LC-Cosmo Black	18.5
CRUMB.LC.72	32622	72	LC-Robert Crumb	27.5
COSMO.BK.UC.72	32621	72	UC-Cosmo Black	22
CRUMB.UC.72	32623	72	UC-Robert Crumb	28.5

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DALI.24	32308	24	Dali	8
DALLAS.12	32309	12	Dallas	4.5
DALLAS.18	32309	18	Dallas	7.5
DALLAS.24	32309	24	Dallas	14
DNCNGMEN.12	32564	12	Dancing Men	2.5
DANISH.DECO.24	52	24	Danish Deco	5.5
DANISH.DECO.48	52	48	Danish Deco	16
DEEP.BOX.36	32303	36	Deep Box	10.5
DEERFIELD.09	32222	9	DeerField	2.5
DEERFIELD.10	32222	10	Deerfield	2.5
DEERFIELD.12	32222	12	Deerfield	3
DEERFIELD.24	32222	24	Deerfield	6
DEMOGRAPHICS.36 Demographics	8	32291	36	
DES.MOINES.24	164	24	Des Moines	10.5
DES.MOINES.10	164	10	Des Moines	3.5
DES.MOINES.12	164	12	Des Moines	4
DES.MOINES.20	164	20	Des Moines	8
DESPLAINES.12	32223	12	DesPlaines	3
DESPLAINES.18	32223	18	DesPlaines	4.5
DESPLAINES.36	32223	36	DesPlaines	11.5
DETHEK.12	32523	12	Dethek	3.5
DETHEK.24	32523	24	Dethek	7.5
DETROIT.24	49	24	Detroit	3.5
DEUTSCHLAND.36	32393	36	Deutschland	10
DEVANGAR.12	180	12	Devan#gar4	5
DEVANGAR.18	180	18	Devan#gar4	9.5
DEVANGAR.24	180	24	Devan#gar4	13
DEVANGAR.9	180	9	Devan#gar4	4
DIACRITICS.12	32524	12	Diacritics	3.5
DIACRITICS.18	32524	18	Diacritics	6.5
DIACRITICS.24	32524	24	Diacritics	8
DIACRITICS.9	32524	9	Diacritics	3
DIAMOND.24	252	24	Diamond	10.5
DIGITAL.24	32302	24	Digital	5.5
DIGITS.14	32525	14	Digits	4.5
DOODLES.18	155	18	Doodles	6.5
DOODLES.36	155	36	Doodles	20
DORIZA.10	32509	10	Doriza	3.5
DORIZA.12	32509	12	Doriza	3.5
DORIZA.18	32509	18	Doriza	5.5
DORIZA.20	32509	20	Doriza	5.5
DORIZA.24	32509	24	Doriza	8
DOTS.24	32310	24	Dots	6
DOVER.10	229	10	Dover	3
DOVER.12	229	12	Dover	3
DOVER.8	229	8	Dover	2.5
DRAWING.18	32510	18	Drawing	2
DRAWING.20	32510	20	Drawing	2
DRAWING.24	32510	24	Drawing	2.5
DRAWING.28	32510	28	Drawing	2.5
DRAWING.36	32510	36	Drawing	3.5
DRAWING.40	32510	40	Drawing	4
DRAWING.48	32510	48	Drawing	4.5
DRAWING.56	32510	56	Drawing	5.5
DRAWING.72	32510	72	Drawing	9
DRAWING.14	32510	14	Drawing	2
DRAWING.10	32510	10	Drawing	2
DRAWING.12	32510	12	Drawing	2
DRAWING.80	32510	80	Drawing	10
DRAWING.9	32510	9	Drawing	2
DREAM.24	32704	24	Dream	9.5
DULLES.48	32261	48	Dulles	16.5
DUNDEE.12	32224	12	Dundee	4
DUNDEE.18	32224	18	Dundee	8
DUNDEE.36	32224	36	Dundee	27.5
DURANGO.56	32565	56	Durango	13
DURHAM.14	32468	14	Durham	6.5

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E.ORANGE.18	32311	18	East Orange	8.5
EASYSTREET.10	32705	10	Easystreet	4
EASYSTREET.12	32705	12	Easystreet	4.5
EASYSTREET.18	32705	18	Easystreet	8.5
EASYSTREET.20	32705	20	Easystreet	9.5
EASYSTREET.24	32705	24	Easystreet	12.5
EASYSTREET.9	32705	9	Easystreet	3.5
EDGEBROOK.09	32226	9	Edgebrook	2
EDGEBROOK.12	32226	12	Edgebrook	2.5
EDGEBROOK.18	32226	18	Edgebrook	3.5
EGYPT.AL.18	32312	18	Egypt alph	8
EIRE.12	99	12	Eire	4.5
EL.CAMINO.12	32626	12	El Camino	4
EL.CAMINO.24	32626	24	El Camino	10.5
ELECTRONIC.12	32315	12	Electronic	3.5
ELECTRONIC.24	32315	24	Electronic	9.5
ELITE.12	107	12	Elite	2
ELLESMERE.10	32494	10	Ellesmere	3
ELLESMERE.12	32494	12	Ellesmere	3.5
ELLESMERE.14	32494	14	Ellesmere	3.5
ELLESMERE.20	32494	20	Ellesmere	5.5

ELLESMERE.24	32494	24	Ellesmere	7
ELLESMERE.28	32494	28	Ellesmere	8.5
ELVISH.12	32313	12	Elvish	3
EON.12	32316	12	Eon	4
EPSILON.12	155	12	Epsilon	2.5
EPSILON.18	155	18	Epsilon	5
EPSILON.24	155	24	Epsilon	9
EPSILON.36	155	36	Epsilon	16
EQUATIONS.12	32314	12	Equations	3.5
ETA.MEDIUM.12	32317	12	Eta Medium	3
ETA.MEDIUM.18	32317	18	Eta Medium	3
ETA.MEDIUM.24	32317	24	Eta Medium	7.5
ETA.MEDIUM.36	32317	36	Eta Medium	15
EVANSTON.24	32227	24	Evanston	6
EVANSTON.36	32227	36	Evanston	11
EVANSTON.48	32227	48	Evanston	17.5
EXETER.12	60	12	Exeter	3.5
EYES.126	32499	126	Eyes	9
EYES.18	32499	18	Eyes	.5
EYES.36	32499	36	Eyes	1.5
EYES.72	32499	72	Eyes	4
FANCY.CAP.72	82	72	Fancy Caps	24.5
FANTASTE.18	32511	18	Fantaste	9
FARGO.48	141	48	Fargo	11.5
FATRHINE.18	32427	18	Fat Rhine	4.5
FINGERSPELLR.24	209	24	Fingerspeller	12
FINNEY.12	27	12	Finney	2.5
FINNEY.24	27	24	Finney	5.5
FIRENZE.18	32428	18	Firenze	4
FIRENZE.24	32428	24	Firenze	6
FLETCHER.12	32627	12	Fletcher	3
FLETCHER.18	32627	18	Fletcher	4.5
FLETCHER.24	32627	24	Fletcher	7
FLINTSTONE.12	32588	12	Flintstone	2.5
FLINTSTONE.24	32588	24	Flintstone	5
FLINTSTONE.48	32588	48	Flintstone	14
FLINTSTONE.72	32588	72	Flintstone	30
FLOOR.PLAN.24	32292	24	Floor Plan	4
FLOOR.PLAN.9	32292	9	Floor Plan	1.5
FLORENCE.12	32318	12	Florence	5.5
FLORENCE.24	32318	24	Florence	15.5
FLOW.II.18	32319	18	Flow II	2.5
FLOW.II.9	32319	9	Flow II	1.5
FOOT.12	32527	12	Foot	3
FRAC.12	32485	12	Fractions	4
FRAC.24	32485	24	Fractions	10.5
FRACXR.12	32486	12	Fractions XR	5.5
FRACXR.24	32486	24	Fractions XR	14.5
FRAME.1.12	32279	12	Frame 1	3
FUTURA.18	32429	18	Futura	4
FUTURA.24	32429	24	Futura	6
FUTURE.12	32320	12	Future	3
FUTURE.18	32320	18	Future	4
FUTURE.24	32320	24	Future	6.5
FUTURE.9	32320	9	Future	2.5

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GBSHAW.12	32479	12	G B Shaw	2.5
GBSHAW.24	32479	24	G B Shaw	5
GALENA.36	32683	36	Galena	15
GALENA.24	32683	24	Galena	7.5
GALENA.18	32683	18	Galena	5
GALLIA.24	32430	24	Gallia	7
GALLIA.18	32430	18	Gallia	5
GANGSTERS.18	32321	18	Gangsters	6.5
GAVARNIE.10	32506	10	Gavarnie	2.5
GAVARNIE.12	32506	12	Gavarnie	3.5
GAVARNIE.18	32506	18	Gavarnie	4.5
GAVARNIE.20	32506	20	Gavarnie	5
GAVARNIE.24	32506	24	Gavarnie	6.5
GAVARNIE.36	32506	36	Gavarnie	13
GAVARNIE.9	32506	9	Gavarnie	2.5
GE.10	32495	10	General Electric	1.5
GE.12	32495	12	General Electric	1.5
GE.14	32495	14	General Electric	1.5
GE.18	32495	18	General Electric	1.5
GE.20	32495	20	General Electric	1.5
GE.24	32495	24	General Electric	2
GE.36	32495	36	General Electric	2
GE.48	32495	48	General Electric	2.5
GE.9	32495	9	General Electric	1.5
GENEVA.10	3	10	Geneva	3
GENEVA.11	3	11	Geneva	3
GENEVA.12	3	12	Geneva	3.5
GENEVA.14	3	14	Geneva	4.5
GENEVA.18	3	18	Geneva	5.5
GENEVA.20	3	20	Geneva	6.5
GENEVA.22	3	22	Geneva	7
GENEVA.24	3	24	Geneva	8
GENEVA.28	3	28	Geneva	11.5
GENEVA.36	3	36	Geneva	17
GENEVA.48	3	48	Geneva	27
GENEVA.9	3	9	Geneva	3
GENEVASM.36	3	36	Geneva	15
GENJI.12	200	12	Genji	2.5
GENOA.24	128	24	Genoa	8.5
GENOA.12	128	12	Genoa	3.5
GERMAN.NY.24	32528	24	German New York	7.5
GERMAN.NY.12	32528	12	German New York	3.5
GHOTHIC.12	32529	12	Ghothic	3
GIANTS.18	32322	18	Giants	9.5
GIBSON.24	5	24	Gibson	5
G.SHELTON.72	32628	72	Gilbert Shelton	23.5
GLENCOE.48	32684	48	Glencoe	25
GLENCOE.36	32684	36	Glencoe	14.5
GLENCOE.18	32684	18	Glencoe	5
GLENCOE.14	32684	14	Glencoe	4

