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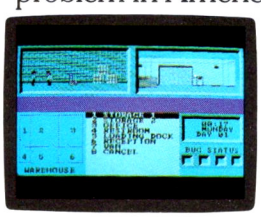

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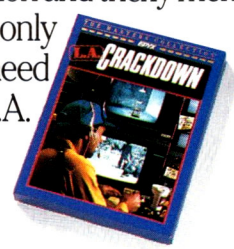

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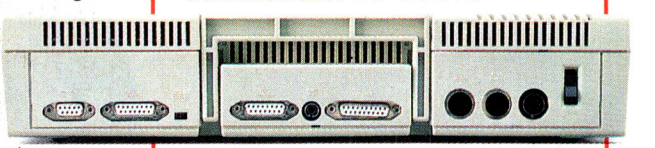

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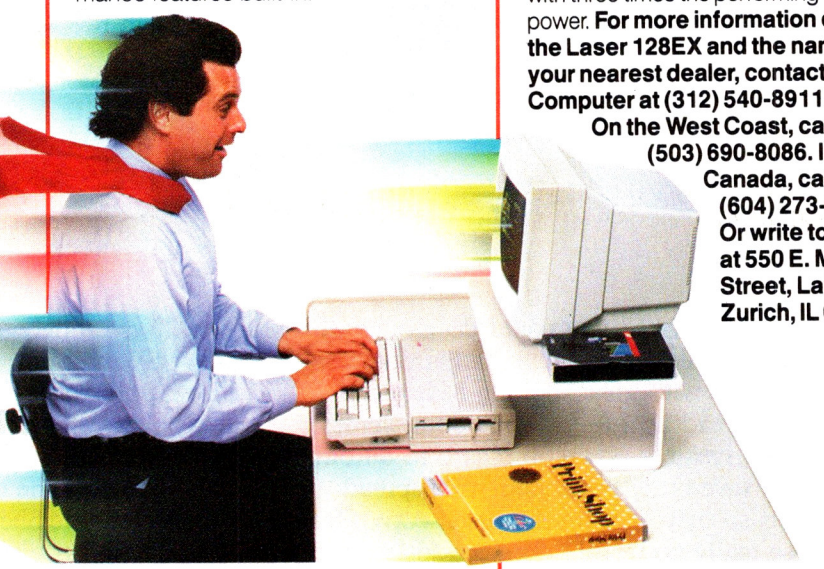

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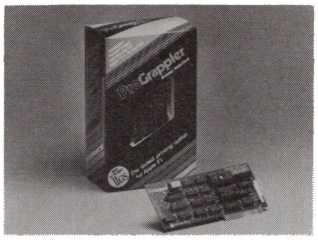

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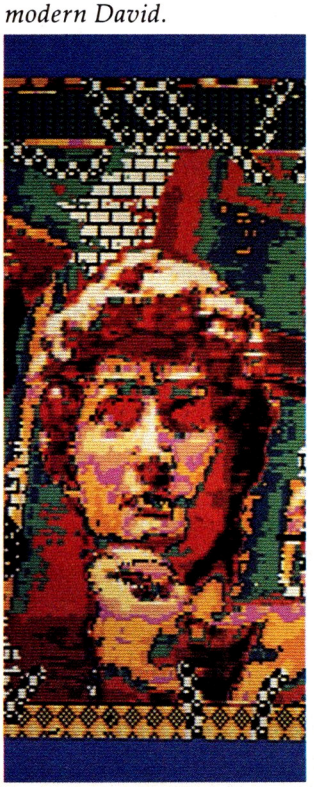

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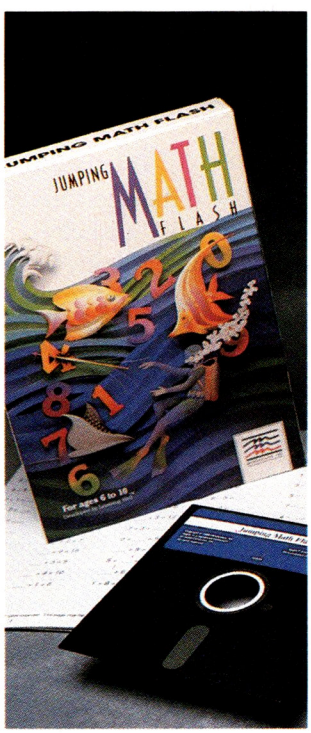

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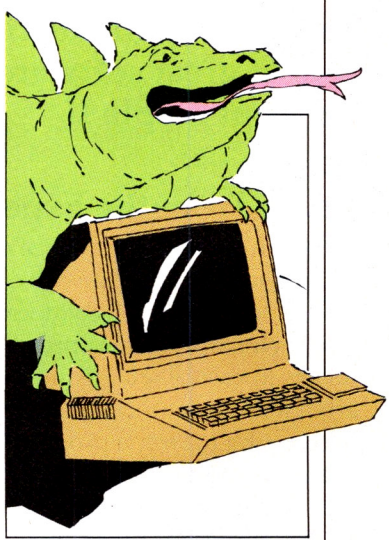

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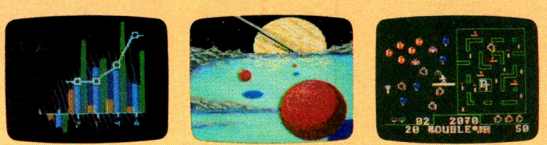

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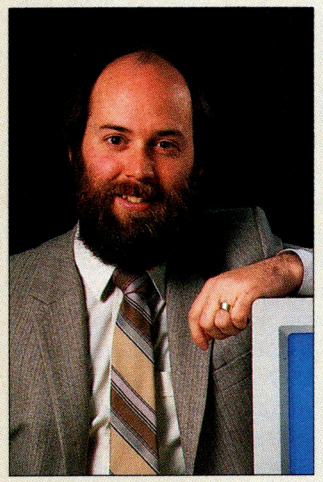

EDITOR'S PAGE

PUBLISHING MADE EASY

Desktop publishing exploded into the Macintosh world a couple years ago, but only recently has it done the same in the Apple II world. In the past year, we have seen the release of four DTP programs for the Apple II, and at least two more are on the way. In this month's cover story, we compare the features of these programs to help you decide which one suits you best.

The progenitor of Apple II DTP programs was actually The Print Shop, Brøderbund's wildly successful banner and greeting-card program. The Print Shop was the first program to let Apple II users painlessly combine text and graphics to create presentable documents. Ironically, The Print Shop almost didn't see the light of day. Legend says that two Brøderbund employees wrote it on their own time because the company wasn't interested in the concept. Brøderbund grudgingly published the final product to keep the two employees happy. The rest is history.

True DTP programs are of more general applicability than programs such as The Print Shop. In a nutshell, they are word-and-picture processors capable of combining text and graphics in any way you see fit. Thus, they're ideal for putting together fliers, posters, newsletters, and even books, without a trip to the typesetter.

I expect Apple II users to embrace desktop publishing as enthusiastically as their Macintosh brethren have. DTP will enable editors of small newsletters to avoid the frustration of production by hand and to concentrate on improving editorial content. It will produce a winning combination: increased productivity and happier readers.

DTP will make manufacturers of Apple II peripheral products happy too. Why? Because most DTP programs are so large and have so many features that they strain the limits of minimal systems. If you are a serious desktop publisher, you should expect to invest in an accelerator card or chip, a RAMdisk (to minimize the time for loading program overlays), a high-capacity disk drive, and a digitizer such as ComputerEyes or ThunderScan.

And how about a LaserWriter for the highest-quality output? Even if you economize and use a standard dot-matrix printer for output, prepare for ribbon shock. Printing DTP pages wears out ribbons a lot faster than printing text with AppleWorks. A ribbon reinker, such as the one that is available from Computer Friends, is an excellent investment.

In the past year, we've seen the release of four Apple II desktop-publishing programs.

Clip-Art Standards

Many people, myself included, do not have the talent to create attractive graphic images. Instead, we have to use the images on clip-art disks by professional artists in order to liven up our desktop-publishing creations.

I sincerely hope that the keen interest in DTP will accelerate the setting and adoption of clip-art standards. We definitely do not need, nor do we want, all software developers to create their own proprietary clip-art formats. With one or two standard formats, everyone can use any clip-art collection, no matter what DTP program they're using.

For Apple IIGS applications, the PICT format should be the standard. A PICT file contains a recording of all the QuickDraw calls necessary for drawing the graphic image on the super-hi-res

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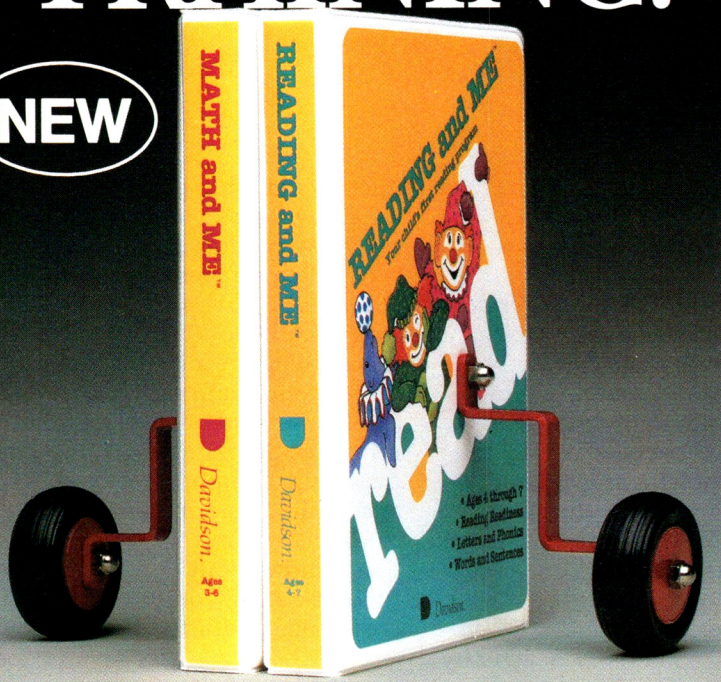

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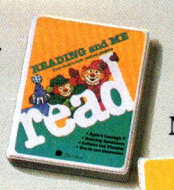

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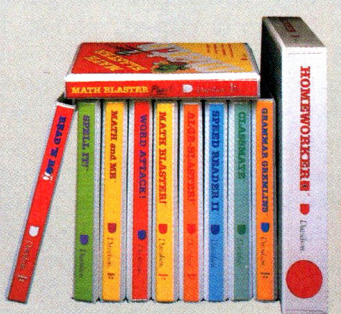

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EDITOR'S PAGE

screen. By using this well-known format, programs will be able to transfer images via the Apple IIGS Clipboard or a scrapbook desk accessory.

For IIe/IIc applications, The Print Shop graphic and Newsroom clip-art formats are de facto standards, and I expect good DTP programs to accept them. We really could use an official Apple standard, however.

Happy Birthday, IIGS

The Apple IIGS, my favorite computer, turns two years old on September 15, and we should all celebrate. Releasing the IIGS was a bold move for Apple, especially in 1986, when the "Apple II Forever!" slogan was sounding more like a contrived statement of hope rather than a positive statement of fact.

The IIGS has beaten the odds and become incredibly popular. By the end of this year, almost one million of them will have rolled off the assembly line in Singapore. Fueling its popularity have been excellent programs such as Paintworks Gold, MultiScribe GS, and Print Shop GS, all developed by companies that have been committed to the IIGS since day 1. The bandwagon effect is now taking over, so we will soon see many more innovative IIGS products from these and other companies. I can't wait.

The IIGS is not a perfect computer, of course. A souped-up version of ProDOS 16 has been promised for quite a while but has not yet materialized; thus, boot times are still quite slow. Super-hi-res screen drawing is also slow, but that problem will be solved when Applied Engineering's TransWarp GS accelerator card comes out at the end of the year.

I expect Apple will release an improved model of the IIGS in the next 12 months or so that will overcome many of the original design limitations and make the IIGS even more popular. ✚

Gary

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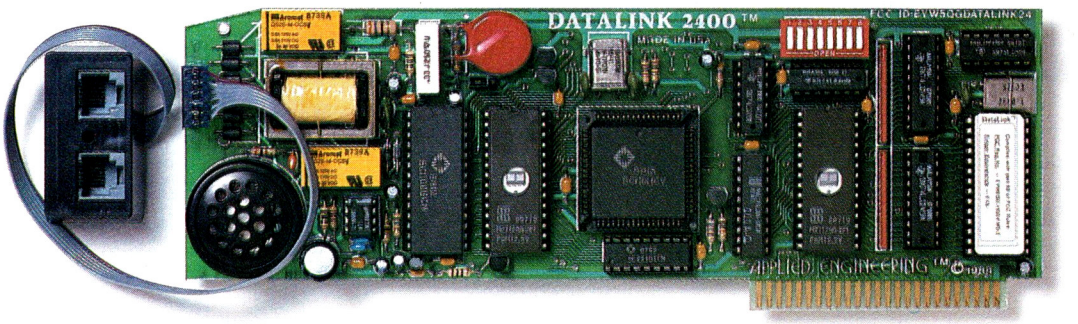

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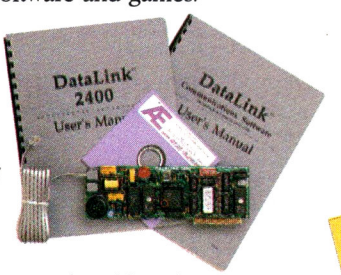

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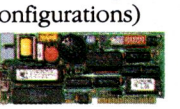

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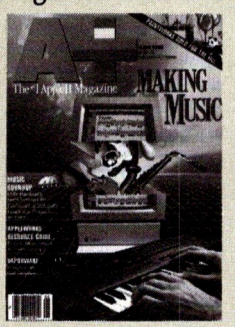
LETTERS TO THE EDITOR

MUSICAL MEDIOCRITY

Dear A+: As a professional composer, I was delighted to see your June issue's coverage of music and the Apple II. I've been using a IIe and the evolving incarnations of Passport's professional sequencer (currently Master Tracks Pro) for three years in a variety of projects. I enjoy and find very productive the union of my IIe with various synthesizers, tone generators, and effects modules.



Unfortunately, your coverage of professional MIDI systems strikes me as too little, too late. Where were you guys three years ago—or even two—when such coverage might have done some good to sustain the professional music market for the II? Where were Apple and its ballyhooed interface (which, incidentally, is not much as far as professional user interfaces go—it's moderately inexpensive and moderately simple, but it has only 1 in and 1 out, and it won't read or write SMPTE code)?

The fact of the matter is that the electronic-music industry has written off the Apple IIe as a computer for serious musicians (and this assertion is not supposition on my part—it was stated explicitly in editorial responses to letters in *Keyboard* and in *Electronic Musician* asking why their level of coverage of the Apple II had decreased). It's too expensive for beginners and too outdated for those competing in the music marketplace.

OK, so there's the IIGS. Well, I have one of those too. And I enjoy working with it. Who in the electronic-music industry could resist the lure of its Ensoniq sound chip?

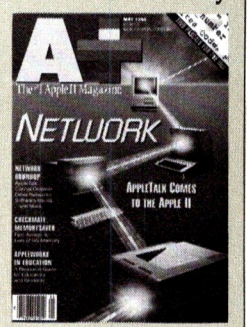
Almost everybody, it seems. Passport has hemmed and hawed for months. There's not a professional sequencer available that takes good advantage of its 16-bit architecture and extended memory addressing. I can build compositions 20 times larger on the IIe than on the IIGS. The professional music developers have ignored the IIGS. There still isn't a good professional music tool available to access its sound chip for MIDI applications. Oh, I did notice that Bill Basham is advertising his new software for this purpose. But as excellent as his Diversi-everything software always is, I'm afraid this product will be of more use to amateur home musicians than to professionals.

Well, anyway, thanks for the coverage, belated as it was. I only wish Apple had lived up to its motto with regard to making music on the Apple II. What we have now is "The Power to Be Mediocre."

JEFF WHITMILL
SAGINAW, MI

APPLETALK OVERKILL

Dear A+: I know AppleTalk is big news, but your May 1988 network issue was a bit of overkill—story after story about a technology that costs thousands of dollars and that I suspect very few A+ readers will ever use. Even though I'm a teacher, the last thing I would do is run out and spend $6,000 for a setup that utilizes a high-priced Macintosh as little more than a menu clicker.



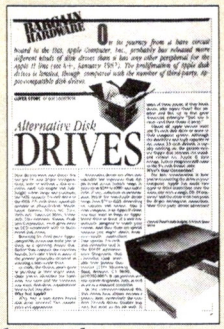
What excites me in computing is innovative, powerful ideas that I can try out for a couple hundred bucks. I'm envious of the Mac crowd's getting HyperCard for a mere $50. It's that kind of price and power that's worthy of dedicating an entire issue to. Don't get me wrong—I don't mind monthly themes, but I just prefer a little more diversity in each issue and an awareness of the limiting effect of high price tags.

MARK CHEVALIER
COLUMBIA, SC

LETTERS

GENERIC VS. APPLE DRIVES

Dear *A+*: I'm writing in response to an article in the March 1988 *A+* on alternative disk drives. Your article implies there is no reason, other than cost and appearance, to buy Apple-brand drives. It also says the "generic" drives are so cheap that it is better to throw them away than to have them repaired. We've discovered, the hard way, that there are reasons to buy Apple products.



We took your advice and, on February 8, 1988, ordered a 5¼-inch drive from Kinson Products Corporation, one of your advertisers. We received the Meiji 5¼-inch disk drive in about a week. We connected it to our Apple IIGS as the third drive in our daisy chain, plugged into the port of the second 3.5-inch Apple drive. After approximately two hours of use, both of the daisy-chain boards on our Apple 3.5-inch drives had "failed," and the computer would recognize only the Meiji drive.

We had our Apple drives repaired at our Apple dealer, at a cost of $235.48. We called Kinson on February 29 and received authorization to return the Meiji drive for inspection. We made three calls to Kinson to check on the progress of the "inspection" and on March 23 were told nothing was wrong with the Meiji drive.

While we were awaiting the return of our newly "inspected" Meiji drive, we made several calls to Apple repair centers to find out if anyone could test it to see if it could have caused the daisy-chain boards to fail. None of the repair centers were willing to test the Meiji drive, since it was non-Apple equipment.

On April 8, shortly after we received our Meiji drive back from Kinson Products, we called the company and talked to its general manager about our reluctance to connect the drive to our system. He instructed us to go ahead and stated that Kinson Products would pay for any repairs to the daisy-chain boards after April 8—but under no circumstances would Kinson Products pay for the repairs we had already incurred. He also verbally assured me that the one-year warranty on the Meiji drive would begin on the date we'd received the drive the second time, on April 1.

After connecting the Meiji drive to the system, we discovered an immediate problem. While using MultiScribe GS, Version 3.0, and attempting to print a letter, the entire disk-drive chain locked up and would not read, write, or allow any input from the keyboard or mouse. We immediately turned off the power to the entire system, hoping to prevent another major repair bill. We held tight to our wallets and tried again. Again, while attempting to save with MultiScribe, the disk chain locked up, for approximately ten minutes. After try-

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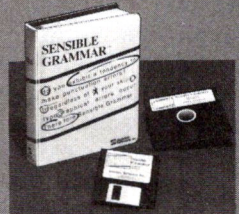

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CIRCLE 130 ON READER SERVICE CARD

LETTERS

ing everything we could think of, including resetting the system, we finally inserted a disk into the Meiji drive, even though the read light was on. Two or three minutes after we inserted the disk, the system unlocked and allowed normal input. A third time we tried to use MultiScribe and again got lockup. We turned off the power and disconnected the Meiji drive for good.

We contacted Kinson Products again May 3 and talked with the general manager regarding the problems we've had. He stated that we should send the drive back for inspection. If the company finds nothing wrong with the drive, it will refund our money, "less a 15% restocking fee for nondefective merchandise." If it finds problems with the drive, it will refund all of our initial purchase price.

All told, we are out $235.48 for repairs; about $6 for postage; about $10 for phone calls; and, in all probability, another $12 for the "restocking fee." In other words, we will have spent about $265 for a 5¼-inch disk drive without even winding up with one! For that price, we could easily have purchased an Apple-brand disk drive, at list price, and probably several programs on 5¼-inch disks as well.

JOHN LUCAS
SAN JOSE, CA

ARTICLE INDEX

Dear *A+*: I use your magazine to keep up on the latest products, and I have dropped other subscriptions in your favor for timely news and advertisements. I have found it invaluable. What you (I) need desperately is an index to your articles. It's a terrible waste of time to have to hunt through a year's worth of tables of contents and articles to find needed information.

QUENTIN PACKARD
TROY, NY

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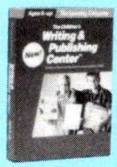

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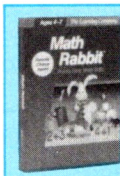

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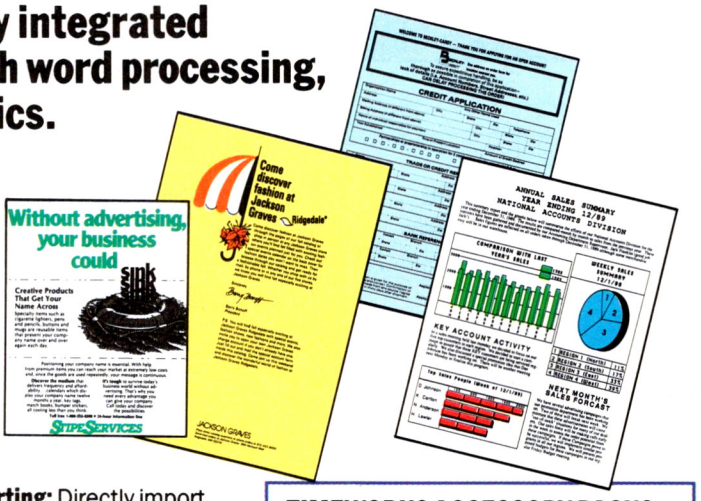

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CIRCLE 116 ON READER SERVICE CARD

BY LISA RALEIGH, OWEN LINZMAYER, AND SHANON CULLEN

NEWSPLUS

Claris gets IIGS fever, Zip fights Rocket launch, Activision goes for image change, and other industry updates

CLARIS BUYS STYLEWARE

Claris Corporation has finally caught IIGS fever—and has spent a bundle to find a cure.

When Claris spun off from Apple Computer last year, it took with it a hefty stake in the Apple II market, namely AppleWorks. A few months ago, though, Claris told us that it wasn't particularly interested in developing a GS version of this all-time software classic.

Enter GSWorks, a new program from the Houston software company StyleWare.

GSWorks, as previously reported in "NewsPlus," is a six-in-one application with word-processing, spreadsheet, database, telecommunications, graphics, and page-layout modules. GSWorks also is able to open AppleWorks files directly.

To make a long story short, GSWorks got Claris' attention in a big way, so much so that the company wanted to buy the product from StyleWare. StyleWare held out, though, and instead indicated that its stock, employees, and entire product line might be available as a package deal. Claris decided to bite and acquired StyleWare at the end of June for an undisclosed sum.

Thus, GSWorks will become AppleWorks GS. The product is scheduled now to ship in the fall, moved back from a late summer availability date. Claris also plans to market MultiScribe GS, StyleWare's word-processing program for the Apple IIGS.

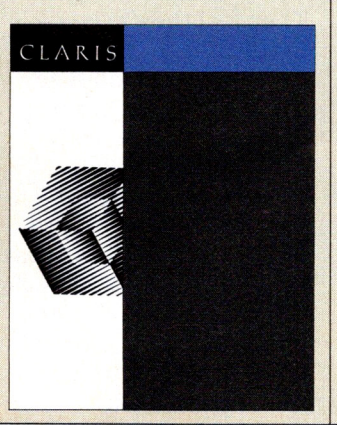
Watch for integration of AppleWorks GS with AppleWorks/Network, the AppleTalk version of AppleWorks.

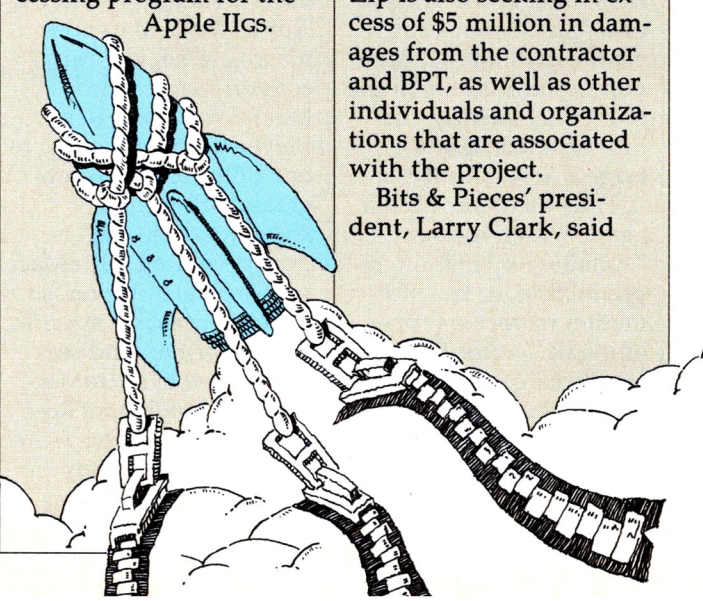
ZIP GOES TO COURT

Zip Technology, maker of the Zip Chip accelerator, is seeking an injunction to prevent the sale of the Rocket Chip, a product that would compete with the Zip Chip.

Zip filed suit in Los Angeles County in mid-May, contending that the Rocket Chip was the result of misappropriation of trade secrets, unfair competition, and breach of contract by a former contract engineer who moved on to Bits & Pieces Technology, the company now preparing to launch the Rocket Chip. Besides the injunction, Zip is also seeking in excess of $5 million in damages from the contractor and BPT, as well as other individuals and organizations that are associated with the project.

Bits & Pieces' president, Larry Clark, said





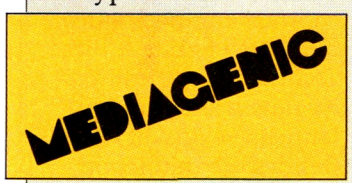
ILLUSTRATIONS BY COURTNEY GRANNER

NEWSPLUS

the company couldn't make a formal comment until it had filed a response, but he did add, "As far as we're concerned, the lawsuit has no merit."

AU REVOIR, ACTIVISION

What's in a name? A lot of unwanted baggage, according to Activision, which recently changed its corporate name to Mediagenic. The company wants to move onward and upward from its rocky financial history and its too-close association with the video-game/computer-entertainment market. The Menlo Park, California, software publisher is branching out into many innovative markets such as HyperCard and CD-ROM and, at the same time, has shown a full year of profitability after numerous quarters in the red. Consequently, the time seemed right to forge a new identity.



Thus the name Mediagenic, which means "suitable for creation, reproduction, or transformation in various types of media," according to an official company statement. (Sounds like a definition cooked up by a high-priced consultant to us.) The Activision name won't disappear completely, though. You'll continue to find it on Mediagenic products geared for the "action and simulation" entertainment market.

Mediagenic also has a new corporate address and phone: 3885 Bohannon Drive, Menlo Park, CA 94025-1001; (415) 329-0800.

Clearly, the days of the 5¼-inch floppy are numbered.

MACRO-MINDED

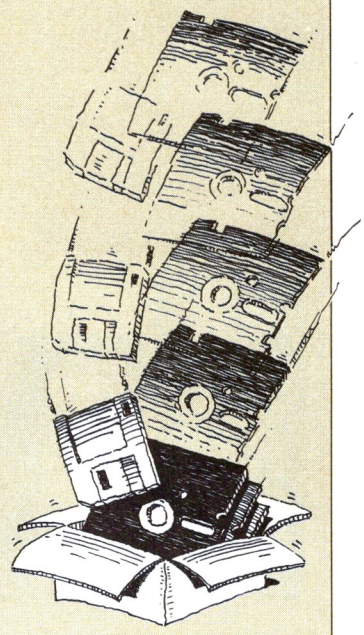
Add to your list of AppleWorks resources the AppleWorks Macro User Group (AMUG). For a sign-up fee of $22.95, members receive a disk and manual with instructions and tutorials. Right now, AMUG makes macros available to its members in the AutoWorks format, since that enables users with any version of AppleWorks to use the macros. Also, you can convert macros into MacroWorks and Key Player format if you have one of those macro programs rather than AutoWorks. AMUG is now becoming UltraMacros-literate, however, so watch for macros specific to that format (and see our review of UltraMacros in "AppleWorks Report" in this issue). Write to AMUG at P.O. Box 8375, St. Louis, MO 63132.

DUAL-FORMAT PACKAGES

Clearly, the days of the 5¼-inch floppy are numbered. Apple wants to establish the 800K 3.5-inch disk as the standard format for both the Macintosh and Apple II and has been strongly encouraging developers to embrace the smaller medium ever since the introduction of the IIGS. With rumors circulating of a IIc Plus equipped with an internal 3.5-inch drive, many developers are preparing for the inevitable by shipping both 5¼-inch floppies and 3.5-inch disks in the same package.

"The 5¼-inch floppy is going the way of the 8-track audio cassette," believes Jon Simonsen of Beagle Bros. Accordingly, the San Diego-based publisher has included 3.5-inch disks free of charge in all 11 TimeOut application packages shipped to date. "Our practice of putting both formats in the same package has been well received by our customers, who tend to be power users and GS owners."

Barney Stone, president of Stone Edge Technologies, would like to drop 5¼-inch disks altogether, since his product DB Master takes up four floppies. "Floppy-disk sleeves, labels, duplication, and handling costs really add up. Still, we put both formats in one package as a convenience for users."



Managing Your Money, from MECA Ventures, comes with five floppies and two 3.5-inch disks. Says Garner Lester, vice president of sales and marketing, "we absorb the cost of multiple formats because neither dealers nor distributors want the complications of handling multiple SKUs (stock-keeping units). Also, running the program from a 3.5-inch disk is faster and easier."

Not everyone is convinced that including both disk formats in software packages is the best way to go, however. Jan Davidson, president of the educational-software publisher Davidson & Associates, feels that "the consumer is confused by combination packages. They feel they're being needlessly charged for a disk that's worthless to them." Another concern is the fate of that extra disk. "If they give it away, that's a sale we lose." All Davidson products are available in separate 5¼-inch and 3.5-inch versions, and the company will exchange formats at no cost if you return the original disk.

NEWSPLUS UPDATE

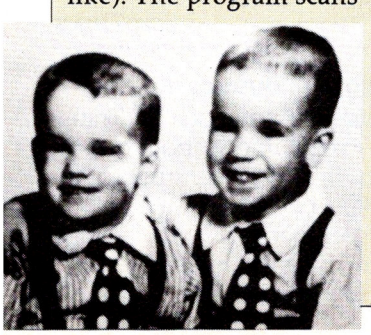
■ *A Guide to Selecting Educational Software* is available free of charge from Mindscape. The leaflet outlines the basics of software evaluation and selection. Address requests to Educational Software Guide, Mindscape, Inc., 3444 Dundee Road, Northbrook, IL 60062. Include a self-addressed, stamped, business-size envelope. Mindscape also makes the guide available to organizations and institutions for 15 cents per unit (for up to 99), 12 cents each (for 100–249), or 10 cents each (250 or more). Organizations should contact Mindscape's educational customer-service representative to place orders.

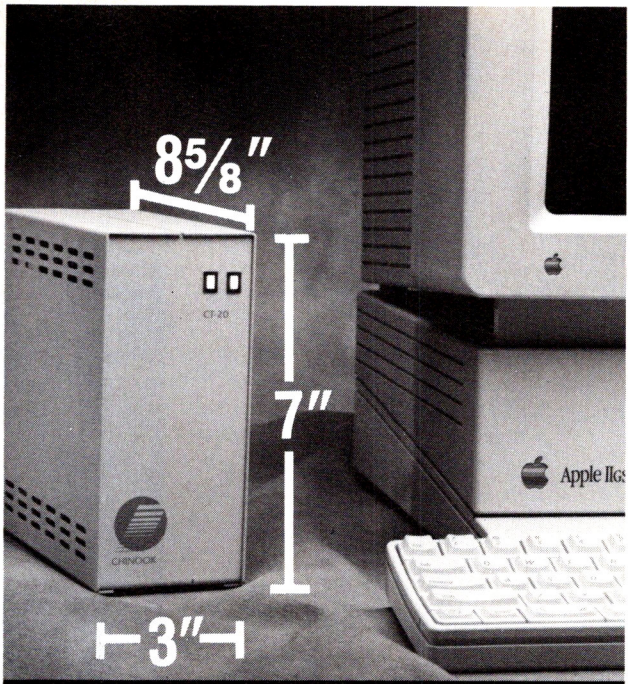
■ Digital Vision has announced new system software for ComputerEyes, the full-color digitizer for the IIGS. ComputerEyes is a hardware/software package that connects the computer and any standard video source (video camera, VCR, videodisc player, and the like). The program scans the video signal and stores it in memory.

The new system software is compatible with most graphics programs, including The Print Shop IIGS. The software offers refined color calibration, optional color and black-and-white dithering, and a freeze-palette option for working with programs that require a fixed palette with multiple images.

ComputerEyes for the IIGS costs $249.95 and is available from Digital Vision, Inc., 66 Eastern Avenue, Dedham, MA 02026; (800) 346-0090; (617) 329-5400.

■ TML Systems has released TML Pascal, Version 1.5, for the Apple IIGS. TML Pascal is an implementation of the Pascal programming language designed especically for creating stand-alone ProDOS 16 applications as well as desk accessories on the IIGS. Version 1.5 has several code-generation and linker improvements for smaller and faster programs; several new print options, including a Print Range selection for defining source-code listings; and complete Toolbox interfaces, including SANE, Integer Math, Note Sequencer, and compatibility with the GS Finder. TML Pascal is available from TML Systems, Inc., 8837-B Goodbys Executive Drive, Jacksonville, FL 32217; (904) 636-8592. ✚





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CIRCLE 118 ON READER SERVICE CARD

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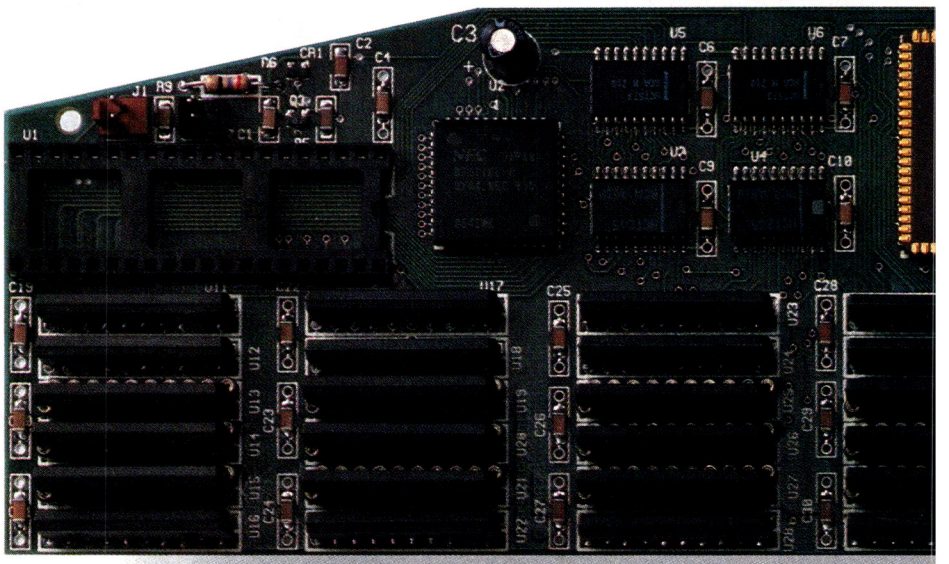

Actual Size

it's what every

We're not the only ones excited about PC Transporter™. Our new "PC on a card" wonderboard has drawn rave reviews from the experts

"Darned if the thing doesn't work. PC Transporter is a technical tour de force. It's ingenious . . . a remarkable success."
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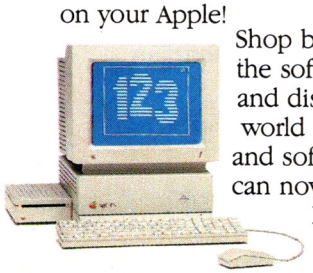
Applied Engineering's PC Transporter gives your Apple IIGS, IIe or II+ the power to speak IBM's MS-DOS. Run MS-DOS programs on your Apple at more than *three times the speed* of an IBM XT.

