AMIGA EDUC.

DISK INCLUDED INSIDE

US $8.95 CDN $9.95

Issue 1.9

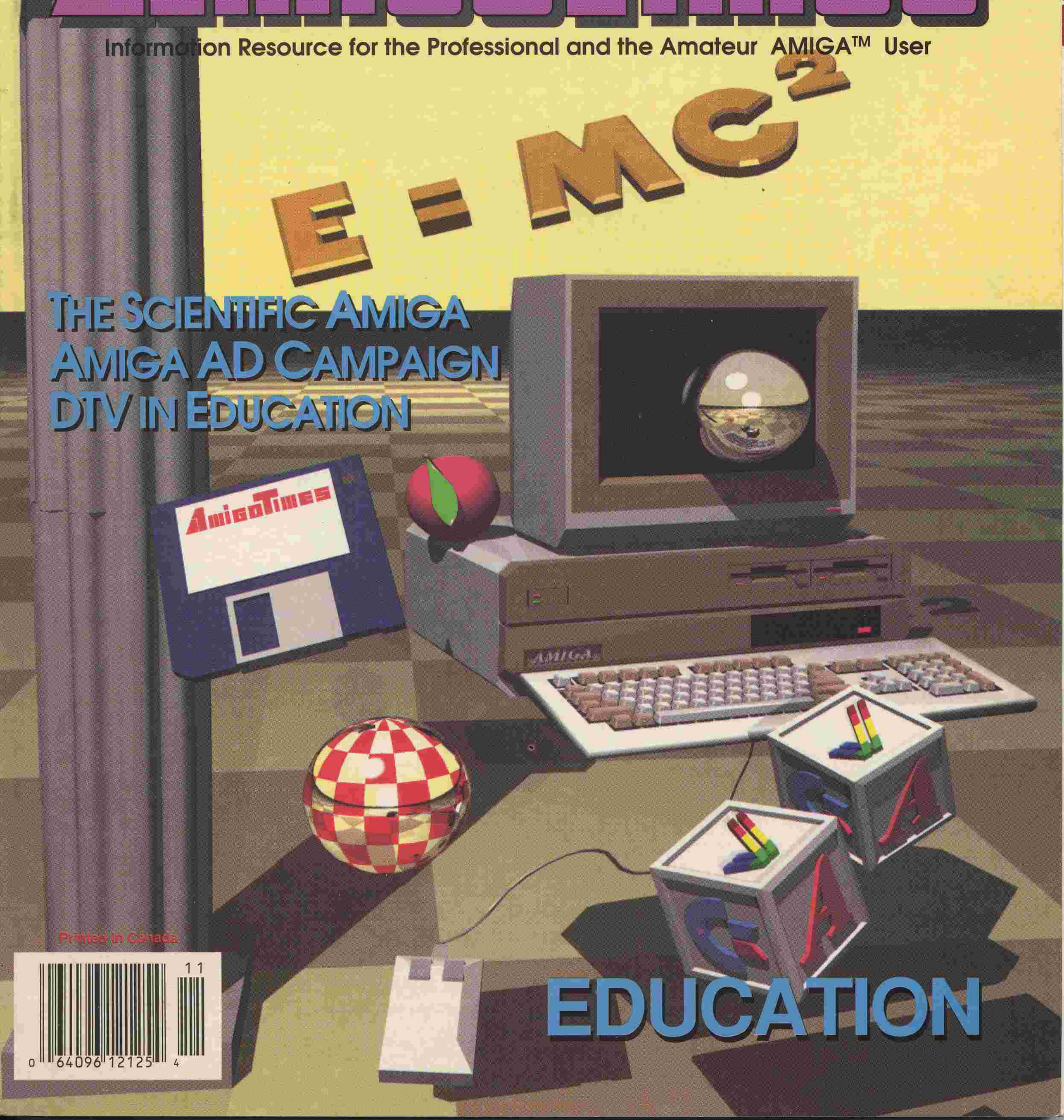
AmigoTimes

CREATED ON THE AMIGA

Information Resource for the Professional and the Amateur AMIGA™ User

E = MC²

THE SCIENTIFIC AMIGA
AMIGA AD CAMPAIGN
DTV IN EDUCATION



EDUCATION

Printed in Canada

INTRODUCTORY OFFER
$295
A $100 SAVING FOR A LIMITED TIME ONLY

You Don't Need a $5000 Laser Printer to use Professional Page

Introducing Professional Page V1.3 with Compugraphic outline fonts.