GLENCOELT.9	32678	9	Glencoe Light	2.5
GLENCOELT.10	32678	10	Glencoe Light	2.5
GLOSS.24	32629	24	Gloss	10
GORKY.9	32630	9	Gorky	3
GORKY.24	32630	24	Gorky	8.5
GORKY.18	32630	18	Gorky	6
GDSYWHL12	32566	12	Gothic Daisywheel	4
GRAFIK.12	32323	12	Grafik	3.5
GRAHAM.24	9	24	Graham	4
GRANITEDECO.48	32324	48	Granite Deco	6.5
GRATITUDE.9	32480	9	Gratitude	2
GRATITUDE.28	32480	28	Gratitude	6
GRATITUDE.24	32480	24	Gratitude	6
GRATITUDE.20	32480	20	Gratitude	4.5
GRATITUDE.18	32480	18	Gratitude	4
GRATITUDE.14	32480	14	Gratitude	2.5
GRATITUDE.12	32480	12	Gratitude	3
GRATITUDE.10	32480	10	Gratitude	2.5
GREECE.9	32530	9	Greece	2.5
GREECE.24	32530	24	Greece	6.5
GREECE.20	32530	20	Greece	5
GREECE.18	32530	18	Greece	4.5
GREECE.12	32530	12	Greece	3
GREECE.10	32530	10	Greece	2.5
GREEK.20	32325	20	Greek	6.5
GREEK.12	32325	12	Greek	3.5
GREEK.10	32325	10	Greek	3
GKANTIPART.9	32507	9	Greek Anti Particles	2
GKANTIPART.36	32507	36	Greek Anti Particles	6
GKANTIPART.24	32507	24	Greek Anti Particles	3.5
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GKANTIPART.18	32507	18	Greek Anti Particles	2.5
GKANTIPART.12	32507	12	Greek Anti Particles	2
GKANTIPART.10	32507	10	Greek Anti Particles	2
GKANTIPART.10	32507	10	Greek Anti Particles	1.2
GREENBAY.18	186	18	Green Bay	8.5
GREG.S.CZECH.24	127	24	Greg's Czech	12.5
GREG.S.CZECH.12	127	12	Greg's Czech	4.5
GUITAR1.24	32531	24	Guitar 1	22
GUITAR1.12	32531	12	Guitar 1	7.5
GUITAR2.24	32532	24	guitar 2	24.5
GUITAR2.12	32532	12	Guitar 2	8

Volume: /WAP.GS.Fnts.H1

HACKER.18	32706	18	Hacker	10.5
HAIFA.12	134	12	Haifa	3
HAMERSKJOLD14	32533	14	Hammerskjold	4
HANFORD.10	32534	10	Hanford	2
HANFORD.12	32534	12	Hanford	2
HANFORD.14	32534	14	Hanford	2
HANFORD.18	32534	18	Hanford	2
HANFORD.9	32534	9	Hanford	1.2
HAPCANYON.12	32567	12	Happy Canyon	2.5
HAPCANYON.24	32567	24	Happy Canyon	5
HARTFORD.48	32631	48	Hartford	32
HEBREW.24	32348	24	Hebrew	7
HEBREW.18	32348	18	Hebrew	4
HEBREW.12	32348	12	Hebrew	3
HEBREWCURSIVE24 Hebrew Cursive	32327	24	9.5	
HELSINKI.12	32632	12	Helsinki	4
HELSINKI.18	32632	18	Helsinki	6.5
HELSINKI.24	32632	24	Helsinki	9.5
HELSINKI.9	32632	9	Helsinki	3
HELVETICA.10	21	10	Helvetica	3
HELVETICA.12	21	12	Helvetica	3.5
HELVETICA.14	21	14	Helvetica	4
HELVETICA.18	21	18	Helvetica	6
HELVETICA.24	21	24	Helvetica	8.5
HELVETICA.9	21	9	Helvetica	3
HERFORD.20	32535	20	Herford	7
HERFORD.9	32535	9	Herford	3
HERFORD.28	32535	28	Herford	11
HERFORD.24	32535	24	Herford	8.5
HERFORD.18	32535	18	Herford	6
HERFORD.14	32535	14	Herford	4
HERFORD.12	32535	12	Herford	3.5
HERFORD.10	32535	10	Herford	3.5
HEX.CITY.12	32633	12	Hex City	5
HIGHWOOD.24	234	24	Highwood	4.5
HIGHWOOD.20	234	20	Highwood	3.5
HIGHWOOD.18	234	18	Highwood	3
HIGHWOOD.12	234	12	Highwood	2.5
HIGHWOOD.10	234	10	Highwood	2.5
HIGHWOOD.14	234	14	Highwood	2.5
HIRAGANA.24	32568	24	Hiragana	12
HOLLYWOOD.24	151	24	Hollywood	13.5
HOLLYWOOD.18	151	18	Hollywood	6
HOLLYWOOD.12	151	12	Hollywood	5
HOMBRESM.18	32328	18	Hombre	4.5
HONDA.24	32329	24	Honda	4.5
HONDA.18	32329	18	Honda	3.5
HONG.KONG.9	32634	9	Hong Kong	3
HONG.KONG.24	32634	24	Hong Kong	9
HONG.KONG.18	32634	18	Hong Kong	6
HONG.KONG.12	32634	12	Hong Kong	4
HOOD.RIVER.24	218	24	Hood River	4.5
HOOD.RIVER.12	218	12	Hood River	2
HOUSTON.36	32330	36	Houston	11
HUMANISTIC.48	32490	48	Humanistic	28.5
HUMANISTIC.36	32490	36	Humanistic	17
HUMANISTIC.18	32490	18	Humanistic	5.5
HUNT.18	32350	18	Hunt	3.5
HYDRAULIC.12	32589	12	Hydraulic	3.5

Apple II Tech Notes

The Apple II Tech Notes are also now available through the Disk Library. This is a three-disk set which contains hundreds of text files each containing technical descriptions and discussions of various aspects of Apple II computers. The names of the disks are: /A2.Tech.Notes.1, /A2.Tech.Notes.2, and /A2.Tech.Notes.3. The subjects covered on / A2.Tech.Notes.1 include the IIGS and GS/OS. The subjects covered on / A2.Tech.Notes.2 include the IIe, the IIc, AppleTalk, the ImageWriter, memory expansion, the mouse, Pascal, ProDOS, the SmartPort and the Unidisk. The subjects covered on /A2.Tech.Notes.3 include file type descriptions and definitions, standards, and Tech Tidbits.

The Tech Notes are for people interested in getting into the nitty gritty of their Apple II. If that describes you then these disks can provide an excellent reference. Included on disk one is an index and a table of contents. The Tech Notes are current to January 1990 and will be updated about once every other month.

That's it for now. Hopefully, in the not to distant future, the kids will stop "Hopping on Pop" long enough for me to get another article done. Till then... Apple II Forever!

MACROS

The UltraMacros Primer teaches you everything you need to know to use TimeOut UltraMacros. This 250 page manual includes many examples and suggestions. The lessons in this book describe how to install UltraMacros, how to capture keyboard macros, how to write compiled macros, and much more. Recommended by inCider magazine. Author Mark Munz is on the staff at Beagle Bros. $19.95 (plus $3 s/h). Visa and MasterCard accepted.

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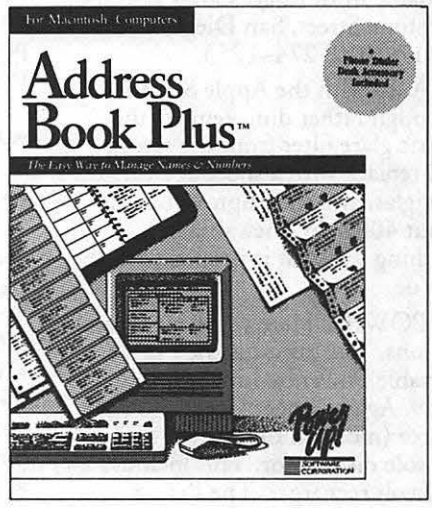

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From our mobile TCSO

Portable Apple IIc

by Lee Raesly

In the March issue of A2 Central, Peter Schaper had a question from Australia. The question essentially was, "If only Apple Computer, Inc. would make an Apple II that I could take anywhere."

Peter, with a little imagination, what you are looking for is already available! Let me show you what I currently do. Here goes:

SCREEN: Two are available, Apple's LCD Screen, and one by C-Vue. Although Apple does not currently market its screen, you can still find them used at User Group Garage Sales, Computer Flea Markets and occasionally in the newspaper Classified. The C-Vue is available from Roger Coats at 4684 Firestone Street, San Diego, CA 92117; (619) 274–1253.

A tip with the Apple Screen: although rather dim, remove the plastic glare filter from the screen and replace with a sheet of clear Plexiglas, and the improvement is about 400% in "viewability." Nothing like that is needed with the C-Vue.

POWER: Here you have several options. The easiest is the Prairie Portable Power by Linco, Inc. at $119. Again, Roger Coats was my source (more on them later) and is the sole distributor. This includes a 110 volt recharger. The Prairie Power Pack includes a nice leatherette carrying case which holds the battery AND your Apple IIc and Screen.

Since the Power supply is 12 volts DC, a regular small battery—such as sold by radio control model stores (I use Tower Hobby P. O. Box 778, Champaign, IL 61824, (800) 637–6050) for $29.95 can be used at a lot less cost. For a charger, a cheap battery charger from the same source at $8.89 (or a local car parts supplier such as Pep Boys) will serve nicely at about 1/3 the cost. But no carrying case comes with that arrangement!

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But you must periodically have access to 110 volt AC line with this arrangement (so far). Here, a marine supply discount house can help. They have several sizes of 12 Volt DC Solar Cells available, varying in price from $100 to $400. The smaller one will do nicely. These Solar Cells are used for recharging the marine battery on sailboats for extended cruising. I purchased mine from E & B Marine Discount Supply, 8807 Annapolis Road, Lanham, MD 20706 (301) 577–0660, at $98.99 for a 5 watt unit. You also need a diode to prevent back current, and a kit for this is $9.95.

This arrangement works fine with the original Apple IIc. But what to do if you have to buy a new Apple IIc+? Two things:

Advertise that you will exchange even a new IIc+ for an older, original IIc (in good condition, of course!). You should get many takers for that offer! Also, locally in Washington, DC, a new Apple IIc+ can be had for $490, which makes it the best computer buy around in my opinion. And it runs at 4MHz. Personally, I prefer my IIc "classic" with an 8MHz Zip Chip!

The second choice is if you have a new Apple IIc+ and don't want to give up the internal 3.5 drive or the regular monitor. Back we go again to the auto parts store, or the marine supply. What you need is an inverter. Marine stores sell them for sailboats so you can watch TV, run your electric razor, etc. Generally costing about $25 to $150, they will do the job quite nicely, thank you. Although the cheaper ones produce 110 volts AC in a square sine wave, they will run the Apple IIc well. If you are concerned, you can buy a more expensive unit which will give you a nice curved sine wave, or you can purchase a transformer to "smooth" the current. But not really needed.

PRINTER: Eastman Kodak, Inc. makes a battery-powered portable ink-jet printer called the Diconix. It is available in both a serial and parallel model for $299. (Roger Coats again!) I bought the parallel model, and use the $49 Apricorn serial to parallel converter. This printer uses 5 "C" size rechargeable NiCad batteries and will print about 50 full pages single-spaced. To print 100 pages, just carry a second set of batteries!

General Electric has a nice NiCad battery charger from most hardware stores at $24.95, So no need to have more than two sets of batteries. Tthe Diconix has an internal recharge feature that will recharge your batteries while not in use.

Another advantage of the ink-jet is that from the first printed copy to the last, the image is always uniformly dark. No fading ribbons here!