For the first time . . .

Bring your MS-DOS work home from the office and use your Apple to get caught up . . . or get ahead.

Run Lotus 123, dBASE III PLUS, Symphony, Microsoft Word, Flight Simulator and thousands of other business and entertainment titles - on your Apple!



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Exchange ProDOS and MS-DOS files with your MS-DOS friends and co-workers. Even transfer your own files from ProDOS to MS-DOS and back again.

Store IBM programs on any ProDOS storage device including the Apple 3.5 Drive, Apple UniDisk™ 3.5, Apple 5.25 Drive, SCSI or ProDOS compatible hard drives.

You don't have to be a programmer.

PC Transporter was designed by experts, so you don't have to be one to use it. The design team includes the former project managers for the Apple IIe and IIc, the co-designer of the Apple II disk controller and the author of ProDOS.

We include clear, understandable installation instructions, "pre-boot" software and even an installation video to help.

PC Transporter acts as a universal disk drive controller, enabling your Apple 3.5 Drive to run MS-DOS or ProDOS and to shift instantly from ProDOS to MS-DOS.

"Extremely versatile . . . one of the most ingenious and exciting products we've seen."
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Tailor your configuration.

What do you need to get up and running? That depends on what equipment you already own and what you'll be running. For example: if you plan to use strictly 3.5 format MS-DOS, an Apple IIGS disk drive does the job. If you need 5.25 IBM capability, you'll need one of our IBM-style disk drives which will also store ProDOS.

There's even a socket on PC Transporter for an 8087-2 Math Co-processor chip to speed you through spreadsheets.

Call Applied Engineering or ask your dealer for more details on your specific needs.

"An excellent solution for at least half a million people who enjoy Apple II computing at home and endure MS-DOS at work."
— MicroTimes

A few words about cost.

Compare the price of a PC Transporter — you'll find it about on par with even the cheapest, stripped-down IBM clones.

Then consider that your PC Transporter gives the Apple peripherals you already own the power to work

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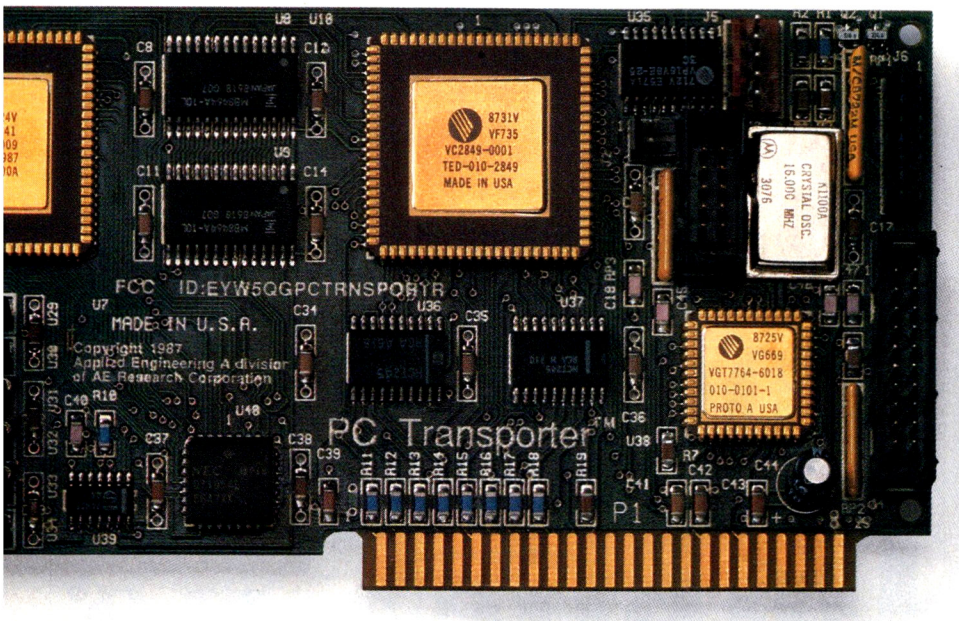

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with MS-DOS programs.

You won't need two of everything. And you won't have to crowd your desk with an extra CPU, an extra monitor, an extra disk drive or two, an extra mouse, an extra modem, an extra hard disk or an extra printer.

Your Apple peripherals and PC Transporter will not only work, you'll get *faster operation* and *better quality graphics.*

Add in the cost of the peripherals you'd need for that "cheap" clone, and you'll see the price of a PC Transporter start to look very attractive indeed.

"PC Transporter has created quite a stir. It's accuracy guarantees a whole host of uses . . . a masterpiece of engineering."
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And consider one more thing — a fully-equipped PC Transporter's 768K of RAM is useable as a RAMdisk or as memory expansion to any program that follows the Apple Memory Expansion Card protocol (most do).

So you're not only giving your Apple MS-DOS capability, you're adding more than $500 worth of memory expansion to your Apple system.

"When you buy a PC Transporter, you're not just giving your Apple the ability to act as a PC clone, you're upgrading your computer in a big way for all your Apple II computing."
— Nibble

PC Transporter comes with our exclusive AppleWorks Expander™ program that dramatically enhances the capacity, speed and capabilities of AppleWorks.

And PC Transporter is available in configurations from 384K to 768K in 128K increments. So if you elect to start small, you can add more memory later.

PC Transporter memory choices

RAM in Apple mode	RAM in IBM mode	Price
384K	**256K**	**$489**
768K	**640K**	**$699**

Note: The IBM mode is 128K less because the PC Transporter uses 128K for system memory.

IIGS Installation Kit	**$49**
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Optional 5.25 IBM Format 360K Drive Systems

Single-Drive System	**$269**
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The do-everything computer.

Turn your Apple into a fast, powerful, work-at-home tool. The incredible combination of ProDOS and MS-DOS means a computer that'll run practically anything. And know that Applied Engineering stands behind PC Transporter with our 15-day money back guarantee* and a full one-year warranty.

"Gives Apple II users the best of two worlds . . . an impressive engineering feat."
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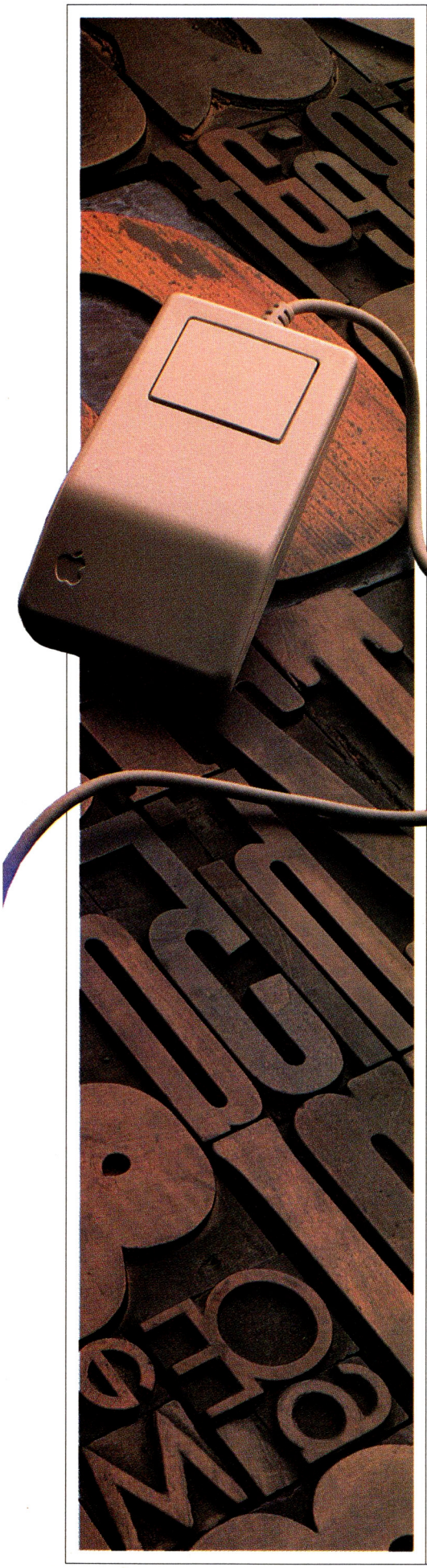

COVER STORY BY ROBERTA SCHWARTZ AND MICHAEL CALLERY

Looking good on the Apple II

Desktop Publishing

Apple II old-timers will recall the joy we felt when we could coax our dot-matrix printers into printing double-strike (boldface) text and even italics by peppering our documents with arcane printer control codes. Some of us actually fudged margins and sent the paper through the printer twice to get columns on our printouts. And graphics . . . well, we were able to print a graphic. Incorporate it into our word-processing documents? Difficult? No, impossible.

Then something happened. The Macintosh made us aware that personal-computer technology could create professional-looking documents, and the authors of a new program called PageMaker coined a magic phrase: "desktop publishing." Desktop publishing (DTP) is the use of personal computers to produce publications. What is a publication? Loosely speaking, a publication is any kind of printed matter—running the gamut from fliers to brochures, magazines to books.

Using traditional methods, publishing involves many complex operations, each carried out by a specialist: A writer and an editor create and shape the content, a graphic designer designs the publication, a typesetter sets the type, a proofreader checks the copy, a camera operator creates halftone screens, and a pasteup artist assembles all the elements into "camera-ready copy" for the printer. Desktop publishing lets us do all these jobs ourselves—with our Apples.

Getting Started

Just as a paint program doesn't automatically create a graphics masterpiece, a DTP program doesn't automatically create professional-quality documents. As a desktop publisher, you must be able to write well; edit the writing; design a document (choose a layout, typeface, and graphic elements); proofread; understand the printing process (including how to handle photographs); choose appropriate paper and ink; select the appropriate binding process; and,

of course, use computers. Although you needn't do it *all* yourself, the more you understand and know about the publishing process, the better the results. We strongly recommend you read one of the excellent books listed in the "References" sidebar at the end of this article—it will provide the finer details.

Now that you've planned your publication, designed its appearance, and created the text and graphics, you're ready for specialized software. What's available?

In this article, we examine four of the latest WYSIWYG (what you see is what you get) desktop-publishing programs. A very capable program, Printrix from Data Transforms, works on a different principle: embedded commands. For a review of this program, see Lee Hayward's "Printrix," *A+*, January 1988, page 69. With the exception of the GS-specific GraphicWriter, all of the DTP programs we cover in this article can run on 8-bit Apple IIs as well as on the GS.

Springboard Publisher, from the company that brought you The Newsroom, offers a complete DTP program for the Apple II family. A GS-specific version of Publisher is promised, although no release date has been set.

Springboard Publisher comes on a single 3.5-inch disk but is also available as a package comprising three 5¼-inch disks. Both formats come with an 81-page *Getting Started* manual, a 168-page reference book, and a cardboard quick-reference guide. You also get a certificate for a free Works of Art disk of graphic images.

Springboard Publisher creates a Mac-like desktop on the graphics screen, complete with pull-down menus and dialog boxes. Although you can run the program by using only the keyboard, we highly recommend that you opt for mouse control.

You create your publication in layers: layout, text, and graphics. Each layer, or mode, offers a full set of tools. In the Layout mode, you see the full page, reduced in size to fit on the screen (see figure 1). Here's where you create the basic text and graphics boxes that comprise your publication. You can resize and reposition these boxes to your heart's content—even after you've filled them.

Text can go directly onto the page or into text boxes. You can define up to nine columns on the page or in a text frame. The program automatically creates evenly spaced columns, but you can drag the column guides to wherever you wish, should you prefer asymmetrical column widths. Text flows to fill the publication in whatever column configuration you have selected (or designed), automatically wrapping around other text or graphic boxes. When you click inside a text box, the view magnifies to actual size, and text-editing tools are available to you. If you've used a WYSIWYG word-processing program such as StyleWare's MultiScribe, you'll have no problem with the editing tools.

Importing text from word-processing programs is not as easy as it should be. The Import Text menu option, which is inactive when you are working on a document, creates a new document containing the native text from Apple Writer, AppleWorks, or Bank Street Writer, or ASCII text files from any word-processing program. In other words, Springboard Publisher can import text only into a new, blank document. In order to put text into an existing document or layout template, you must close the document, select Import Text (thus opening a new, temporary document), copy the text, close the new document, open the old document, and paste. This process *is* as cum-

Desktop Glossary

Body type. The type that is used for the main text of a publication.
Camera-ready. Ready to be printed (said of a graphic, picture, or page).
Column. A vertically running section of a page.
Copy. Material that is to appear in a publication.
Font. A complete set of characters in one typeface and size.
Justify. To align text along one or two margins. In normal practice, text is left-justified, but typeset material can also be right-justified and fully justified.
Kerning. The process of decreasing the space between certain letter combinations, such as *Ta*, that look better when part of one letter sticks out into the other letter's space.
Layout. Arrangement of text and pictorial elements on a page.
Leading. The space between lines of type, from baseline to baseline.
Master page. Template; page where you put all the text, graphics, and guides you want repeated on every left or right page in the publication. It allows for consistency and eliminates the need for repetitive placement of text or graphics.
Pica. A unit of measure, approximately 1/6 inch. A pica has 12 points.
Point. A unit of measure, approximately 1/72 inch, often used to indicate the size of type. Typical sizes are 10 points for typewriter characters and most text in books, 48 for everyday newspaper headlines, and 6 to 8 points for "fine print."
Typeface. A complete set of characters in a particular design or style. Typefaces come in families of different weights (light, medium, and bold), different point sizes, and different typestyles (roman, italic, or other oblique). The choice of a typeface affects readability and attractiveness.
Wrap. Flow around. Usually refers to text's "avoiding" a graphics area.

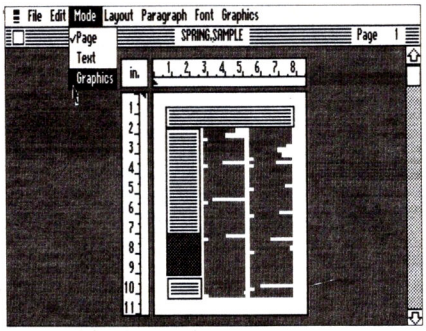

Figure 1: Springboard Publisher's Layout mode displays a full page on the screen, allowing you to manipulate text and graphics boxes.

Grumbleville *Gazette*

New Ball Park Dedicated

Last Tuesday, Mayor Grumbleman officially dedicated Grumble Field on Maple Avenue just past Main Street. The new ball park will be the home of the Sluggers, Grumbleville's own minor league softball team.

Mayor Grumbleman, in his opening remarks, wished the Sluggers success and hoped that the upcoming softball season would be their most successful one yet. Last year the sluggers won only one game and that was an exhibition match against the Janeville Retired Bowling League's softball team.

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Friends are invited to view the plaque at an open house on June 27th from 6 pm to 8 pm at

Todd Grumbleman hits last year's only Slugger home run in the fateful game against the Hominy Hogs.

Figure 2: Springboard Publisher. The most frustrating part of producing this page was the program's lack of speed. Even though we were running it from a RAMdisk, Publisher refreshes the screen with every edit, so adjustments went slowly.

The body text is divided into three columns. Publisher doesn't allow ½-inch margins, so not all of the original text fit on the page. The graphic and its legend occupy their own boxes, overlaid on the empty text frame.

Although fully justified, the body text is acceptable because we manually added several hyphens. Publisher provides frames around text and graphic boxes, so it was easy to box the title and graphic.

bersome as it sounds.

The Publisher package includes only three typefaces: Gothic, Serif, and Sans Serif. Gothic is available only in 72 points, whereas the other two are available in sizes ranging from 9 to 72 points. For ten additional typefaces, you must purchase a separate font package, which is available for $29.95 only in the 3.5-inch disk format.

Graphics must be placed in graphic boxes. When you select a graphics box, you get an amazingly full-featured MacPaint-style drawing program including a Magnify mode and most of the tools you might need to create simple illustrations. Unlike text, art can be directly imported at any time. You can import images from several sources including DOS 3.3 and ProDOS hi-res screens and Springboard's extensive clip-art collection. Publisher cannot import Dazzle Draw images, however. You can crop your art to select only part of an image if you desire. Once you've imported an image, you can use Publisher's extensive graphics tools to alter it.

Springboard Publisher is compatible with 93 printers and 57 interface cards, and its output on the Apple ImageWriter is very good (see figure 2). Apple LaserWriter and Adobe PostScript compatibility is promised as a near-future option for $39.95.

In terms of features, Springboard Publisher is impressive, although it lacks a spelling checker and hyphenation. The inability to turn off automatic wrapping of text around graphics and text boxes eliminates some design possibilities, but we'd rather have wrapping than not. The user interface is consistent with Apple's guidelines, although some of the expected keyboard controls are missing—the tab key should jump from field to field in a dialog box, and the arrow keys should work in the text mode, for instance.

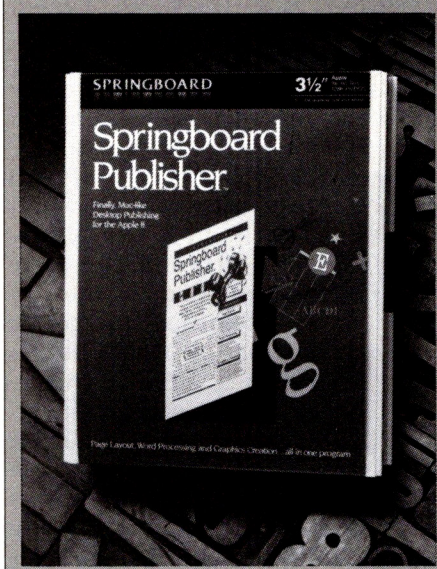
Speed is Springboard Publisher's major problem. It is *incredibly slow*, even on an Apple IIGS operating in the fast mode. The manual recommends that users with sufficient RAM (768K or more) create a large

Sample Output

To put each program through its paces, we decided to create the first page of a typical newsletter. We chose a conservative design, hoping that it would be easy to produce in all four programs. The text was typed in AppleWorks; the graphics, unless indicated, came from each program manufacturer's clip art. We used fully justified body text in order to test the programs' letter- and word-spacing capabilities.

In some cases, we could have created better-quality documents by spending more time to fine-tune them. We could, for example, have laboriously added many more hyphens for better text justification and even changed a word here and there to make it fit better, but we wanted you to witness the results of what we considered reasonable time and effort with each one of these programs.

VITAL STATISTICS



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DISK DRIVES: *one 3.5-inch or two 5¼-inch*
OPERATING SYSTEM: *ProDOS 8*
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MOUSE: *optional but recommended*
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RAMdisk and run Publisher from it. You can even configure the program to copy itself automatically onto the RAMdisk on startup. This strategy dramatically improves performance, but the program still redraws the entire screen with every minor edit. As we were going to press, Springboard released an update to Publisher that is free of the 3.5-inch key-disk copy-protection scheme, operates somewhat faster, and lets you turn off the "intuitive text" reformatting. This last feature, similar to a manual recalc option in a spreadsheet program, disables the automatic updating of the screen with each minor edit.

To guide your design efforts, Springboard offers, for an additional $29.95, a Style Sheets disk of newsletter-templates style sheets that range from the mundane to the ethereal. Study them; you'll learn a lot about how to work with this program to create truly good-looking documents. Springboard currently offers three Works of Art disks of well-drawn, useful clip art and a disk of ten new typefaces.

Publish It! from Timeworks also works on Apple IIe, IIc, and IIGS computers. This full-featured program follows the Apple desktop interface, using pull-down menus, icons, scroll bars, and dialog boxes, all of which you can operate with a mouse or a joystick. The Publish It! package contains two 3.5-inch disks and four 5¼-inch floppies and requires only one drive of either type. A second drive greatly reduces disk swapping, however. A fast perusal of the well-written, 232-page manual should get you going in no time, and, if you're stumped midway, you can avail yourself of the on-screen help.

Publish It! treats text columns; graphic frames; and graphic elements such as lines, rectangles, and ovals as individual elements. You can resize or relocate these objects at will.

Your multipage document can be any of four different page sizes, which you can view and edit in "reduce-to-fit," actual-, double-, and half-size views (see figure 3). You can freely experiment with your layout on worksheets that act as scratch paper and that you can save with your document.

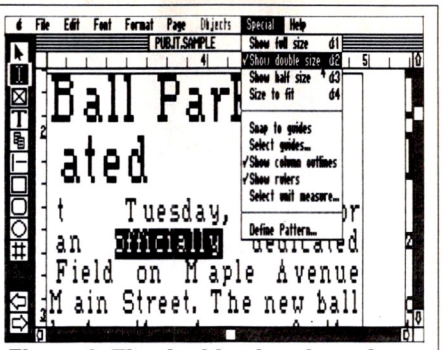

Figure 3: The double-size view of Publish It! makes the detail work easy.

You can create text within the program, or you can import it directly from AppleWorks, Bank Street Writer, or any ASCII file. Publish It! provides excellent word-processing capabilities, including on-screen rulers that you can set to show measurements in inches, centimeters, or picas; there's also search and replace, tabbing, line and paragraph indenting, text alignment, justification, kerning and leading, and auto text flow from column to column or to subsequent pages. A nice added touch is a feature called number spacing, which aligns columns of numbers.

You can install and de-install fonts and can have as many as eight typefaces (24 fonts) installed at one time. We recommend installing only those fonts that you know you will want to use in a document, however, because Publish It! currently recognizes only the first 128K of RAM in any given system, even if more is available. If you install only required fonts, more memory is available for the program.

Graphics can be imported from Brøderbund's Dazzle Draw or any double-hi-res program that creates Dazzle Draw-compatible images. Cropping images to fit is difficult, since you must first specify the size of your graphics region on a separate page and then load the file and choose the part of the graphic that you want. The program includes more than 200 graphics, and three additional disks of clip art are available for $39.95 each.

Output, on the ImageWriter, is the best of the programs we looked at for this article (see figure 4). A "double strike" mode provides

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CIRCLE 267 ON READER SERVICE CARD

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Friends are invited to view the plaque at an open house on June 27th from 6 pm to 8 pm at Miss Simple's residence, 123 Maple Avenue, adjacent to Grumble Field.

Figure 4: Publish It!
The superb fonts and printing capabilities of Publish It! make this the best dot-matrix printout.
The layout went smoothly, thanks to the easy switching of views. We created one large text box for the body text (divided into two columns) and smaller boxes for the title, graphic, and legend.

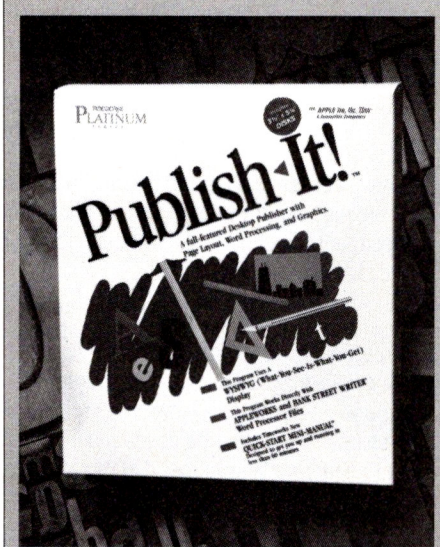
crisp, dark printouts that reproduce especially well. Publish It! is compatible with a range of interface cards and printers, although not as many as Springboard Publisher. As always, regarding compatibility with your specific system configuration, consult the manufacturer directly before purchasing any software.

As with Springboard Publisher, we found Publish It!'s automatic text flow around graphics inconvenient. When we tried to box a part of our text, the text forced the box (a graphic) out of the way. We finally got what we wanted by putting the text we wanted framed into a separate text box and then making the graphic frame larger than the text box. We would opt to have the text flow around graphics optionally.

Another inconvenience is the inability to resize an object by dragging on its handles. Instead we used the Object Specification dialog box and resized, using numeric measurements. Although you can use this method to resize a graphics region, the image contained within remains unchanged in size and appearance. We also missed a Select All command that allows simple changing of the typeface for a whole story.

These petty grievances aside, Publish It! is a fine program. With it, you should be able to produce quality documents. Timeworks will be supporting this program by providing lots of supplementary packages, including a Laser Accessory Pack (for PostScript-compatible printer output), two Font Packs, and three Art Portfolios crammed with graphic images.

VITAL STATISTICS



PUBLISH IT!
A full-featured DTP program that offers multiple views and strong importing features

CPU: *Apple IIe (enhanced), IIc, or IIgs*
RAM: *128K*
DISK DRIVES: *one 5¼- or 3.5-inch*
OTHER: *pointing device (joystick or mouse); extra drive recommended*
OPERATING SYSTEM: *ProDOS 8*
COPY PROTECTION: *no*
LIST PRICE: *$99.95*

Timeworks, Inc.
444 Lake Cook Road
Deerfield, IL 60015
(312) 948-9200

CIRCLE READER SERVICE NO. **391**

Personal Newsletter, a program that works on the Apple IIe, IIc, and IIGS, lets you create more than newsletters, but for the most part it is limited to single-page, unsophisticated publishing.

Newsletter is available in two versions: The 3.5-inch package contains two disks, and the floppy version has three 5¼-inch disks. Specify the format you want when ordering.

The Newsletter display consists of a double-hi-res graphics screen for documents and four lines of 80-column text at the bottom that contain your command choices (see figure 5). If you prefer the keyboard to the mouse, this program might be the one for you, since it uses the mouse only sparingly and relies on lots of keyboard control.

You can use your mouse or pointing device for simple functions such as moving and sizing, but you issue all commands from the keyboard. To cut text, for example, you must select the window the text is in by pressing the open-apple key and the window number. Then you press solid-apple/E, for Edit; select the Cut option by pressing the C key; use the arrow keys to move the cursor to the first character that you want to cut and press Return; and move the cursor to the last character to cut and press Return. A message at the bottom of the screen gives you the choice of copying or deleting the range of text. Choosing Delete cuts the text. A long journey to remove a few words.

Needless to say, it takes some time to get comfortable with the program. We strongly recommend

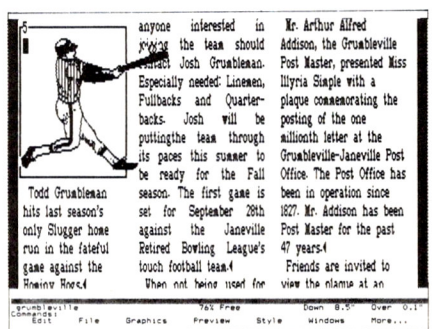


Figure 5: Personal Newsletter uses a mixed-mode screen to display the document and available commands simultaneously.

you do all of your editing with your favorite word-processing program and import only finished text. Fortunately, the 192-page manual is well written, and help screens are available at all times.

You have complete control over your layout, which is based on windows that define areas of the page; a window can hold both text and graphics. Your document page is one large window, and you can add up to nine more, each of which is numbered on the screen. If you wanted a simple two-column publication, for example, you'd create a horizontal window for the headline, two vertical windows for the body copy, and possibly another small window for an illustration. You move from window to window by pressing the open-apple key in combination with the window's number. The program is extremely flexible. You can add, delete, resize, move, or border windows at any time. In fact, there is nothing—text, graphics, layout—that you can't quickly and easily change whenever you want.

Personal Newsletter lets you import ASCII files, but we had some minor difficulties importing the text for our sample document. The program lets you change typestyles, justification, leading, and character spacing. It doesn't include paragraph indents and tabs, however, so if you want an indented paragraph, you'll have to type spaces at the beginning of the first sentence.

In addition to being restricted to creating only single-page documents, the program has another major limitation, in its use of typefaces. The body type of your publication must be 12 points, and you can use only one typeface for the entire page. For larger type sizes, such as headlines, you have to use bit-mapped text that you've created in a graphics window. The program offers many interesting style options, including Bold, Reverse, Fat, Tall, Outline, Shadow, Flip, and Vertical Stretch, but bit-mapped text always has a blocky, amateurish look (see figure 6).

Personal Newsletter provides a full-featured graphics editor with which you can create original graphics or edit hi-res and double-hi-res graphics you've imported from other programs. Three volumes of Personal Newsletter Clip Art packages are available, with a fine variety of line and digitized images—one comes free with the program. At any time, you can bring a graphic or document back to the editor for last-minute changes. We like that.

Grumbleville Gazette

New Ball Park Dedicated

Last Tuesday, Mayor Grumbleman officially dedicated Grumble Field on Maple Avenue just past Main Street. The new ball park will be the home of the Sluggers, Grumbleville's own minor league softball team.

Mayor Grumbleman, in his opening remarks, wished the Sluggers success and hoped that the upcoming softball season would be their most successful one yet. Last year the sluggers won only one game and that was an exhibition match against the Janeville Retired Bowling League's softball team.

This year's season is expected to be the Slugger's most difficult yet with weekly matches set for Friday nights at 9 pm. Teams on this year's line-up include the Flyertown Jets, the Rileyville Rockets, and the Bradley Brats. Slugger fans will recall the heartbreaking 29 to 28 defeat by the Brats last year. Grumble Field will also be home to the newly formed Smashers, a touch football team. Although the Smasher season doesn't get underway for some months, anyone interested in joining the team should contact Josh Grumbleman. Especially needed: Linemen, Fullbacks and Quarterbacks. Josh will be putting the team through its paces this summer to be ready for the Fall season. The first game is set for September 26th against the Janeville Retired Bowling League's touch football team.

these official functions, Grumble Field will be available to any and all sports people. Let's give a hardy Gazette thanks to Mayor Grumbleman for this delightful facility.

It's Zucchini Planting Time

Now is the time to plant your zucchini crop.

We need lots of zucchini if our annual Zucchini Festival is to be as big a success as it has been in previous years. This year's Zucchini Festival will run from August 10th to the 12th at Grumble Field.

The prize for this year's largest zucchini crop will be Sally Trenble's *One Thousand and Two Things to do with Zucchini* donated by Josh Grumbleman of Grumbleman's Feed and Notions, 45 Main Street, Grumbleville.

The Annual Zucchini Ball will cap the event on the night of August 12th at the Janeville Area Motel ballroom. The cost will be $25 per couple including cocktails, dinner, and dancing. Mrs. Estachia Grumbleman will be our hostess.

Illyria Staple Posts 1,000,000th Letter

Mr. Arthur Alfred Addison, the Grumbleville Post Master, presented Miss Illyria Simple with a plaque commemorating the posting of the one millionth letter at the Grumbleville-Janeville Post Office. The Post Office has been in operation since 1627. Mr. Addison has been Post Master for the past 47 years.

Friends are invited to

Todd Grumbleman hits last season's only Slugger home run in the fateful game against the

Figure 6: Personal Newsletter. The most frustrating part of this program is its font limitations. (Note the blocky title text.) Although the program has a Flow option, we had difficulty making the text flow from window to window. Fully justified text resulted in lines of text with two or three words and huge gaps of empty space between them. To compensate, we manually hyphenated some of the words.

The reduced screen view, on which we designed the layout (positioning and sizing windows), showed space left at the bottom of the page, as did the actual-size document screen. As you can see, however, when we printed it, the document went off the page. The graphic was a bit large for the space we had left, but we used it anyway. The box outlines the window in which we placed the graphic.

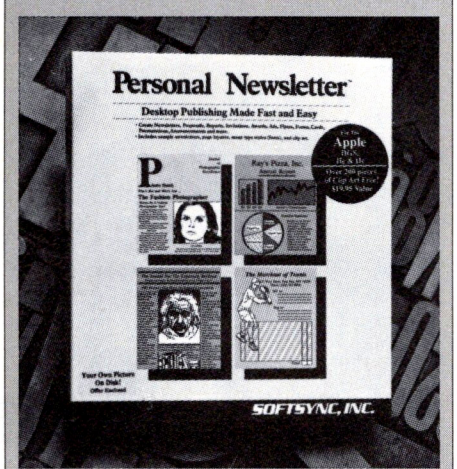
Output from Personal Newsletter is fair, but the program lacks an option for double-strike or high-quality printing. We're unhappy with the keyboard-intensive interface, but the limitation on fonts is what really prevents us from recommending this program. Still, considering the low price, some might well consider this program a bargain. An updated version of the program, which should be available by the time you read this, will offer true headline fonts and LaserWriter compatibility.

GraphicWriter from DataPak is the only IIGS-specific desktop-publishing program available as of this writing and the only such program that displays and prints in color.

GraphicWriter comes on a single, unprotected 3.5-inch disk, and the documentation is limited to a 62-page, spiral-bound *Instruction Manual* filled with illustrations and useful examples. On starting GraphicWriter, your first impression may be that it is a paint program. A large part of the lower screen area is covered by the graphics tool palette, including draw tools, paint tools, and 48 dithered colors (see figure 7).

Layout in GraphicWriter involves regions, which are like the text and graphic boxes of the other DTP programs and can go anywhere on the page. Once you've created and positioned a region,

VITAL STATISTICS



PERSONAL NEWSLETTER
A low-cost, keyboard-intensive DTP program with limited typeface options

CPU: *Apple IIe (enhanced), IIc, or IIGS*
RAM: *128K*
DISK DRIVES: *one 5¼- or 3.5-inch*
OTHER: *extra disk drive recommended*
OPERATING SYSTEM: *ProDOS 8*
COPY PROTECTION: *no*
MOUSE: *optional*
LIST PRICE: *$59.95*

Softsync, Inc.
162 Madison Avenue
New York, NY 10016
(212) 685-2080

CIRCLE READER SERVICE NO. 392

you can set its property as object or canvas. An object region can hold text or object-oriented graphics (lines, boxes, and so on), whereas a canvas region is for "paint" graphics. Since the program allows you to save custom layouts (called stationery), you can create a newsletter template, save it as stationery, and call it up when you need it.

You can import text from ASCII files, and it automatically flows into your text regions. To make text flow from one text region to another, you create a "continuation mark." Text editing feels much like it does in MultiScribe or any other WYSIWYG text editor, except that GraphicWriter does show its columns on the screen.

One particularly useful GraphicWriter feature is that it can export a text file. This capability allows you to keep disk files up to date, since any edits you make in GraphicWriter can also be retained in your original word-processing files. You can also export individual graphics images.