You can now use Gold Disk's *Professional Page* and output to *non*-PostScript laser printers, and inkjet or inexpensive 9-pin dot matrix printers, with remarkable results - smooth fonts, jaggie-free lines, and brilliant color.

Gold Disk has brought AGFA Compugraphic's Intelli-font technology to the Amiga. You can now use Gold Disk's *Professional Page* with high quality fonts and output your pages to *any* printer at its *maximum* resolution.

And, because *Professional Page* uses AGFA Compugraphic fonts, you are guaranteed professional quality type every time. AGFA Compugraphic is the world's largest supplier of electronic publishing equipment and with over 1,700 typefaces boasts one of the world's largest collection of professional quality fonts.

With Gold Disk's proprietary font caching system, you not only get smooth looking fonts on output but also on screen where fonts are created on the fly - at any size.

Professional Page users can still enjoy the high level of reliability and the powerful yet easy-to-use capabilities that have made this program a must for serious desktop publishers. Precision typography, unparalleled graphic control and color separation are standard features.

To help you create smooth graphics nothing beats *Professional Draw.* The smoothness and precision of the images you create are limited only by the printer's resolution. There's a powerful assortment of geometric and freehand drawing tools. Unlimited color. Enter type (fonts are included) and then stretch, twist, re-draw, or color. Print or color separate your work on numerous printers, or bring these graphics into *Professional Page*.

Plus, to help you take advantage of *Professional Page's* design capabilities, Gold Disk offers a package of easy-to-use templates. Designed by a top art director, these layouts have built-in type specs - just flow the copy and print. There's a disk of structured clipart for use in *Professional Page* or *Professional Draw.* This collection of common symbols, maps, and other images are great for use in color or black and white.

Call us now at 1-800-387-8192. If you take desktop publishing seriously, we're the ones to work with.

OUTPUT AT FULL RESOLUTION TO PREFERENCES DEVICES INCLUDING THESE POPULAR PRINTERS

- HP PaintJet • HP LaserJet • Okidata 2931
- NEC P2200 • HP DeskJet • Canon PJ1080A
- Okimate 20 • Xerox 4020 • Epson X
- Any graphics-capable Preferences printer

PAGESTREAM OWNERS
UPGRADE FOR ONLY $150
CALL 1-800-387-8192
FOR DETAILS

Did You Know

...That Professional Page was voted *Best Buy* by *Computer Buyers Guide* over PageMaker and Ventura Publisher - two Mac and IBM heavyweights. ...That several popular magazines are produced entirely with Professional Page using its sophisticated typographic and image handling controls and superb color separation features. ...That 8.6 out of every 10 Amiga desktop publishers use Professional Page and other Gold Disk products. Plus, PageSetter owners upgrade at a major discount. Call us!

Professional Page V1.3 has a suggested list price of US$395. Requires: Single drive 1 MB Amiga. Extra memory & drives recommended.