So picture this: It is a bright, sunny afternoon (could have been cloudy and the Solar Cell will still work!) in an abandoned quarry in the suburbs of Washington, DC. Sitting at a card table (with an umbrella over his head to keep the bright sun from the screen) is a young 59-year old kid wearing a leather vest, jeans, and a hat with a bright red plume, with an Apple IIc in front of him, busily entering timing results for the Quicky-200 race contestants in his AppleWorks 3.0 spreadsheet. Printing them rapidly on his printer with TimeOut SideSpread, within 30 seconds of the end of each heat, contestants and judges have a printed copy of the cumulative times and scores of all entrants and their relative positions within the group!

Incidentally, there was a similar story of scoring of a National AMA (Academy of Model Aeronautics) race in the March AMA Model Aviation written by Frank Kelly of Lake Havasu, Arizona. I have received permission from both AMA and the author to reprint any or all of it. If you are interested in a copy,

call me at 220–0717 (Weekdays 9AM–5PM) and I will send you a copy, including the photographs.I dearly love my Permanently Portable Apple IIc, with 1 Meg of RAM, an 8MHz Zipper, and AppleWorks 3.0.

The author has been a Director-At-Large member of the WAP BOD for the last six years as well as the TCSO (Tele-Communications System Operator) for the PI.

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HyperStudio takes off...

Stack Central Station

by Frank Evangelista

Excited to see a new product for the "soon to be dead" Apple II line, I sent forth my Visa number to A2-Central for a two-disk bimonthly "magazine." Truthfully, even at $42 a year post-paid, I didn't expect much because HyperStudio is such a new product.

What a pleasant surprise! Considering that this is the second issue, it contained material that would please most owners of HyperStudio. The program is required and A-2 Central will provide the subscription for the disks and HyperStudio at a reduced price.

It appears that this product will serve as a teaching tool as well as provide samples of stacks provided by contributors. This issue had two HS.XCMD's that will be useful to those preparing stacks and it explains how XCMD's are used. One will permit you to change the border of the screen during stack production; the other will permit you to include dialog boxes in your stackwork. Both were developed by Steven Allen and can be used by anyone who cares to master them.

A stack called Hyper-Space shows the earth, its planets and the sun and gives a description of each in a colorful and interesting manner. It looks like a modified version of the Planets stack that you may have seen elsewhere.

Another two stacks contain 47 commonly used words, such as "underdog" and "spring chicken," and provide information on their origin. This was interesting if only to provide inspiration on how this new medium could be used. These stacks were prepared by Joel Helpon.

Of minor disappointment was the inclusion of two shareware NDA's named File Manager and Write It. These programs are available most everywhere including our own TCS. Shareware that is readily available from most sources should not be included in disks published for sale, in my opinion. Perhaps A-2 Central will consider a change in policy for future issues.

As an early attempt to provide software to HyperStudio users, I think it is a fine effort. The more experience A2-Central gets in this area, the more improvements should be forthcoming. I'm just happy to see new blood being pumped into the Apple II software area. A2-Central can be contacted at P.O. Box 11250, Overland Park, KS 66207 (913) 469–6502.

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They Have Made the Decision...

by Pavel Cherenkov

(Editor's Note: The following is an article from Pi member Pavel Cherenkov, about the use of Apple compatibles at his former school in Moscow. Pavel graduated from School 45 last June, and has been working at a Moscow-based software publisher for the past few months. He joined the Pi last year, while on a one-month student exchange with students at Bethesda-Chevy Chase High School.)

"They have made the decision," said Lee Felsenstein, a partner in Glav-PC, Inc., a Berkeley, Calif., company seeking to promote the development of a personal computer infrastructure in the Soviet Union, mentioning the fact that the USSR has chosen the IBM PC standard as the dominating one in business.

School 45, located near Moscow, has made the decision that the Apple II will be their standard, and they don't seem to be sorry about that.

The computers School 45 owns are made in Bulgaria and boot up with the message "Pravetz" rather than "Apple" when the computers are turned on. The two kinds of Apple compatible Pravetzes I know are called: Pravetz-82 and Pravetz-8A. These are Apple II+ and Apple IIe compatibles, with a "Russian-style" keyboard with additional Russian alphabet letters, and a few changes to make the computer display these letters.

Since the old disk operating system, DOS 3.3, doesn't seem to check a computer's name in ROM, all the American made DOS 3.3 programs work fine over here. ProDOS, on the other hand, checks to see if the word Apple is in ROM, so Bulgaria had to provide us their "universal" version of ProDOS 1.1.1. that could be run both on American and Bulgarian Apples. Now such a version of ProDOS 8 is coming.

The difference between a Pravetz-8A and an Apple IIe that does not deal with the Russian alphabet is that the Pravetz-8A can work both in decimal and in hexadecimal systems under Applesoft BASIC. You can input hex numbers, preceded by the dollar sign, or for example, use POKE $300,X instead of POKE 768,X. This works fine until you want to run your program on an "original" Apple that does not understand such "jokes," like the only one American Apple IIc we've got at School 45.

Most of the School 45 students use "fast" DOS 3.3 to work in BASIC, and those who work in Pascal use Apple Pascal 1.1. BASIC and Pascal are the languages students learn in their programming classes. They can also learn 6502 Assembly Language (we have Merlin Pro and Merlin 8 now), or get involved in AppleWorks typing for the school database. Next year students will learn C as well.

One of the problems students studying programming face first of all is the shortage of disks. School 45 can not provide a student with more than one floppy disk. But the market price for a pack of double sided, double density 5.25 inch disks is equal to half of the average salary in the USSR, namely 120 rubles. School 45 cannot earn hard currency to buy as many disks as students need in the West, so the disks School 45 uses are mostly made in Bulgaria and the USSR. These disks are not worse than American disks, because the disk-making technology is foreign anyway.

Although the students have done a lot of programming, School 45 has not produced any programs for sale. There was such an attempt made one year ago, but it failed because of free time problems of the students who were supposed to make the product. Now the school earns money translating different American literature on computers into Russian. There is no copyright law in the USSR yet, so the work is fully legal.

School 45 does not have a good library on computer science. The two years I worked there as a student I looked for information about the Apple II+ RAM structure so much I made a special program that helped me to discover what was where in the Apple II+ RAM.

The situation is getting better now, as far as technical books, for we received a few books from the Washington Apple Pi and we keep in touch with the students at Bethesda Chevy-Chase High School that participated in the USSR-USA student exchange last year.

One thing students can fear leaving School 45 is that they may never see another Apple compatible anywhere else in Moscow. But those who look for Apples do find them. And we don't give up trying to top the IBM standard, at least in Moscow schools. Since School 45 is going to be a good springboard for the upcoming Apple compatibles invasion, I am sure Apple will win the battle.

Let us summarize the results of using Apple compatibles in School 45. I think the most important result is that students discover a new field they can get interested in. They also discover Apple II family of computers they've never heard of before.

Some of the students may decide to become programmers, and that pays to the country. Some can just make sure computers are none of their interest, so they won't make the wrong choice entering a college. This maybe sounds too naive for Americans who have a very highly developed system of education. But it is serious for us, who have just started asking ourselves why they do live better there, under capitalism.

Game review(?)

Solitaire Royale (GS):

by David Wood

If you've got a computer, you don't need a partner anyway...

Okay. You've got a few thousands of dollars worth of hardware and software on your desk. You've probably acquired a number of other games, and now you're in your local They're Everywhere They're Everywhere software store, deciding on your next acquisition, and you see this. You have to ask yourself, "What's the point? For under $2, I can buy a deck of cards and play solitaire myself." Well, it both does and doesn't make sense:

Solitaire Royale is available for, among others, the Apple IIGS with 512K memory and at least one 3.5" disk drive. It ships with GS/OS, so you need at least ROM 01 to run it. Also, because it uses a few sounds (very few), they suggest that you have at least 768K. Sprctrum Holobyte has become very nice about copy protection (they don't use it often), and this is no exception; it should go onto a hard drive with no problem whatsoever.

The object of the game is simple: move all the cards from the stock and talon to the foundations. For those of you who've never been bored around a deck of cards, the talon is the initial layout of cards on the table, and those cards that aren't used in the talon are put in the stock.

How many versions of solitaire do you know? If you buy this, you'll know eight: Klondike (the classic 1-2-3-4-5-6-7 layout, which some people call Canfield), Canfield (the real one), Pyramid, Golf, Corners, Calculation, Three Shuffles and a Draw, and Reno (Canfield for Money).

In all but Pyramid and Golf, you have to move the cards to the foundation in ascending order (usually from the aces, but Corners plays a little differently).

In Pyramid, you have a seven-high pyramid of cards. You have to take them off in pairs totalling 13 (Kings, which total 13 already, are freebies). A card is only free when both cards on top of it are played, so you have to work the pyramid from the bottom up.

In Golf, the stock is played card by card to the foundation. On the top card in the foundation, you may play from the talon (seven columns of five cards each) any card whose count is directly above or below, except for aces (which are the lowest already) and kings (on which nothing may be played).

There is also a Tournament option, which saves the order of the cards in the deck so the same talon and stock come up for the next person. It will also store the five highest scores, so people can compete at each game.

Then there's the Tour option, in which the player plays each game, one after another. The five highest scores from that are stored on disk, and may be cleared at your convenience. There's also a Tour under the Tournament menu, which is real mayhem.

This package works for children, too; there's a menu of Childrens' matching games using a truncated deck (no cards 3-9). If you're getting frustrated by the full-scale versions, these simpler version will provide some easier victories.

Now, with all of this, you may ask, "What's the point?" Solitaire, after all, is a game for people who don't have anything better to do. Just grab a deck, and go to it. There's especially no reason to have a tournament game; if two people are looking for something to do, they won't want to take turns on a one-player game.

On the other hand, solitaire by nature is tedious. You have to shuffle the cards, deal the cards, and then move piles back and forth. On the computer version, the cards are shuffled almost instantly. The cards are dealt very fast. And rather than picking them up and moving them around, you just click on the pile to move, click on the destination, and the compuer does the rest. The point of solitaire, or any other game, is to take up time, and by computerizing, you can waste less time with mechanics and waste more with playing. It's a bit like the microwave crock pot: it lets you slow-cook twice as fast.

So what do I think of it? The premise may seem a bit silly, but it's well presented, does what it promises, and some nights I stayed up as late as 1:30 the next morning playing with it because it's like the proverbial 'one potato chip.'

Look: 8/10 (You have a choice of eight games, five decks, and you can set the desktop color the way you like. Visually, it does the job.)

Feel: 7/10 (Sometimes, screen refreshes bog the game down. And, it has this little problem: it Crashes With Extreme Prejudice sometimes.)

Play: 7/10 (It's solitaire. What can I say? It's much faster, but it's still something I could do with a deck of cards. However, I wouldn't do it with the deck of cards until the wee hours of the morning).

Total: 8/10 (It's amusing, but there are other things I may want to do...)