GraphicWriter excels in its color graphics capabilities. You can have color text, add color graphic elements such as rules and boxes, and create original super-hi-res images. It has the most sophisticated color handling of any of the programs we looked at; you can even do color separations. The ability to handle color is great if you plan to have your documents professionally printed, but if you are relying exclusively on an ImageWriter or LaserWriter for output, color capability doesn't count for much.

You can import graphics, but they must be super-hi-res graphics saved in the standard picture file format (the screen format of Paintworks, for example). We were disappointed to discover that pictures cannot be cropped more easily, nor is there any way to indicate which part of a picture you want to use. GraphicWriter uses only the upper left corner of the image. We would like to be able to scroll graphics within regions so that we could select which part of the picture we wanted displayed.

GraphicWriter uses the standard Apple IIGS printer drivers, meaning that it currently works only with ImageWriter and LaserWriter printers—that's the case with most Apple IIGS software.

The GraphicWriter sample looks great (see figure 8). Because it's the only program we looked at that can print on the LaserWriter, however, we noticed an interesting problem that all Apple II desktop-publishing programs will have to solve with their LaserWriter drivers. The Apple IIGS LaserWriter driver offers three aspect-ratio modes: Normal, Intermediate, and Condensed. Normal reproduces the screen exactly, and Condensed provides a 1:1 ratio of screen pixel to printer pixel. The aspect ratio of the screen is such that pixels are horizontally elongated, whereas LaserWriter pixels are square. To get the standard LaserWriter typefaces, you must choose Condensed, but the screen is showing the Normal mode. GraphicWriter compensates for different aspect ratios by changing the screen display to match the printer when you are editing graphics, but when you are editing text, the type appears elongated. The size switching is disconcerting, to say the least, and complicates the process of precisely

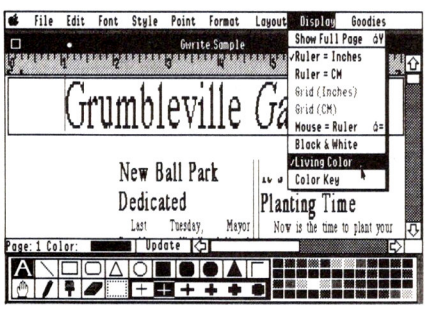


Figure 7: The tool palette occupies a large portion of the GraphicWriter screen, so you can see only small portions of your document at a time.

Grumbleville *Gazette*

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Friends are invited to view the plaque at an open house on June 27th from 6 pm to 8 pm at Miss Simple's residence, 123 Maple Avenue, adjacent to Grumble Field.

Inside

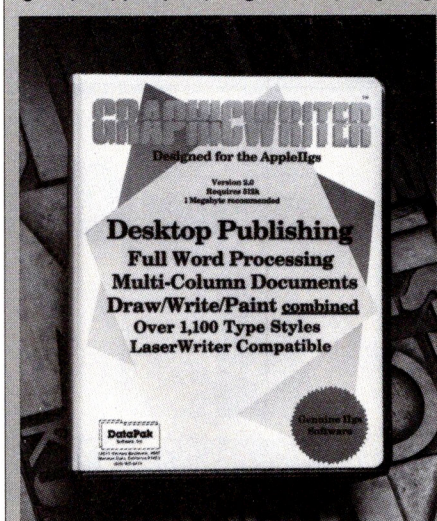
2 Grumbleville This Week
3 On Garbage (Editorial)
4 Slugger's Schedule

Figure 8: GraphicWriter. Because we could print it on the LaserWriter, this newsletter looks the best. The basic layout consists of four regions. Because GraphicWriter lacks a "reduce to fit" view, it was difficult to be sure everything was lining up. You can have regions automatically boxed in GraphicWriter, but the program doesn't handle this function very well. We ended up creating the frame around the title by hand to eliminate the unsightly framing.

We expected better control over letter and word spacing, especially in fully justified text. Note the large white spaces between words.

Since GraphicWriter can import only super-hi-res images, we used Baudville's 816/Paint to convert the Publish It! ball player to super-hi-res. The image looked fine in 816/Paint but imported poorly to GraphicWriter.

VITAL STATISTICS



GRAPHICWRITER
A LaserWriter-compatible, GS-specific DTP program with some powerful color graphics capabilities

CPU: *Apple IIGS*
RAM: *512K*
DISK DRIVES: *one 3.5-inch*
OTHER: *1Mb of RAM recommended*
OPERATING SYSTEM: *ProDOS 16*
COPY PROTECTION: *no*
LIST PRICE: *$149.95*

DataPak Software, Inc.
14011 Ventura Blvd. #507
Sherman Oaks, CA 91423
(800) 327-6703/(818) 905-6419

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Tips For Better-Looking Desktop Publishing

Type

Don't use decorative typefaces such as London or Venice except for special items.

•Don't mix more than three typefaces in one publication. We recommend that you stick to two: a serif face for the body text and a sans-serif face for headers and other special text. The two most common typefaces, Times Roman or New York (serif) and Helvetica or Geneva (sans serif), go well together.

•Be sure to select legible typefaces.

•Consider your printer's limitations. The main body of your publication should be in 10-, 11-, or 12-point type, depending on the typeface you choose and how you'll print your publication. Printed with the LaserWriter, 10-point Times Roman is easy to read, but 10-point New York printed with the ImageWriter is not.

•Don't rely on scaled fonts. If the computer must scale the face, it's likely to be jagged.

Text

•Don't do a lot of formatting in your word-processing program. If you're importing an AppleWorks file, some of your formatting may remain, but if you're importing an ASCII file, all character formatting such as boldface will be lost in the transition to ASCII.

•Don't use two spaces at the end of sentences. Typeset copy should use only one space after a period.

•Never use spaces to line up tabular material or create indents. Use tabs. With proportional typefaces, unequal character widths make it difficult to line up words or numbers. Even if things look OK on screen, they may not print correctly.

•Beware of "widows" and "orphans." Remove single lines and words alone on a line by rewriting or adjusting the word or letter spacing.

Art and Graphic Elements

•Avoid overuse of rules, lines, and boxes.

•Use thin lines or rules to separate unrelated blocks of copy and to go around graphics or photos.

•Be consistent with the use of graphic elements. Use the "master page" or "repeating element" feature of your desktop-publishing program to achieve this consistency.

•Don't use copyrighted art in your publication without permission.

•Don't use art for art's sake; select art that enhances and clarifies, rather than distracting from the copy.

Columns and Margins

•Don't go too close to the edge of a page, because most printers can't print to the edge of the paper. The size of your margin depends on your printer.

•Leave at least 1½ inches for the gutter if you're going to punch the pages of a publication for a three-ring-binder.

•Leave approximately ¼ inch of space between columns.

•Be careful with column widths. Columns wider than approximately 4½ inches are difficult to read. Columns that are too narrow are equally hard to read.

•Use wider columns if you're going to fully justify your text. Don't fully justify your text if your program doesn't hyphenate.

Other

•Don't fill every nook and cranny with artwork and copy. Leave adequate white space on each page. Areas that don't have text or graphics can be quite refreshing.

•Plan on rigorous proofreading of your document. Errors in grammar or spelling detract from your publication no matter how good it looks.

•Don't be afraid to experiment. Desktop-publishing technology allows design by trial and error without the usual angst of standard methods—take advantage of it!

aligning text and graphics. It will be interesting to see the solutions other manufacturers devise to solve this dilemma.

We wanted to like GraphicWriter, but the current version has lots of problems. For one, it follows Apple's user-interface guidelines only partially. The arrow keys don't work, so you have to position the cursor with the mouse. The Delete key doesn't work as it should; it clears rather than cuts. (The Delete key should do the same as Cut: remove a selection and place it on the Clipboard.) The program is extremely modal: You must specifically ask, via a menu choice, to remove an object. You cannot resize the document window. You use a clumsy, inexact hand tool, rather than a pointer or arrow tool, to position objects. Objects don't have handles; you have to press the Control and Option keys while using the hand tool to resize the lower right-hand border of the object. Enough already—you get the point.

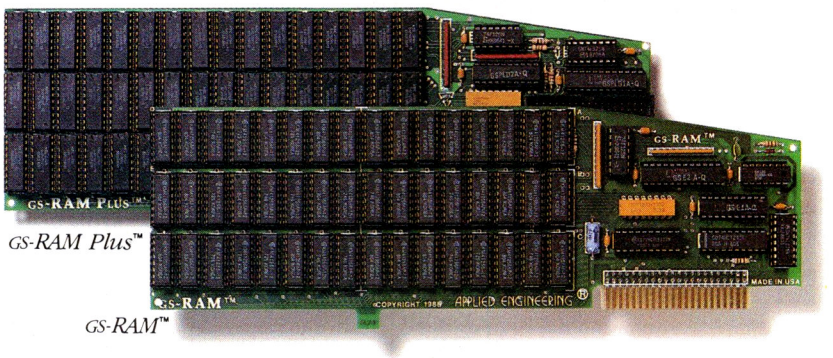
Looking Ahead

Three new products are on the verge of being released at the time of this writing. All promise to be excellent additions to the desktop publisher's repertoire of software, but we were not able to test the final versions of these products and therefore must reserve judgment.

The geoPublish program may provide the incentive to dig into Berkeley Softworks' GEOS. It's a full-featured publishing program for all Apple II computers that works with the LaserWriter. A program called Pages from Pinpoint Publishing will be released this fall in separate versions for the IIGS, Macintosh, and IBM PC. This object-oriented DTP package boasts a universal file format that allows for the free exchange of documents among these three systems. And, finally, Medley from Milliken Publishing looks to be an Apple IIGS-only product with a full range of features, including powerful word-processing capabilities such as automatic hyphenation—important for creating professional-looking documents.

Each of the products we've reviewed here has a slew of soon-to-be-released add-ons in the form of clip art, typefaces, templates, additional printer compatibility, and so

Applied Engineering made an extra effort to make GS-RAM™ and GS-RAM Plus™ DMA compatible.



GS-RAM Plus™

GS-RAM™

It was worth it.

Applied Engineering's IIGS memory cards, the GS-RAM™ and GS-RAM Plus™ are the ONLY large capacity [1] IIGS memory cards that are fully DMA compatible. Others are either totally non-compatible or compatible only in certain specific configurations.

That difference in memory cards is critical. Here's why: DMA (Direct Memory Access) tremendously speeds up computer operations by bypassing the microprocessor. All addressing and control logic is contained on our cards, enabling a DMA device to bypass the microprocessor and go straight to the heart of things...the computer's memory.

AE's full DMA compatibility means GS-RAM and GS-RAM Plus run all GS software, support all *current and future* DMA peripherals, and don't require you to adjust the size of your RAM disk everytime you use a DMA device...something every other large capacity memory card requires you to do.

Software

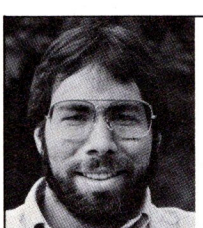
Both GS-RAM and GS-RAM Plus come complete with Applied Engineering's own powerful enhancement software.

Disk caching software is included, tremendously speeding up the computer's access to the 3.5 drive and running most applications up to *seven times faster.*

Diagnostic utility software is also included free. It graphically shows the location of bad or improperly installed chips and even tests for CAS before RAS chips.

Your free software also includes AE's exclusive AppleWorks Expander program that dramatically enhances the capabilities and speed of AppleWorks. This powerful software also:

- Allows AppleWorks to recognize up to 8 MEG on the desktop
- Increases word processor lines from 7,250 to 22,600
- Increases database records from 6,350 to 22,600
- Increases clipboard capacity from 255 lines to 2,042
- Automatically loads AppleWorks (including print functions) into RAM
- Automatically segments files for saving on multiple floppies
- Provides a built-in print buffer



"In quality, performance, compatibility, expandability and support, Applied Engineering's GS-RAM and GS-RAM Plus are number one."

Steve Wozniak, the creator of Apple Computer.

RamKeeper™ Option

Coupled with Applied Engineering's RamKeeper, your GS-RAM or GS-RAM Plus actually give you an internal "electronic hard disk" with an instant-on finder and emergency power backup. RamKeeper even supports an Apple IIGS memory card (and most others) alone or in combination with one of our cards. See our RamKeeper ad for more details on how this $189 wonder gives your IIGS all the speed and power it was meant to have.

Compare Our Features

- GS-RAM expands from 256K to 1.5 MEG
- GS-RAM Plus expands from 1 MEG to 6 MEG
- GS Expander™ adds up to 2 MEG to either card
- Full DMA compatibility in *any* configuration
- 5-year warranty - parts and labor
- 6 RAM banks (most cards have only 4)
- Piggyback memory expansion port
- No configuration blocks to set
- RamKeeper option available for permanent storage
- 15-day money-back guarantee [2]
- Proudly made in the U.S.A.

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GS-RAM w/512K	**$369**
GS-RAM w/1 MEG	**$629**
GS-RAM w/1.5 to 3.5 MEG	**CALL**
GS-RAM Plus w/ZeroMEG	**$169**
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GS-RAM Plus w/2 MEG	**$1149**
GS-RAM Plus w/3-8 MEG	**CALL**
RamKeeper Option	**$189**

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$298

GS-RAM PLUS, 1 Meg
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RamWorks Basic, 256K
$171

RamWorks III, 256K
$186

//e Power Supply
$58

Serial Pro
$109

Transwarp
$164

Phasor
$129

DataLink 2400
$179

GS RamKeeper
$147

PORTABLE SYSTEM

Prairie Pwr System, Battery Pack (8 Hr, UPS) & Case
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C-VUE LCD Flat Monitor
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World Port 1200 Modem
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World Port 2400 Modem
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AppleWorks 1.3 Special No Tutorial Manual
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Locksmith 6.0
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Copy II Plus
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Bag of Tricks 2
$39

RAMUP 4.0
$29

EASY DRIVE
$54

Timeout Ultra Macros
$43

Timeout Graph
$59

Path Finder (AW2.0 patch)
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Patch Mania (AW2.0 patch)
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HARDWARE

Super Sonic Stereo/ digitizer (MDI)
$49/each

Numeric Keypad (//e)
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//c Detachable Numeric Keypad
$139

CMS 30 Meg (SD) (//e, GS)
$749

CMS 43 Meg (SD) (//e, GS)
$825

CMS 60 Meg (SD) (//e, GS)
$900

Conserver (MDI)
$119

Meiji 5.25 ½ Height Drive (//e)
$80

Meiji 5.25 ½ Height Drive (//c, GS)
$95

No Slot Clock Pro (Apricorn)
$55

Parallel Interface Adapter Apricorn (//c)
$49

Applied Time II Clock (A.I.)
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on. We'll look at these products in future issues where appropriate.

Summing Up

None of the products we looked at would be easy to use for *professional* desktop publishing, although Publish It! comes closest. As first-generation Apple II DTP products, all are amazingly good, however. With LaserWriter compatibility and the inevitable fine-tuning that will occur as these products mature, the future of desktop publishing on the Apple II is indeed lookin' good. ✚

Michael Callery and Roberta Schwartz are two good-lookin' New Yorkers who teach desktop publishing at The New School and are the graphics editors of this magazine.

References

Bove, Tony, Cheryl Rhodes, and Wes Thomas. ***The Art of Desktop Publishing.*** 2nd ed. New York: Bantam, 1987. *Oriented toward Macintosh and IBM PC systems but nonetheless good, knowledgeable coverage of the field.*

Miles, John. ***Design for Desktop Publishing.*** San Francisco: Chronicle Books, 1987. *Excellent coverage of text and typographic issues. Weak in graphics, however.*

Parker, Rodger. ***Looking Good in Print.*** Chapel Hill: Ventata Press, 1988. *Lots of examples; excellent reference book.*

Seybold, John and Fritz Dressler. ***Publishing from the Desktop.*** New York: Bantam, 1987. *Excellent coverage of the technological background of desktop publishing; includes good information about professional printing services.*

White, Jan. ***Design for the Electronic Age.*** New York: Watson-Guptell, 1988. *Bound to be a classic. Jan White is a world-renowned designer. Essential.*

Desktop Publishing newsletter. Sage Productions, San Diego, CA; (619) 455-7513.

Personal Publishing magazine. Hitchcock Publishing, Wheaton, IL; (312) 665-1000.

Publish! magazine. PCW Communications, San Francisco, CA. (415) 243-0600.

Desktop-Publishing Programs

	SpringBoard Publisher	Publish It!	Personal Newsletter	GraphicWriter
Version reviewed	v1.01	v1.04	v1.3	v2.0
Layout				
Multiple-page documents	**YES**	**YES**	NO	**YES**
View modes	3	4	2	2
Rulers	**YES**[1]	**YES**[2]	**YES**	**YES**[3]
Columns (max.)	9	No specified limit	10	No specified limit
Text				
Typefaces	3	6	6	14
Total fonts	19	21	6	28
Extra typefaces	1 disk, 10 for $29.95	2 disks, 8 for $39.95	**YES**[4]	All standard GS fonts
Search and replace	NO	**YES**	NO	**YES**
Kerning	NO	**YES**	**YES**	NO
Leading	**YES**	**YES**	**YES**	**YES**
Character spacing	**YES**	**YES**	**YES**	NO
Imports	ASCII AppleWorks Bank Street Writer Apple Writer	ASCII AppleWorks Bank Street Writer	ASCII	ASCII[5]
Graphics				
Editing	**YES**	NO	**YES**	**YES**
Cropping	**YES**	**YES**	**YES**	**YES**
Resizing	**YES**	NO	**YES**	NO
Clip art included	**YES**	**YES**	**YES**	NO
Extra art	3 disks, $39.95 each	3 disks, $39.95 each	2 disks, $19.95 each	NO
Imports	Hi-res Newsroom	Hi-res Double-hi-res Dazzle Draw	Hi-res Double-hi-res Dazzle Draw Newsroom Print Shop	Super-hi-res[5]
Output				
Color	NO	NO	NO	**YES**[6]
LaserWriter	$39.95 option	Option TBA	Included in v2.0	**YES**
Input				
Joystick	NO	**YES**	NO	NO
Mouse	**YES**	**YES**	Limited	**YES**
Keyboard only	**YES**	NO	**YES**	NO
Other				
On-screen help	NO	**YES**	**YES**	NO
Optional style sheets	1 disk, $29.95	1 disk, $39.95	NO	NO
Documentation (pages)	249	232	192	62

1. Can measure in inches, centimeters, or pixels.
2. Can measure in inches, centimeters, or picas.
3. Can measure in inches or centimeters.
4. Each clip art disk contains three extra typefaces.
5. Can also export this type of file.
6. Can generate color separations also.

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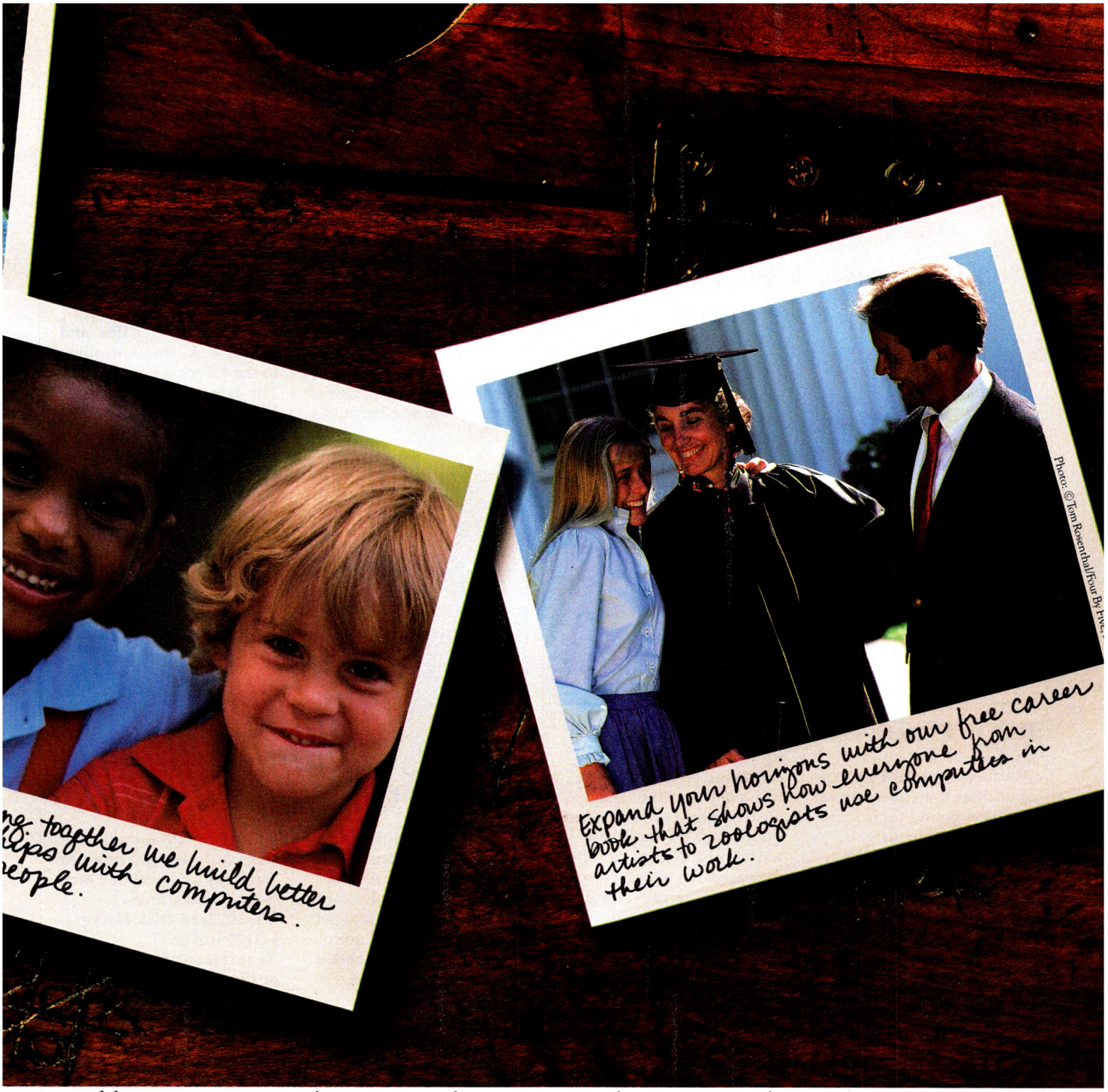

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PICK OF THE CROP
BY BOB LINDSTROM

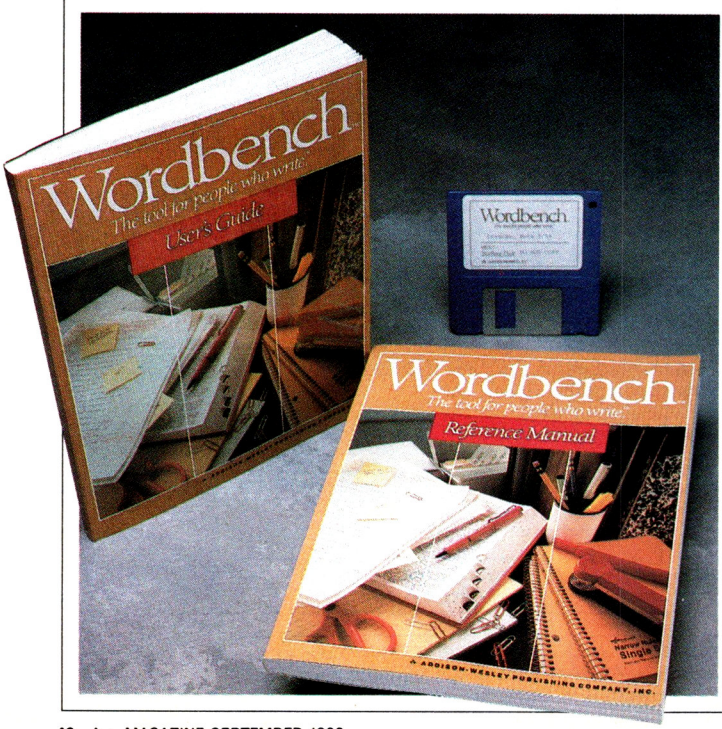
Mass storage, math games, super sounds, a writing coach, and the big picture

PRODUCT SPOTLIGHT

HAMMERING OUT A SENTENCE

Wordbench packs a toolbox of utilities to help writers at all levels pound their ideas into verbal structures.

This word-processing program from Addison-Wesley integrates an outliner, note taker, spelling checker, thesaurus, and reference tool into a single program. High school and college students, for example, can create bibliographies, take notes, outline, and write papers entirely within Wordbench. Nonstudent writers also will appreciate the ease with which Wordbench can logically merge notes and outline and reference materials into the first draft of a document.



A viewer utility can display two documents on-screen simultaneously. Writers can scan their notes, reference cards, or outline while composing and editing their text.

Besides common Cut/Paste/Print functions, Wordbench contains an Add-In Manager for the addition of more features. The first add-in product, included with Wordbench, is Brainstormer. It comprises four unusual tools designed to encourage writing freedom: Freewriting permits typing but not editing; Invisible Writing does not display while typing; Nut Shelling limits the available writing space; and Goal Setting prompts the writer to define topic, goal, intended audience, and purpose.

Wordbench
List Price: $149
Requires: Apple IIe, IIc, or IIGS; 128K RAM; one 3.5-inch disk drive or two 5¼-inch disk drives. ProDOS, not copy-protected.
Addison-Wesley Publishing Company, Inc.
Route 128
Reading, MA 01867
(617) 944-3700

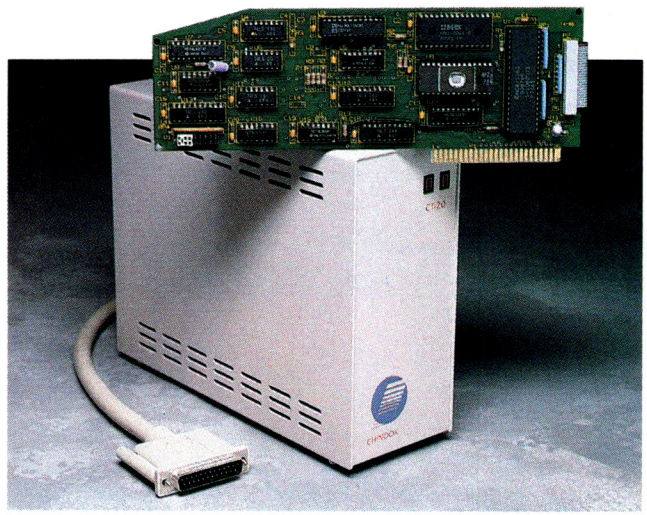
CIRCLE READER SERVICE NO. **400**

HARD DISK GETS EASY

Dig your way out of all those floppy disks with Chinook Technology's CT-20 hard-disk drive. This complete, plug-and-go system includes a 20Mb hard-disk drive, SCSI controller card, hard-disk-management software, and cable, and arrives preformatted with ProDOS for quick installation.

EasyDrive software that comes with the CT-20 installs your software applications on the disk and makes them available from a main hard-disk menu. Additional EasyDrive modules provide hard-disk file management and data backup.

The CT-20 SCSI controller installs in one of the internal slots of a IIe or IIGS, and a cable links the controller to the external hard disk. The disk drive automatically parks its read/write heads after 30 seconds of inactivity. It carries a one-year warranty and a 30-day money-back guarantee.



CT-20 Hard Disk Drive
List Price: $650
Requires: Apple Plus, IIe, or IIGS; one 5¼-inch disk drive. ProDOS; not copy-protected.
Chinook Technology
601 Main Street, #635
Longmont, CO 80501
(800) 727-5544
(303) 678-5544

CIRCLE READER SERVICE NO. **401**

A BIG, WIDE WORLD

Students get the Big Picture, geographically speaking, in Educational Activities' Introduction to Geography, Maps and Globes.

This interactive tutorial uses spot questions, graphics, and text to introduce grades 4–6 to Earth's continents, oceans, and hemispheres and their locations. In addition to teaching recognition of geographical features, the program encourages skills in map read-

ing and direction finding.

During program use, students have access to a context-sensitive glossary of terms, help screens, topic reviews, clues, and quizzes. The software can track the progress of up to 40 students. This program is the first of several in a Learning about Geography, Maps and Globes series.

Introduction to Geography, Maps and Globes
List Price: $59.95
Requires: Apple II Plus, IIe, IIc, or IIGS; 48K RAM; one 5¼-inch disk drive. DOS 3.3; copy-protected.
Educational Activities, Inc.
P.O. Box 392
Freeport, NY 11520
(800) 645-3739
(516) 223-4666
CIRCLE READER SERVICE NO. **402**

A SECOND HEARING

MDIdeas lends another ear to IIGS audio digitizing with Digitizer Professional, a higher-quality alternative to that company's SuperSonic Digitizer.

Digitizer Professional claims improved audio quality and more flexible sound-editing software. The hardware performs stereo sound sampling at several recording and playback rates. The sample-editing software includes numerous new features for manipulating samples, including fade, scale, move, and soft clip. You can also fade samples between the left and right audio channels to control stereo imagery.

A cable connects Digitizer Professional to MDIdeas' SuperSonic Stereo card. Dynamic noise reduction (DNR) on the digitizing board helps reduce audible noise emanating from the IIGS's sound circuitry.

Digitizer Professional
List Price: $189.95
Requires: Apple IIGS; 512K RAM; one 3.5-inch disk drive; SuperSonic stereo card. ProDOS, not copy-protected.
MDIdeas, Inc.
1163 Triton Drive
Foster City, CA 94404
(800) 843-5722
In CA (800) 572-2746
(415) 573-0580
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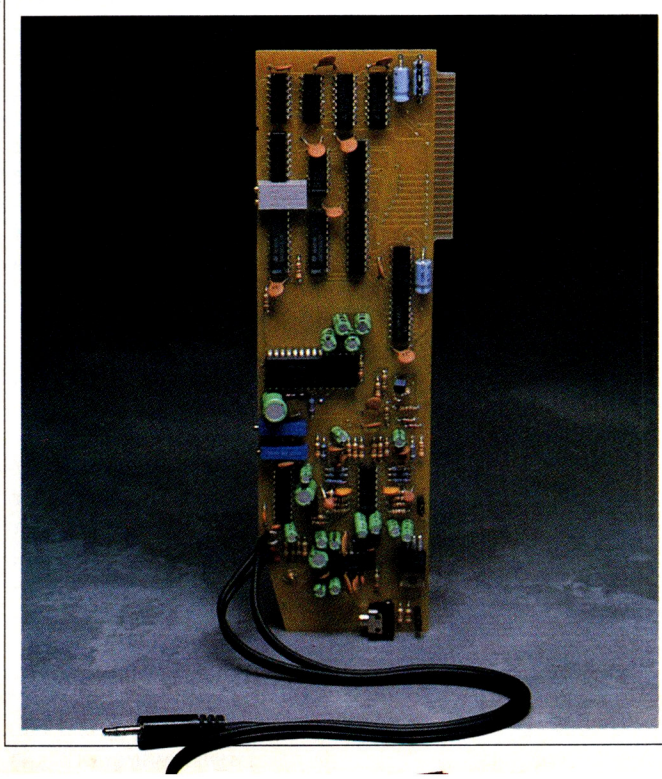

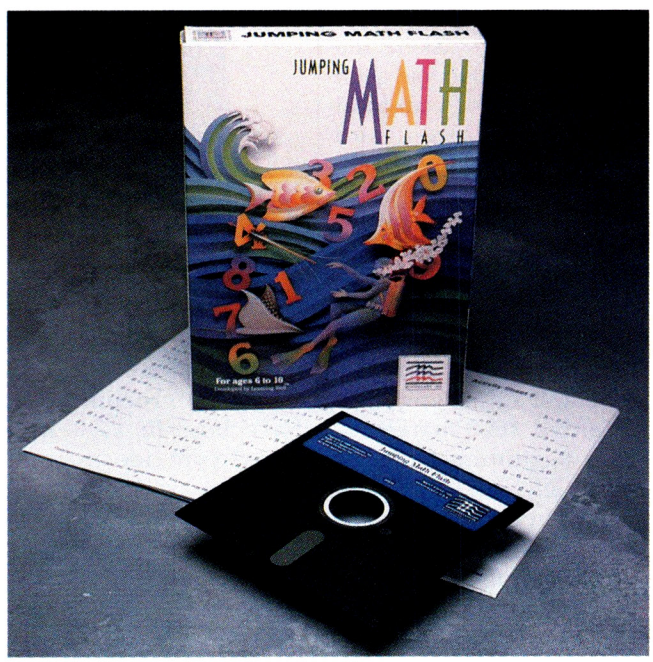

JUMPING INTO A SCHOOL OF FISH

Youngsters age 6 to 10 can nibble on arithmetical concepts and get hooked on numbers while playing Jumping Math Flash, an educational program that combines math facts with fast-paced game play.

The goal is to solve a math problem that appears at the bottom of the screen. Players use cursor keys to guide a fish—Jumping Math Flash (JMF)—through an ocean of numbers. To add arcade-like excitement, JMF must evade larger fish swimming across the screen. When JMF arrives at the desired answer, the player selects it by pressing the space bar. The program immediately indicates if the choice is right or wrong and moves on to a new problem. At the end of each round, the program scores the results and displays the problems, and markers indicate which answers were correct and incorrect.

Jumping Math Flash is adjustable for speed and difficulty to fit a wide range of student abilities. It also incorporates several playing options, from a practice mode to a high-score challenge mode.

Jumping Math Flash
List Price: $49.95
Requires: Apple II Plus, IIe, IIc, or IIGS; 48K RAM; one 5¼-inch disk drive; color monitor recommended. Copy-protected.
Mindscape, Inc.
3444 Dundee Road
Northbrook, IL 60062
(800) 221-9884
(312) 480-7667
CIRCLE READER SERVICE NO. **404**

FOR MORE PRODUCT INFORMATION, SEE "ROUNDUP," PAGE 80.

GEOS

Integrated programs and a GS-like desktop for the Apple IIe and IIc

A neighbor of mine who's an Apple II enthusiast recently asked me about GEOS. He had seen the package at our local software store and couldn't, from the packaging, determine exactly what it was. As a pioneer Apple II desktop publisher, he has long been using programs such as Data Transforms' Fontrix to generate fliers, newsletters, and other graphics-oriented text materials. He's beginning to feel a little left out, however, when he sees the slick new Apple IIGS programs with menus and windows and the famous Apple point-and-click interface. GEOS promises to provide that environment for all 128K Apple IIe and IIc owners, with a GS-like desktop and integrated applications with a GS look and feel. Does it keep this promise?

What Is GEOS? Part I

You can look at GEOS from at least two angles. Its full name, Graphic Environment Operating System, gives a clue to the first angle. GEOS is a shell that provides services to programs working in a graphics-oriented environment.

All microcomputers have built-in ROM routines to provide programmers with the ability to, for example, put a character on the screen or read data from a serial port. These core routines are the basis of any program running on that computer. On top of this foundation, most manufacturers provide an interface or shell to allow a user to use the computer without programming. When a disk drive is added to a computer system, you need additional core routines (a disk-operating system, or DOS) to allow access to the disks. When you purchase an Apple IIe or IIc, you get a primitive shell—a combination of ROM, ProDOS, and BASIC.SYSTEM—so you can catalog a disk, run a program, and perform several other fundamental functions. Apple IIGS owners receive an additional shell: the GS Finder, which offers even more functionality (the ability to copy a file, for example) at the expense of being able to write programs in Applesoft. Of course, you can execute BASIC.SYSTEM if you want to work in Applesoft.