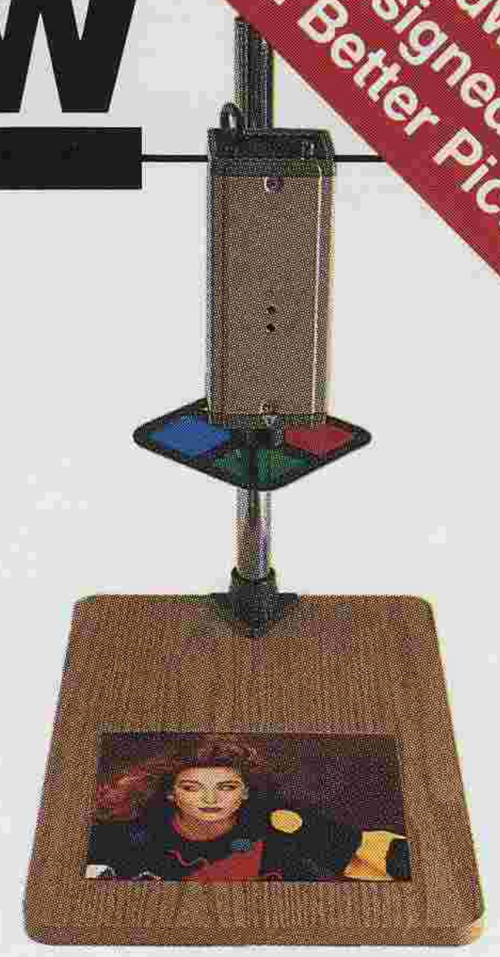
Circle 129 on reader service card.

DIGI-VIEW GOLD

All-New!
Hardware and Software Designed for A500/2000—Even Better Pictures Than Before!



1.



2.



Actual 4096 color Digi-View Gold picture

3. Simply the Best.

The all new Digi-View Gold is the best video digitizer for the Amiga. Period. Nothing else even comes close. Why? The secret is that Digi-View Gold captures 2.1 million colors in memory, giving you an incredible 100,000 apparent colors on screen simultaneously.

And it's easy to use. Just focus your video camera on any object or picture, and in seconds Digi-View Gold turns it into Amiga graphics that glow with vibrant color and clarity. Whether you are creating graphics for desktop publishing, presentations, video, or just for fun, Digi-View Gold gives you dazzling images with amazing simplicity.

Digi-View Gold is designed specifically for the Amiga 500 and 2000, and plugs directly into the parallel port. Digi-View Gold's powerful image capture and manipulation software (version 3.0) now has complete control of color and sharpness, full overscan, extra halfbrite, and a special line art mode for desktop publishing.

Only Digi-View Gold:

- Can digitize in all Amiga resolution modes from 320x200 up to 768x480 (full hi-res overscan)
- Uses 2 to 4096 colors (including extra halfbrite)
- Uses exclusive Enhanced HAM for super fine detail
- Is 100% IFF compatible and works with any graphics software
- Can digitize 21 bits per pixel (2.1 million colors) for the highest quality images possible
- Has advanced dithering routines that give an apparent 100,000 colors on screen simultaneously
- Has powerful Image processing controls for complete IFF picture manipulation

If you want the highest quality graphics for your Amiga, as easy as 1, 2, 3; then you need the new version of the best selling video digitizer of all time: Digi-View Gold.

*Requires standard gender changer for use with Amiga 1000. Video camera required; not included. NewTek sells a video camera, copy stand, and the Digi-Droid automated filter wheel for Digi-View Gold. If your local retailer doesn't carry these products, call us at 913-354-1146. Digi-View Gold is a trademark of NewTek, Inc. Amiga is a trademark of Commodore-Amiga, Inc. Be seeing you!!