Our far-flinging corespondent

Mac Telecommunicating

by Lou Pastura

Tip of the Month

I haven't tested this one thoroughly yet, but it seems like such a nifty idea I'll pass it on. A recent series of messages on one of the national nets discussed a handy replacement for those anti-static cleaning cloths that supposedly make your monitor less prone to attract dust. Without getting into a big discussion regarding whether they really work (I regularly use one, but I'm not sure why), it was suggested that the anti-static cloths that are sold for use in automatic clothes dryers perform the same function far less expensively. I've tried one of these cloths it with no harmful effect on my monitor. A very slight residue was easily removed with a soft cloth and the monitor does appear less prone to attracting dust. At least the price is right! In fact, dusting your screen with a fresh cloth just before using it in the laundry is a "zero cost" cure. Some brands of these anti-static cloths appear to have more solution on them than others, so I'd suggest experimenting first (as I did) on a piece of clear glass or on the corner of your monitor.

Books, Books, Books

As the tools for Desktop Publishing become more and more powerful and less and less expensive, computer users everywhere are continuing to jump on the DTP bandwagon with some excellent and some disastrous results. While I'm not suggesting everyone go out and invest in years of graphics art training, many of us could use some help to avoid the embarrassment of responsibility for some of the more hideous examples of DTP enthusiasm. There are a number of excellent books available that are worth a perusal to determine whether any or all of them will meet your needs. None of these offerings will turn you into an overnight graphic artist or provide an instant infusion of style or good taste. What they will do is provide some basic guidelines and suggestions that should serve to help you avoid the worst of the DTP pitfalls.

The Makeover Book –by Roger Parker (Ventana Press) provides a list of 25 questions designed to help you analyze your own work and then provides 101 "Before and After" examples of what to do and why. The examples are grouped for easy reference according to type of document (for example, brochure, flyer, report, booklet, ad , stationery, etc.) and provide a good basis for analysis and criticism of drafts and proofs. This book is excellent for beginners who are unfamiliar with basic terms and principles since everything that's discussed is explained through clearly marked and easily understandable examples. If you can only get one book, think about this one.

Looking Good in Print –by Roger Parker (Ventana Press) is yet another offering from this prolific author that places more emphasis on the basic principles and tools of good design and provides more analysis of the examples of good (and bad) design. This book includes more about why and how things are done and is a good primer on design and layout basics. Both of these books are written in an engaging, informal style that imparts on the reader a sense that all is not lost and that even you can make design choices that will result in a pleasing and effective presentation.

Graphic Design for the Electronic Age –by Jan White (Xerox Press/Watson-Guptill) is somewhat more technically oriented than Parker's offerings, but still provides a large amount of extremely practical and useful information in a very readable form. While Parker's books emphasize analysis of work you've already done, White's effort takes you through the process of doing the work–selecting and using type, making layout decisions and selecting paper and binding. White makes liberal use of technical terms used in typography and printing, but explains them all in a way that will have you talking to your printer like an old hand in no time. Graphics and vignettes on the history of typography and printing serve not only to enlighten the reader but to hold the reader's interest by breaking the topics being presented into manageable segments. All in all, a very pleasant and informative effort.

Design Principles for Desktop Publishers–by Tom Lichty (Scott, Foreman Computer Books) is the most basic of the texts I've read. It starts at a very rudimentary level, but ends before really getting into any depth. This is probably the most "user friendly" of the books discussed here, but the price you pay is a lack of substance that somehow leaves you wanting more. The book's saving grace is an excellent, albeit elementary, treatment of the use of graphics, illustrations and photographs that surpasses anything the other four have to offer.

Design for Desktop Publishing –by John Miles (Chronicle Books) was my least favorite out of the five. At least part of this is due to the author's style of writing which seems to me to be too direct and terse, more like that of a lecturer than a teacher. There is good information to be gleaned from the book, but as I read it I kept getting the feeling that Mr. Miles would just a soon we left the typographic decisions to the professionals. Also, the presentation of ideas seemed extremely rigid. Most of the other authors suggested "These are generally accepted principles. If you're going to violate them, make sure you have a good reason." Mr. Miles, at least to me, seemed to be saying "These are the rules–follow them or else." To be fair, this work did have the best discussion regarding the use of grids in page layout. Also, a brief treatment of symmetry and asymmetry and the effect these can have on the reader and on the message conveyed has been helpful to me on a number of occasions.

RAM Prices/Places

OK, so the rest of the world

finally agrees with me–the venerated MacWeek has said that it looks like memory prices have bottomed out and may be settling in or heading slightly back up. That's also the consensus on "the Boards". With System 7 right around the corner, now may be the time to take the plunge. The following list of mail order vendors is by no means a comprehensive one, but it includes all the companies I could identify that met two criteria: 1) the company has an "800" number for ordering; and 2) the company has been discussed favorably on bulletin boards with regard to responsive delivery and service, reasonable product quality and faithful adherence to its stated warranty policy.

South Coast Electronics	800-289-8801
Technology Works	800-622-2210
Newer Technology (DRAM)	800-678-3726
Chip Merchant	800-426-6375
Peripheral Outlet	800-332-6581
Delta Research Labs	800/999-1593

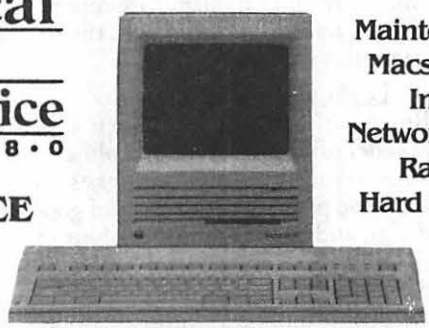
Each of these companies has different policies with regard to delivery times and charges, credit card use (some may charge a fee; Chip Merchant does not accept credit cards at all) and warranties. Also, prices seem to change almost daily. When you call to check on the price, ask about the other items as well.

Apple Update

For those of you who have been stranded somewhere on a desert island, Jean Louis Gassee has gone on to other opportunities and Apple has introduced the IIfx, a screamer of a machine that blows the doors off of just about anything in personal computerdom today. The critics that have made a career out of harping on the lack of a truly powerful Mac work station will now be relegated to the peanut gallery and will have to join the other critics singing "Where, Oh Where is the Low-Cost Color Mac?". (Hmm, come to think of it, I'd like to sing a few choruses of that one myself.) Apple also introduced a new line of Video cards for the modular Macs that are faster and more powerful than their predecessors.

Lou Pastura is an International financier who spends most of his waking hours trying valiantly, albeit unsuccessfully, to spend it faster than it comes in. The rumors of his plans to become the first Italian mayor of the District of Columbia are totally false. His greatest contribution to the Washington Apple Pi and to western civilization as we know it has been to get Eric Rall to behave for 15 minutes.

Technical & Sales & Service
I•N•C 1•9•8•0



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Mac Disketeria

by Dave Weikert

New and Recent Disks

We have eight new disks this month including two with HyperCard Stackware, one with HyperCard Externals (XCMDs and XFCNs) and five containing Apple System Software version 6.0.5. We have also revised the first Anti-Virus disk. See the descriptions that follow for the contents of each of the disks.

Recent disks include Anti-Virus Utilities (Mac Disks #1.02B through #1.03B), the initial disks of the INITs/cdevs Series (Mac Disks #9.01 through #9.05), the second disk of the Miscellaneous Series (Mac Disk #10.02 – Tax Templates), a Telecommunications disk featuring WAP's own TCS (Mac Disk #13.09), Programmer/Hacker Series (Mac Disks #14.02 and #14.03), Misc. Utilities (Mac Disks #15.01A through #15.11A, only the last four of which are new programs not previously in our collection) and three disks with HyperCard StackWare (Mac Disks #19.30 through #19.32) and eleven disks of the the recently revised Mac II series (Mac Disks #20.01A through #20.11A).

HyperCard Stackware Series

Our HyperCard librarian, David Condit, has two more disks of Stackware. David tested and annotated Mac Disk #19.33 which includes several outstanding utility stacks and more of the Windoid series of stacks. David notes that the KKII stack is excellent for storing and collecting resources.

Peter Crawford compiled and annotated Mac Disk #19.34 titled Easy Music which includes an excellent stack of folk songs, a good music composition stack and several XCMDs for music lovers. Look over the descriptions following to see which ones you may want to add to your software collection.

HyperCard Externals Series

David Condit also developed a new addition to the HyperCard Externals series with Mac Disk #21.05 which includes the Dartmouth XCMDs and XFCNs to help those of you interested in stack development. This stack includes the latest of the Dartmouth XCMDs that have been around for several years.

Apple System Software 6.0.5

Apple has just released the latest version of System Software in a five disk set. This upgrade which comes standard with the new Mac IIfx provides many "bug" fixes and some new features. If you have seen unexplained glitches in your use of the Mac IIcx, IIci or Mac Portable, this update may well eliminate them. Perhaps the most significant enhancement for users of faster Macs (SE/30, Mac IIcx, IIci and IIfx) is the reduced the scroll speed of file dialog boxes so you can accurately select files and folders without overrunning them. The installer also recognizes whether you have the color LaserWriter driver version 6.0 in your System folder; it is updated to version 6.0.1 if you do and version 5.2 is installed otherwise.

In addition to Apple System Software 6.0.5, we will continue to stock 6.0.3 until System 7 is released. When you order, please specify whether you want System Software version 6.0.3 or 6.0.5.

StackWare & Externals Help

David Condit, our HyperCard librarian, still needs help with stacks and XCMDs/XFNCs needing evaluation and annotation . Give David a call at (703) 349-8752 if you can help.

Another New Virus, another Anti-Virus Utility Update

Another new virus; this one is from Italy and is named the ZUC or Zucchini virus. It is also known as "bouncy cursor virus." Zucchini is very infectious and tries to bypass some of the known anti-virus protection software. It only infects applications, not system files. The primary sympton is that the cursor starts to move diagonally about 90 seconds after you start an infected application. You have to reboot to regain control of your cursor. Both Virus Detective 4.0a and Disinfectant 1.7 are now modified to counter this new virus.

Disk #19.33 – SW 33

Stack Utilities and Info

Windoid 1.7: By Team Hackinslash and Thomas Wimbish (imMedium Design). The Apple HyperCard User's Group's (AHUG) periodic text periodical put into stack format. This issue was a long time coming but has some interesting information from the AHUG and includes some outstanding new icons from imMedium Design. An excellent source of some dandy hints, tips, suggestions, and now icons for all Hypercardists.

Windoid 1.8: By Thomas Wimbish (imMedium Design). The Apple HyperCard User's Group's (AHUG) periodic text periodical put into stack format. This is the first issue completely by imMedium Design but does a fine job of carrying on the tradition of Team Hackinslash. An excellent source of some dandy hints, tips, suggestions, and icons for all Hypercardists.

(w)Index: By Thomas Wimbish (imMedium Design). A stack index to all of the published Windoids. The **(w)Index** stack is a central topical index for all issues of the HyperCard stack version of WINDOID, the newsletter of the Apple HyperCard User Group. It allows you to access virtually any card in any WINDOID stack from a single button on your Home card in three mouse Clicks or less, and lets you browse through your entire WINDOID collection as if it were a single stack.