The story of GEOS starts with Commodore computers. Commodore provides a simple DOS/BASIC environment for its C-64 computers, much like Apple does for the Apple II series. The Commodore DOS/BASIC environment is harder to use than the equivalent Apple ProDOS/BASIC

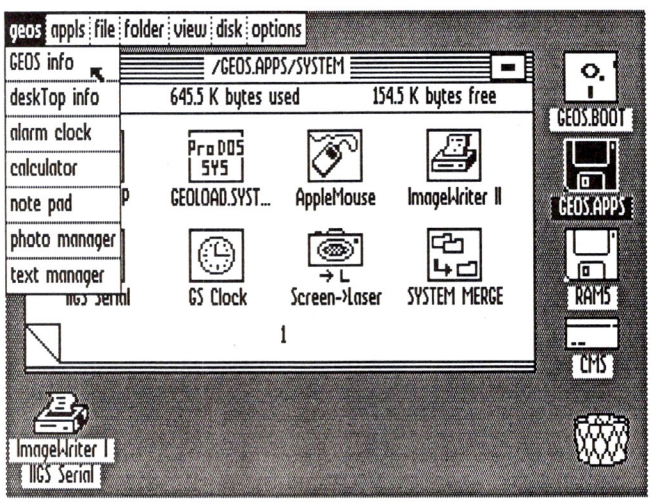

Figure 1: The GEOS deskTop, from which you can launch GEOS as well as ProDOS applications. You can't, however, use ProDOS utilities with GEOS files.

PHOTOGRAPHY BY JOOK LEUNG

GEOS.
FOR APPLE IIe, IIc
THE GRAPHIC ENVIRONMENT OPERATING SYSTEM
Berkeley Softworks
geos appls file folder view disk options
/GEOS
K bytes used
43 K bytes free
open
file duplicate
rename
delete
info
print
GEOLASER
SYSTEM
GEOMERGE
GEOWRITE
GEOSPELL
GEOPAINT
Document
apple IIc

environment—just starting a program or getting a disk catalog requires some pretty strange syntax. The success of the Macintosh and the realization that a graphics-based, point-and-click user interface could make a computer simpler to use provided a market niche that begged to be filled. Point-and-click on a Commodore 64? Why not? Enter Berkeley Softworks. With GEOS,

GEOS provides a double-hi-res graphics interface rather than a text-based one.

C-64 users had an interface similar to the point-and-click Macintosh interface. GEOS was a blessed relief.

Although the Commodore 64 and the Apple II are worlds apart, they do share the same 6502-family CPU and have similar speeds and disk capacities. So it was only a matter of time for Berkeley Softworks to convert GEOS to the Apple II.

What Is GEOS? Part II

The other way to look at GEOS is as a single, integrated application, like AppleWorks. Many Apple II users rarely or never see the ROM/ProDOS/BASIC interface; instead, they start up AppleWorks and stay in it. With the Pinpoint and TimeOut accessories available to provide graphics, telecommunications, DOS services, and so on, many Apple II users have little reason to leave AppleWorks.

GEOS provides similar functionality but with a double-hi-res graphics-based interface rather than a text-based one. The basic GEOS package comprises a word-processing program (geoWrite), a paint program (geoPaint), and several utilities in the form of stand-alone programs such as geoLaser, the LaserWriter printing utility, or in the form of desk accessories such as the Photo Manager. Promised add-on programs, soon to be available at additional cost, provide other modules such as a database manager (geoFile) and spreadsheet program (geoCalc).

GEOS, then, can be evaluated as an alternative to the standard Apple ROM/ProDOS/BASIC shell or as an integrated program. Let's start with interface issues.

GEOS as Environment

Even though GEOS does not look or feel exactly like the Apple desktop interface, anyone who is comfortable with the Finder on the Apple IIGS or Macintosh will have little difficulty adapting to the GEOS deskTop (see figure 1).

If you own an Apple IIe or Apple IIc and long to use this style of interface, GEOS will give it to you—but GEOS is not without problems. Because GEOS uses a different file structure than does ProDOS, you can launch a ProDOS application from GEOS, but you cannot use ProDOS utilities to manipulate GEOS files. GEOS is really a world of its own.

Because it is proprietary, I'm particularly concerned that the main GEOS boot disk is copy-protected. You must start up with the original disk (or the provided backup) to use GEOS. I dislike copy protection of application programs, but in an operating environment, copy protection is

The basic GEOS package comprises a word-processing program, a paint program, and several utilities.

indefensible. If my GEOS boot disk suffers accidental damage and, by some wild run of bad luck, my backup does too, that's it—I can't get any work done, since my data is locked up in a proprietary file format.

As far as the interface goes, the GEOS menu bar, like Apple's, is at the top of the screen. The first choice on the menu bar is geos, which contains the desk accessories stored on the current disk drive. Desk accessories are small programs that you can access at any time from the deskTop or while you're in an application. The icons at the right side of

RUNNING GEOS—What It Takes

GEOS requires a 128K IIc or enhanced Apple IIe computer. It also works fine on an Apple IIGS. You can use the keyboard, but as in all point-and-click environments, you'll be much more productive with a mouse or joystick. That's right: you can use GEOS with a joystick if you don't have a mouse. If your IIe doesn't have a mouse card, however, you must install the provided circuit board in slot 7 of your computer. This board provides interrupt signals that the AppleMouse II interface card normally provides. Apple IIc and IIGS owners don't need to install anything to work with GEOS.

Because GEOS is a monochrome environment on the Apple II, you don't need to have a color monitor. Since the package comprises three floppy disks, you must have at least one 5¼-inch disk drive, but two would be better. You can transfer the program to hard-disk and 3.5-inch drives. GEOS recognizes up to four disk drives. It has drivers for nearly all the common (Apple, Epson, Okidata, Panasonic) dot-matrix printers and interface cards and also works with the Apple LaserWriter printer connected through a serial interface at 9600 bps.

Additional disk drives, speedup products such as Applied Engineering's TransWarp or the Zip Chip, and extra RAM for use as a RAMdisk will greatly improve performance. As it stands now, this product is pretty slow, but that's understandable, when you consider the inherent speed of the Apple II processor.

The large users' manual provides extensive information on installing and configuring GEOS and provides enough information to get most people going. Aside from a brief tutorial on the deskTop and geoPaint, the manual consists of reference material, well organized and indexed. The three-ring manual provides divider tabs for the other, upcoming GEOS products such as geoCalc. The company has a toll number for user support.

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• **VERSATILE PERFORMER.** Copy II Plus enables you to convert DOS 3.3 files to ProDOS files and vice versa–automatically.

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Take a look at Copy II Plus today and see why *inCider* magazine says Copy II Plus deleted its competition. **For the dealer nearest you, or to order direct, call (503) 690-8090,** M–F, 8 a.m.–5 p.m. (West Coast time).

$39.95

Hardware requirements. Apple II or Laser computer with 128K memory and one disk drive.

3.5-inch bit copy requires Laser 128EX or IIGS (or Apple II computer with Central Point Universal Disk Controller) and a 3.5-inch IIGS, Chinon or Laser drive.

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CIRCLE 248 ON READER SERVICE CARD

the screen represent the disk devices currently attached to the system, and a wastepaper basket is for disposing of unwanted files. The contents of the selected disk appear in the window that occupies most of the screen.

The similarities with the Apple interface end here. The menu bar stretches only halfway across the screen and shares only the File and View headings with Apple's Finder menu bar.

You cannot move or resize the window that shows disk contents, and its contents appear in simulated pages. Clicking on the dog-ears in the lower left corner of the window "turns the page" and displays more disk contents. Another difference from the Apple interface is that when disk contents appear as text rather than icons (such as in the View By Name mode), arrows rather than scroll bars allow you to move through the file list. Only one window can be open at once; opening a second window closes the first one.

With only one window, one of the most common functions, copying files from one subdirectory or folder to another, is very different than it is when you use the Finder. You must first drag the icon onto the deskTop and then open the destination folder and drag the icon into it.

Despite these differences, though, you can format disks, copy files, launch application programs (including standard ProDOS applications), and so on from the GEOS deskTop.

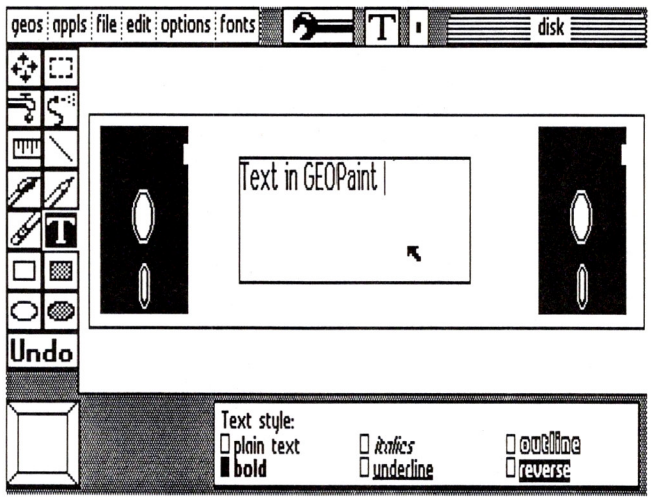

Figure 2: GeoPaint. The program draws the box around the text before you can type. You can reposition the text until you choose another tool.

GEOS Applications: Paint

GeoPaint is a black-and-white, low-end paint program that is much like MousePaint. It has a standard selection of tools, including a wide range of brushes and patterns. Using geoPaint is another matter—it feels odd, largely because of the way the tools work. In "standard" paint applications, your brush, pencil, and eraser operate only as long as you hold down the mouse button. Releasing the button stops the tools' action. In geoPaint, the tools work until you press the button a second time. This method is fine for people who are using joysticks or touch tablets but is downright weird with a mouse or graphics tablet.

The text tool has its

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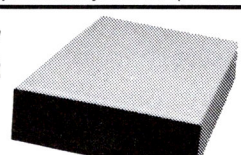

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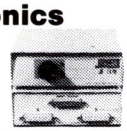

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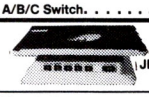

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9/88

CIRCLE 308 ON READER SERVICE CARD

I'm particularly concerned that the main GEOS boot disk is copy-protected.

own peculiarities. Choosing the text tool yields a cross-hair cursor rather than the usual I-beam cursor. With the tool, you draw a box, and a standard insertion-point cursor appears in it (see figure 2). Typed text is confined in the box, which you can resize and reposition until you choose another tool.

GeoPaint offers only the most basic of tools. You cannot, for example, free-rotate a selection; there is no lasso to provide background-free cut and paste; and there are no rounded rectangles or polygons. All these features are important in a full-fledged paint program, but I suspect that geoPaint is intended only to provide a way to produce simple graphics to incorporate into word-processing or desktop-publishing documents. As such, if you can deal with the way the tools work, it suffices.

geoWrite

GeoWrite is a low-end WYSIWYG (what you see is what you get) word-processing program that reminds me of MultiScribe, without the bells and whistles. In terms of interface, the major deviation from the Apple standard is in the way you scroll through your document. If you move the cursor to the very bottom, top, or sides of the screen, the screen scrolls (see figure 3). While this unorthodox scrolling method takes practice to master—it took me some time to be able to make a menu selection without scrolling the screen—I like it.

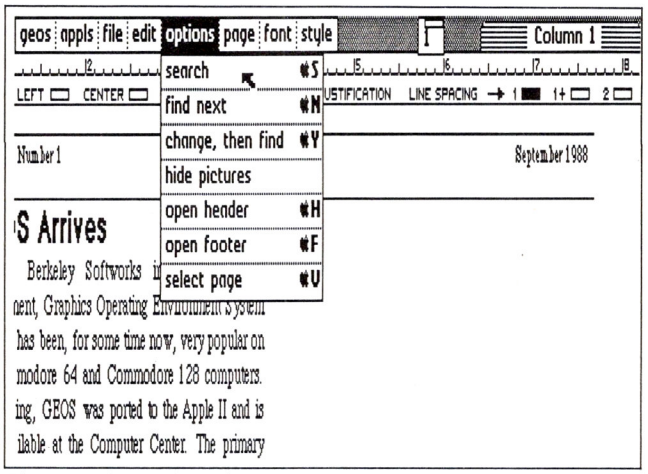


Figure 3: GeoWrite. The screen is not quite wide enough to see the entire width of a page. In this screen, the text has scrolled off the screen to the left to expose the page's right margin.

GeoWrite offers only plain-vanilla word processing. You can easily mix typefaces and typestyles, but you are limited to the type sizes in the font files, and the program lacks type scaling. You can set your left and right margins but not your top and bottom ones. GeoWrite does offer headers and footers, though, and a way to suppress them on the first page of your document. It has tabs, but only standard left and decimal tabs; it does not have right or center tabs. The maximum file length is a gen-

CIRCLE 110 ON READER SERVICE CARD

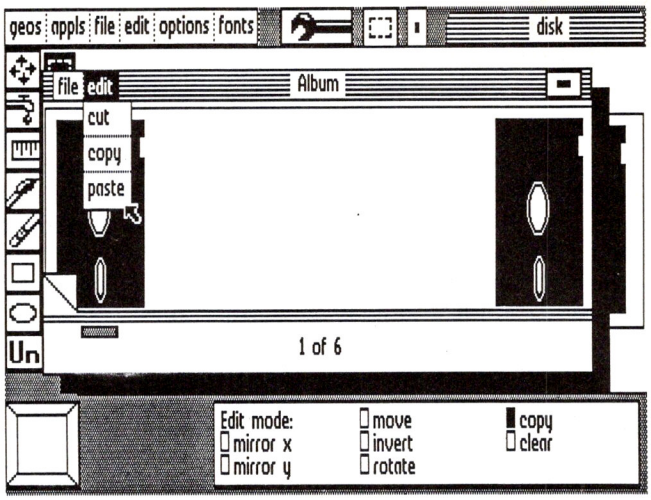


Figure 4: The Photo Manager. One of the most useful GEOS desk accessories lets you copy pictures between GEOS applications.

erous 62 pages, limited only by disk space.

Other Applications

The other GEOS applications and desk accessories each have their own interface twists. The Photo Manager, for example, has the dog-ears of the GEOS deskTop and its own menu on the window's title bar (see figure 4). In general, however, the philosophy of the point-and-click interface is well represented, if a bit different than Apple Computer's.

Spell checking involves a separate program, geoSpell. GeoSpell features multiple user dictionaries (you can use only one at a time). It shows misspelled words in context, and you can choose to replace any misspelled words, meaning you don't have to return to geoWrite to make corrections. Another program, geoMerge, offers mail-merging between a form letter and a database file you've also created in geoWrite (or with the soon-to-be-released geoFile). GeoMerge merges to the printer only; you can't create a file of the merged documents.

With the geoLaser program, GEOS is one of the few Apple II products that works directly with the Apple LaserWriter. Its usefulness is limited, though, because the LaserWriter must be connected via a serial port rather than via AppleTalk, and it prints only geoWrite documents. You can use the Photo Manager, however, to move portions of geoPaint documents into geoWrite for printing. You can use only the Apple LaserWriter fonts (Times, Helvetica, Symbol, and Courier) with geoLaser at this time. Non-LaserWriter fonts print as bit maps. I created figure 5 from two geoWrite files, one containing the header, a geoPaint image I imported with the Photo Manager desk accessory, and the other containing columnar text I produced by adjusting the margin settings and the title and positioning them to print in the middle of the two disks. I produced the final output by overprinting the pages on the LaserWriter.

The final two applications in the GEOS package serve as housecleaning items. System Merge allows you to copy the files from one or more disks or directories into another. Since GEOS relies on a definite disk organization, this application is useful when you're setting your system up or reconfiguring your disks. Text Grabber lets you convert AppleWorks, WordPerfect, MultiScribe, or standard ASCII files into geoWrite files.

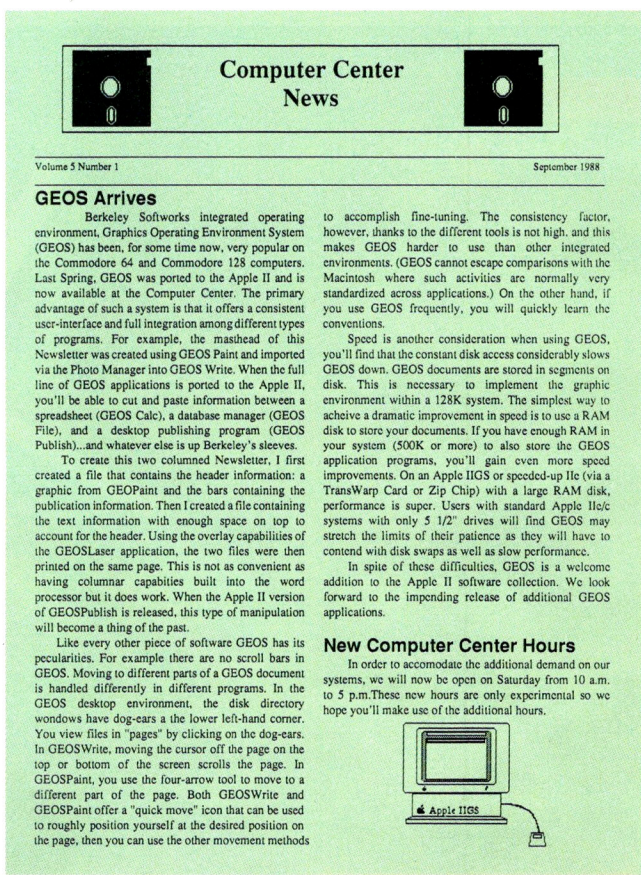
The GEOS desk accessories are basic: an alarm clock, a notepad, a calculator, the Photo Manager (a picture scrapbook), and the Text Manager (a text scrapbook). The scrapbooks are always available and provide the key to integration by allowing you to cut and paste between applications. The Photo Manager can store clip art or other frequently used graphics, and the Text Manager can hold text items.

Integration

An industry truism holds that individual modules in an integrated software package are less powerful than analogous stand-alone products. In my experience, this observation has proven true, but how often do I use all the power of many of my stand-alone applications? As a writer, I demand power in my word-processing program, but I rarely have more than simple database-management and spreadsheet needs.

With GEOS, I hoped this truism might not hold. After all, it is not really an integrated application. The individual modules of the basic GEOS product, while competent, are not terribly powerful, however.

When you compare it as an integrated program with the obvious, AppleWorks, GEOS falls short. Although it may not seem to be a direct comparison, because Apple-



Computer Center News

Volume 5 Number 1 September 1988

GEOS Arrives

Berkeley Softworks integrated operating environment, Graphics Operating Environment System (GEOS) has been, for some time now, very popular on the Commodore 64 and Commodore 128 computers. Last Spring, GEOS was ported to the Apple II and is now available at the Computer Center. The primary advantage of such a system is that it offers a consistent user-interface and full integration among different types of programs. For example, the masthead of this Newsletter was created using GEOS Paint and imported via the Photo Manager into GEOS Write. When the full line of GEOS applications is ported to the Apple II, you'll be able to cut and paste information between a spreadsheet (GEOS Calc), a database manager (GEOS File), and a desktop publishing program (GEOS Publish)...and whatever else is up Berkeley's sleeves.

To create this two columned Newsletter, I first created a file that contains the header information: a graphic from GEOPaint and the bars containing the publication information. Then I created a file containing the text information with enough space on top to account for the header. Using the overlay capabilities of the GEOSLaser application, the two files were then printed on the same page. This is not as convenient as having columnar capabities built into the word processor but it does work. When the Apple II version of GEOSPublish is released, this type of manipulation will become a thing of the past.

Like every other piece of software GEOS has its pecularities. For example there are no scroll bars in GEOS. Moving to different parts of a GEOS document is handled differently in different programs. In the GEOS desktop environment, the disk directory wondows have dog-ears a the lower left-hand corner. You view files in "pages" by clicking on the dog-ears. In GEOSWrite, moving the cursor off the page on the top or bottom of the screen scrolls the page. In GEOSPaint, you use the four-arrow tool to move to a different part of the page. Both GEOSWrite and GEOSPaint offer a "quick move" icon that can be used to roughly position yourself at the desired position on the page, then you can use the other movement methods to accomplish fine-tuning. The consistency factor, however, thanks to the different tools is not high, and this makes GEOS harder to use than other integrated environments. (GEOS cannot escape comparisons with the Macintosh where such activities are normally very standardized across applications.) On the other hand, if you use GEOS frequently, you will quickly learn the conventions.

Speed is another consideration when using GEOS, you'll find that the constant disk access considerably slows GEOS down. GEOS documents are stored in segments on disk. This is necessary to implement the graphic environment within a 128K system. The simplest way to acheive a dramatic improvement in speed is to use a RAM disk to store your documents. If you have enough RAM in your system (500K or more) to also store the GEOS application programs, you'll gain even more speed improvements. On an Apple IIGS or speeded-up IIe (via a TransWarp Card or Zip Chip) with a large RAM disk, performance is super. Users with standard Apple IIe/c systems with only 5 1/2" drives will find GEOS may stretch the limits of their patience as they will have to contend with disk swaps as well as slow performance.

In spite of these difficulties, GEOS is a welcome addition to the Apple II software collection. We look forward to the impending release of additional GEOS applications.

New Computer Center Hours

In order to accomodate the additional demand on our systems, we will now be open on Saturday from 10 a.m. to 5 p.m.These new hours are only experimental so we hope you'll make use of the additional hours.

Figure 5: The first page of a newsletter created in geoPaint and geoWrite. The multiple columns required overprinting in the LaserWriter.

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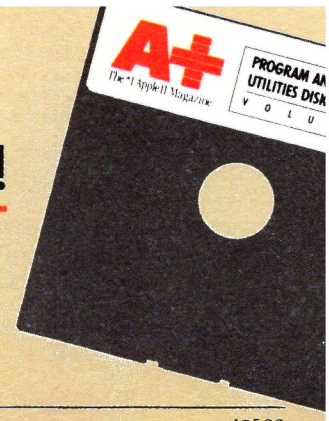

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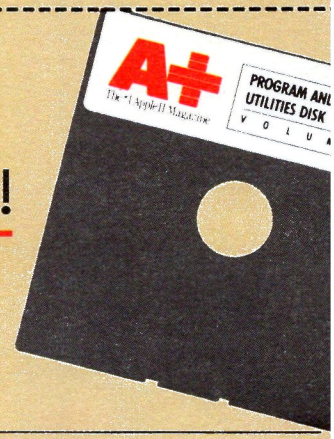

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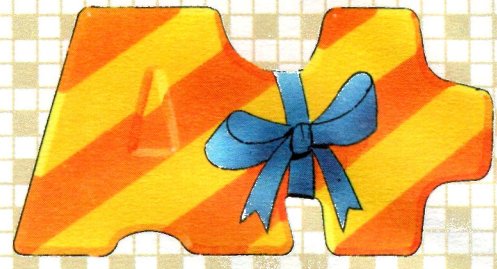

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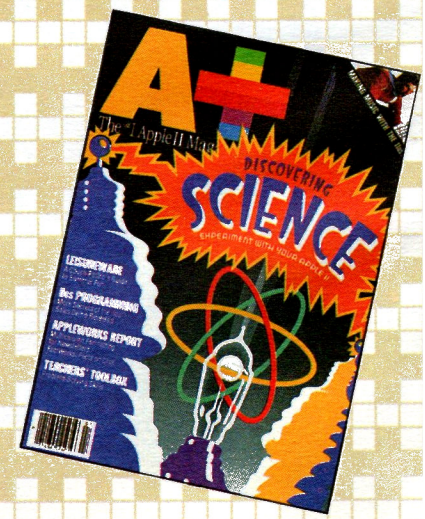

Works is spreadsheet/database/word processing and GEOS offers, basically, a paint/write combination, the fact is that GEOS lacks AppleWorks' powerful, nearly instant switching between modules. You can switch modules easily enough by using the apple menu in both the geoWrite and the geoPaint menu bar, but GEOS must save the current document to disk and then load the second application. Even on a 128K Apple IIe or IIc, on which AppleWorks must swap program modules every once in a while, the wait is not so long. If you have enough memory to install GEOS on a RAMdisk (512K or more), you'll experience a dramatic and welcome speedup when switching modules.

The Good News

GEOS looks good in comparison, though, in a couple of respects: The IIe/IIc interface and its basic memory requirement. AppleWorks does not use the point-and-click user interface that many people prefer, and Apple's own desktop environment requires a 512K Apple IIGS. So it's a toss-up.

I like GEOS and am amazed at how well it works. GEOS is an impressive technical achievement. It's not easy to shoehorn a full-blown graphics-based, point-and-click interface into a 128K computer, but Berkeley Softworks did it. Its basic applications (especially geoWrite) are not sufficient for my needs, however. GeoCalc and geoFile will round out the capabilities of the environment and, with the addition of the promising geoPublish—which I have seen in its Commodore 64 incarnation—will provide GEOS with a complete set of functions that may provide all the functionality you need. ✚

GEOS is an impressive technical achievement. It's not easy to showhorn a full-blown graphics-based, point-and-click interface into a 128K computer.

Michael Callery is one of A+'s two graphics editors and teaches computer graphics at The New School in New York City.

VITAL STATISTICS

GEOS

An integrated environment that provides users of 128K Apple IIe, Apple IIc, and Apple IIGS computers with a point-and-click interface for file management (GEOS deskTop), word processing (geoWrite), graphics (geoPaint), and several utilities such as geoSpell and geoMerge. Promised additional modules include geoFile, geoCalc, and geoPublish.

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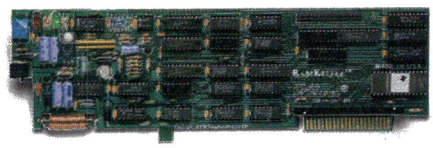

RamKeeper lets you keep programs and data in permanent, "electronic hard disk" memory. Turn your Apple IIGS on and you're ready to work.

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efficiently to keep your Apple running cooler.

Powers two memory cards in the same slot.

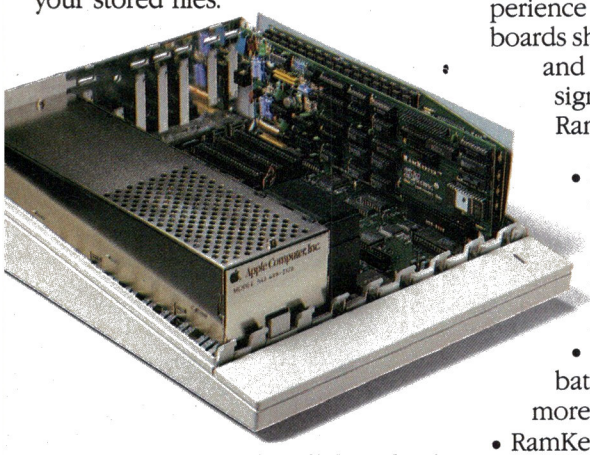
Have Apple's memory card, but now want the features of Applied's GS-RAM card? With RamKeeper, both cards act as one larger card. In one slot. Just attach one memory card to each side of RamKeeper and plug RamKeeper into the slot. And even with two cards, you can still keep slot 7 open with our optional Slot-Mover. All without changing the way either your memory card or your software now operate.

RamKeeper also works fine with only one memory card.

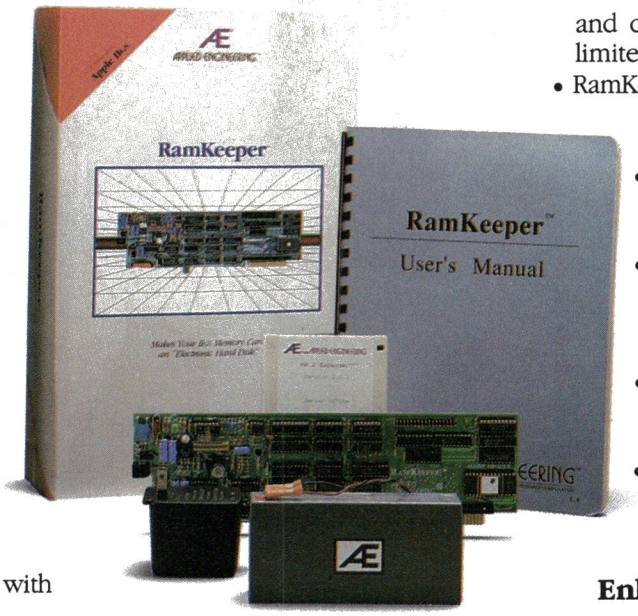
Makes all your memory usable memory.

RamKeeper powers up to 16 Meg. of memory. You can also mix and match different types of memory cards. For example, an Apple card that uses 256K RAM chips and an Applied Engineering card using 1 Meg. RAM chips. RamKeeper firmware automatically configures for two cards when the second card is installed. No need to manually move jumpers.

RamKeeper configures memory linearly to avoid memory gaps that can cause crashes. And *you* decide how much memory to devote to ROM and to RAM from the IIGS Desk Accessories menu. You can configure Kilobytes or Megabytes of instant ROM storage for your favorite programs. And you can change ROM and RAM sizes at any time without affecting your stored files.



RamKeeper is easy to install. Just plug it in. Even when you use two memory boards, you don't have jumpers. You can have two memory boards but use only one slot.



It all comes with RamKeeper ... board, Gel/Cell battery pack, easy-to-understand instructions, and Applied's powerful AppleWorks Expander software.

Protect from program crashes.

Reinstalling operating software is not fun. With RamKeeper you'll never have to. Since RamKeeper controlling firmware is in an EPROM, a program crash can't take out the operating software.

Verifies data security.

RamKeeper firmware uses optional startup checksums to verify that no data was lost while the power was off. The firmware also runs ROM and RAM memory tests without disturbing data on the card.

Significant differences.

Applied Engineering's longer experience with battery-backed memory boards shows in the way we designed and built RamKeeper. There are significant differences between RamKeeper and other systems:

- RamKeeper includes a Gel/-Cell battery for 6 hours of total power failure backup, others use the shorter-life Ni-Cads and charge extra for them
- RamKeeper has external battery storage, others have a more risky internal storage
- RamKeeper powers up to 16 Meg., others power only up to 8 Meg. maximum
- RamKeeper permits mixing and matching different memory cards and chip sizes, others have more limited combinations
- RamKeeper automatically configures for two cards, others have manually-moved jumpers
- RamKeeper configures linearly to eliminate memory gaps, others don't
- RamKeeper includes EPROM-protected operating software, others use floppy installation
- RamKeeper's software expands AppleWorks internal limits, others don't
- RamKeeper includes disk-caching software, others don't

Free AppleWorks Enhancement software.

Applied Engineering's powerful AppleWorks Enhancement software comes free with RamKeeper. It's well worth the purchase price alone. Our software makes AppleWorks faster and far more powerful by eliminating internal memory limits. Word processor limits increase from 7,250 to 22,600 lines. Database limits increase from 6,350 to 22,600 records. Clipboard limits increase from 255 to 2,042 lines. Our software even automatically segments large files so you can save them on multiple floppies.

In addition, RamKeeper comes with the most powerful disk-caching program available anywhere. The cache tremendously accelerates access time to the Apple 3.5 Drive. Creating, in effect, a speed booster on top of a speed booster . . . a potent combination that runs most applications up to *seven times faster.*

RamKeeper is proudly made in the U.S.A. and is backed with a five year parts and labor warranty. And a 15-day money-back guarantee.

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BY WALT MOSSBERG

A fast, programmable program launcher for the Apple IIGS

HYPERLAUNCH

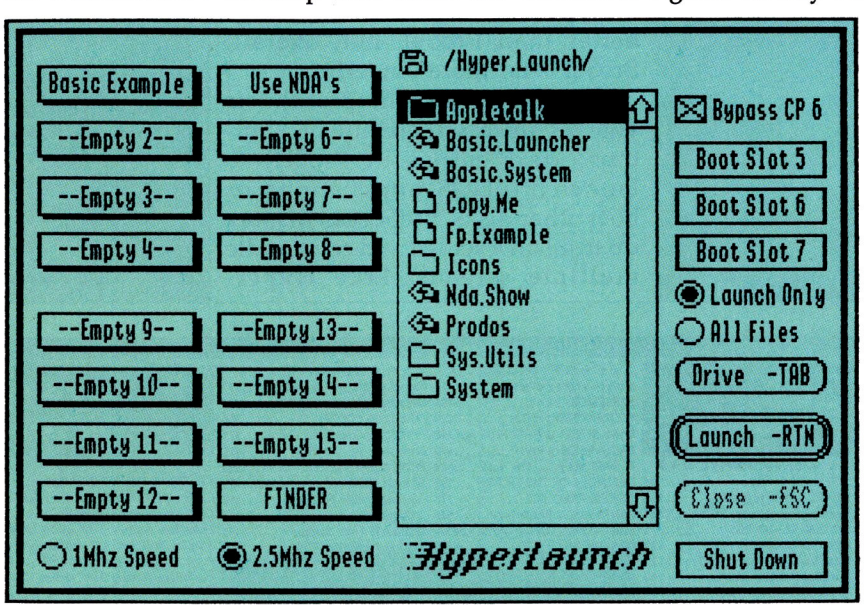
Apple's Finder for the IIGS is meant to be a common all-around environment for both program launching and file-handling tasks. But, if you want to use it mainly as a program launcher, it is s-l-o-o-w.

The Finder is so slow, in fact, as to drive many users to distraction—or to search for a substitute launcher for their hard disks, large RAMdisks, or even 800K floppies on which several programs reside.

HyperLaunch, a new product from GoldenWest Technology, is intended to end that search. It's a fast, preprogrammable program selector that does its job well.

When running under HyperLaunch, the GS displays a selection screen with 16 user-programmable "launch buttons" (see figure above), each of which can start up a program. When you quit programs you've launched this way from HyperLaunch, you always return to this HyperLaunch selection screen. Separate buttons let you boot disks in other drives, and a scrolling directory window permits you to launch programs that haven't been "installed" onto one of the 16 launch buttons. This user interface is simple, intuitive, and effective.

(A little-known fact: You can launch up to 30 programs directly from the Finder's desktop without having to open multiple, hierarchical windows. Simply drag a program icon from its folder onto the desktop and close all windows. Now, when you double-click on the icon, the program runs.)



Unlike the Finder, HyperLaunch doesn't try to take care of file- and disk-related functions (copying, renaming, deleting, and the like), which partly accounts for its speed. It's a pure program launcher. If you want to move around, copy, or rename files or disks, you can always program a HyperLaunch button to launch a filer-type utility such as Copy II Plus, System Utilities, Cat Doctor, or even the Finder itself.

The program runs in the GS's ProDOS 16 graphics mode but can launch ProDOS 8 programs as well and can boot disks in other drives, even those that are copy-protected or in CP/M or DOS 3.3 format. You can install the HyperLaunch program on any ProDOS floppy disk, hard disk, or RAMdisk, provided that the disk is a ProDOS 16 startup disk with a SYSTEM folder and is not copy-protected.

Installing HyperLaunch on a disk is a simple process. An installation program automatically replaces the existing START program in the SYSTEM folder with HyperLaunch and adds a couple of other special HyperLaunch files as well. After installation, whenever you boot the disk, hard disk, or RAMdisk, HyperLaunch appears instead of the Finder.