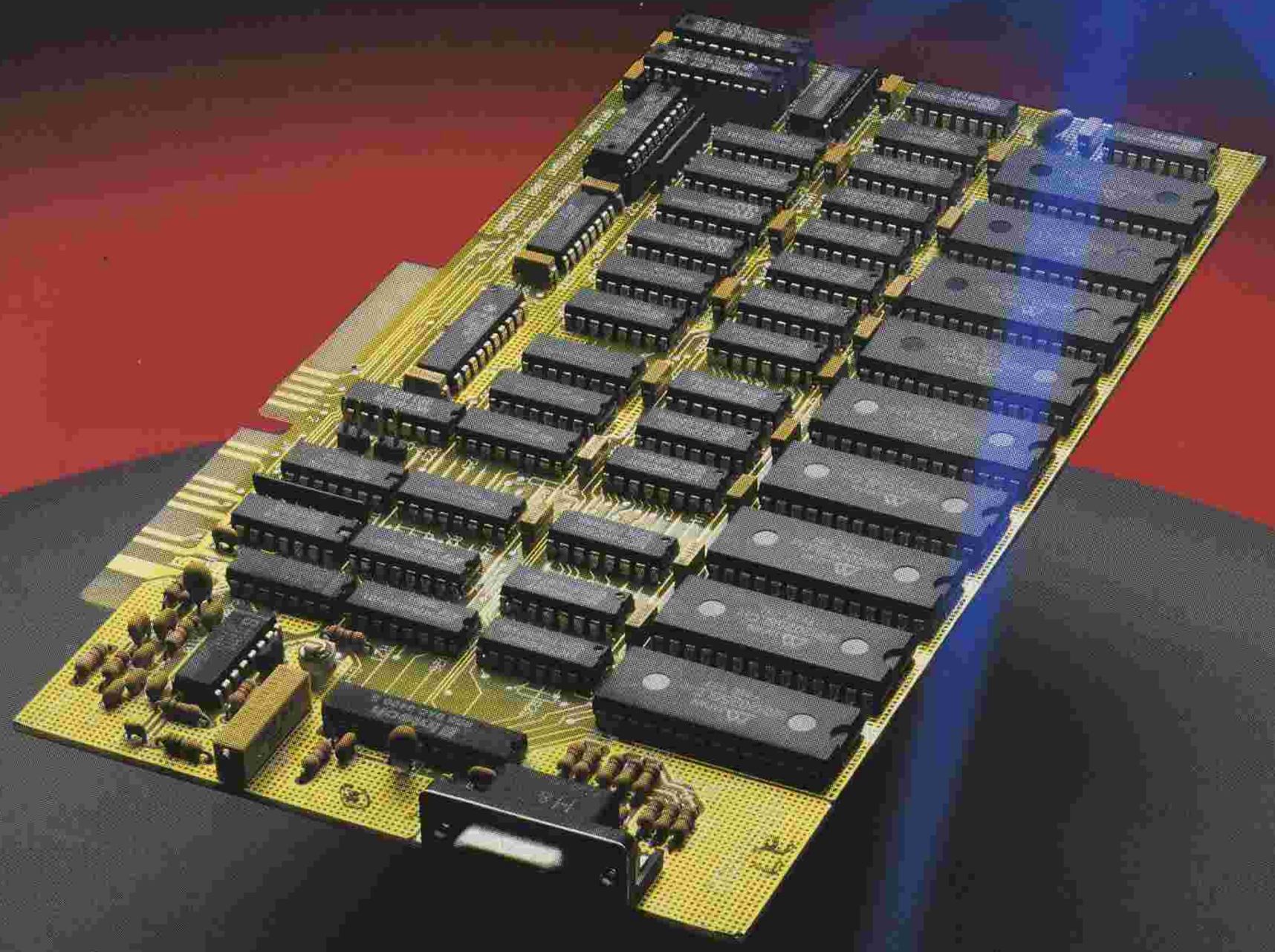
Only $199.95

Digi-View Gold is available now at your local Amiga dealer.
Or call 1-800-843-8934

NEWTEK INCORPORATED

Circle 104 on reader service card.

AGA 2000
The flickerFixer™



UNLOCK THE GRAPHICS POWER OF YOUR AMIGA 2000!

flickerFixer is an advanced graphics adaptor that eliminates your Amiga 2000's interlace flicker and visible scan lines. The result: superior quality color or monochrome graphics and text — for such demanding applications as CAD/CAM, Desktop Presentation, Graphic Design, Animation, 3D Modeling, Video, and Word Processing.

flickerFixer upgrades the Amiga 2000 with a flicker free 4096 color palette, has an overscan mode that features a screen size of 704 x 470 pixels and drives most of the popular PC Multiscan and VGA monitors, including the NEC Multisync and Mitsubishi XC1429C.