KKII 2.1 Stack *f:* **KKII v2.1**: By Leonard Buck. This is an outstanding stack offering a complete environment for both the serious and the casual HyperCard user. Its various "Keepers" allow you to effective manage the various components of the HyperCard world; files, resources, scripts, icons and text. Using a consistent, easy to learn format each "Keeper" provides not only a centralized repository for these components but also very powerful tools for manipulating them. **KKII v2.1** includes a "File Keeper" that is a very effective mini-finder; a "Resource Keeper" for automatically cataloging and storing HyperCard resources such as XCMDs and XFCNs, sounds, and fonts; an "Icon Keeper" for automatically collecting and storing icons from any file; a "Script Keeper" for storing useful scripts; and a "Text Keeper" for storing smaller text files less than 32000 characters. **KKII21 Desc (txt)** contains some documentation on the stack, but most of the stack describes itself. ***Shareware – $35.00.***

Alert Manager 1.1.6 *f:* **AlertManager**: By Dean H. Wette. The **Alert Manager** allows you to call any standard-type alert dialog from a script with a minimal amount of HyperTalk code. The stack includes dialog templates simplifying the creation of standard alert dialog boxes and makes it very easy for anyone to add a professional touch to their stacks using the ShowDialog XCMD (by Jay Hodgdon) along with the **Alert Manager.** Included in the folder is **AlertMgr 1.1.6 update script** detailing how to update the stack with ShowDialog version 1.6. ***Alert Manager is freeware, the ShowDialog XCMD is Shareware - $5.00.***

Disk # 19.34 – SW 34
Easy Music

FOLKTN: By Bob Hay, HayStacks Ltd. Enjoy listening to 10 fun old folk tunes and fiddle tunes from the British Isles. Excellent tunes well done although only two sound instruments are available.

HyperComposer: By Brent and Susan Riddles and David Shaulis. Write music for your own stacks, compose it and then a button will be made for you so you can paste it into other stacks. HyperComposer is not true to written conventions, as at this time rests do not work and tempo is not controlled in beats per measure, but you don't have to know anything about music to enjoy this stack. ***Guiltware - $5. If you feel guilty about writing music for your stacks.***

Sound XCMD Stack: By Julio Tallet. The two XCMDs in this stack, couldSound and freeSound, eliminate the problem that HyperCard users encounter when they try to play sounds from stacks that are stored on floppy disks, the sound is garbled as the disk is accessed. One XCMD preloads a sound and marks it as 'non-purgeable' so that HyperCard cannot clear it from memory until you play it, and the other XCMD marks the sound as 'purgeable' again so that HyperCard can reclaim space in memory as needed. ***Shareware - $5.***

Disk #21.05 – HE 5
HC Externals

Dartmouth XCMDs 3.4.1: By Kevin Calhoun and Roger Brown. This stack contains the first, second, and third sets of HyperCard XCMDs and XFCNs released by the Courseware Development Team at Dartmouth College. They were originally written for Dartmouth HyperCard projects but are generally useful for anyone interested in stack development. Source code is included for most of the XCMDs and XFCNs. Included are the following XCMDs: PrintField, TextStream, FileToField, FieldToFile, WriteToFile, FileToClip, PopUpPicture, PictureShow, ClipToPICT, PICTFileToRes, LeafName, DeleteResFork, RInstall, IsResource, ResList, GetResources, SizeCardWindow, ObjectExists, ModalDialog, Password, ConvertDate, SystemFolder, HyperFolder, AuxActive, XScrollBox, XScrollBoxF, XScrollBoxM, FindInField, SerialHandler, AuxWindow, LSC Utilities, SortField, SortFieldByItem, MenuHandler, Replace, FindKey, MultiSort, ChooserName, WritePermission and PopList.

Note: The following Apple System software does not include documentation. If you require documentation, it is recommended that you purchase the System Software package (which includes full Apple manuals) at your Apple dealer. Don't forget to ask about a discount for Washington Apple Pi members.

Sys Sftwr 6.0.5 – SS.ST.5
System Tools

Apple HD SC Setup, Installer, Installer Script, TeachText and Read Me.

System Folder: **Finder, General, Monitors, Startup Device and System.**

Sys Sftwr 6.0.5 – SS.PT.5
Printing Tools

Apple Color: **32-Bit QuickDraw, Laser Prep, LaserWriter, Read Me for Apple Color, TeachText and Technical Information on 6.0.5.**

AppleTalk ImageWriter, ImageWriter, Laser Prep, LaserWriter, LaserWriter IISC, LQ AppleTalk ImageWriter, LQ ImageWriter and PrintMonitor.

Sys Sftwr 6.0.5 – SS.U1.5
Utilities 1

Apple HD SC Setup, Disk First Aid, Responder and TeachText.

System Folder: **Access Privileges, AppleShare, Backgrounder, Color, DA HHandler, Finder, General, Keyboard, Mouse, MultiFinder, Sound and System.**

Sys Sftwr 6.0.5 – SS.U2.5
Utilities 2

Apple File Exchange Folder: **Apple File Exchange and DCA-RFT/ MacWrite.**

Font/DA Mover Folder: **Font/DA Mover, Desk Accessories and Fonts.**

MacroMaker Folder: **MacroMaker, MacroMaker help and Macros.**

System Folder Additions: **CloseView, Color, Easy Access, Key Layout, Keyboard, Map, Mouse, Portable, Scrapbook File, Sound and Startup Device.**

Sys Sftwr 6.0.5 – SS.NI.5
Network Installer

Installer, Network Products Script, TeachText and User's Guide.

System Folder: **Finder, General, Monitors, Network, Startup Device and System.**

Disk #1.01C — 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.

Disinfectant 1.7: 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.

Once Upon A Virus-txt: By Mel Hoffman. A useful compendium of what to do to reduce the likelyhood of a virus attack and a synopsis of what to do if you encounter one.

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

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

Virus Detective™ *f* (v4.0a): **Virus Detective™:** By Jeffrey S. Shulman. This Desk Accessory scans a disk, folder or file to detect a virus. It includes the capability to search for operator entered strings and to write a log file to disk. This version has extended capabilities over previous versions and permits you to easily check out an entire floppy disk library. **VD 4.0a Doc (MW) IW** is the terse but comprehensive documentation on the theory and use of Virus Detective. The DA is included in the System file as noted following. ***Shareware – $35, for license, $40 for license and disk with other demo programs.***

Virus Rx 1.6: By Apple Computer, Inc. Scans selected drives or folders for any damaged applications, INIT, cdev and RDEV files, invisible files, altered system files and altered applications. Creates a text file that includes an analysis of what it has found. The Teach Text document **Release Notes** describes what Virus Rx does and provides some useful guidance for reducing your risk of exposure to any virus.

system 6.0.5 *f*: Includes Apple System Software version 6.0.5 with System and Finder (only) to provide a self starting disk. The System has been stripped of all possible fonts and DAs and the DA Virus Detective has been installed for your convenience in using this as your primary virus detection, eradication and prevention disk.

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Download City

DOWNLOADABLES

by Paul Schlosser

Our members uploaded the following files to the Teleconference System during the last thirty days. This listing represents only a small portion of the files available for downloading on the TCS. Call the Pi office at 654-8060 to obtain a password.

File area 2 - Apple II Misc.

017 FOCKES.MAR The latest March '90 DC BBS listing

016 TAXES.1989.SPLT Tax Template for 1989 Taxes - split ver

015 TAXES.1989.BIG Tax Template for 1989 Taxes - large ver

File area 4 - Apple II Utils

126 GEOS.CONVERTSHK Geos/Prodos Font converter

File area 5 - GS Desk Accs

081 SHR.DUMP.SHK CDA - Timed delay SHR screen capture

080 COLOR1.1.SHK ColorDesk v1.1 Cdev

File area 7 - GS Games

037 ORBIZONE.SHK An 'Asteroids' type game

036 ONEARM.SHK A one armed bandit game

File area 8 - GS Graphics

030 NEW.SPHERES.SHK Packed pictures

File area 9 - GS Misc.

036 SONIC.SHK SONIC, as described in March 90 Journal

035 DRUMS.A.PLENTY Soundsmith Song

034 MATHMUSIC.SHK Spirograph with generated music

033 SORT.SHK Sort programs/article by Chester Page

032 SYSEXMIDI MIDI sys-ex utility

File area 10 - GS Utilities

053 JSTART.2.7.SHK Jumpstart 2.7—Shareware

052 NUPAKGS2.0.SHK Unpacks ShrinkIt, BLU/ACU, & StuffIt

File area 11 - AppleWorks

058 AW3COM.UPDT.SHK Patching update - AW 3 Companion

File area 12 - ProSel Updates

025 CPFX.EXE.SHK Change prefixes, no typing

024 REPLY.2.VITESSE Bredon's reply to Salvation

023 REVISE8.44.SHK Revision history thru 8.44

022 PROSEL8.44.SHK ProSel-16, Version 8.44

File area 14 - Mac Games

080 DEMOSYNCHRONICT Demo version Synchronicity

File area 16 - Mac Hypercard

081 TRUETYPE.SIT Info on TrueType and System 7.0

File area 17 - Mac Technotes

020 PRICE.LIST.SIT Apple price list as of 3/19/90

019 TN176.00.SIT Tech Notes 176-200, current as of 12/89

File area 18 - Mac Utilities

197 ICON.COLOR.SIT Icon Colorizer version 1.5

196 PROFS.SIT For Termulator to use with Profs

195 SPIROCLOCK.SIT Analog clock display

194 FLASHIT.SIT Screen capture utility

193 MAXZOOM.SIT MaxAppleZoom version 1.2

192 SOUNDMASTER.SIT SoundMaster version 1.4b5

191 SCREEN.FLIP.SIT Change from color to b&w on the fly

190 MULTISTUFF.SIT Makes Stuffit MultiFinder Friendlier

189 SUNDESK.SIT Display icl8 color icons

188 TOILET.ICON.SIT Icon in cicn and icl8 formats

187 MOUSE.CDEV.SIT Speed up your mouse

186 SETOFCICONS.SIT Color Icon Set

185 RESCOLOR.SIT Patch ResEdit for color icons

184 TERMULATOR.SIT Version 1.11, latest version

183 CICONS.WORD.SIT MS Word 4.0 Color Icons

182 CICONS.4D.SIT 4d Color Icons

181 POPCHAR1.1.SIT Find any character in any font quickly

180 COLORBITS.SIT ColorBits 1.0

179 MOIREAD.SIT Moire addition to Afterdark. Shareware

File area 20 - GIF Graphics

076 VALLEY.GIF Scan of photo by Dan Slaven

File area 25 - PC Transporter

012 ZOO201.EXE Decompress ZOO files

011 PK361.EXE Decompress ARC files

010 TELIX311.ZIP Communications program

APPLES FOR THE STUDENTS DRIVE

This is the last month during which Giant Food's blue "Apples for the Students" register tapes may be collected for donation to area schools. Six schools have been recommended as candidates to receive WAP's register collection, and a selection among them will be made shortly.

The receipts generously contributed by WAP members now exceed $35,000, along with $5,000 in Safeway "Food For Thought" register tapes. Giant receipts may be collected through April 28, and Safeway receipts through April 21. Please send your contributions to the Pi office, or bring them to the April general membership meeting .

Classified Ads

WANTED
Customized **Hypercard Rolodex** Call Ed Wilson, 296-0500, weekdays.

WANTED
Help me set up fields for **mailing list database** on AppleWorks GS. Call Linda 525-9358.

FOR SALE
ImageWriter II $350/best offer. Perfect condition-hardly used; manual, cable, and paper included. Call Margie at 202/966-3855.