Programming the launch buttons is also easy. You can name them anything you like and don't have to display the sometimes cryptic filename or pathname of the program they invoke. Using a special programming screen, you

can customize the 16 buttons by entering the screen-display name for each and then a filename and pathname (which HyperLaunch doesn't display but remembers). A "smart scan" feature tells you in advance if you've entered the filenames and pathnames correctly.

You can change the GS's speed from the HyperLaunch menu or force an automatic change to slow speed when you boot a disk connected to slot 6. You can bypass Control Panel settings in certain instances or tell HyperLaunch to adhere to them. You can even use a "pre-boot" option so a disk with HyperLaunch boots directly into a particular application and the HyperLaunch screen isn't displayed until you've quit that application.

So, all in all, HyperLaunch is an effective product that does what it says. And it's a big improvement over the IIGS Finder, just as similar launch-button screen selectors for the Macintosh have improved on the Mac's Finder.

HyperLaunch does a necessary task well and is a big improvement over the IIGS Finder.

I wonder, however, why HyperLaunch's authors chose to design the program to run in the GS graphics interface. It doesn't follow Apple's graphics-interface standard very well—no menu bar, no scrolling of the main window, and no apple menu from which to select new desk accessories (NDAs)—and you must use up one of the launch buttons to invoke a special utility called Use NDA's.

Text-Screen Advantage

HyperLaunch might have been better off as a text-screen program, like ProSel by Glen Bredon. After all, a big selling point for HyperLaunch is that it is faster than the Finder. ProSel is even faster, though, because it uses the text screen.

HyperLaunch does a few things better than ProSel, but, overall, ProSel is far more powerful.

Like HyperLaunch, ProSel lets you set up a screen full of "buttons" (text entries in ProSel) to launch ProDOS applications or boot other disks. ProSel can display up to 48 on a screen and can handle multiple screens. Like HyperLaunch, it can also display a list of all other launchable files on a disk and lets you launch them with a click of the mouse. And it also has a preboot feature. And, for $40 (vs. $34.95 for HyperLaunch), ProSel comes with a complete set of Apple II file-handling utilities—file copiers, disk copiers, hard-disk backups, and many more—widely regarded as the best in the business.

So ProSel is still the most capable program launcher for the GS (or any other Apple II), but HyperLaunch is a worthy competitor and looks more attractive on the screen. It does a necessary task well and is a big improvement over Apple's Finder. ✚

Walter S. Mossberg is an economics reporter in the Washington bureau of the Wall Street Journal *and writes an Apple II column in the monthly journal of Washington Apple Pi.*

VITAL STATISTICS

HYPERLAUNCH

A program launcher for the IIGS that is faster than the Finder but doesn't have file-handling capabilities

CPU: *Apple IIGS*
RAM: *256K*
DISK DRIVES: *one 3.5-inch*
OPERATING SYSTEM: *ProDOS 16*
COPY PROTECTION: *no*
LIST PRICE: *$34.95*

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(714) 635-2226

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VITAL STATISTICS

PROSEL

A comprehensive collection of more than a dozen disk utilities, including a text-based alternative to Apple's Finder

CPU: *Apple II Plus, IIe, IIc, or IIGS*
RAM: *64K*
DISK DRIVES: *one 5¼- or 3.5-inch*
OPERATING SYSTEM: *ProDOS*
COPY PROTECTION: *no*
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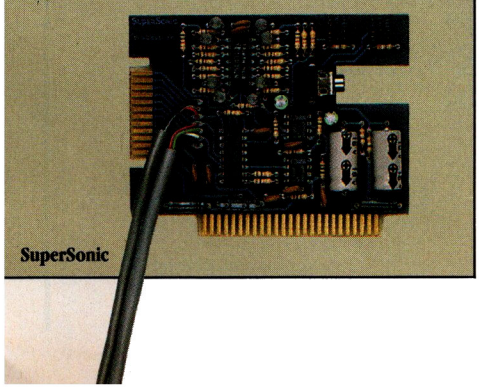

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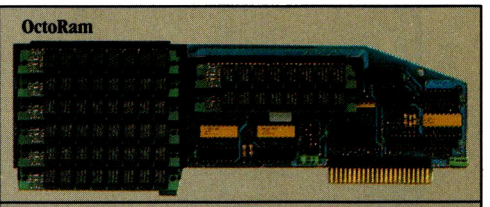

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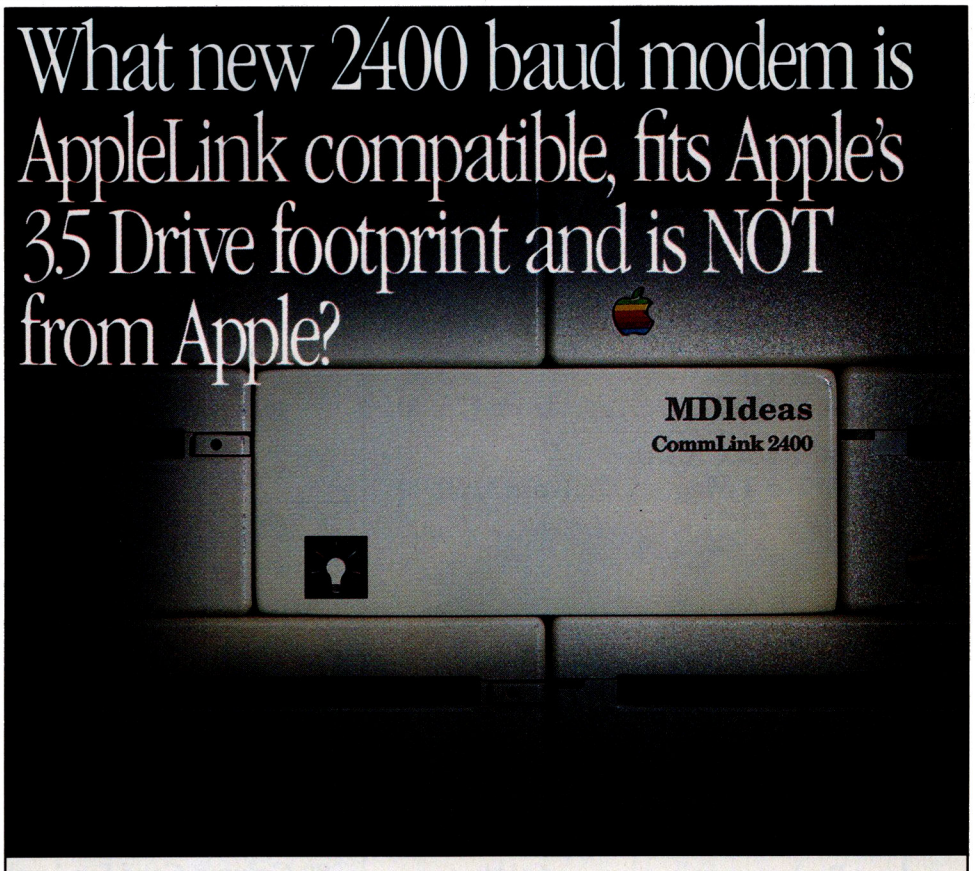

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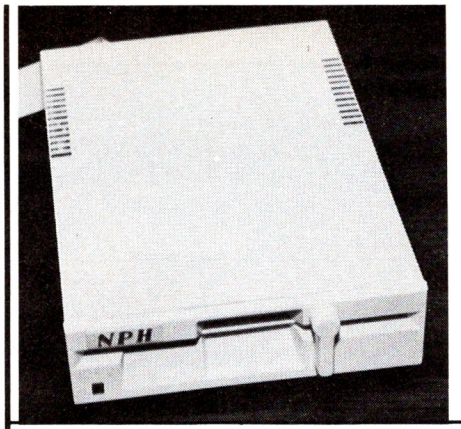

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LEARNING CURVE

Improving students' writing by disseminating their work

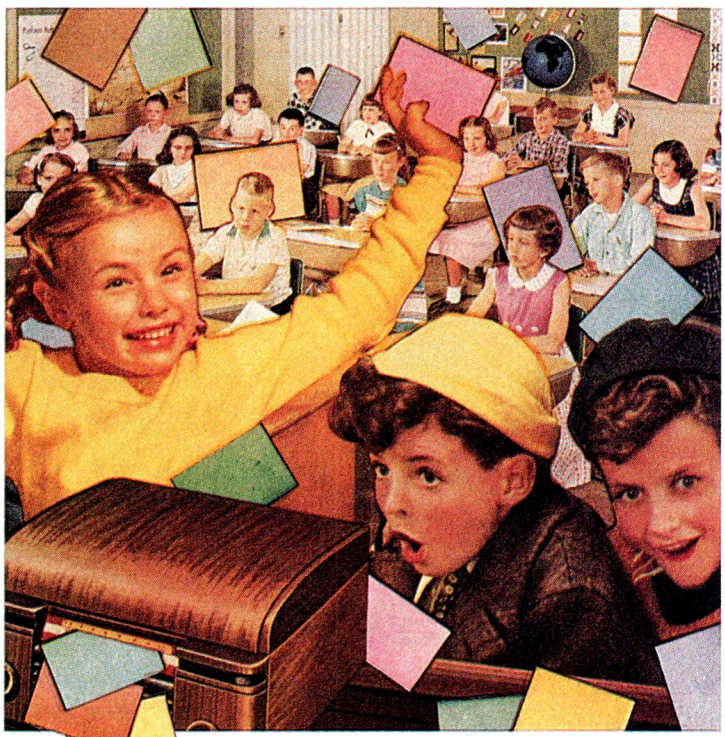
BY DAVID D. THORNBURG

DESKTOP PUBLISHING IN THE CLASSROOM

By 1985 many businesses stopped buying computers. They started buying desktop-publishing systems instead. Of course, they still seemed to be buying computers—shipments of computers, printers, and software continued unabated.

What had changed was not the reality of the purchase but the perception of the buyers. Millions of people began to base their purchase on the use of the technology, not the technology itself. We moved from noun-based to verb-based purchases. "How will I use it?" became more important than "What will I buy?"

As the so-called desktop-publishing revolution started, I had to smile. By the time most big corporations started to look at publishing technology, most classrooms with computers had become well-established publishing centers. Granted, classrooms were not using laser printers or thousand-dollar page-layout programs, but they were employing computers to publish everything from student-generated poetry to banners and posters.



When I'm asked to name the most popular piece of educational software ever sold, I have to guess The Print Shop from Broderbund. I visit hundreds of schools throughout the United States and Canada every year, and I consistently find walls covered with Print Shop-generated posters and banners. This program has become so ubiquitous that many of its users take it for granted.

For example, last year I conducted an in-service workshop for all the teachers in a small California city. I started by asking how many of the teachers thought of themselves as computer users. About a third of the hands went up. I next asked how many of the teachers used The Print Shop to create banners and posters for their classroom. Almost every hand in the classroom was raised.

Apparently, many teachers feel that publishing tools such as The Print Shop don't qualify as "computer" applications.

Because our curriculum is heavily geared to the creation of written documents, it is logical to expect every classroom to become a publishing house. I conducted a small experiment a few years ago to explore the effect of publishing on student writing.

Any elementary-school writing teacher knows how hard it is to get students to create interesting essays—understandably, from the students' perspective. Writing is (or should be) an act of communication. Most students working on writing assignments aren't writing to communicate; they are writing for a grade.

I brought an inexpensive ($750) copier and a couple of cases of paper into a fifth-grade classroom for one semester. Whenever a student handed in a creative-writing assignment, it was duplicated for the rest of the class to read, which produced important instantaneous benefits in several areas. First, penmanship and spelling improved. Second, the quality of the writing improved. Over the long term, the students learned how to critique each other's writing without being critical of the writer—an important distinction.

This "publishing" experiment was so heartening that I've spent the past two years encouraging teachers to bring copiers into the classroom—even going so far as suggesting that a copier might be a better investment than a computer.

One of the questions I received at a talk on this topic was "Do you think paper grows on trees?!"

ILLUSTRATION BY JOHN CRAIG

Well, yes, as a matter of fact, I do.

Hidden behind this question is an important point. Most of the teachers I talk with don't even have a decent copier in their school, let alone one they can use in their classroom. Other teachers complain that they have a limit on the number of pages they can duplicate for students.

Paper is cheap, photocopiers are cheap, and I believe that restricting access to tools is antithetical to good education.

Mightier Than the Sword

As far as computers are concerned, I am excited about the resourcefulness of teachers who understand the empowerment of students through classroom publishing. It isn't the pen that's mightier than the sword—it's the publishing and sharing of the ideas captured with the pen or keyboard that holds the real power.

Helping students create their own newspapers, magazines, and books does more to foster good writing than anything else I can think of. As soon as a teacher becomes just one of many readers of students' work, our children have a greater incentive to make their writing interesting, to express their points with clarity and brevity, and to think more deeply about what they're writing about.

School-based page-layout tools such as Springboard's Newsroom have been on the market for years, and the response to them has been wonderful. Even so, specialized page-layout tools are unnecessary. Traditional Apple II word-processing programs such as AppleWorks' are more than adequate for the creation of student-generated publications. I remember visiting a small school in Palmer, Alaska, last year, where students created books from collections of hand-drawn graphics and "word-processed" documents that they collated, stitched, and bound into finished products.

The act of creating a finished, bound product such as a book is now well within the capabilities of any young child. I've seen special sections in school libraries for student-published collections of poems and essays.

Besides creative writing, many other curriculum-oriented publishing activities are possible. For instance, carefully indexed history reports, created by last year's students, become springboards for the next year's history class. The opportunities are endless.

Everyone a Publisher

Before Gutenburg, books were tremendously expensive and took years to create. The invention of movable type not only reduced the cost of book production, but it also made universal literacy a desirable and achievable goal.

Still, the publishing costs were such that book production lay mostly in the hands of large publishers. Authors who had worthwhile ideas to express had to cross many hurdles before getting their work into public view.

With the advent of the computer and desktop publishing, we have seen a revitalization of small presses that are able to produce short press runs of books that wouldn't make economic sense to a large publishing house—in addition to an upsurge in individual publishing efforts. The barrier to publishing is no longer economic, it is finding something worth writing about. ✚

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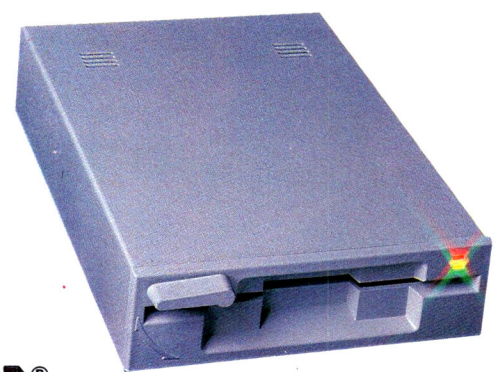

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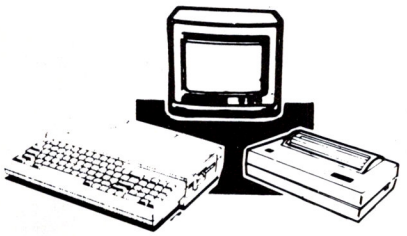

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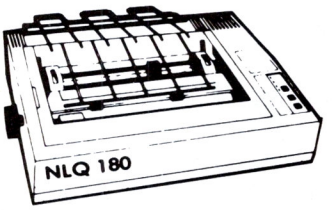

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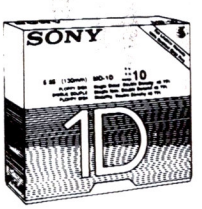

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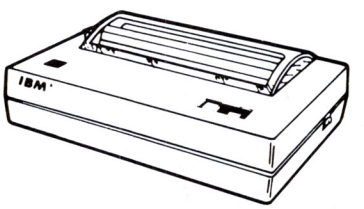

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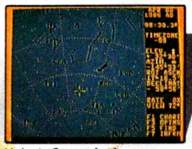
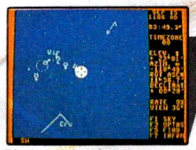


Haley's Comet in the southern sky



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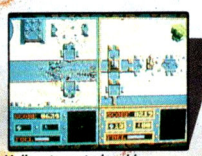

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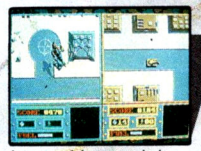

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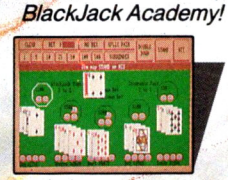
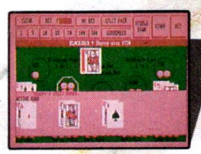


Game in play



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Computer-equity project seeks to close the computer-use gender gap.

BY JENNIFER BRAWER

Research shows clearly that when children reach middle school or junior high, girls avoid using computers. Furthermore, when you look at people who elect to use a computer after school, go to computer camp, hold a programming job, or attend a computer trade show, the majority are males. With the U.S. Department of Labor predicting that 50–75% of the jobs available to the next generation will involve the use of a computer, it is essential to make sure that our girls are not shut out of the job market simply because they lack computer skills.

A nonprofit organization called The Women's Action Alliance conducts research-and-development projects designed to improve educational equity for girls and women. In 1983, the organization conducted a computer-equity training project in response to the growing number of reports pointing to a real gender gap that appears in junior high between boys who choose to use computers at school and girls who do not. The goal of the project was to develop and try out different ways to make computers and computer-based activities more attractive to female students. The findings are available in a book entitled *The Neuter Computer: Computers for Girls and Boys*, written by the two principal project designers, Jo Schucat Sanders and Antonia Stone.

Why Girls Avoid Computers

The computer-use gender gap is similar to the one that appears about the same time in relation to mathematics. As with mathematics, girls perceive computer activities (especially programming) as something boys do. At the root of the problem are hormones. While girls and boys in middle and junior-high schools are maturing into men and women, they are also forming strong ties with their peers. Peer acceptance depends largely on the success with which teenagers adopt appropriate sex-role behaviors. Unfortunately for girls, the need for conformity means acceptance of the many feminine sex-role stereotypes that have plagued us for years, including writing off interest in computers as being a male characteristic.

How can you fight the power of hormonal influence? It's a challenge, but the Women's Action Alliance project proves that there are effective ways to reduce and perhaps eliminate the computer-use gender gap. The first step is to increase your own awareness of the problem by assessing the gender bias of your school's computer program (the authors use The Computer Neutrality Self-Test, an assessment tool devised for the original project). Once you have identified a bias toward males, simply making computers more available to girls is not enough. Teachers have to go way beyond the increased-access solution and design computer activities with special appeal to girls, and they must do so without creating activities, such as cooking and interior decorating, that cater to stereotypes.

The Women's Action Alliance stresses a few general guidelines that will prove helpful in closing the gender gap in your school: Target girls in groups, design computer activities around girls' existing interests, make computer use social, and stress the computer's usefulness. Here are some examples of

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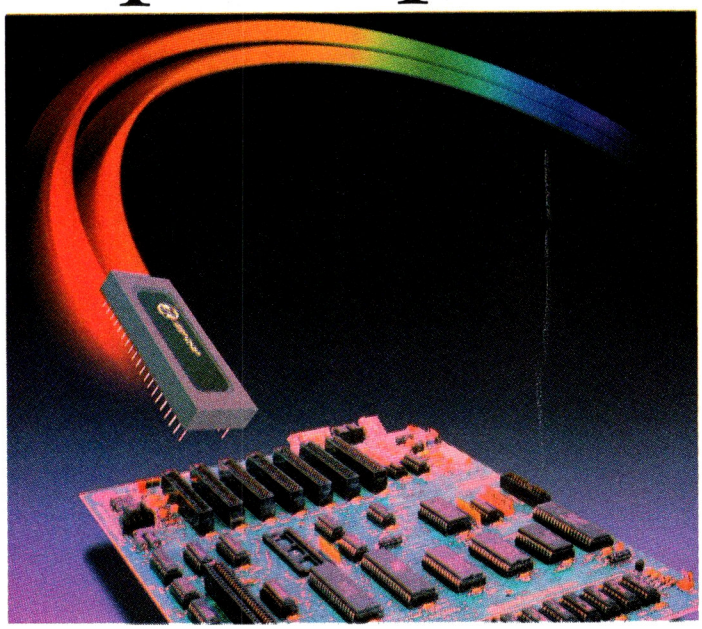

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The computer-use gender gap is similar to the one that appears about the same time in relation to math.

activities the computer-equity project has actually used that may prove to be helpful in your computer program:

•Have girls demonstrate computers and software.
•Discuss well-known women in the computer industry.
•Invite female role models to speak to your class.
•Encourage computer projects for the whole family.
•Design and produce a newsletter or magazine.
•Use a database program to match students on Valentine's Day.
•Throw a computer pajama party.

Does It Work?

The answer is a resounding "yes." The authors of *The Neuter Computer: Computers for Girls and Boys* field-tested the activity strategies at school sites across the United States. Girls at the participating schools increased their optional-time computer use by 144%. Teachers participating in the field test reported benefits for boys as well, especially for those reluctant to use computers or with no prior exposure. The project forced teachers to focus on and then improve their existing computer programs for the benefit of *all* their students.

The Neuter Computer also provides strategies for increasing equity awareness for teachers, administrators, and parents at the school, home, and community levels. If you are interested in the the Women's Action Alliance computer-equity project and the issue of computer equity for your students, you have a choice of materials to get you started. Besides reading the book, you can get a condensed overview of the problem, the project, and strategies in a well-designed and informative brochure entitled *Do Your Female Students Say "No, Thanks" to the Computer?* Both publications are available from the Women's Action Alliance, 370 Lexington Avenue, New York, NY 10017. ✚

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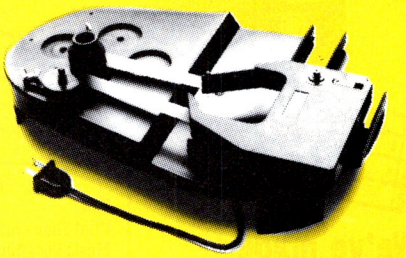

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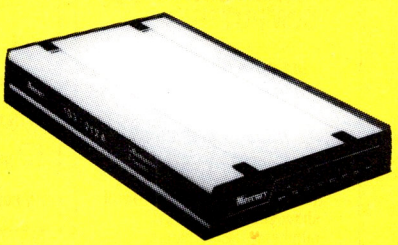

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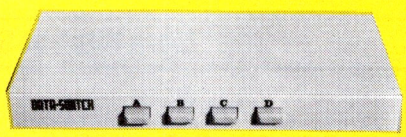

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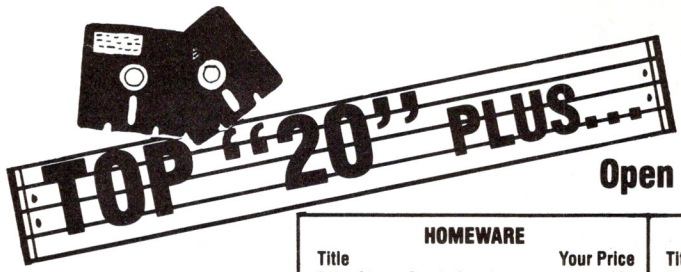

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FEATURE REPORT

BY DEAN SLUYTER

EXPANDING APPLEWORKS WITH ULTRAMACROS

Wouldn't it be nice to type your name and address just one last time—and never have to do it again? Wouldn't it be nice to delete a word, a line, or several pages, all with a single keystroke? Or, in one keystroke, to execute multistroke command sequences such as adding, printing, or combining files—or updating and arranging a spreadsheet column? How about having your computer buzz and flash you a message when it's time to stop computing and make a phone call? With Beagle Bros UltraMacros you can.

Some word-processing programs (notably WordPerfect) have macro capability as a standard feature. With AppleWorks you have to add it by making a one-time modification to your Startup disk, using a macro enhancement program. Then you've got macro capability automatically every time you boot AppleWorks.

UltraMacros bills itself as "the most powerful macro program ever written for AppleWorks"—an immodest description but tough to dispute. Roughly translated from the Latin, *ultramacro* means *extra large*. UltraMacros represents an extra-large improvement of the quality of life for AppleWorks users—such an increase of speed, ease, and power that, after you have used it for a few hours, going back to plain-vanilla, unenhanced AppleWorks is like torture.

What Is a Macro?

Let's back up a bit. Shortened in the 1950s from *macroinstruction*, the term *macro* refers to a single instruction that stands for a sequence of operations. You record those operations—which may consist of text entry, commands, or both—once and then, whenever you need them, "play them back" with a predesignated keystroke. You invoke most AppleWorks macros by pressing the solid-apple key (the Option key on the IIGS) in combination with a letter or number key. For example, you might designate solid-apple/N to type your name and address. Solid-apple/C could center your text by executing the sequence open-apple/O, CN, Return, Escape.

So, in one sense, macros don't do anything that AppleWorks can't do already. But, by combining several keystrokes (as many as 4,000) into one, they can achieve a more-than-the-sum-of-its-parts effect that streamlines AppleWorks and gives it powerful new applications.

Evolution of a Program

UltraMacros has inherited many of its features from its two previous Beagle Bros incarnations, MacroWorks and Super MacroWorks. Like its predecessors, it offers predefined macros (like the text-centering example above) that are easy to learn, logically related to AppleWorks commands, and automatically active whenever you boot AppleWorks. Most of them are highly useful, some of them fiendishly clever (see the accompanying chart, "Predefined Macros at Work"). The improved cursor control, the forward-delete feature, and the ability to delete a word or a line at a time or to zap everything

COMING ATTRACTION

In next month's special Computer Learning Month issue, "AppleWorks Report" will feature ways that educators can use UltraMacros and other TimeOut products.

from the cursor to the end of the file: Such conveniences quickly become as automatic as the old AppleWorks open-apple commands, and they make AppleWorks a truly deluxe, incredibly fast integrated package. With the exception of a few "reserved" macros, most predefined macros may be changed to better suit your needs.

Custom macros (such as a macro to insert your name and address at the touch of a key) can be created on the fly and reside in memory until you exit from AppleWorks; or you can compile them, save them to disk, and have them available for use during future computing sessions. Recording a temporary macro is simple. Just press open-apple/X plus the key you'll want to use to invoke the macro later, type the desired keystroke sequence, and finish with control/@. Saving compiled macros is just a little more complicated.

UltraMacros also offers some brand-new features that MacroWorks and Super MacroWorks don't have. First, it's part of Beagle Bros' new TimeOut series, a set of programs (each sold separately) that includes desk accessories, a spelling checker, a thesaurus, a graph generator, a Macintosh-style font generator, and more—all of which pop up within AppleWorks from a menu you access by pressing open-apple/Escape. You now compile, save, and list macros within AppleWorks. (The previous versions required rebooting.) This new arrangement saves memory space within the UltraMacros program itself, allowing it to be more powerful.

Second, a new Macro Options menu allows you to launch complete "tasks" (precompiled sets of macros) from the AppleWorks Startup disk or from Applesoft (see figure 1). Tasks can be incredibly powerful and automate complex and repetitive jobs. For example, you can create an UltraMacros task that loads a spreadsheet file that

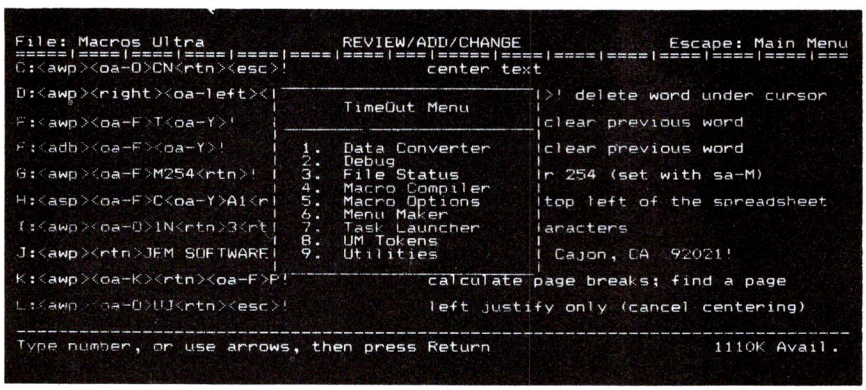

Figure 1: UltraMacros is a TimeOut accessory that comes with a slew of predefined macros and the ability to create complex tasks using the Macro Options feature.

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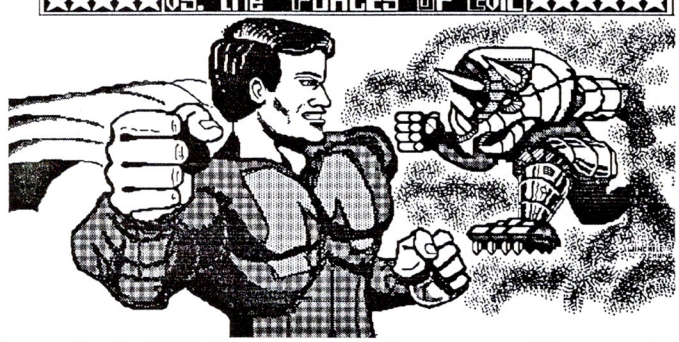

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contains weekly sales information, selects the appropriate range of cells, prints the data, invokes TimeOut Graph, and prints a corresponding bar chart.

UltraMacros also gives you several useful capabilities not directly related to macros. You can change the speed at which your cursor blinks; activate a "screen preserver," which automatically blanks your monitor whenever a user-specified time interval has passed without a keypress; turn on a "key-lock" feature for physically handicapped users who can't press the open- or solid-apple key at the same time as other keys; customize your mouse's responsiveness; or deactivate the mouse, which, thanks to UltraMacros, you can use sparingly to make menu selections. (This last option is important for nonmousing Apple IIc owners. The IIc has built-in mouse firmware that sometimes thinks the mouse is being moved even when it's stationary. If your cursor slips around sporadically, you may be suffering from the dreaded Phantom Mouse Syndrome.)

TIPS FOR WRITING TEMPORARY MACROS

The first time you perform a task or type a word or phrase that you might use repeatedly, make it a macro by simply preceding it with open-apple/X and the key with which you want to invoke it later and following it with Control-@. Select keys that are linked mnemonically with what they stand for; otherwise you'll waste more time trying to remember which key invokes what than it would take to type the phrases from scratch. For example, for this article I'm using solid-apple/Control-A for "AppleWorks," solid-apple/B for "Beagle Bros," solid-apple/K for "keystroke," and solid-apple/M for "macro." I like to retain Undo, the predefined value of solid-apple/U, in case I want to bring back something I've zapped, so I'm using solid-apple/L (the second letter in the name) for "UltraMacros." And, finally, I'm using solid-apple/S for "solid-apple."

Another way to keep your custom macros from using the keys dedicated to important predefined macros is to record them as both-apple macros—hold down the open-apple key while selecting the macro key after pressing open-apple/X. This way, solid-apple/U can continue to be Undo, and both-apple/U can be "UltraMacros." Since you can use a given key to invoke a different macro in each of the three AppleWorks modules or in the TimeOut environment, each key can have as many as eight separate definitions.

A low-tech alternative is to use numbers for your macros and make a template out of a thin strip of paper that sits nicely across the top of your number keys. Pencil in each phrase above its respective macro key.

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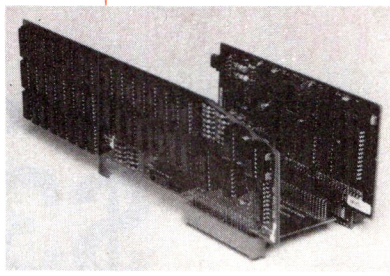

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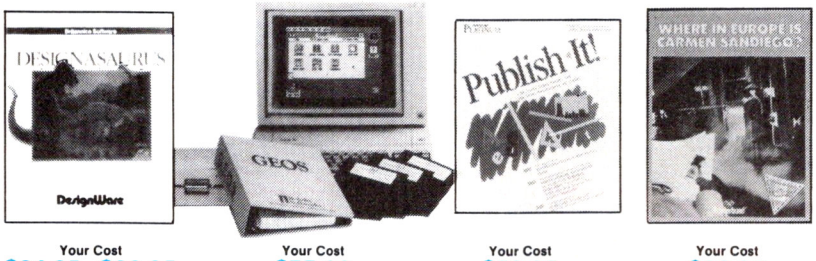

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You can write custom help screens (a handy place for phone numbers and macro definitions), and the program has a Data Convertor for transferring data between spreadsheet and database files. For good measure, the manual is clearer and more attractively laid out than ever.

More Powerful Language

The main improvements, however, are in the programming language for writing compiled macros. The UltraMacros programming language employs "tokens" such as <rtn> or <spc> to signify the Return key or space bar within a macro, and it now includes such powerful programming elements as IF . . . THEN . . . ELSE logic, peeks and pokes, <call>, <goto>, <getstr>, and many more. The new token <screen> reads any part of the AppleWorks screen into a string variable, and <wake> works with your system clock to make macros perform at specified times. You can use this token to set various kinds of alarms and reminders, save your work automatically every ten minutes, or shut everything down at quitting time. Macros can be "nested" (a macro calls a macro that calls a macro, and so on) to as many as 18 levels.

But what does this latest version offer for the rest of us, the nonprogrammers who can't tell a peek from a poke? (Software developers sometimes forget that the typical foot soldiers in the Computer Revolution are harried individuals who just want to get some work done and avoid confusion; they may not share the developer's enthusiasm for elegant tinkering.)

Macros for the Rest of Us

If you use UltraMacros along with the other TimeOut applications, you can make your macros even more versatile—even without highly complex programming—since they can operate throughout the TimeOut environment. Macros are virtually a must if you use SuperFonts; they make the otherwise unwieldy process of changing fonts as easy as underlining with Control-L. If you have a modem, you can write a macro that not only uses <wake> to signal you to

make a phone call but can also invoke TimeOut's open-apple/Escape menu, choose the Dialer, and place the call for you. Or, when you've finished writing a business letter, one stroke can bring you to the Envelope Addresser, copy the recipient and return addresses onto the envelope, remind you to load the envelope into the printer, and print it.

If you don't plan to use the other TimeOut programs, if you're interested mainly in using predefined macros and simple temporary custom macros, if you have no predilection for programming and compiling Rube Goldberg macros—then you may not need UltraMacros. In fact, the earlier Super MacroWorks may serve you better. UltraMacros has inexplicably altered or eliminated some of the most useful Super MacroWorks commands. Among those missing in action are solid-apple 1 and 9 for scrolling rapidly through file menus, solid-apple/Control-C for turning the word at the cursor into all capital letters, solid-apple/J for justifying text, and solid-apple/* (one of my favorites) for dropping to the bottom of a file to check your notes and then coming back up without losing your place. I particularly miss the feature that converts the grating AppleWorks error BRAAAP into a melodious MacroWorks BEEEP.