FOR SALE
Mac Plus with 2 MB RAM, external 800K drive, SuperMac Dataframe 30 meg hard drive, Kensington System Saver fan and surge suppressor. Mac has more than one year of AppleCare left. $1375. Call Dick Grosbier, eves 898-5461 (Frederick), days 587-3600 (Silver Spring).

FOR SALE
LaserWriter $1500. Computer Table $75, Ergo. Chair $75. PageMaker 3.01, Illustrator 88 1.9, Excel 1.5, WingZ 1.1, Double Helix 3.0, FullWrite, More II, Ready, Set, Show. B.O. Call 703/620-6338.

FOR SALE
Apple /// computer, monitor, external 5.25" disk drive, ImageWriter printer, some software. $600 or best offer. Dave (w) 670-6333, (h) 469-0784.

FOR SALE
Apple IIGS Woz ed./keyboard/mouse/ROM 2 $550, Apple RGB mon $325, 2 Apple 3.5" drives $200 each, Apple 5.215" drive $145, AE Dual 5.25" Transdrive for PC Trans $300, AE PC Trans Board/768k $350, ImageWriter II $275, Printer Stand $15, Practical Peripherals 1200 modem $65, Ehman 60 meg HD $500, Apple SCSI Board Ver 3 $75, Apple Mem Board/1 meg $175, Kensington System Saver IIGS $50, Appleworks GS $150, Prosel $50, Wordperfect $50, Mng. Your Money $50 - $3000 pkg incl add'l software and tech manuals - HD loaded w/ PRODOS &MSDOS applications. Fred Tillman - 703/503-8895 - Leave message will call back that day.

KNITTERS WANTED
Volunteers needed to **test Hypercard stack** which charts knitting patterns, and makes knitters' graph paper. This uses the symbols developed by Barbara Walker for the charts. Interested persons please contact
Madeleine Yeh
5219 Gainsborough Dr.
Fairfax, VA 22032
703/239-2446 (evenings)

FOR SALE
Apple II+ or II w/ Applesoft card, 2 drives, monitor, printer $750 OBO 424-2585.

FOR SALE
Apple IIc, monochrome monitor, LCD portable monitor, 1200 baud modem, more. Call 202/462-3177.

FOR SALE
Apple IIGS with 3.5"/5.25" drives, 256k (expandable), monitor, mouse, ImageWriter I printer, varied music & educ. software. $999. Call 703/878-0867.

HELP WANTED
Computer Software Review Program Coordinator
Nat'l Assn. of Home Builders has immed opening for Computer Systems Analyst to coordinate development of industry software review program. Requires development of standards tests, & documentation results. Provide technical assistance on computerization services for industry to staff and mbrs. Requires Bachelor's degree in Comp. Sci. or related field or equiv. combo. of training & exp. Min 4 yrs related exp. Excel writing and verbal skills. Some travel. Salary low 30's. Send resume & writing sample to:
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15th & M Streets, NW
Washington, DC 20005
EOE

FOR SALE
Macintosh version of AutoCAD, rel 10. Incl. all software, 830 pages of manuals, tutorials and programming ref, a customized ver (more "Mac-like") of the AutoCAD menu system, an 11 x 12 "plastic template for use with digitizing tablet (not required). Requires Mac II family CPU, 4 MB of RAM, and 4MB of hard disk space. $2,200.00 ($800.00 savings), or best offer. Call Brad: Day 202/295-3632; eve 301/230-1532.

FOR SALE
SUPERMAC TECHNOLOGY
Manufacturer's Rep Sample Sell-Out

Graphics Cards	
Spectrum/8	$500
Spectrum/8 Series II	$910
Spectrum/8 Series II SE/30	$910
Spectrum/8 Series III	$910
Spectrum/24	$2280
Color Card	$285
Color Card/24	$515
Graphics Accelerator	$285
Monitors	
19" Standard Color	$1824
19" Color Trinitron	$2394
19" Gray Scale	$800
Mass Storage	
DataFrame XP30	$515
DataFrame XP150	$1195
DataStream	$425
Enhancements	
Prodigy SE - 1 MB	$300
Prodigy SE - 2MB	$400
Speed Card	$115
Speed Card w/ Math Coprocessor	$285
Bus Transfer	$85

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MD Office - (301) 869-3993

APT OR HOUSE SHARING
Male, late 30's moving to DC in June would like to share Apt. or house. Prefers non-smoking female near metro (Beth., Rockville, Rosslyn. Reply to MAC, Box 3112, Gaithersburg, MD 20878

FOR SALE
1 year old **SE logic Board** $1200 or B/O and Plus Radius Accelator 16 with 68881 Co-processor $1200 or B/O. Call Ray Ramsey 843-7521 (DC Metro)

FOR SALE
Mac SE w/ 1MB RAM, 20MB, Hard Drive Keyboard and Mouse, in excellent condition. Over 10 MB software included. $1600. Call 202/696-4902 DWH; 703/719-0857 AWH.

AppleFest'90/East
ComputerFest'90/East

May 4 – 6, 1990

The Garden State Convention Center ■ Somerset, New Jersey

Advance Registration Certificate

Advance Registration Deadline is April 18, 1990

(Avoid lines! Your badge will be mailed to you if your pre-registration is received by April 5.)

1 Please print the correct information here.

Name (FIRST OR INITIALS / LAST)

Position /Telephone (AREA CODE)

Company /Organization

Address (DEPT OR MS)

City/State /Zip Code (STATE / ZIP CODE)

2 Choose one of the following ticket options.

	REG	DISC	QTY
3-Day Conference & Exhibits	~~$75~~	$45	___
3-Day Exhibits Only	~~$15~~	$10	___

Family/Group Package (*4 or more individuals*)

3-Day Conference & Exhibits (per person)	~~$75~~	$35	___
3-Day Exhibits Only (per person)	~~$15~~	$7.50	___

Submit all names and single check or credit card number with your order. This discount available only in advance. Children five and under admitted free.

The Half-Day Intensive Seminars ~~$135~~ $99 ___

Individuals may purchase additional seminars for $75 each. Includes 3-day conference and exhibits. AM=8:00-12:00; PM=1:00-5:00

Circle the day and time of the desired seminar(s):	5/3 THUR.	5/4 FRI.	5/5 SAT.
AppleWorks — Beyond the Basics	PM	AM	
AppleWorks for Educators	PM		AM
AppleWorks GS, Part 1		AM	
AppleWorks GS, Part 2		PM	
Beginning Programming/Apple IIGS			PM
Desktop Publishing for Teachers		PM	
Desktop Publishing on the Apple IIGS	AM		
Desktop Publishing on the Macintosh		AM	
Desktop Publishing on the PC	PM		
Graphics in the Classroom w/Apple IIGS			PM
HyperCard: An Introduction		PM	
HyperCard for Intermed. & Adv. Users			PM
HyperMedia on the Apple II	AM		
Multimedia for Teachers: Using the IIGS	AM		
Music, Midi, and the Apple IIGS		AM	AM
Programming in BASIC for Beginners			AM
Telecommunications: Everything You Always . . .	PM		
Telecommunications for Teachers		PM	
Tips and Techniques for the Power DOS User	AM		PM
Tips & Techniques for the Power Macintosh User			AM

3 If you're buying tickets for more than one person, please indicate their names below.

_____

_____

_____

4 Reserve your hotel room at special AppleFest rates, if desired.

To reserve a room, either complete this section, or call the hotel directly. Ask for the special AppleFest/Computer Fest rates (good while they last). We will try to accommodate your requests, but reserve the right to place you in another nearby hotel if the hotel is fully booked. Reservations are offered on a first come/first served basis. Call the hotel directly for best results.

	Single	Double	# of Rooms
Somerset Hilton (201-469-2600)	$95	$95	_____

Arrival Date: _____ Departure Date: _____

Hotel reservations must be guaranteed by one night's deposit.

☐ Please use the credit card I have indicated below.

☐ I have enclosed a check payable to the hotel.

5 Please tell us about your experience level.

A. Which personal computer(s) do you own or use?

☐ 1. Apple II+, e, c
☐ 2. Apple IIGS
☐ 3. Mac Plus/SE
☐ 4. Mac II
☐ 5. IBM PC/AT/XT
☐ 6. IBM PS/2
☐ 7. Tandy
☐ 8. Other PC compatibles
☐ 9. Commodore 64/ Amiga

C. Area of Interest

☐ 1. Business application
☐ 2. Home application
☐ 3. Educational application
☐ 4. Desktop publishing
☐ 5. Other: _____

D. Your Industry or Professsion

☐ 1. Computer-related
☐ 2. Business *(non computer-related)*
☐ 3. Professional *(except educ.)*
☐ 4. Communications/Publishing
☐ 5. Education *(classroom teaching)*
☐ 6. Education *(administration)*
☐ 7. Government
☐ 8. Other (specify): _____

E. Your Purchasing Plans. In the next 12 months, which of the following do you plan to buy? (Check all that apply.)

☐ 1. Apple II Software
☐ 2. Macintosh Software
☐ 3. PC Software
☐ 4. C-64/Amiga Software
☐ 5. Printer
☐ 6. Modem
☐ 7. Hard Drive
☐ 8. Monitor
☐ 9. Other _____

B. Did you attend AppleFest/Boston last year? ☐ 1. Yes ☐ 2. No

6 Please enclose payment with your order.

Total Amount Due: _____

☐ Check ☐ Credit Card (circle one) MC Visa Amex

(Make checks for tickets payable to AppleFest. Checks for hotel rooms should be made payable to the hotel.)

Credit Card #_____ Exp. Date: _____

Cardholder's Name _____

Authorized Signature _____

Amex Billing Address _____

Please indicate 2 or 3-letter code from mailing label _____

☐ **Check if confirming previous order**

7 Complete and return this form to:

AppleFest/ComputerFest
Exposition Management, Inc.
1601 Trapelo Road
Waltham, MA 02154

OR FAX IT TO: 617-290-0409
OR CALL TOLL-FREE:
1-800-262-FEST
(in Mass., 617-290-0400)

Call 1-800-262-FEST Now to Pre-Register

Exhibits Only . . . Save $5
3-Day Conference . . . Save $30
Intensive Seminar . . . Save $36

To be sure you receive the appropriate ticket, please complete this form entirely and enclose your check, money order, or credit card number. Seating at some sessions is limited; reserve your place, save money and avoid the lines by pre-registering. Orders received after April 5 will be held at the "Will Call" window at the show. Show hours are 10:00-6:00 on May 4-5, and 10:00-4:00 on May 6. (Intensive Half-Day Seminars are scheduled for May 3, 4, and 5). On-site registration begins at 7:30.

Registration fees are not refundable. Photocopies of this form are welcome.

wpi

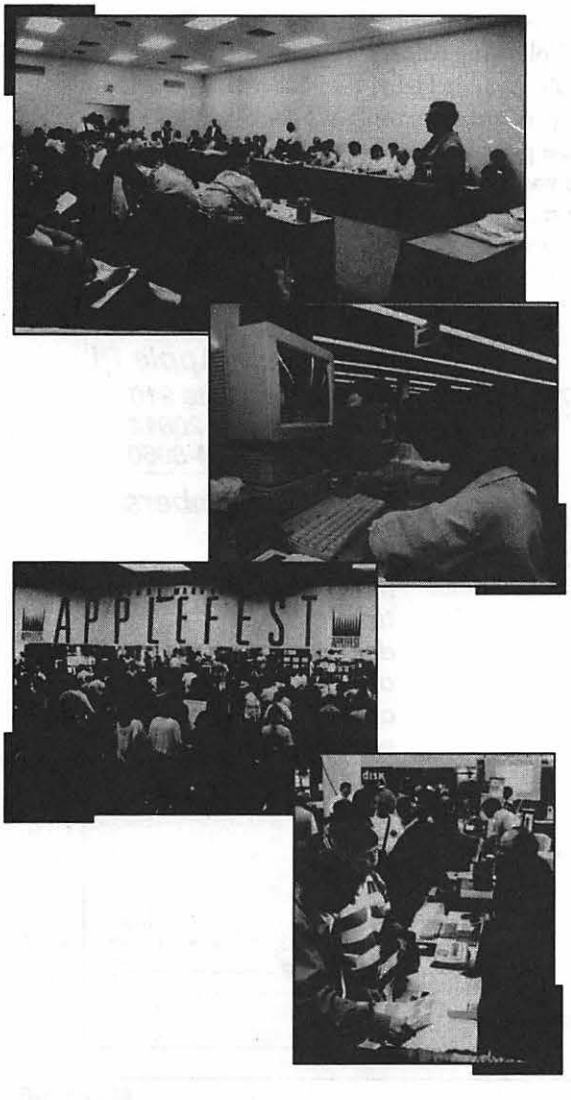
Save by Registering Today! Call 1-800-262-FEST*

** 617-290-0400 in Mass.*

It's the biggest.

It's the best.

AppleFest!®



and Announcing

ComputerFest!™
for PC & Commodore Users

Coming for the First Time to the Greater New York Metro Area!

May 4-6, 1990
The Garden State
Convention Center
Somerset, New Jersey

- ☑ World's largest home & K-12 computing event
- ☑ Thousands of products
- ☑ 70+ sessions and intensive seminars
- ☑ Apple II, Mac, PC & Commodore
- ☑ Terrific bargains & prizes
- ☑ Easy-access location
- ☑ The perfect event for teachers, parents, kids, and home office users!

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Washington Apple Pi Tutorials

by Rob Clark

Information
Tutorial Catalog
Application Form

Washington Apple Pi Tutorials for May

Washington Apple Pi provides training to its members and to nonmembers on a regular basis. We've provided complete course descriptions for the Macintosh tutorials, and a general description for the Apple II courses.

The fee for each session is $15 for members, $20 for nonmembers. Mail or phone in your registration to the WAP Office. You *must* pre-register the class or classes you wish to attend. We urge you to bring your computer with you to class, since we have no computers for you to use at the office. If you can't bring your own computer, you'll have to look over someone else's shoulder.

Occasionally, the WAP class schedule changes due to circumstances out of our control. Please call the office at least 24 hours prior to the class date to confirm that your class will be held as scheduled. We regret an inconveniences that may arise, but we are certain that some will occur.

As we've done with the Macintosh Tutorials, we're planning to significantly expand the Apple II Tutorial program. Look for more Apple II courses beginning in the June to July time frame, and look to this section for details.

Call for Volunteers

We're looking for a number of volunteers to help run a fun, effective, beneficial Tutorial Program for Washington Apple Pi members. If you've wanted to contribute something to this club, now is your chance. What are we looking for, you ask. Well, we need instructors, a Tutorial Publicity Agent, a Macintosh Tutorial Coordinator, and some special projects volunteers. If any of these strikes your fancy, please give me or the office a call. I can be reached at 301-428-9207 (I'll be out of town at the end of April to mid-May.), the WAP office number is 301-654-8060. Details? Here they are:

Macintosh Application Instructors We need instructors to teach the following courses: PowerPoint, WingZ, Fourth Dimension, Double Helix, FileMaker II, Telecommunications, HyperCard, Microsoft Works. What does the job entail? You prepare the lesson plans, gather any additional materials you may need, and prepare Activity Disks, if you want the students to have some templates or prepared exercises to work from. Oh, yes, you also teach the class. If

Washington Apple Pi
Tutorial Registration Form

Washington Apple Pi
7910 Woodmont Avenue, Suite 910
Bethesda, Maryland 20814
301-654-8060

Basic Information

Name _____

Address _____

City/State/Zip _____

Phone (day) _____ *(Eve)* _____

Member ☐ *Number* _____ *Non-Member* ☐

Number of Classes ____ *x Class Fee $*____ *= Total Fees $*____

Check/Money Order ☐ *Credit Card* ☐ *Card Number* _____

Card Expiration _____ *Signature* _____

Course Numbers

Please fill in the course # from the description, otherwise we cannot process your application.

Course # _____

WAP Form #CL006 (Revised 4/90)

Mail registration and payment to the above address

you believe yourself to be an expert with a particular application, then you're probably qualified to teach. The club has a classroom, an overhead projector for presentation slides, a Macintosh SE for the instructor to use, and an device capable of projecting the Macintosh screen. Courses are three hours in length. If you believe you need more time to teach your subject, break it up into modules. Instructors are paid $30 for each time a class is held. A lot of people find this a rewarding activity, and it provides a valuable service to the WAP membership.

Apple II Application Instructors. We'll be developing specific courses soon, and the call will go out for specific instructors at that time. However, if you'd like to teach an Apple II course, please contact Allen Beach at 202-362-2239.

Tutorial Publicity Agent. We are looking for someone to prepare the Journal input each month. Job entails gathering basic course schedule information from the Apple II and Macintosh Tutorial Coordinators, provide any news about the Tutorial Program, and putting that information down on paper so that it can be published in the Journal. You'll also work closely with the office staff on getting the word out to the Washington Post, and the TCS Calendar Board.

Macintosh Tutorial Coordinator. The person who fills this position develops new ideas for additional courses, schedules the courses, and finds instructors to teach them. If you like working with people, or if you have specific ideas which classes would be beneficial to the membership, then this job is for you.

Special Projects Coordinator/Volunteer. We've been getting a lot of good ideas on projects, policies and so forth, but don't have the time fully develop them. If you're the type of individual who like to take a raw idea and turn it into something meaningful, please let us know. Some projects would be short term, requiring only a few months of help, others would be longer term. The kinds of things we want to work on include: Course Catalog development — is this a good, practical idea; Tutorial Policy Development, Activities Disk development, and finally, Apple III Tutorial Development — is there a need (we think so, but would like reassurance.)

Want to Take a Course for Free? — The Tutorial Assistant Program

Something for nothing? No, but close to it. For every class held, we're offering the opportunity for you to take a class for free, if you help the instructor. The Tutorial Assistant sets up the room, helps put chairs and tables back after the class is over, distributes critiques before the class begins and then collects them when the class is over, takes attendance and collects any money owed by the students. Total time involved will be around 15 minutes. Available on a first-come basis.

Thanks to Our Instructors

We currently have a great set of instructors who've shared their time and resources to make this program work. Please join us in thanking them for their time, and energy the next time you sign up for a course.

The WAP Tutorial Program and the Desk Top Publishing Special Interest Group Seminars

Washington Apple Pi is fortunate to have not just one, but two educational programs, offered by two separate groups. You're probably most familiar with this educational program. We try to serve the general membership by helping provide an understanding of a particular program or area of interest, but we are not providing professional training. (Yes, most of the instructors are very highly skilled with the programs they're teaching.) The other group that offers training *does* provide that level educational program. The Desktop Publishing Special Interest Group has a Seminar Series devoted to helping the professional desktop publisher. So the club has one part (the WAP Tutorial Program) which caters to the needs of the whole group, and another (the DTP SIG) that caters to the professional desktop publisher. Their contact person is Jody Joy, and she can be reached at 703-471-0918. She's the Education Resources Coordinator for the DTP SIG. Please contact her for more information on their programs. We regret any confusion that may have arisen from last month's column.

Apple IIe/c Tutorials for May

We're providing the Apple IIe/c Introductory Tutorials, a three part series in May. The courses are held each of the first three Tuesday evenings in May from 7:00 to 10:00 pm at the WAP office. The dates are May1st for Part I (course # AE 1590), May 8th, for Part II (course # AE 2590), and May 15th, for Part III (course # AE 3590). You may sign up for one, two or for all three, if you wish. Of course all three courses provide you with the most benefit. These classes are designed for beginners, not experienced users.

Macintosh Tutorials for May

This month's courses, in addition to the three beginning courses, are Designing Reports and Manuals with PageMaker, Parts I and II, and Virus Protection. Each class costs $15.00, and is held at the WAP office. See the listing below for more detail.

Introduction to Macintosh, Part I (Course # M1590). This class is designed for the beginning user. You should go through the *Guided Tour* disk that came with your computer before you come to this class. You'll learn each of the components of your Macintosh, both hardware and software. You'll discover what the *System*, *Finder*, Icons, the Active Window, and how they all work. You'll also investigate the components of the *Control Panel.*

Materials required: *Your Macintosh, external drive, startup disk, and an unformated disk.*

Course Date: *May 7th, 1990*

Introduction to Macintosh, Part II (Course # M2590). This class is designed for the beginning user. You should go through the *Guided Tour* disk that came with your computer before you come to this class. You'll learn each of the components of your Macintosh, both hardware and software. You'll learn the finer points of the *Menu Bar*, various error messages, what the *Clipboard* and the *Scrapbook* are, various peripherals and how they are connected to your Macintosh, and, finally, you'll learn about command key equivalents (key board shortcut for *Menu Bar* commands).

Materials required: *Your Macintosh, external drive, startup disk, and an unformated disk.*

Course Date: *May 14th, 1990*

Introduction to Macintosh, Part III (Course # M3590). This class is designed for the beginning user. You should go through the *Guided Tour* disk that came with your computer before you come to this class. You'll learn which version of the *System* software you should be using; you'll learn how to update your system files; about the *Set Startup* command; how to use the *Font/DA Mover*; learn about what a RAM disk is and how to use one, if you wish; how to use *Switcher* or *MultiFinder*; and finally, you'll learn about the various RAM configurations possible with each Macintosh.

Materials required: *Your Macintosh, external drive, startup disk, and an unformated disk.*

CourseDate: *May 21st, 1990*

Virus Protection (Course # MV1590). If you want to know more about the virus threat out there, this course is for you. Topics include what viruses are, what they can do to your system, searching your system for viruses, eradicating viruses, and virus prevention.

Materials required: *If you have a Macintosh with a hard drive, bring it and your computer with you to class.*

Course Date: *May 12th, 1990*

Designing Reports and Manuals with PageMaker, Parts I and II (Course # PM3590 and #PM4590). This course is for you if you want to produce any type of report and manual. Topics covered include choosing the right layout, including covers, title page, text pages; preparing the text; placing graphics, including the captions; formatting tables; managing all phases of production, etc. This class is in two parts, each costing $15.00.

Materials required: *Your Macintosh, PageMaker 3.0 or later, a hard disk drive, and a blank disk.*

Course Dates: *Part I: May 22, 1990; Part II: May 29, 1990*

Macintosh Tutorials for June

Along with the three Macintosh beginner's classes, three additional courses are scheduled for June: Introduction to Adobe Illustrator, Saturday, June 9th; Advanced Microsoft Word, Thursday, June 21st; and finally, MacWrite II, Tuesday, June 26th. Details will be forthcoming next month.