Best of Both Worlds

If you decide you want the best of both worlds—the advantages of UltraMacros plus Super MacroWorks' superior predefined macros—you can easily copy your old favorites from Super MacroWorks into your UltraMacros macro set. In case you don't have Super MacroWorks, some of the macros that are missing in UltraMacros are available in MacroTools, an elaborate collection of predefined macros, sold separately for $25. Anyway, it's surprising to find the

PREDEFINED MACROS AT WORK

A sampling of the most useful predefined UltraMacros macros

WORD PROCESSOR	
solid-apple/**C**	**Center** text
solid-apple/**D**	**Delete** word
solid-apple/**F**	**Find** text, clearing previous search word
solid-apple/**P**	**Print** a copy from beginning
solid-apple/**left arrow**	Move cursor to **beginning** of line
solid-apple/**right arrow**	Move cursor to **end** of line
solid-apple/**Tab**	Set **tab** at cursor position
solid-apple/**Control-B**	**Boldface** word at cursor
solid-apple/**Control-N**	Create a **new** word-processing file
DATABASE	
solid-apple/**P**	**Print** report with current date
SPREADSHEET	
solid-apple/**H**	Move cursor to **home** position (top left)
solid-apple/**L**	Change entry's **label** layout
solid-apple/**N**	Numerical-entry column **sort**
both-apple/**+ or -**	**Expand** or **shrink** a column
GLOBAL	
solid-apple/**A**	**Add** files from the current disk
solid-apple/**Q**	Switch to **next** desktop file
solid-apple/**S**	**Save** and remove file from desktop
solid-apple/**U**	**Undo** D, Y, or Z
solid-apple/**Y**	**Delete** line
solid-apple/**Z**	**Delete** from cursor to end of file
solid-apple/**'**	**Display** date in this format: 7/15/79
solid-apple/**"**	**Display** date in this format: July 15, 1979
both-apple/**Control-S**	**Save** all desktop files to current disk

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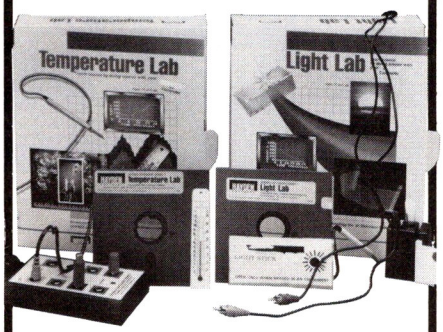

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usually onward-and-upward folks at Beagle Bros subtracting anything useful from a product, even when they've added several other new features.

If you already own MacroWorks, Super MacroWorks, or AutoWorks (published by The Software Touch, a company that has merged with Beagle Bros), you can upgrade to UltraMacros by sending back your original disk plus $22.50. If you own an early-release version of UltraMacros or DeskTools, Beagle will provide a free update. Current-release versions as of June 1988 are UltraMacros 1.7, DeskTools 1.3. UltraMacros and Super MacroWorks work only with AppleWorks versions 2.0 and later, which is probably the best argument yet for updating your old AppleWorks. ✚

Dean Sluyter is a writer and film critic. He teaches English and is coordinator of the Computer Center at Pingry School, Martinsville, NJ.

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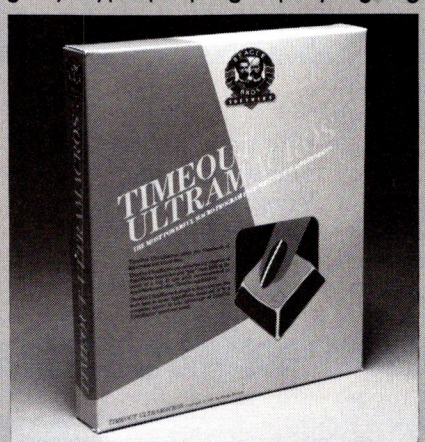

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QUESTIONS FROM OUR READERS

Claris, the publisher of AppleWorks, answers your AppleWorks questions.

LASERWRITER PRINTING

Q. *How can I make a bootable AppleWorks disk for the Apple IIGS that allows me to print to the LaserWriter on AppleTalk?*

A. To create a bootable AppleWorks 3.5-inch disk, follow these steps:

1. Plug the AppleTalk cable into the printer port on the back of the IIGS.
2. Change the Control Panel slot setting to `Your Card` for slot 1 and `Built-in AppleTalk` for slot 7.
3. Tell AppleWorks how to send information to the LaserWriter:
   a. Boot a backup copy of AppleWorks and choose `Other Activities` from the main menu.
   b. Choose `Specify information about your printers`.
   c. Choose `Add a printer`.
   d. Choose `Apple ImageWriter`.
   e. To name the printer, type `LaserWriter`.
   f. Choose `Slot 7`.
4. Quit AppleWorks and start your computer with the Apple IIGS System Disk.
5. Copy the following files from the APPLETALK folder on the Apple IIGS System Disk into the root directory of the AppleWorks disk.

IWEM	ImageWriter Emulator
MTXABS.0	MouseText tool kit
NAMER.0	Namer Object Code
NAMER.II	Namer Program
CHOOSER.0	Chooser Object Code
CHOOSER.II	Chooser Program

6. Copy the file BASIC.SYSTEM from the GS System Disk to the AppleWorks-disk root directory.
7. Copy the file ATINIT from within the SYSTEM.SETUP folder (which itself is in the folder named SYSTEM) on the GS System Disk into the root directory of the AppleWorks disk.
8. Rename the APLWORKS.SYSTEM file APLWORKS.
9. Restart the computer with the AppleWorks disk. Run the Chooser program by typing -CHOOSER.II at the prompt.
10. Select the LaserWriter to which you want to print by highlighting the name and pressing Return. Quit the Chooser. At this point, a page should come out of the LaserWriter indicating initialization with the ImageWriter emulator.
11. To start up AppleWorks, enter the prefix /APPLEWORKS and the pathname APLWORKS.

FIXING DATABASE GLITCH

Q. *Although I have successfully used the database module in AppleWorks, I recently encountered the following problem. When I try to insert new records, either in the middle or the end of the data, instead of giving me a blank space, it shows the last record previously entered. I have to delete it in order to insert new information. Everything else works fine. Please help!*

A. The first thing you should do with this file is make a backup copy because the file might be getting damaged. Next add this file to the Desktop and print it by using the open-apple/P command, specifying `A DIF (TM) file on disk`. Assuming you are using AppleWorks 2.0 with ProDOS 1.1.1, update the ProDOS file in the AppleWorks disk to ProDOS 8 v1.4. (You can get the new version of the operating system, P8 v1.4, from your local Apple dealer.) Now, with your AppleWorks ProDOS file updated, create a new database file from the DIF file. You must define the same number of categories as the original file had.

OVERRIDING PRINTER HARDWARE SETTINGS

Q. *How do I get my printer to recognize a paper length other than 11 inches? I have used the open-apple/O command (Printer Options) and changed the paper length to 8.5 inches. I have also tried every configuration of top and bottom margin without success. The printer prints the correct number of lines for 8.5-inch paper but then advances halfway down the second page. Thus the next pages continue at 11-inch intervals. Help!*

A. To let the software define the page length when you're printing to your printer and to override the printer's hardware settings, do the following: From the AppleWorks main menu, select `Other Activities` and then `Specify information about your printer(s)`. Next choose `Change printer specifications` and select your printer by name. At the Change A Printer screen, change the value of `Accepts top-of-page commands` to `No`. Doing so allows AppleWorks to tell the printer the page length and ignore the hardware switch settings.

ADVANCED PRINTING

Q. *Often when I'm printing in the AppleWorks word-processing module, my printer advances half a page and continues printing. This quirk causes wrong pagination, and my text prints over the page-break perforations. How can I avoid this?*

A. Printers automatically do a Top of Page register when you turn them on. If you advance your page manually or with the line-feed button after you've turned the printer on, it will count that new line as the first line of the page when you issue the next Print command. Depending on the LI (lines per inch) setting in the document, the printer counts X lines per the number of inches you've defined within the printer switch settings or with PL (Page Length) on the Printer Options screen.

To get the correct page breaks, turn your printer off, set the paper at the proper location at the top of page, and then turn the printer back on. Make sure your printer's switch settings and the page length on the Printer Options screen are correct.

RETAINING DATABASE HEADERS

Q. *When I use the database module in AppleWorks and call for the option to remove the headers, the column category headings also disappear. I don't think this is right, but no one seems to know what to do to fix it. Help!*

A. That is how the command for removing headers functions in AppleWorks. You can make the category headings show without having the file, report, and selection criteria appear at the top of the report, however.

One way is by entering the column heading at the top of each column, as follows: Load your database file, type open-apple/P, and select the report you want to print. Once you are at the Report Format screen, enter open-apple/N. At this point, the top of the screen says CHANGE NAME. Type Return, and the cursor will go to the line above the first column's category heading. Retype the category heading at the top of each column. (Use the space bar to move from column to column.)

Another way to work around this problem is to enter a new record in your database that has in each category the actual category name. Enter a blank space or a hyphen in front of each entry, so that when you sort your records alphabetically, the column-names record is the first one listed.

UPDATING TO NEW ProDOS

Q. *After I read about some problems with the old version of the Apple II operating system, ProDOS 1.1.1, I got the new version from my Apple dealer. Now, how do I update my AppleWorks program to use this new ProDOS version?*

A. To update your program, start your computer with the new System Utilities disk and select Work on Individual Files. Delete the ProDOS file from your working copy of the AppleWorks 2.0 Startup disk. Copy the P8 file from the System Utilities disk to the AppleWorks Startup disk and rename it ProDOS. Now your AppleWorks Startup disk has been updated to use the latest version of the operating system. When you boot with this disk, you should see a message indicating that it is using ProDOS 8 v1.4.

Apple Parallel Card (2PIC)	Control-I80N
Apple Super Serial Card	Control-I80N
Apple Centronics Parallel Card	Control-I255N
Grappler Plus	Control-I0N
MicroTek RV-611C	Control-I255N
Pkaso	Control-I0N
MPC AP Graph and Graphwriter	Control-I255N
Graphstar	Control-I0N
Microbuffer	Control-I0N
Microbuffer II+	Control-IN
Apricorn Graphic Printer Card	Control-I0N
Apricorn SuperSerial Imager	Control-I80N
Apricorn Serial Interface	none
Apricorn Printer Pro	none
Apricorn Parallel Printer Interface	none

Figure 1: Table of common interface cards and control codes

CLEARING THE MARGIN

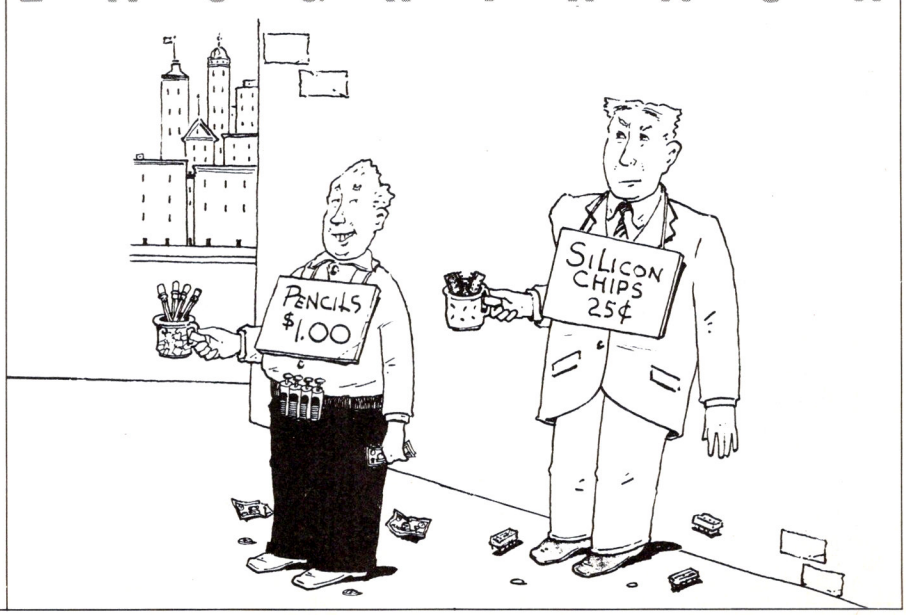
Q. *I get strange characters that print on the left margin of the page with AppleWorks 2.0. How can I get rid of these characters?*

A. First, determine which printer-interface card you are using. Each printer-interface card requires that AppleWorks send it the correct control code. The default interface control code AppleWorks sends is Control-I 80N. If the code is not correct for your printer-interface card, an 80N or ON may print at the top left corner of the first page. To correct this problem, select 5. Interface cards from the Add a Printer screen. Enter the correct interface control code from figure 1 (above). Escape back to the main menu and turn your printer off. Then turn the printer back on, and it will be ready to print correctly.

The technical staff at Claris Corporation answers your AppleWorks questions. Write to Help File, A+, 950 Tower Lane, 18th Floor, Foster City, CA 94404. Because of limited space, we aren't able to publish responses to all inquiries we receive.

TOM MURRAY

LAUGHTRACK



SPEAKING OF GRAPHICS

Achieving animation effects with your IIGS by alternating colors

BY ROBERTA SCHWARTZ AND MICHAEL CALLERY

COLOR CYCLING ON THE APPLE IIGS

Do wheels spin in your GS graphics? Do flames flicker? Would you like to paint a waterfall and have the water shimmer as it cascades down the cliff, or paint a storm in which the lightning streaks across the sky? You can do it—with color cycling.

Color cycling is a form of pseudoanimation in which very rapid changes in colors create the illusion of movement. It's one of the most exciting capabilities of the Apple IIGS, but it can be confusing. This month we offer a brief tutorial on color cycling.

We have to get a little technical to uncover how the GS cycles color, but it's really not too complicated. The most important thing to remember is that super-hi-res gives us 16 color tables, or palettes, and that each palette contains 16 colors. Unlike hi-res and double-hi-res, in which pixels have predefined colors (blue pixels, green pixels, and so on), the super-hi-res colors are "soft"—that is, the colors you see on the screen are not fixed but rather determined by the current palette. What you see as blue the GS sees as color 4, color 5, or color 6, and so on, depending on the color's "position" in the current palette.

Super-hi-res graphics can display 200 lines down the screen. Each of these horizontal lines is known as a scan line. The characteristics of each scan line are contained in "scanline control bytes," or SCBs (there are 200 SCBs—one for each line of the screen). One of the characteristics these SCBs determine is which of the available 16 palettes to use for determining the pixel colors for a given line.

Suppose, for example, that the SCBs for the entire screen indicate use of palette 0. (Normally, palette 0 is Apple's default palette.) Color 1 in this palette is dark gray. Now suppose you use a second palette (palette 1) that's the same as palette 0 except that you've made color 1 red instead of dark gray. To instantly transform everything you drew in dark gray (color 1 of palette 0) to red, all you would need to do is switch the SCB palette pointers to indicate use of palette 1 rather than palette 0. If you put this switch into a loop (a programmers' term for a repeating portion of code), you'd be switching back and forth between palette 0 and palette 1, and everything in color 1 would switch back and forth between gray and red, creating a flashing effect.

That's the basic idea of color cycling. Another way to accomplish the same effect would be to alter the palette area, changing the palette entry for color 1 from gray to red and back in a loop. You see, it's really quite simple—not a mirror or trap door in sight!

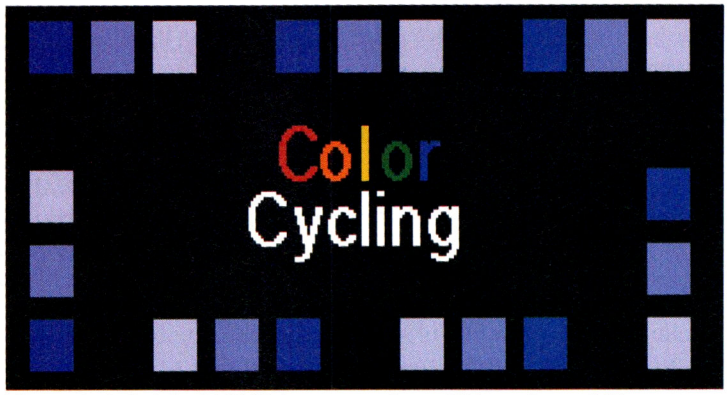


Figure 1: A finished 816/Paint screen that will be animated like a theater marquee when color cycling is turned on.

How to Do It

You'll be relieved to know that you don't have to program or concern yourself with SCBs to create a color cycle; most GS paint programs include a color-cycling feature. If you want only one set of colors to cycle, you can use 816/Paint; if you want several sets of colors, independently cycling, you will need DeluxePaint II, Paintworks Gold, or Graphics Studio.

Whichever you use, for successful color cycling, follow these rules:

Rule 1: Plan ahead. With only 16 colors, you must be careful not to "waste" colors. You probably won't want all the colors in your image to cycle, so you need two sets of colors in your palette: those that cycle and those that don't. If you want yellow, for example, to cycle on one part of the screen, but you also want yellow on the static part of the screen, you'll have to make two yellows—one in the cycle set and one in the remainder of the palette.

Rule 2: Avoid confusion. Keep your cycle set together on the palette. You'll find it easier to work if you know that you can't paint a static area of the screen with any of the four colors on the left of the palette, for instance.

Rule 3: Avoid distraction. Don't use colors 0 and 15 in your cycle. These colors are for drawing menus and dialog boxes, and your life will be a lot simpler if they're

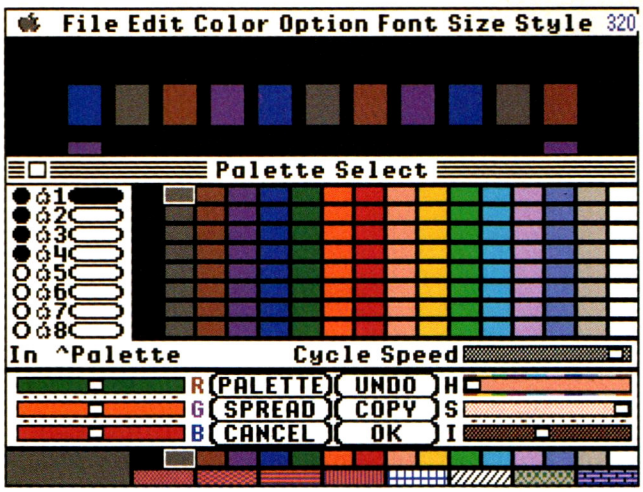


Figure 2: To create the marquee border in figure 1, we used the rectangle tool to make a small block and copied and pasted it again and again. Then, using the fill tool, we filled each block with colors 1-4 at the left of the palette.

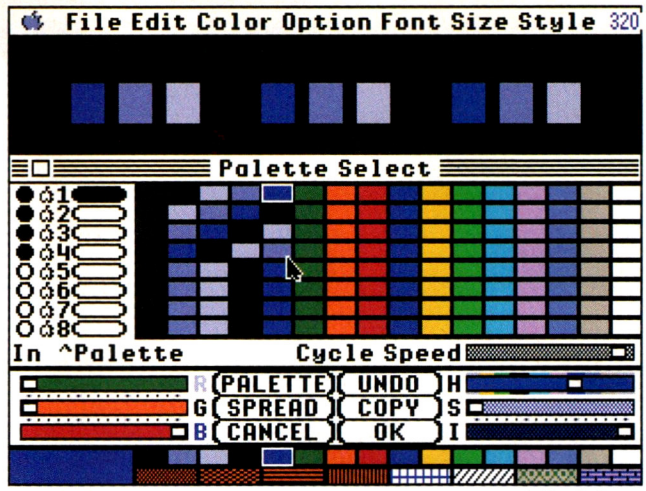


Figure 3: To obtain the colors we wanted to use, we edited the first palette's colors 1-4 and used the color-copy button to copy these colors to colors 1-4 of the next three palettes, staggering their position in the palette.

not cycling along with your image.

Let's observe these rules and create a color-cycle animation with 816/Paint. Figure 1 shows the finished screen—minus the cycling, of course. We wanted a rectangle whose contents appeared to move like those of a theater marquee.

Using the rectangle tool, we created a small block and copied and pasted the block again and again to form the marquee. Using the fill tool, we filled each block, alternately, with the first four colors (colors 1–4) following black (color 0) at the left of the palette (see figure 2). Our four cycle colors were together on the palette (rule 2).

Next, we edited the first palette so that colors 1–4 were the colors we wanted to use in our cycle: medium blue, light blue, black, and dark blue. Note that we created a second black for our cycle set, rather than using the first black (color 0) in the palette (rule 3). Using the color-copy button, we copied these colors to colors 1–4 of the next three palettes, but we staggered their position in the palette (see figure 3). Since we knew we wanted a dark-blue letter in the text, we also copied the dark blue to another palette position, outside the cycle set. The *r* in *color* was in that blue, not the dark blue in the cycle set (rule 1).

Figure 4 shows the same example in Paintworks Gold. We assembled the cycling colors as a color set. Each color set can have its own timing, so you can get pretty sophisticated effects with Paintworks Gold. (By the way, if you use Paintworks Gold, color-cycling information is saved only when you save your image in the "Apple Preferred" format, so be sure to use that format if you want to avoid having to reconstruct your color set and timing information.)

In DeluxePaint (see figure 5), you identify the cycling colors by designating a range in the palette-editing dialog box. As in Paintworks, each color set can have independent timing.

Give It a Try

There you have it: the fundamentals of color cycling. For inspiration, look at the weather broadcast on your local TV news. In most major cities, color cycling is used extensively to show jet-stream movement, rain and snow, and other dynamic weather properties.

Experiment with color cycling to achieve dramatic artistic effects. One of our colleagues at The New School in New York was inspired by a stop-action photograph of a ballet dancer whirling across a stage. She created her own version of the dancer, making each movement a different color. With color

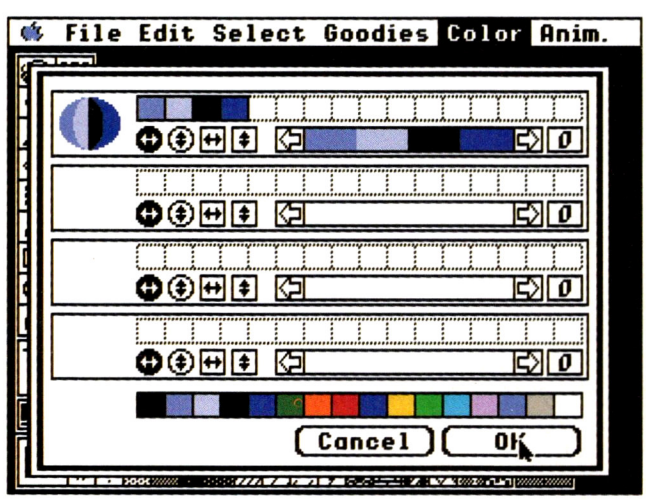


Figure 4: Using Paintworks Gold's palette-editing feature, we assembled a cycling color set similar to the 816/Paint example.

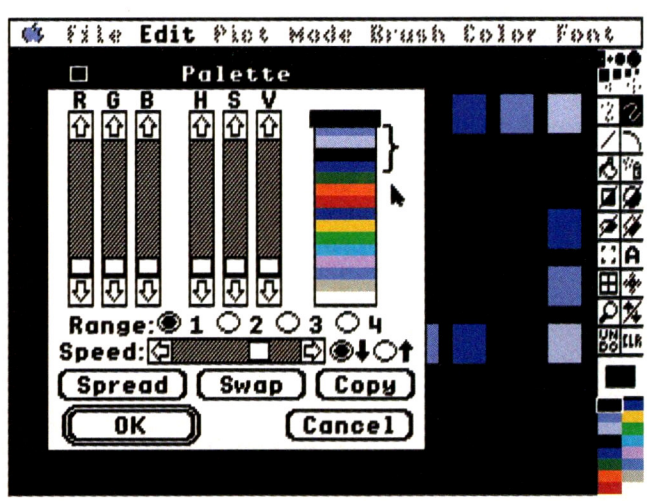


Figure 5: With DeluxePaint, you identify the cycling colors by designating a range in the palette-editing dialog box.

cycling on, the dancer appears to be circling in leaps and bounds across the GS screen.

ODDS 'N' ENDS

If you use an Apple IIGS, you may be interested in three new products from StyleWare. The most exciting, from our perspective, is a collection of desk accessories (DAs) called DeskWorks, which includes the following accessories: Scrapbook, Calendar/Appointment Book, Calculator, Screen Saver, Macro Creator, and Phone Filer. We're most excited by Scrapbook, which is like a multipage Clipboard. In it, you can store text and graphics to use over and over again in different applications. In your paint program, for example, you make a selection with the lasso or marquee and cut or copy the selection. Then you open the Scrapbook DA from the apple menu, select the Scrapbook file to use, and paste. The contents of the Clipboard (your selection) are placed on a page of that Scrapbook and are thus stored permanently on the disk that contains that Scrapbook. Whenever you want to use the image, you simply open the Scrapbook DA from the apple menu, open the appropriate Scrapbook file, cut or copy the image, and paste it into your graphic.

For the Scrapbook to work, applications must follow Apple's guidelines in handling graphics data in the Clipboard. Needless to say, not all programs do. Unfortunately, neither 816/Paint nor Graphics Studio can use StyleWare's Scrapbook. When we tried to use the Scrapbook with Paintworks Gold, we received a message that there wasn't enough memory to load the scrap. We have "minimum" Paintworks Gold machines: 1.25Mb; a user with a 1.5Mb GS told us that he couldn't get it to work either. DeluxePaint II, however, worked fine with the Scrapbook, as did StyleWare's other products.

StyleWare has also joined the ranks of purveyors of clip art. We like the art by Brad Davis, which just about fills a disk. The images come in four formats: Apple Preferred, TopDraw, PICT (Clipboard), and Paint. There must be some programs that can't use one of these formats, but we haven't found them. Unfortunately, because each image must be repeated four times to appear in the different formats, this package contains fewer images than it could have if stronger standards existed for GS graphics (see "Editor's Page" in this issue). Clip art can be terrific—it can save you lots of time when you're trying to whip up a greeting card, certificate, or poster. We wish StyleWare provided a printout of the files so that we wouldn't have to go browsing for an image, but the description of how to use the art with various programs is good.

StyleWare's third new product is a set of 90 fonts in 40 typefaces, for use with programs that use the standard Apple IIGS font routines. Since fonts take up valuable real estate on your System Disk, you won't be able to use all of them unless you have a hard-disk drive. You can, however, make customized boot disks containing the fonts you like in sets—one for business correspondence, one for paint programs, and so on. From your word-processing or desktop-publishing

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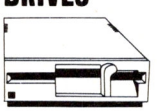

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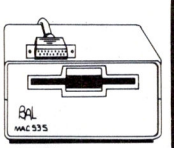

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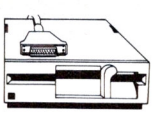

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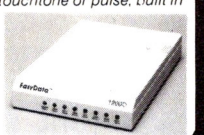

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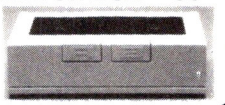

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program, the fonts can currently print only on the ImageWriter; you'll get Courier if you try to use them with the LaserWriter, which does not, as yet, handle GS fonts. Apple promises this situation will change soon, hopefully by the time you read this column.

In your paint programs, you are able to use these fonts, since the LaserWriter prints the bit image and doesn't use high-quality fonts when it prints graphics. DeluxePaint II fails the compatibility test here; you can choose only the first few fonts from the Type menu. StyleWare's documentation explains how to install and use the fonts. A small sample gives you a sense of the style of each typeface. We especially like Michelangelo, an iconic font that's great for producing rebus letters and puzzles.

DELUXEPAINT II HELP

You've seen our complaints about the necessity of frequent forays into the manual when we use DeluxePaint II. Well, one of our readers, Ken Gluckman, has come to our rescue. He's created a series of "help" desk accessories, which, when installed on the DeluxePaint application disk, are available at the click of the mouse on the apple menu. You can find the DAs on CompuServe, but if you don't have a modem or subscription or would rather avoid the download time, Ken will send the set to you. Just send $5 to cover materials and postage to Kenneth I. Gluckman, 30300 Inkster Road, Franklin, MI 48025.

POSTMODERN DAVID

This month's "Graphics Gallery" features *Postmodern David*, a collaborative effort of Lucia Grossberger's computer-art class at De Anza College in Cupertino, California. Grossberger was one of the authors of Designer's Toolkit, still our favorite hi-res drawing program, and has been actively involved with Apple graphics for many years. (Her latest project, Space Lace from Great Wave Software, is on our "to be discussed in the column" list. It's fun!)

Grossberger and her students decided to extend the idea of "jamming" from music to art. Just as in music, where the musicians take a musical phrase and elaborate on it with their instrument, each student "jammed" with a visual phrase. They chose Michelangelo's David as their subject. First, they made photostats from pictures of the sculpture and digitized them with Digital Vision's ComputerEyes. Then, each student took an image to work on with DeluxePaint and Paintworks. The final results were photographed off the screen and reassembled into *Postmodern David*, a freestanding sculpture.

We think that *Postmodern David* is an outstanding project. It creatively incorporates the strengths of computer art with the vitality of collaboration. In Grossberger's words, "Too often we think of fine art as something that one person, and only one person, creates or, more importantly, conceives. Yet, there is a fertile synergy that accompanies collaborations."

Our hats are off to Grossberger and her students: N. Amanda Barry, Michelle Bowers, J. Osmund Bryant, Daniel C. Colon, Ryan Crowther, C. Figueroa, Diana Hong, Kimberly Hutchison, Jaebok Kim, Particia Looney, Kim Marr, Timothy Mason, Eric Miller, Kelly Paige, Helen Ridout, Warren Standifird, Chia-Ching Wen, and Carolyn Woodward. Bravo! ✚

Roberta Schwartz and Michael Callery are A+ graphics editors and teach computer graphics and desktop publishing at The New School in New York City.

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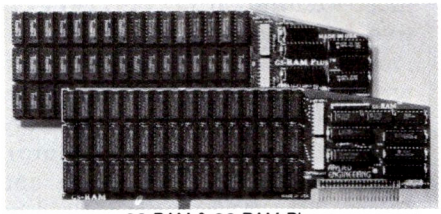

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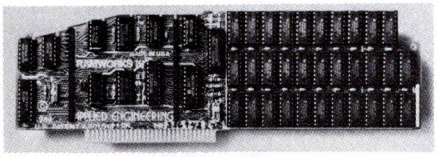

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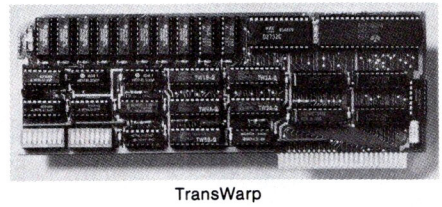

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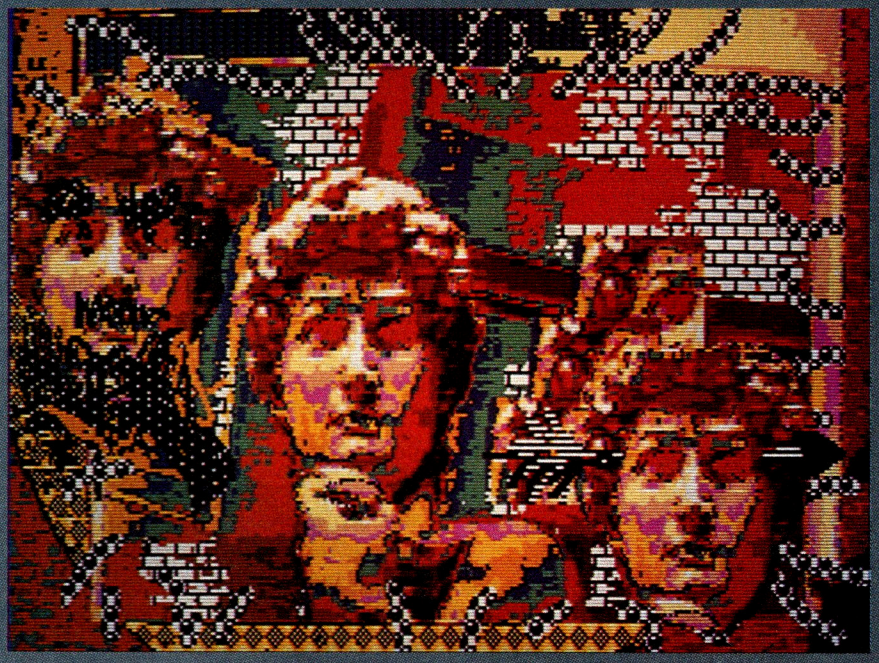
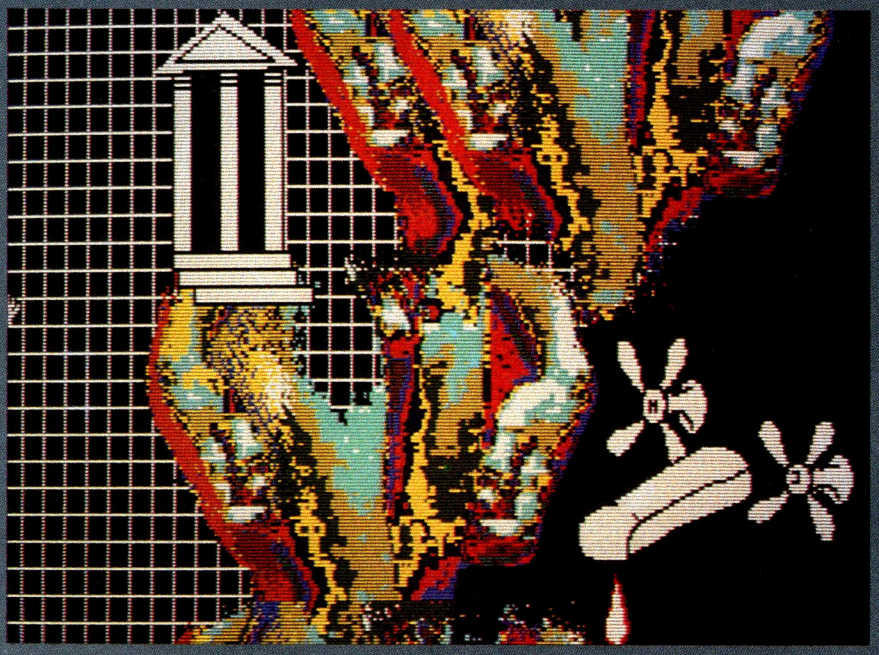
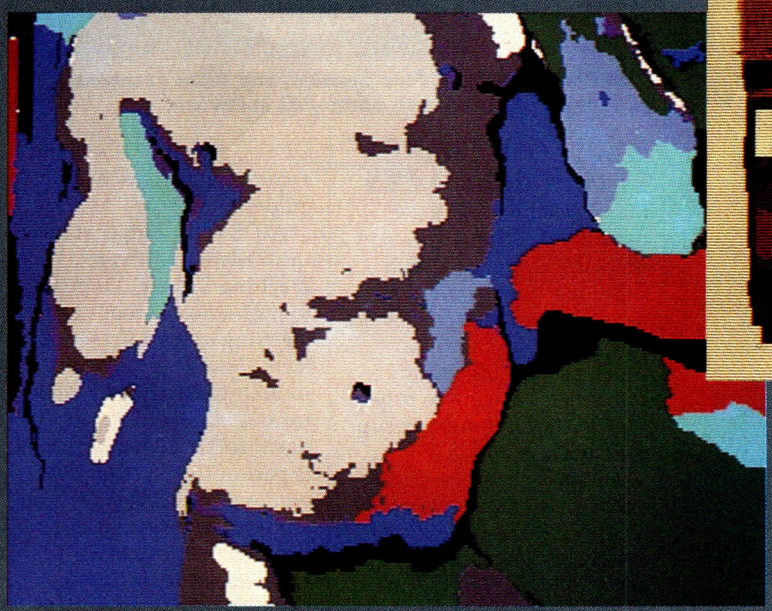
SPEAKING OF GRAPHICS GALLERY

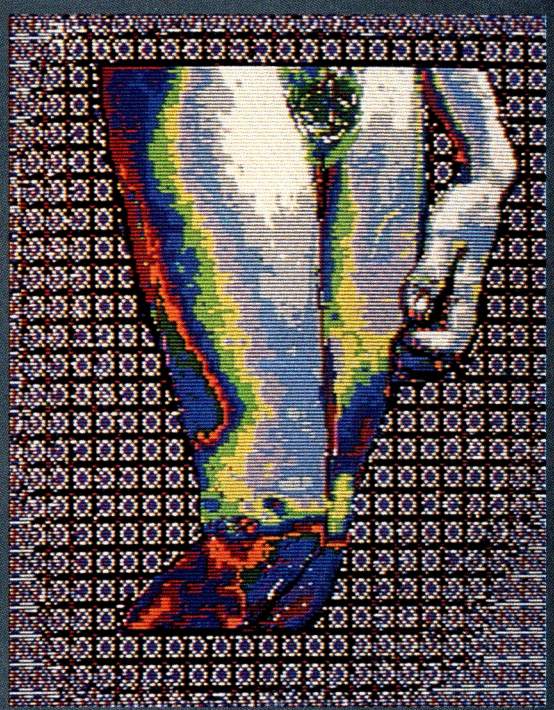
POSTMODERN DAVID

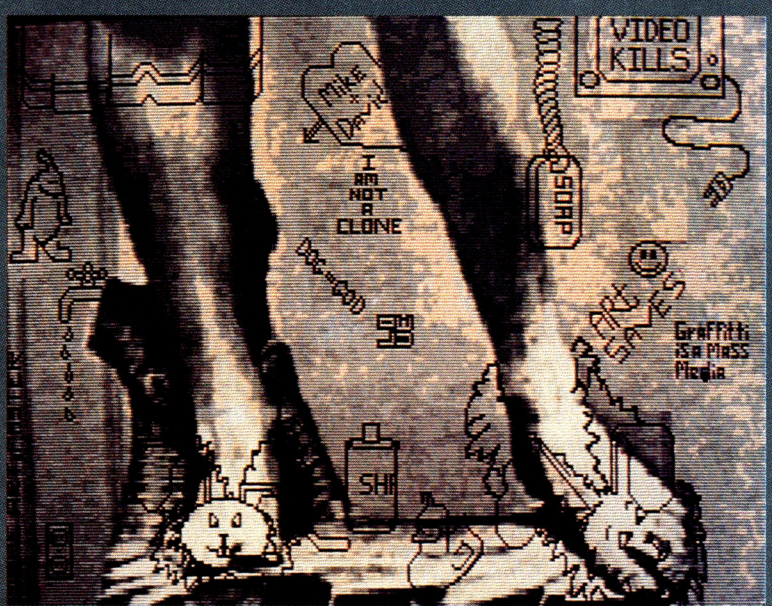
The "sculpture" below, entitled *Postmodern David*, is a collage of images created by students at De Anza College in Cupertino, California, just around the corner from Apple Computer, Inc.'s corporate headquarters. Using a digitizer and DeluxePaint II software on an Apple IIGS, the students stylized sections of an image of Michelangelo's *David*, which they then arranged into this three-dimensional display.