ß

DISK LIBRARY

Apple II Disks

DOS 3.3
41 IAC 25 Mach.Lang. Util.
42 One Key DOS***
43 IAC 29 Utilities H
44 Utilities I
45 Diversi-Copy***
46 French Vocab. Tutorial
47 Tic-Tac-Toe in French
48 Boot for l'Hote
49 l'Hote Story
50 l'Hote Quiz
51 French Poetry Tutorial
52 Apollinaire Biography
53 Albert Camus Interview
54 Tic-Tac-Toe in Spanish
55 Rafel-boot
56 Rafel
57 Rafel Quiz
58 Matute
59 Lo Fatal
70 Business/Math/Statistics
71 Music
72 Keyboard Games
73 Text Adventure Games
74 Paddle Games
75 Color Graphics for Fun
76 Education
77 Utilities
90 Spreadsheet C Genl.Bus.
91 Spreadsheet D Investment
92 Spreadsheet E Bus. Recd.
93 VisiPlot & VisiTrend
94 CALCULINK***
95 Spreadsheet F: Coin Collect.
100 Utilities A
101 Utilities B
102 Games A
104 Business A
106 Science Engineering
107 Games B
108 IAC 10(Graphics)
109 IAC 11(Applesoft Tutorial)
110 Personal/Education
111 Games C
112 Utilities C
113 Business B
115 IAC 12/13 Misc.
116 IAC 14 Micromodem II
117 Picture Packer
118 Utilities D
119 IAC 15 Misc.
120 IAC 16 Misc.
121 WAPABBS 1.1 Doc**
122 IAC 17 Misc.
123 French Vocabulary
124 Utilities E
125 IAC 18 Misc.
126 Sights and Sounds
127 Math/Science
128 Games D
129 GLAQ
130 Disversi-DOS***
131 Personal/Educ. 2
132 IAC 19 - Utilities F
133 IAC 20 - Pascal & DOS 3.3
134 New Members Disk
135 WAPABBS 1.1 Disk 1**
136 WAPABBS 1.1 Disk 2**
137 IAC 21 Spreadsheet A
138 IAC 23 Utilities G
139 IAC 24 Education 3
140 Education 4
141 Special Data Bases
142 IAC 28 Pinball Games
143 Sports
144 IAC 27 Applesoft Prog.
145 Apple Logo Tool Kit
146 Logo Documentation
147 Apple Logo Sample Prog.
150 EDSIG1 (Elem. Math)
151 1983 Tax Template
152 IAC 31 Miscellaneous
153 Investments A
154 Investments B
155 IAC 33 Miscellaneous
156 IAC 35 Applesoft-AW//e
157 IAC 36 Arcade Games
158 Apple Logo Programs
159 Recipe Files
160 Utilities & Games
161 Wizard Worker
162 Games E
163 Graphs and Displays
164 Games F
165 Happy Holidays
166 Charts and Graphs
167 IAC 40 - Pilot Lang.
168 IAC 41&47-/AW Util,
169 Hayes Term.Prog.***
170 Love's Follies (Util.)
171 Cat-Graphix
172 Print Shop Graphics
173 Riley's Pers. Instrum..
174 Imageworks
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 Zyphur 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 Ngurct
*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 Xim!
*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-Cat.)
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 ASCIDIF 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

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

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

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

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

INITs & cdevs
___ 5 disk set; $15.00
___ 9.01 - I/C 1
___ 9.02 - I/C 2
___ 9.03 - I/C 3
___ 9.04 - I/C 4
___ 9.05 - I/C 5

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

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

Digitized Sounds
___ 31 disk set; $93.00
___ 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

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

Programmer/Hacker
___ 3 disk set
___ 14.01 - PH 1
___ 14.02 - PH 2
___ 14.03 - PH 3

Miscellaneous Utils
___ 11 disk set; $33.00
___ 15.01A - MU 1
___ 15.02A - MU 2
___ 15.03A - MU 3
___ 15.04A - MU 4
___ 15.05A - MU 5
___ 15.06A - MU 6
___ 15.07A - MU 7
___ 15.08A - MU 8
___ 15.09A - MU 9
___ 15.10A - MU 10
___ 15.11A - MU 11

System Utils
___ 8 disk set; $24.00
___ 16.01B - SU 1
___ 16.02B - SU 2
___ 16.03B - SU 3
___ 16.04B - SU 4
___ 16.05B - SU 5
___ 16.06B - SU 6
___ 16.07B - SU 7
___ 16.08B - SU 8

Word Processing Utils
___ 3 disk set
___ 17.01 - WP 1
___ 17.02 - WP 2
___ 17.03 - WP 3

Adobe Screen Fonts
___ 16 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

HyperCard StackWare
___ 34 disk set; $102.00
___ 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
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___ 19.26 - SW 26
___ 19.27 - SW 27
___ 19.28 - SW 28
___ 19.29 - SW 29
___ 19.30 - SW 30
___ 19.31 - SW 31
___ 19.32 - SW 32

HyperCard StackWare
___ 19.33 - SW 33
___ 19.34 - SW 34

Mac II Series
___ 11 disk set; $33.00
___ 20.01 A- M II 1
___ 20.02 A- M II 2
___ 20.03 A- M II 3
___ 20.04 A- M II 4
___ 20.05 A- M II 5
___ 20.06 A- M II 6
___ 20.07 A- M II 7
___ 20.08 A- M II 8
___ 20.09 A- M II 9
___ 20.10 A- M II 10
___ 20.11 A- M II 11

HyperCard Externals
___ 5 disk set; $15.00
___ 21.01 - HE 1
___ 21.02 - HE 2
___ 21.03 - HE 3
___ 21.04 - HE 4
___ 21.05 - HE 5

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

System Software 6.0.5
___ 5 disk set; $15.00
___ SS.ST.5
___ SS.PT.5
___ SS.U1.5
___ SS.U2.5
___ SS.NI.5

HyperCard Update 1.2.2
___ HC & Stacks - HC.01
___ HC Ideas - HC.02

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 •
___ 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

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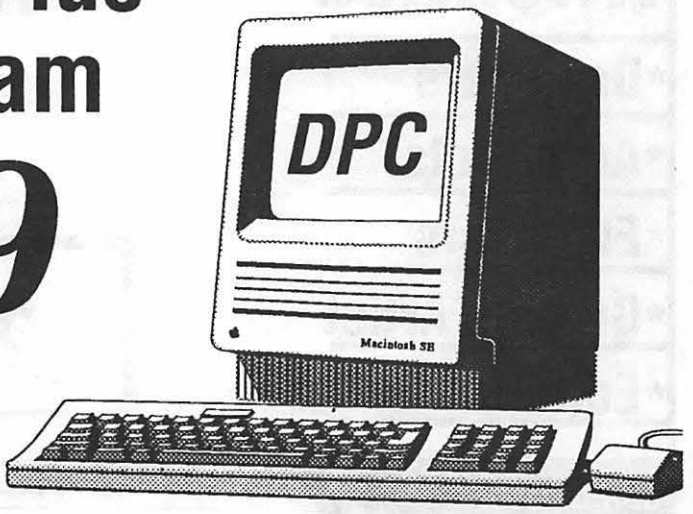

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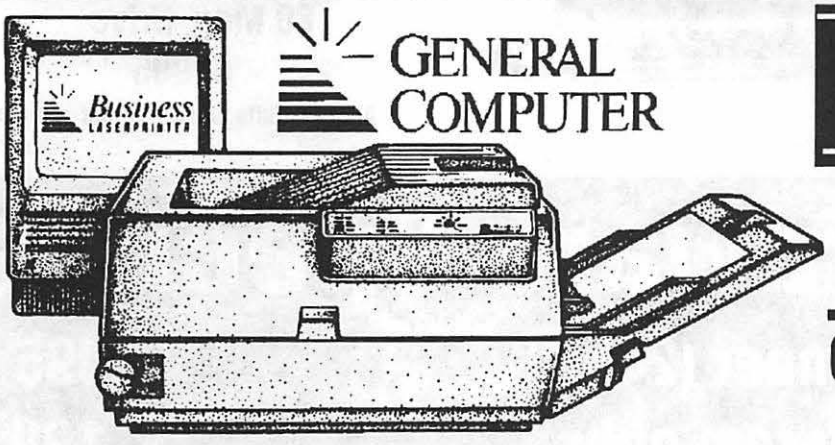

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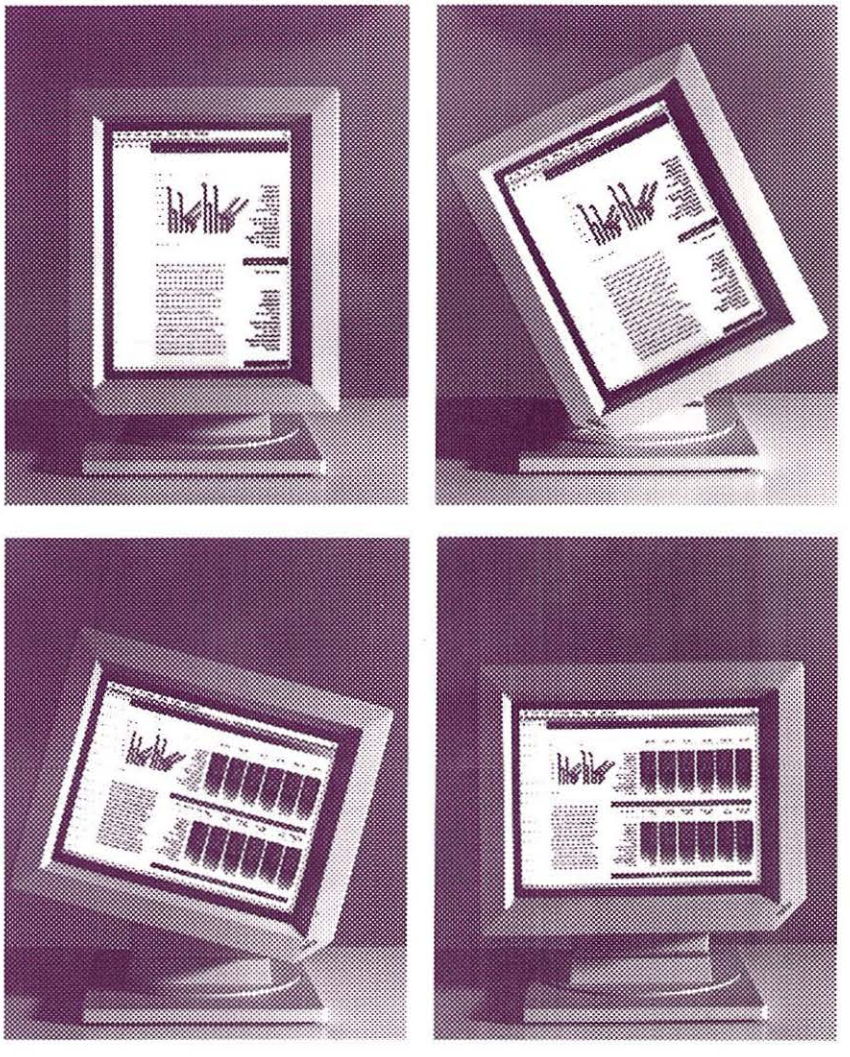

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