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Marsh Media introduces three Media/Software Teaching Systems, which provide a new curriculum-development alternative. The programs combine filmstrips or videos and computer software to provide a complete subject-support unit.

The Body Systems I introduces elementary students to the respiratory, circulatory, digestive, and muscular-skeletal systems with filmstrips or video programs. The interactive software program then reinforces the objectives with lessons and quizzes. The same animated characters are featured in the filmstrips, videos, and software.

Five Senses is another elementary-level Media/Software Teaching System. The filmstrips and videos provide descriptions of how the eyes work, the basic structure of the ear, how the nose and mouth work together to taste and smell, and how skin sensors receive messages. Coordinated software then further develops the concepts and quizzes users.

Both of these systems consists of four filmstrips or videos with teachers' guides, plus four disks and accompanying teachers' guides.

AIDS is the subject of the third Media Software Teaching System. Directed to high-school students, this teaching system presents facts about the AIDS virus in both filmstrip and video format. A two-disk coordinated software package that is part of this system includes a tutorial for self-study and review, plus a problem-solving exercise that lets students apply their knowledge by unraveling the chain of infection in a community. This system includes either a filmstrip or video with teacher's guide and two disks with accompanying guides.

List Price: Body Systems I and Five Senses: four disks per package, $142.95; filmstrips, $35.50 each; videos, $45.50 each. AIDS: two disks, $98; video, $42.95; filmstrip, $42.95.

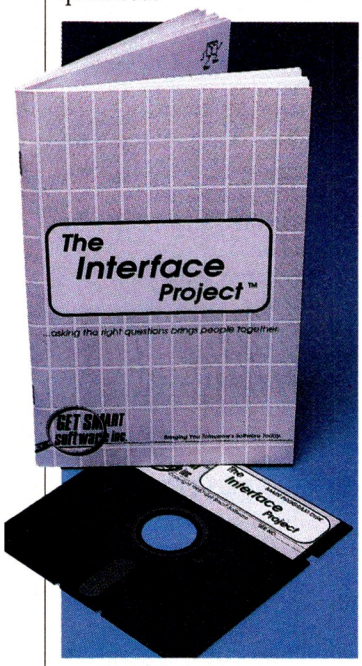
Requires: Apple II Plus, IIe, IIc, or IIGS; 48K RAM; one 5¼-inch disk drive. DOS 3.3; copy-protected.

Marshware
5903 Main Street
Kansas City, MO 64113
(800) 821-3303
(816) 523-1059

CIRCLE READER SERVICE NO. **502**

THE INTERFACE PROJECT

The Interface Project allows you to become an old-fashioned matchmaker using high technology. The program helps bring people together by using questionnaires that identify common interests among members of the opposite sex. It identifies, analyzes, and compiles these common interests. It allows you to ask 50 questions and match up to 1200 individuals. You can weight questions according to their significance in identifying common interests. Finally, you can print out the results of the process to use for fun, fundraising, or getting acquainted.



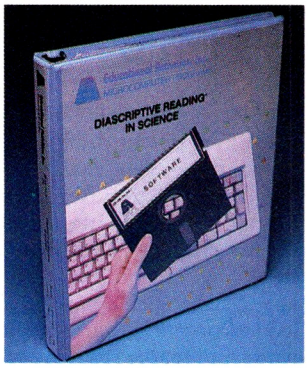
The Interface Project high-tech matchmaker

List Price: $49.95
Requires: Apple II Plus, IIe, IIc, or IIGS; 80-column card; two 5¼-inch disk drives. DOS 3.3; not copy-protected.
Get Smart Software, Inc.
8040 North Lake Drive
Milwaukee, WI 53217
(414) 352-8040

CIRCLE READER SERVICE NO. **503**

DIASCRIPTIVE READING IN SCIENCE

Diascriptive Reading in Science is a science-reading program that diagnoses the reading skills of students, prescribes what is needed for improvement, and evaluates performance at each level before directing the student to the next program. When students need remediation, the program randomly picks from a bank of stories on the same level, so students work with a new story and questions. The program has 5 diagnostic tests (one for each skill area) and 25 developmental reading programs. Programs include Vocabulary, Main Idea, Details, Inference, and Sequence.



Educational Activities' science-reading program

Each developmental lesson gives students the opportunity to become acquainted with a variety of science subjects. The program records student progress and also remediates or advances each student through each skill area without any teacher intervention.
List Price: $335
Requires: Apple II Plus, IIe, IIc, or IIGS; 48K RAM; one 5¼-inch disk drive. DOS 3.3; copy-protected.
Educational Activities, Inc.
P.O. Box 392
Freeport, NY 11520
(800) 645-3739
(516) 223-4666

CIRCLE READER SERVICE NO. **504**

BALANCING BEAR

Balancing Bear is a math program designed to help K–4 students understand equivalence. The students participate in a bear's balancing act by placing weights with numerical values on one or both ends of the bear's balancing beam. Balancing Bear has four difficulty levels, and multiple solutions are available in all levels. The program is suitable for special education and remedial math students because it is not timed, provides visual cues, allows for erasures, and doesn't penalize students for incorrect answers. The teacher's guide contains lesson plans and off-computer activities.

The Balancing Bear program helps K–4 students understand equivalence.

List Price: $65
Requires: Apple II Plus, IIe, IIc, or IIGS; 64K RAM; one 5¼-inch disk drive. ProDOS; copy-protected. Muppet Learning Keys or Touch Window optional.
Sunburst Communications, Inc.
39 Washington Avenue
Pleasantville, NY 10570
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PRODUCT ROUNDUP

HARDWARE

MINUTEMAN 1600 UPS

The Minuteman 1600 UPS (uninterruptible power supply) offers power protection for computer systems, including protection from blackouts, brownouts, interruptions, surges, and EMI/RFI noise. The unit protects any system with a power load of no more than 1600 watts and features a synchronized sine-wave output that switches to inverter operation in less than one millisecond. The Minuteman comes standard with a separate control unit and a 48-volt battery pack that automatically charges during AC operation. It has two alarm levels: one to notify you of commercial power loss and another to let you know there are two minutes of battery operation remaining. The unit's battery runs for 15 minutes under full power and 30 minutes under half power. UPS systems are also available for 250-, 300-, 500-, 600-, and 1200-watt systems.

List Price: $1,999
Para Systems, Inc.
1455 LeMay Drive
Carrollton, TX 75007
(800) 238-7272
(214) 446-7363

CIRCLE READER SERVICE NO. **507**

SOFTWARE

PRINTPOWER

PrintPower is a print-utility program that allows you to create greeting cards, banners, signs, posters, stationery, and other items. The design options include an on-screen template, text editing, 5 fonts with 7 variations of each, horizontal and vertical formats, 40 border designs, and 60 graphic designs with free-form positioning. Graphics from Hi Tech's AwardWare can be used with PrintPower to expand its graphics capabilities.

List Price: $14.95
Requires: Apple II Plus, IIe, IIc, or IIGS; 64K RAM; one 5¼-inch disk drive; printer. Not copy-protected.
Hi Tech Expressions
584 Broadway
New York, NY 10012
(212) 941-1224

CIRCLE READER SERVICE NO. **508**

FORMULA VISION

Formula Vision is a spreadsheet-readiness program with a small 15-cell structure. Each cell has the capacity for a label, value, and unit. The program has a large visual format conducive to large-screen use, 25 help screens, and a 34-page manual.

List Price: $29.95
Requires: Apple II Plus, IIe, IIc, or IIGS; 64K RAM; one 5¼- or 3.5-inch disk drive. ProDOS; not copy-protected.
K-12 MicroMedia Publishing
6 Arrow Road
Ramsey, NJ 07446
(800) 922-0401
(201) 825-8888

CIRCLE READER SERVICE NO. **509**

THUNDERVIEW

ThunderView is a program for creating personalized slide shows. The program allows you to create slide shows from images created with most popular painting programs, or scanned images captured with ThunderScan. The package also contains the first volume of ThunderWare's Image Library, a collection of clip-art graphics for use in most painting and desktop-publishing programs. ThunderView allows you to advance through images manually or automatically and has two automatic speeds.

List Price: $39.95
Requires: Apple IIe, IIc, or IIGS; 64K RAM; one 3.5- or 5¼-inch disk drive. ProDOS; not copy-protected.
Thunderware, Inc.
21 Orinda Way
Orinda, CA 94563
(415) 254-6581

CIRCLE READER SERVICE NO. **510**

PRODUCT ROUNDUP

WESTERN EUROPEAN TOUR

The Western European Tour Scenery Disk is now available for use with all subLOGIC flight-simulation products, including Flight Simulator II, Jet, and Microsoft Flight Simulator. The disk includes scenery covering large areas of Great Britain, France, and West Germany and is appropriate for both visual flight (sightseeing) and VFR or IFR cross-country navigation. Southern Great Britain highlights are centered around London but also include other areas such as Stonehenge and lighthouse beacons along the south England coast. France scenery centers around Paris and includes four major airports. Detailed West German cities include Munich, Nuremberg, Stuttgart, and Frankfurt. You can use various ground features as visual aids during cross-country flight. The program also allows you to fly from Helsinki, Finland, to Red Square in Moscow by "dead reckoning."

List Price: $24.95

Requires: Apple II Plus, IIe, or IIc; 64K RAM; one 5¼-inch disk drive; subLOGIC flight simulator; joystick optional. Not copy-protected.

subLOGIC Corporation
501 Kenyon Road
Champaign, IL 61820
(800) 637-4983
(217) 359-8482

CIRCLE READER SERVICE NO. **511**

MAGAZINE INDEX—1987 EDITION

The Magazine Index is a series of AppleWorks database files that allow you to quickly find articles and reviews that have appeared in major Apple II publications, as well as selected Macintosh and other publications. Among the publications are *A+*, *MacTutor*, *Call-A.P.P.L.E.*, *Open-Apple*, and others. You can reference the data by title, author, subject, and other fields. Indexes are also available in a publication-specific form, one publication per disk.

List Price: $6.95

Requires: Apple II Plus, IIe, IIc, or IIGS; 128K RAM; one 5¼-inch disk drive; AppleWorks. ProDOS; not copy-protected.

Kula Software
2118 Kula Street
Honolulu, HI 96817
(808) 595-8131

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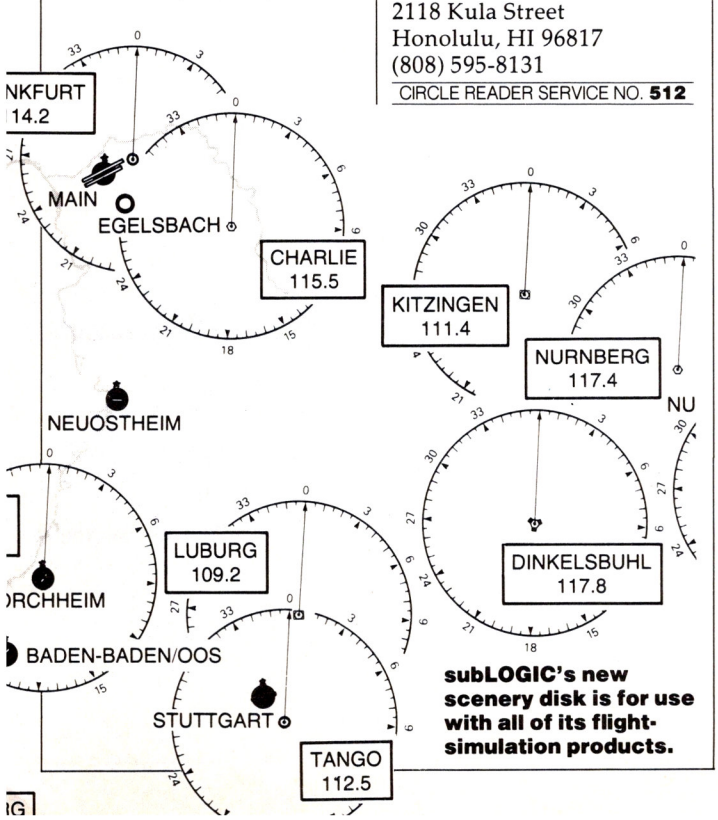

subLOGIC's new scenery disk is for use with all of its flight-simulation products.

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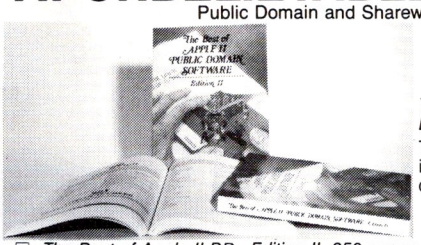

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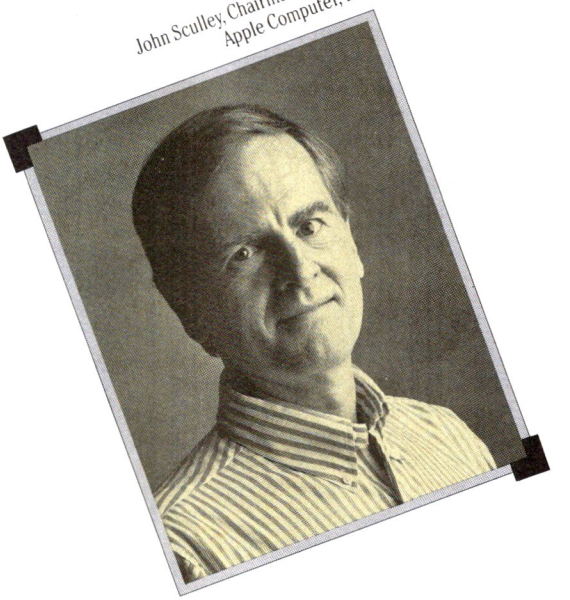

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ENTERTAINMENT

GAMEPORT

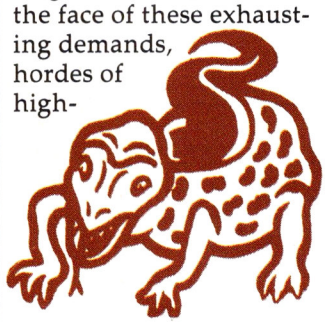
BY BOB LINDSTROM

The future of entertainment as seen from Chicago, and IIe/c software in IIGS's clothing

CES: THINGS AS THEY MIGHT BE

A rapid-fire packing session, a screening of *The Untouchables* (just to get into the Chi-Town mood), and I was off to join some 100,000 international honchos, tradesmen, and journalists at the 1988 Summer Consumer Electronics Show in Chicago. At this four-day shrine to consumerism, the industry gathers to cut big deals; size up the competition; and gather facts on new audio, video, and computer products.

The energy and dedication seem inexhaustible. The days are filled with rib nudging, back slapping, deal cutting, and model ogling—one day at CES is the equivalent of three girl-watching nights in a Venice Beach singles bar. Yet, even in the face of these exhausting demands, hordes of high-



minded byte sellers hit the city's streets after the show each evening. As pin-striped guerrillas in this urban jungle, they roam hospitality suites and receptions in a daring attempt to experience the ultimate party without mistaking the Steinhardt Aquarium salt-water tank for the hotel hot tub.

Entrusted with a solemn duty to bring product news to "GamePort" readers, I was obligated to stay as close as possible to industry revelers. At any time of the day or night during CES, you could find me exploring endless parties or sitting in the corner of a Rush Street nightclub. There I was: sipping purest Gatorade, pen and notepad poised in a vigilant quest for The Truth. And the sacrifice was all for you, "GamePort" reader.

So, here's the news. Just remember that the new-product announcements of June can dissolve into the good intentions of December. Although these titles are promised before Yuletide, anything can happen. Like the Ghost of Christmas Yet to Come, I'm only showing you the shadows of things as they might be.

Action-game lovers will love Epyx. It plans to keep joysticks in motion with two sports simulations: Street Sports Foot-

ball, another grass-roots go-round, this time on the alleyway gridiron, and The Games—Summer Edition, a graphically spirited cavalcade of cycling, pole-vaulting, swinging on uneven parallel bars, and others. Both are for the IIe, IIc, and IIGS.

Also from Epyx, Technocop boasts five levels of car chase and combat excitement, and Mind-Roll requires you to shepherd a marble through several 3-D landscapes.

Remember Activision?

ILLUSTRATIONS BY MICHAEL SANCHEZ

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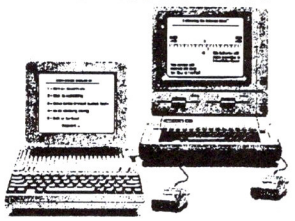

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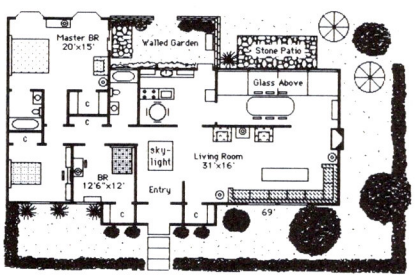

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GAMEPORT

Well, it's changed its name to Mediagenic (see "NewPlus" in this issue for details). In the future, Activision will be just another brand name, but a game by any other brand still plays as sweet. A case in point is the IIGS conversion of The Last Ninja, a martial-arts arcade/adventure game.

As a Mediagenic affiliate label, Lucasfilm Games follows up the hilarious Maniac Mansion with the more hilarious Zak McKracken and the Alien Mindbenders (IIe/c/GS), a mixture of B-movie science fiction and supermarket tabloid ("Man Removes Hangnail with Chainsaw and Lives!"), and from Interplay Productions (creator of The Bard's Tale series) comes Battle Chess, an eye-filling IIGS version of the board game, in which every piece is an animated cartoon character.

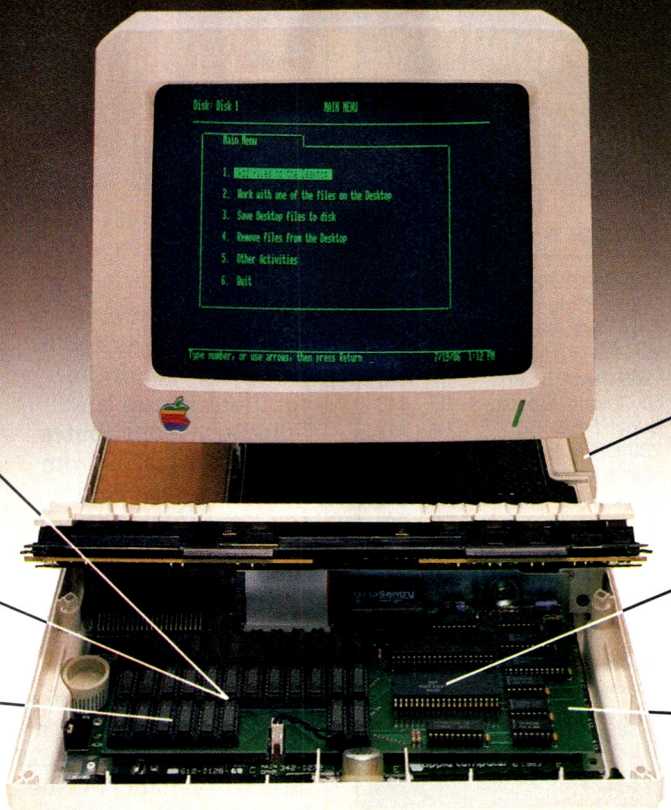
Accolade rolls out the IIGS software with Pinball Wizard, Bubble Ghost (pilot a soap bubble through a puncture-packed world of pins and thorns), Mini-Putt (a garden-golf simulation), Serve & Volley (an excellent computerized tennis match), and the pigskin strategy of 4th & Inches.

Ever feel like crushing innocent bystanders? Me too. Become a 2000-pound lizard or cyclops and waste the countryside in Arcadia's Aaargh! for the IIGS. Or, if you tend toward Schwarzenegger fantasies, play a Conan-like avenger in Melbourne House's visually opulent IIGS action/adventure Barbarian. Finally, football fanatics can get out of the arcade when John Elway's Quarterback, from Mastertronic, comes home to the IIe, IIc, and IIGS.

You won't find any heroes in the computer version of *Platoon*, from DataEast. Just struggle to survive increasingly difficult assignments in jungle stealth and combat (IIe/c/GS).

California Dreams brings a little classic gaming and gambling to Apple owners with Club Backgammon, Vegas Craps, and Vegas Gambler (slots, blackjack, poker, and roulette). All are scheduled for the IIe, IIc, and IIGS.

Sierra On-Line continues to enhance the audio-visual refinement of its graphic adventures with King's Quest IV—The Perils of Rosella, for the IIGS. This one boasts better graphics and a 40-minute musical score by TV composer William Goldstein (of "Fame"



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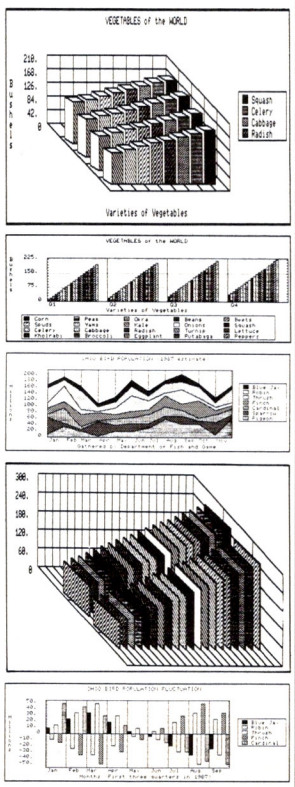

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CIRCLE 207 ON READER SERVICE CARD

GAMEPORT

fame). Manhunter: New York takes players on a terrifying tour of the populous future, and Gold Rush! contributes historical hazards from America's past. And don't miss Sierra's sequels: Space Quest III, Police Quest 2—The Vengeance, and Leisure Suit Larry II. All titles will be for the IIGS.

Brøderbund's seagoing simulation, The Ancient Art of War at Sea, should now be available for the IIe, IIc, and IIGS, and skiers can amuse themselves on the slopes without the cold (or, alas, the après ski warm-up) in Brøderbund's IIGS version of Downhill Challenge.

Affiliate labels that have hitched up to Electronic Arts are preparing a major release of Apple games. Strategic Simulations inaugurates its new Advanced Dungeons and Dragons games (licensed by TSR) with 3-D graphics and role playing in Pools of Radiance (IIe/c/GS). Leisure Genius brings the board games Monopoly and Scruples to the Apple II series. DataSoft flies its Tomahawk helicopter simulator to the IIGS with superbly enhanced sound and graphics. Save your girlfriend and delve into the treachery of international vice in Twilight's Ransom, an Apple II-series graphic adventure from Paragon Software.

It looks like 1988 will be a great year for Apple games. There are solid entries in the traditional-

TOM MURRAY

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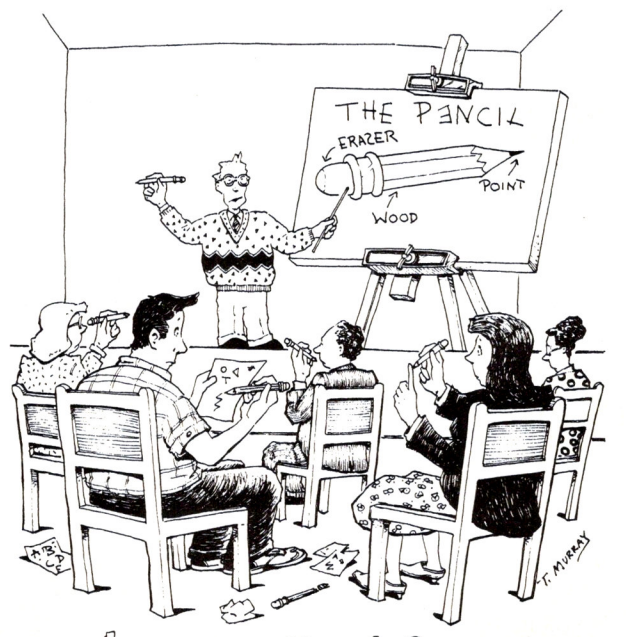

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GAMEPORT

ly strong areas of strategy, role playing, and simulation, as well as a welcome interest in Apple arcade action. I hope you have enjoyed these product previews. Somehow, your appreciation makes all that Chicago nightlife seem worthwhile.

IIGS OR NOT IIGS

By now, it should be apparent that IIGS game players will have plenty to fill their leisure time as 1988 continues. Several "GamePort" readers are disillusioned by publishers who haven't made the effort with IIGS-specific products, however.

Carl Wangberg of St. Paul, Minnesota, writes, "The other day I went and bought a new piece of software called Gauntlet by Mindscape. I was excited because the arcade version of this game [has] excellent graphics and sound. When I got home and tried the software, it came up in double-hi-res and had very little sound. It was like I was running a very fast IIe." Wangberg also registered similar disappointment with PBI Software's Strategic Conquest and Sierra On-Line's Space Quest.

Joe Warmbrodt of Spring, Texas, expected better than the double-hi-res graphics he got in Mindscape's IIGS Paperboy and Gauntlet. "These games hardly deserve to be called IIGS versions. They are more like IIe versions placed on a 3.5-inch disk and changed so that they won't work on a IIe."

Charles C. Strobel III of Jacksonville, Florida, stated that he bought the IIGS version of PBI Software's Strategic Conquest but "what was in the package was the Apple IIe version that works on any machine that will run the Apple IIe programs . . . I was told that no IIGS version was planned and that the labeling was OK because it ran on the GS."

I've received lots of letters concerning the IIGS products mentioned above. So, be careful. Until Apple programmers learn to exploit the IIGS fully, buyers will have to be selective in their IIGS purchases. Spend time at the local software store, demand software demonstrations, and keep reading "GamePort." +

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ENTERTAIN

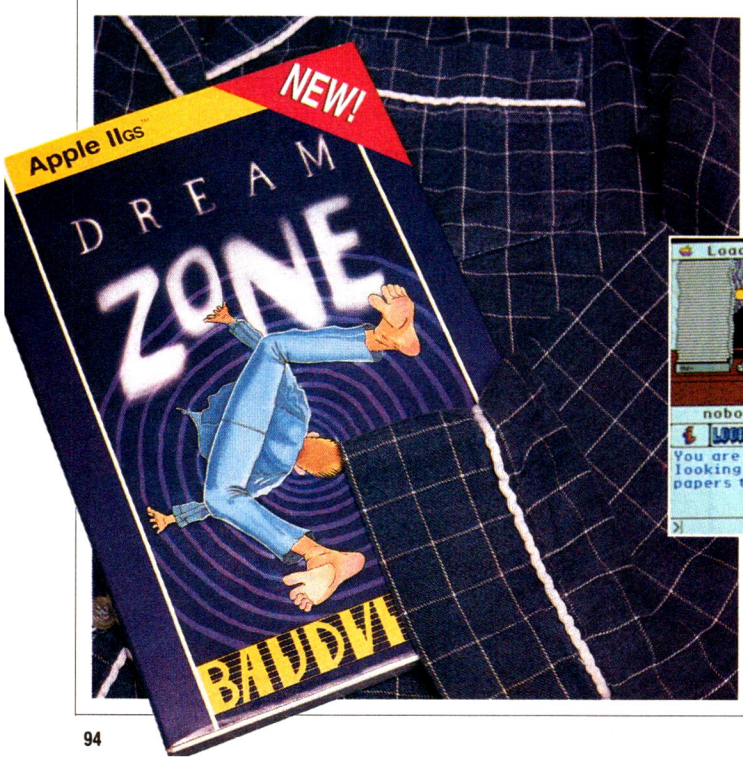
This month's trio of games lets you test-pilot with Chuck Yeager and dream and gamble on the IIGS.

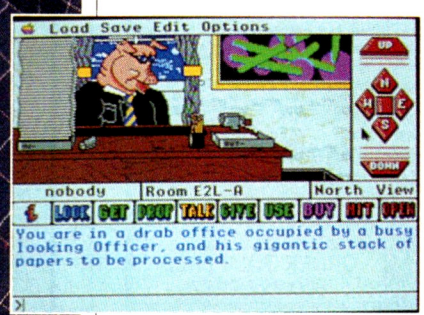
DON'T TAKE ANY WOODEN TUNA

Graphic adventure games have several elements in common. You always have to move through a variety of locations, obtain objects that may or may not prove to be important, and then discover how (and when) to use those objects. In the process, you must interpret clues, both obvious and obscure, that will often lead you on little subquests to overcome a key obstacle to the ultimate solution. There is generally danger lurking in many places, and the wrong word or action can get you killed. Worse, using or dropping an object at the wrong time can leave you up the creek without a paddle (sometimes literally) at critical junctures.

Baudville's new graphic adventure, Dream Zone, is no exception to the description I've just given. It is written specifically for the Apple IIGS, however, and that makes it unusual. With the withdrawal of Tass Times from the roster of Activision (now called Mediagenic), Dream Zone moves into nearly sole possession of the genre on the IIGS.

Dream Zone begins strangely. It is all in grainy, black-and-white, scanned photographic images. The effect is eerie. Once you've figured out the appropriate actions to take, the game shifts to the familiar colorful IIGS graphic look. The graphics are well drawn and appealing and the scenes well balanced—if a little cartoony at times. Although the game has virtually no animation, various tricks with color cycling (see "Speaking of Graphics" in this issue) provide apparent motion. Unfortunately, characters in scenes always look the same. Even after you've killed or removed a character from a scene, he/she/it remains in the scene throughout the game.





As is popular in adventure games these days, the user interface employs a combination of keyboard entry with mouse pointing and clicking. For instance, clicking once on an object places the object's name in the text area. Double clicking automatically fills in and executes a Look At [object] command (unless the object is something you can "get," in which case it is added to your inventory, space permitting).

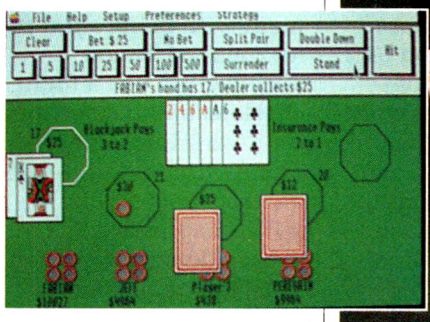
A compass lets you move by clicking on the appropriate direction, and other click-on commands include Inventory, Look, Get, Drop, Talk, Give, Use, Buy, Hit, and Open. Various options control the position of inventory icons, color of text, visibility of obtainable objects, and music on or off.

Speaking of the music, I found it somewhat frenetic and perhaps too "modern" for my tastes. Fortunately, you can turn it off. The music also suffers from frequent slowdowns during disk access—whenever you

MENT REVIEWS

move from one scene to the next. Not only does the music slow down, but so does the game. The problem is ProDOS, according to Baudville's Michael Darooge. When Apple finally releases its 16-bit operating system for the IIGS, Dream Zone (and other programs, of course) will speed up dramatically. For now, we must have patience—and plenty of it.

Solving this game generally involves a patient attention to subtle clues, some good guesswork, and an occasional touch of eccentricity and ruthlessness—which is to say it's a fairly typical game. One section takes place in a huge building called the DOI (Department of Information). This section is truly brutal for anyone who does not enjoy bureaucracy. Be advised that a subtle clue in the manual can take you quickly out of the DOI with your mission accomplished. It seems that one of the developers of Dream Zone used to work in a government office in Washington, D.C., and he felt compelled to provide an all-too-realistic, maddening window into that world.



Other parts of the game, although intentionally weird (it being the Dream Zone, after all) tend to make a twisted sort of sense. You have to be ready to do some odd things and to take extraordinary facts as being ordinary—e.g., currency and tuna are the same thing. Although violence does play an occasional part in the game, it is important to know when to use it and when to refrain. Luckily, you can save up to ten games in progress to protect against disaster.

A final note of caution: I had some trouble with a very early version of Dream Zone. Unfortunately, the problems didn't surface until I was near the end of the game. The bugs have been corrected in the more recent copies of the software, but if you think you might have a very early version, you may want to give Baudville a call in order to have your disks exchanged.

Dream Zone does not rank as my favorite adventure game of all time, but it has its appeal. A few twists are amusing, and many of the scenes are nicely done. Considering the dearth of IIGS games, eager adventurers will probably want to jump on this one. If you're not particularly

good at adventure games, however, you may end up frustrated, even if you obtain Baudville's hints and Dream Zone map. In the meantime, don't take any wooden tuna, and be kind to rats.

Rusel DeMaria

DREAM ZONE
Baudville
5380 52nd Street SE
Grand Rapids, MI 49508
(616) 698-0888
LIST PRICE: *$49.95*
REQUIRES: *Apple IIgs, 512K RAM, one 3.5-inch disk drive. ProDOS 16; copy-protected.*

CIRCLE READER SERVICE NO. **450**

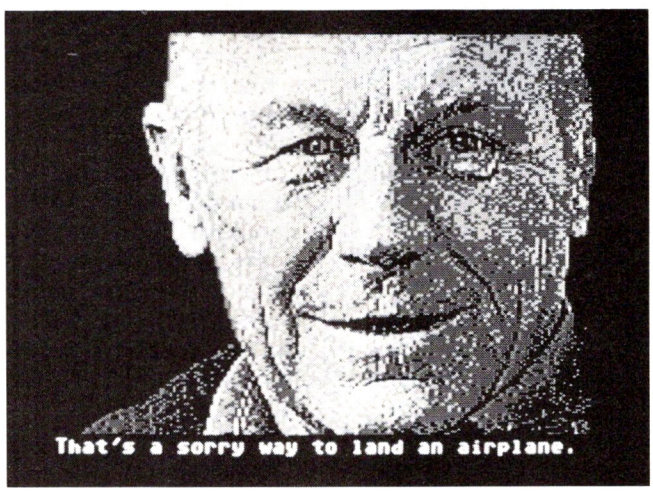
PLAYING TEST PILOT

As our two DKS "Bonecrusher" turbojets kick in, we're sure we're in for the ride of our life. After all, the XPG-12 Samurai is supposed to be a test pilot's fantasy machine, and here we are flying it! We max the throttle and prepare to take on the obstacle course.

As we bank the machine furiously through each gate, the altimeter reminds us to keep the nose up. Then it happens. In a jarring moment of carelessness, we clip the wing on the slalom gate.

Suddenly, Chuck Yeager appears on the computer screen. "I always knew you were a flying mortar shell," he tells us. He's not particularly encouraging, but then, dead test pilots don't need a whole lot of encouragement.

Fortunately, we are not dead. We're playing Chuck Yeager's Advanced Flight Trainer from Electronic Arts. We are armchair test pilots and we're glad of it. We can take our chances as many times as we want. Even the government could not afford to pay for all the farms we've bought.



AFT consists of several related programs integrated into a single title. The Flight Instruction mode benefits beginners and nonpilots. In this mode, General Yeager gives you step-by-step instructions as you fly the plane. You also see graphic information on the screen indicating how you should be working the controls. You can learn everything, from takeoffs and landings to fancy maneuvers such as rolls, Immelmans, and Cuban Eights.

Once you feel ready to fly solo, you can choose from a variety of aircraft, including common planes such as the Cessna 172 Skyhawk and Piper Cherokee. You can also fly jets such as the F-16 and F-18 or historical warplanes such as the Sopwith Camel, P-51 Mustang, and Supermarine Spitfire. You also get a choice of test planes ranging from the XNL-16 Instigator ("This plane was never built, and after flying it you know why. I think we would've had some other names besides 'Instigator' for this one!") to the XPG-12 Samurai ("This one's a test pilot's fantasy . . .").

After choosing a plane, you select your next activity. You can experiment with being a test pilot; General Yeager kindly gives you a flight checklist and instructions for determining the plane's limits. You learn quickly that test pilots with a haphazard approach don't last. As you push the plane to its maximum speed, altitude, and dive, you have to handle the moment when the plane becomes unstable—especially exciting in planes such as the Instigator.

You can select any available plane and fly it freely over the world created specially for AFT. It includes several thousand square miles containing obstacle courses, racecourses, and a few other interesting landmarks.

Formation flying involves six predefined formation routines in which you must follow the lead of another plane. In fact, in one scenario, you follow General Yeager in a series of easy, medium, and hard stunts. You can also create your own stunts, recording them as the lead plane and then replaying them as the follower. After a successful formation run, AFT scores your performance against the performance of the lead plane.

Airplane Racing gives you no margin for error as you fly at breakneck speeds just 100 feet above the ground, through a series of low, narrow gates. Racing can be exciting although difficult as you take on up to five competitors who match your best level of performance from the previous race.

Graphically, AFT is not the most spectacular flight program we've seen, but it is adequate, showing a color landscape with various three-dimensional objects here and there. As you approach ground level, special spherical objects that make up for the lack of depth perception of the computer view help you

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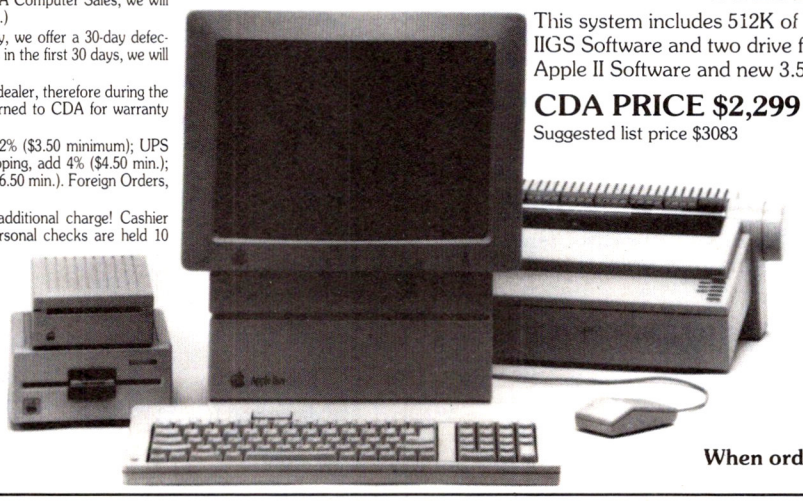

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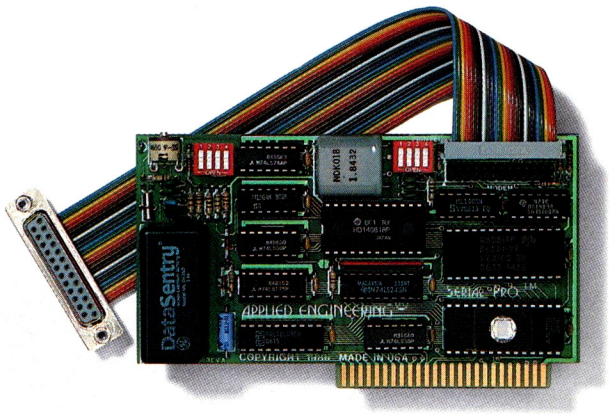

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REVIEWS

estimate your altitude.

Handling the planes is surprisingly easy, although performing some of the formations and racecourses is not. Using a joystick and minimal keyboard controls, we found the planes themselves to be quite stable. You can set wind conditions to make flying more challenging.

The excellent manual contains all the important facts and instructions about the program and the planes and includes a flying primer, but the frequent quotes from Yeager are what add the personal touch for which Electronic Arts' "celebrity" programs are known.

We found the program gratifying in many ways. The instruction mode is excellent and the variety of planes stimulating. The scenery is somewhat boring, however, and the handling of the planes seems almost too easy in free flight. For people who want a different kind of flight simulator, and especially for you beginners, this program is excellent.

Rusel DeMaria and George Fontaine

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CIRCLE READER SERVICE NO. **451**

BLACKJACK, YOU BET

Virtually everyone knows how to play blackjack, yet very few know how to play well. Most people rely on ill-defined strategies or, worse, on hunches. That's fine for games among friends, but if you intend to play in a casino, you'd better go armed with more than a fistful of dollars.

BlackJack Academy is the first Apple IIGS release in Microillusions' Micro-Vice series of instructional casino-game simulations. Although novices can learn the basic rules of play by using BlackJack Academy, the program is primarily an aid for serious players who want to sharpen their strategy and card-counting ability.

The BlackJack Academy package includes a single 3.5-inch disk, an eight-page owners' manual, and a cardboard Optimal Play Quick Reference Guide. The disk is copy-protected, but you can transfer the files to another volume, thanks to the key-disk protection scheme.

The program depicts a blackjack table in super-hi-res graphics. Using the mouse, dialog boxes, and pull-down menus, you set various game options: the number of players (1–5) and their bankrolls; number of card decks used (1, 2, 4, or 6); minimum and maximum allowable bet sizes; and specific rules of

REVIEWS

play. The standard rules for popular casinos come on the disk, and you can create your own custom rules if you wish.

Once you're satisfied with the setup, the program shuffles the cards and deals them face up, with the exception of the dealer's hole card. It can optionally display point totals for individual players. The object of blackjack, as if you didn't know, is to beat the dealer's hand by exceeding his total without going over 21.

BlackJack Academy has every play option normally available: hit, stand, double down, split pair, and surrender. In addition, the game also handles insurance betting. These options always appear above the table and are easy to select with the mouse.

BlackJack Academy is both a tireless dealer and a patient instructor. Whenever you are unsure of your best move, the program not only tells you what to do, but, more importantly, it also explains why in plain English. You can find the optimal play by checking the Strategy menu or by glancing at the quick-reference card. An on-line help feature contains extensive information on rule variations, money management, and card counting.

Although following the program's optimal-play suggestions greatly reduces the casino's edge (to as low as 0.8%, compared to the 5.5% house advantage if you play by dealer rules), you must count cards to successfully play blackjack for money. Card counting tells you when the deck is "rich" and, ultimately, when to increase your bets.

The system BlackJack Academy incorporates is simple but takes hours of practice to master, because of the blinding speed with which cards are dealt in a real casino. The program can continuously display the current count or hide it for occasional consultation only.

BlackJack Academy makes excellent use of the graphics interface of the IIGS—it is not simply an enhanced eight-bit program. It contains a few minor deviations from actual casino play, but rest assured that it deals an honest game. The only missing feature, as far as I'm concerned, is a reporting capability for keeping an error log and suggesting areas to improve.

Nonetheless, if you're a blackjack aficionado and want to hone your game, Microillusions' BlackJack Academy is the package for you.

Owen W. Linzmayer

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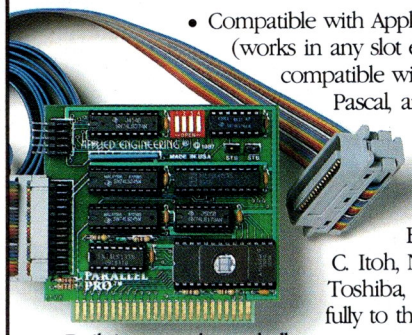

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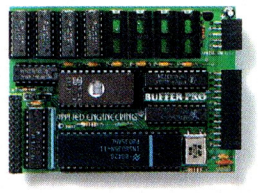

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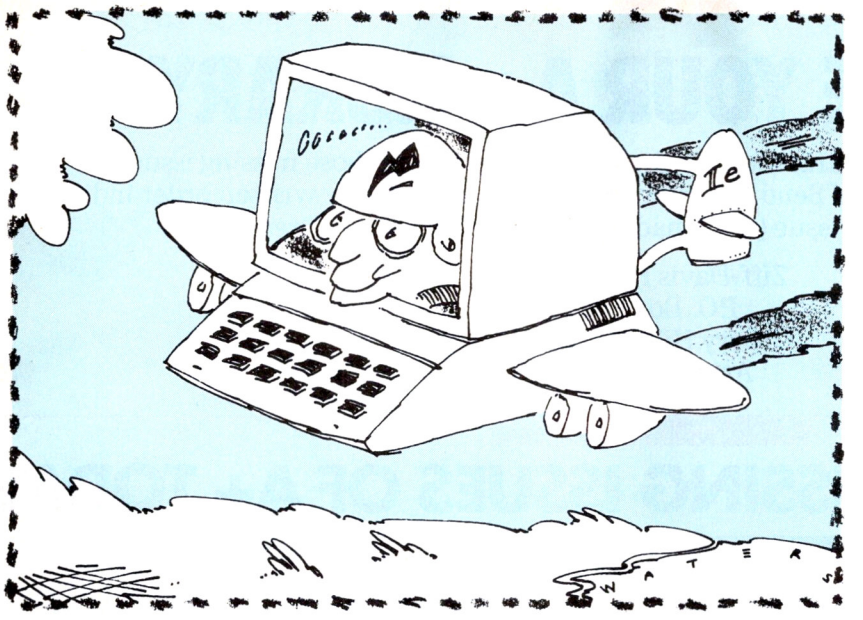

TIPS AND TECHNIQUES

CURSORS, FOILED AGAIN

The Apple IIGS displays its cursor in the text mode according to the value stored at memory location $E1/0134. Normally, that value is $FF when the 80-column firmware is inactive and $00 when it's active. If you set the value to $FF, the cursor that normally appears in the 40-column mode appears even when the 80-column firmware is active. If you set the value to $20, the cursor changes to a space and blinks at a rate determined by the value of location $E1/02EF when the firmware is either on or off. The value of $E1/02EF is normally $00 to $04, and you can set it through the Control Panel as well.

HIROFUMI OHTA
KYOTO, JAPAN

NO-SWAP DISK COPY

With a memory-expansion card and only one drive, you can eliminate much of the hassle of disk swapping that's usually necessary to copy a disk. First, set up the largest RAMdisk your memory card can handle. Then use a file-copy program such as System Utilities to copy all the files from the source disk to the RAMdisk. After that is finished, copy the files from your RAMdisk to your destination disk. Although this procedure may seem relatively difficult and time-consuming, it is not—it takes so little time to copy files to and from the RAMdisk, and it eliminates the need to constantly swap disks.

ANDREW S. JACOBS
GREENVILLE, DE

MOTOR MOUSE

If you notice that your AppleMouse is not as responsive as when you first purchased it and you have followed Apple's recommended procedure of cleaning the rubber ball, without improvement, try this extra step: With the rubber ball removed, look into the mouse's cavity. You will see three circular metal wheels that may have grime built up on them from contact with the rubber ball. Remove the grime from each of the wheels with your fingernail, return the ball to the mouse cavity, and reattach the circular plate. Your mouse should now be able to motor around like it did when it was new.

MICHAEL L. PAXTON
MCCONNELSVILLE, OH

PRINTING PRETTY PASTELS

If you have an ImageWriter II and want to print something in a pastel shade, just use the printer's paper-thickness control. Set the control to one additional paper thickness, and the printer will print much lighter than it normally does. Doing so turns normal blue into baby blue, red into pretty pink, purple into lavender, and so on. The black is not true black when you use this technique, however.

LOWELL LUTZ
PHOENIX, AZ

DOUBLE-WIDTH LOW-RES

If you have a IIc or IIGS, Applesoft's low-resolution graphics commands can work in a double-width mode. To enable this mode, issue a PR#3 command, followed by `POKE 49278,0` and `POKE 49246,0` before issuing the GR command. This procedure makes the low-res screen an 80 × 40 graphics screen (not counting the four text lines at the bottom). Commands such as `HLIN 0,79 AT 20` work just fine. To turn off double-low-res, type `POKE 49278,0` and `POKE 49247,0` while you're still in the 80-column mode.

EVAN AUSSENBERG
PITTSBURGH, PA

IIGS KEYPAD TRICK

Many of us like to use the IIGS's numeric keypad to enter long strings of numbers in DATA statements but hate to move back to the main keyboard to enter all the commas. The period on the numeric keypad becomes a comma if you hold either Shift key down when you tap it. So use your left hand to control the Shift key and enter the numbers with your right hand.

STEPHEN MUSKIEWICZ
HUDSON, NH

"Tips and Techniques" is compiled by Ken Lucke. Please send your tips to him care of A+ magazine.

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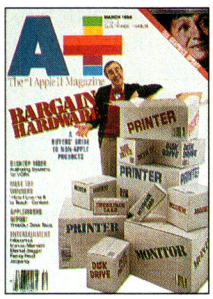
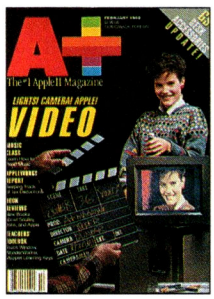
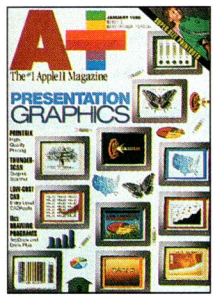


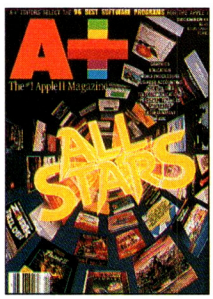
Mar. '88—BARGAIN HARDWARE: A buyers' guide to non-Apple products. Plus, authoring desktop video systems for VCRs; AppleWorks Report—TimeOut Desk Tools; IIGS graphics update; Infocomics; Mainiac Mansion; Family Feud; Jeopardy; and more!



Feb. '88—LIGHTS! CAMERA! APPLE! VIDEO! Plus, IIGS desk accessories update; AppleWorks Report—keeping track of tax deductions; new books about Sculley, Jobs and Apple examined; Teachers' Toolbox looks at Touch Window, WonderWorker, Muppet Learning Keys; and more!

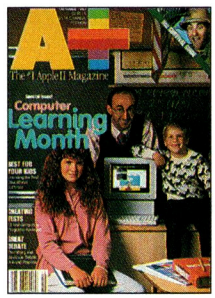


Jan. '88—PRESENTATION GRAPHICS: Getting super-size printouts; Printrix: high quality printing; Thunderscan graphics scanner; entry-level CADApple; TopDraw and Draw Plus IIGS drawing programs; IIGS file management program Notes•N•Files; and more!

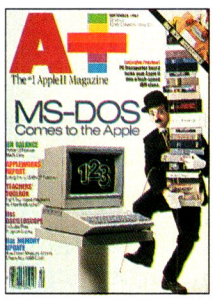


Dec. '87—ALL STARS: The editors select 96 top programs in all categories including graphics, education, word processing, entertainment, music, business accounting, disk utilities, telecommunications, personal finances and databases; more!

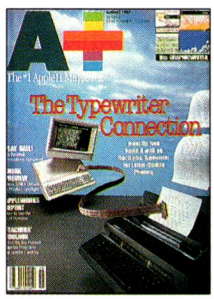
Nov. '87—HARD DISKS; comparative reviews of 6 outline processors; small business accounting; Certificate Maker and Award Maker compared; IIGS word processing; what packet radio can do for you; How I Use the II to Teach Contest; and more!



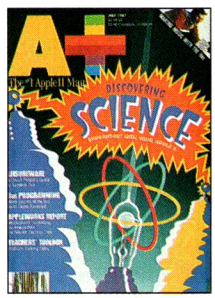
Oct. '87—COMPUTER LEARNING MONTH! Choosing the best educational software for your kids; 13 test-generation programs reviewed; debates on drill and practice methods. Plus: the IIGS Survival Guide; printing with AppleWriter on the IIGS; Marble Madness; and more!



Sept. '87—MS-DOS COMES TO THE APPLE II! PC Transporter board turns your Apple II into a high-speed IBM clone. Plus, IIGS desk accessories; balancing your finances; AppleWorks Report—using the @LOOKUP function; IIGS oscilloscope (includes free program listing); more!



Aug. '87—THE TYPEWRITER CONNECTION: Teaming your Apple II with an electronic typewriter; six baseball simulations compared; Laser 128EX reviewed; AppleWorks Report—how to use the @IF function; 14 top-ranked algebra programs for grades 7+; and more!



July '87—DISCOVERING SCIENCE. Plus, Leisureware—the couch potato's guide to summer fun; AppleWorks Report—multicolumn formatting for newsletters; FactWorks—facts on disk; The No-Slot Clock (save a slot on your IIe), and more!

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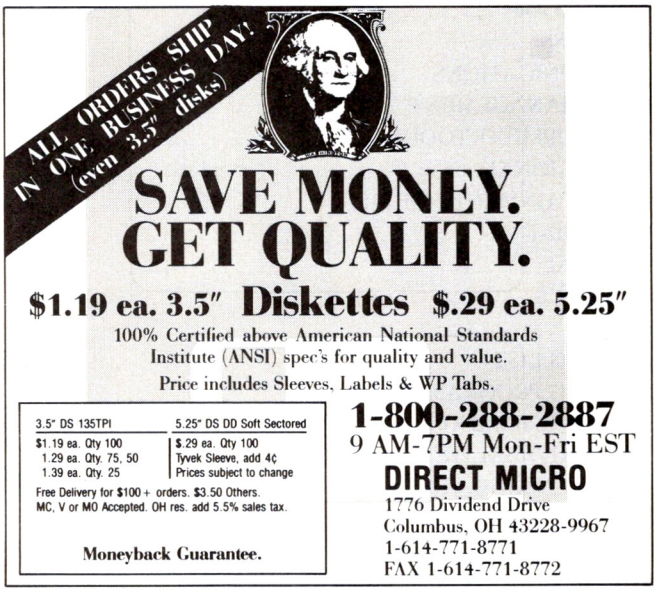

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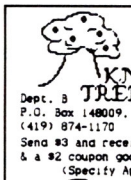

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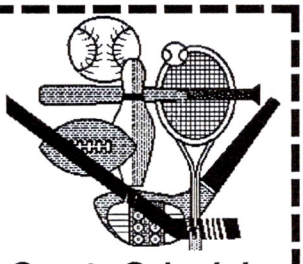

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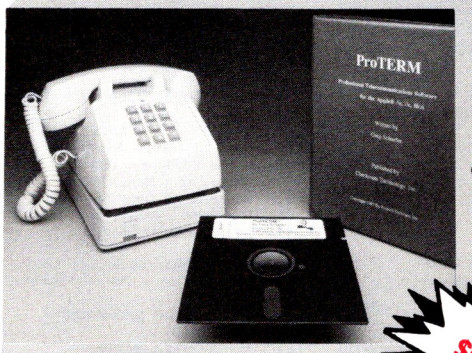

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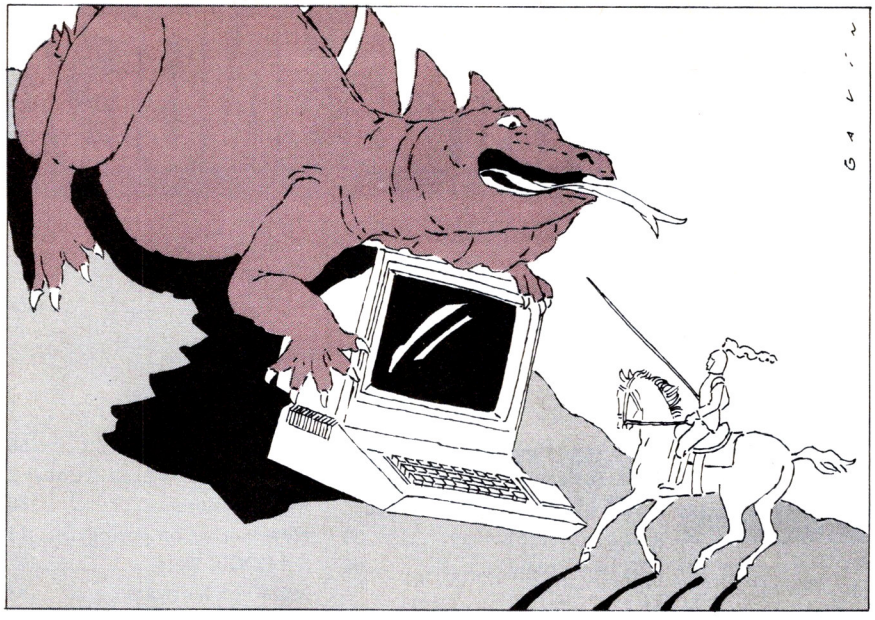

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JOYSTICK DISTINCTIONS FOR THE II FAMILY

Q. *I have noticed several ads for joysticks for the Apple II Plus, IIe, and IIGS, and joysticks for just the Apple IIe, IIc, and IIGS. What is the difference between these two types of joysticks? I thought Apple-compatible joysticks would work with any member of the Apple II family.*

STAN WINSTON
AUSTIN, TX

A. Joysticks for the Apple II family can have two different kinds of connectors on them. One kind is the rectangular 16-pin DIP plug that fits into the game I/O connector on the motherboard of the II Plus, IIe, and IIGS—an internal connector that does not exist on the IIc. The other kind of connector is the 9-pin D-type miniature plug that fits the external game connector on the back panel of the IIe, IIc, and IIGS. This connector does not exist on the II Plus. The 9-pin port is similar to the 16-pin port but lacks the four annunciator outputs (AN0 through AN3) that some peripherals use to turn electronic devices on and off.

USING THE LQ'S FEATURES

Q. *My church recently purchased an Apple IIGS and a new ImageWriter LQ. We do extensive desktop publishing with DataPak's GraphicWriter and were looking forward to even better-looking newsletters and Sunday bulletins with the new 27-pin "poor man's laser printer." Unfortunately, we can't take advantage of the new features of this printer, because GraphicWriter—and other Apple IIGS software that we use—operates it in the ImageWriter II emulation mode. Can you tell us how can we take advantage of the improved print resolution of the LQ?*

REV. LEE CUNNINGHAM
EL CENTRO, CA

A. There is an ImageWriter LQ driver on the new System Disk, Version 3.2, which Apple released this summer. By putting this file into the SYSTEM/DRIVERS/ directory of your working IIGS System Disk, you can specifically select the ImageWriter LQ, using the Choose Printer menu item that you find in most GS applications.

INTERNAL HARD-DISK DRIVE

Q. *Do you know of anyone who is developing an internal hard-disk drive for the Apple II?*

MARK RICHARDSON
APO, NY

A. A Florida company by the name of Space Coast Systems used to sell an internal hard-disk drive called the Challenger. To make room for it, you had to remove the Apple II power supply (the Challenger's power supply was intended to power the drive as well as the Apple II). This drive is no longer available, and I know of no one else who is developing a similar product. If what you're really looking for is a drive you can transport easily, take a look at the CT-20 from Chinook Technology of Longmont, Colorado—it's the smallest and lightest hard-disk drive available for the Apple II.

BOOTING FROM THE FINDER

Q. *I like using the Finder on my Apple IIGS, but some of the application programs I have can't be run from the Finder. Examples are all DOS 3.3 programs and most copy-protected disks. Is there a way to boot DOS 3.3 and copy-protected disks from the Finder so that I can run these programs?*

GEORGE KATELE
RIVERSIDE, IL

A. The easiest way to boot a disk from the Finder is to run a simple ProDOS 8 system program, which jumps to the disk-boot routine located at $C500 (slot 5) or $C600 (slot 6). To create such a system program from the Finder, first enter the Applesoft BASIC command mode (where you see the] prompt) by double-clicking on the BASIC.SYSTEM icon on your Apple IIGS System Disk. Then enter the following commands, each followed by a Return:

```
CREATE BOOT6,TSYS
CALL -151
2000:4C 00 C6
Q
BSAVE BOOT6,A$2000,L3,TSYS
BYE
```

Now to boot from slot 6, just double-click on the BOOT6 icon, using the Finder. You can create a similar program called, say, BOOT5 to boot from slot 5. Just change the C6 in the above example to C5 and use the name BOOT5 instead of BOOT6 in the CREATE and BSAVE command lines.

Gary Little is A+'s editor and author of several books about Apple computers. Please send your questions and problems to "Rescue Squad," A+, 950 Tower Lane, 18th Floor, Foster City, CA 94404. Because of limited space, we aren't able to publish responses to all inquiries we receive.

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Please indicate which of the following microcomputers you currently own and/or plan to buy in the next 6 months.

	(1.) Own	(2.) Plan to Buy
Apple IIGS	A.	F.
Apple IIc	B.	G.
Apple IIe	C.	H.
Laser 128	D.	I.
IBM or clone	E.	J.

Please indicate which of the following types of software you plan to buy in the next 3 months.

	(3) Plan to Buy in 1-3 Months
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Productivity Software for Home	L.
Educational Software	M.
Entertainment Software	N.
Programming/ Language Software	O.

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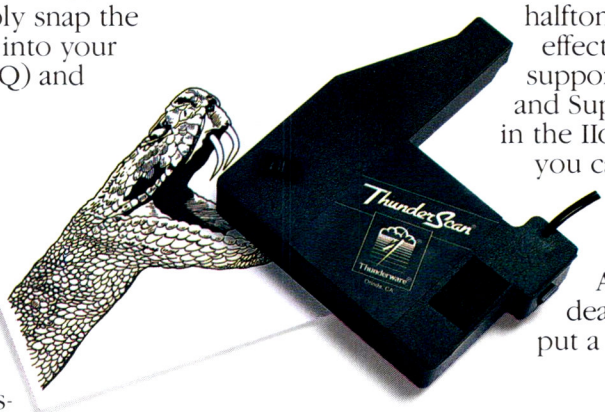

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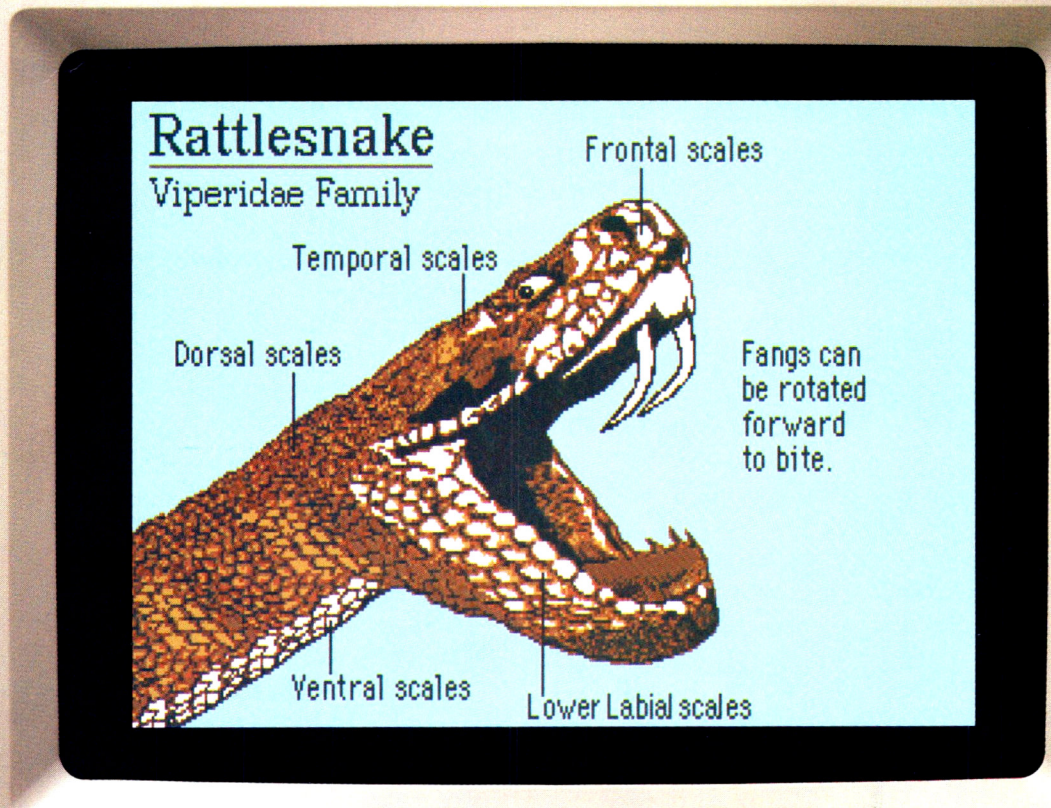

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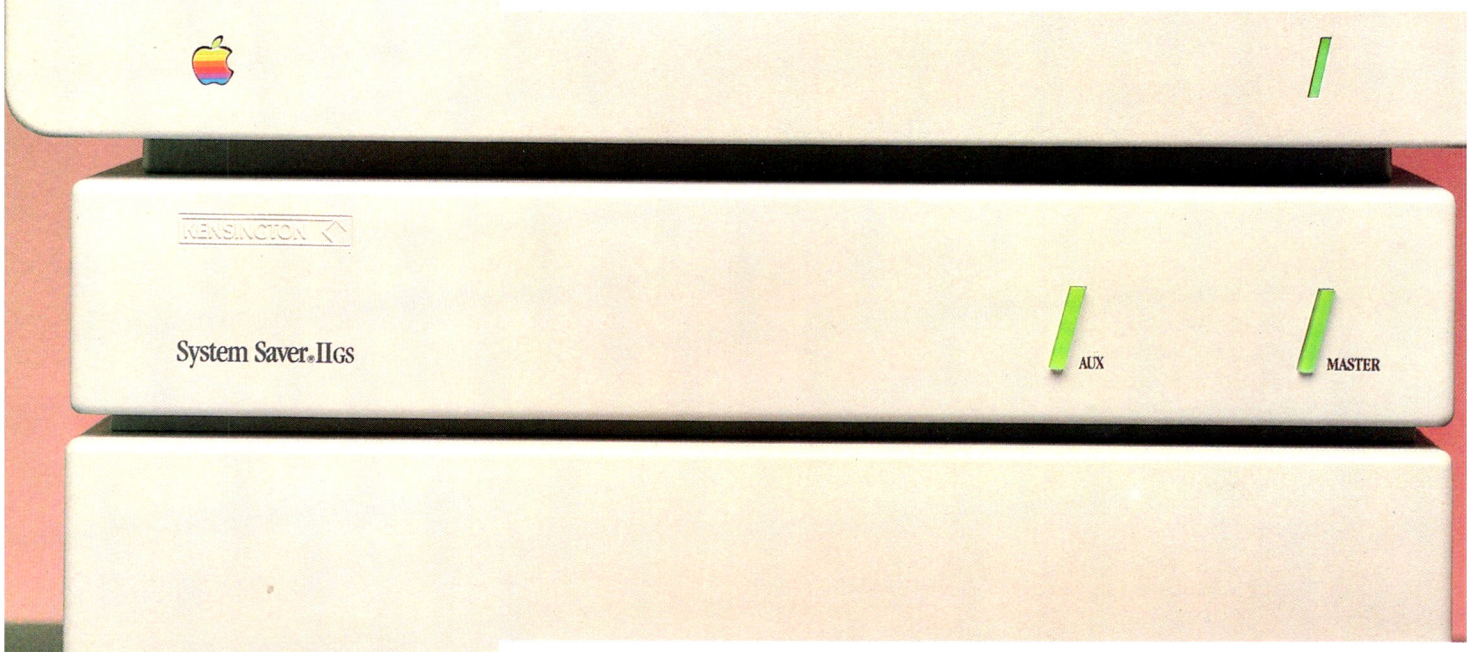

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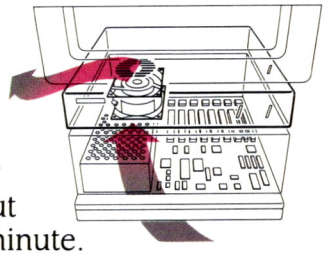

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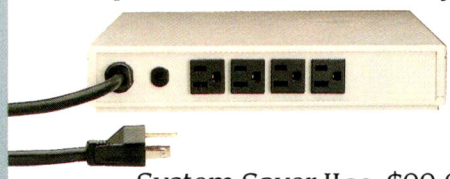

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