Accolades include: ***Best of 1988 Award,*** Commodore Magazine (12/88); ***#1 Reader's Choice Award***, AMIGAWORLD (12/88); ***"The display is fantastic . . . It is the best display we have ever seen on any computer system."*** Amiga GURU (5/88)

flickerFixer fits into the Amiga video slot, is fully compatible with all software, and does not modify the standard Amiga video signals. For more information or to order, call MicroWay Sales at (508) 746-7341 or your Amiga Dealer. Priced at $595, ***flickerFixer*** is made in the USA and is FCC Class B approved.

MicroWay . . . Respected throughout the industry for high quality engineering, service and technical support.

MicroWay

World Leader in PC Numerics

P.O. Box 79. Kingston, MA 02364 USA (508) 746-7341
32 High St., Kingston-Upon-Thames, UK, 01-541-5466
USA FAX 617-934-2414 Australia 02-439-8400

flickerFixer and MicroWay are trademarks of MicroWay, Inc. Amiga is a registered trademark of Commodore. Multisync is a registered trademark of NEC.

Circle 110 on reader service card.

AmigoTimes

Editor-in-Chief Eyo Sama

Marketing Director Lisa Sama

Art Director Olusegun A.Olaniyan

Data Manager Ernest N. Nagy

Senior Editor Michael Hermann

Music Editor Serge Boucher

Assistant Art Director Jacqui Summers

Assistant Editor Sandra Mongeau

Circulation Coordinator Ansa Sama

Advertising Coordinator Stephen Robitaille

Advertising Manager Steve Cariglia

Shipping Istvan Nagy
Mike Fanelli

Office Manager Idem Sama

Photography Studio 5

Contributing Authors

Sue Albert
Serge Boucher
Rick Broida
Larry Clark
Marion J. Deland
Joe DiCara
Thorwald Esbensen
John Foust
Michael Hermann
Mike Hubbartt
Lion Kuntz
Richard L'Hommedieu
Harv Laser
Matthew Leeds
Sandra Mongeau
R. Shamms Mortier
Ernest N. Nagy
Olusegun A.Olaniyan
Phil Osborn
Nick Poliwko
John Pustai
Alain Rheault
Eyo Sama
Paul Shecter
James W. Shields
Richard Smith
John Steiner

Advertising Sales CALL
Lisa Sama, Stephen Robitaille,
or Steve Cariglia
1-(514) 638-6304

Dealer Enquiries CALL
1-(514) 638-6303

AmigoTimes® (ISSN 0836-0588) is published monthly by Sama Software Inc., 5124 St. Laurent, suite 100, Ville St. Catherine, Quebec J0L 1E0, CANADA. Subscription rates are US $29.97 for 12 issues without disk (in Canada CDN $34.95), and US $72.00 for 12 issues with disk (in Canada CDN $87.00). For Foreign Airmail, please inquire. Phone: (514) 638-6303. (USPS #003692) Second Class Postage paid at Champlain, N.Y.: U.S. POSTMASTER: send address changes to Insa, POB 1518, Champlain, NY 12919-1518.

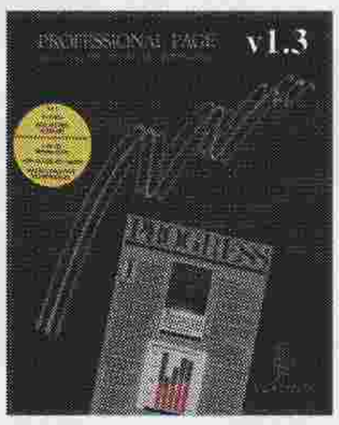
The entire contents of this publication are the copyright 1989 of Sama Software Inc. Though *AmigoTimes* makes every effort to assure the accuracy of its contents, it assumes no responsibility for damages due to errors or omissions. *AmigoTimes* reserves the right to refuse any advertising.

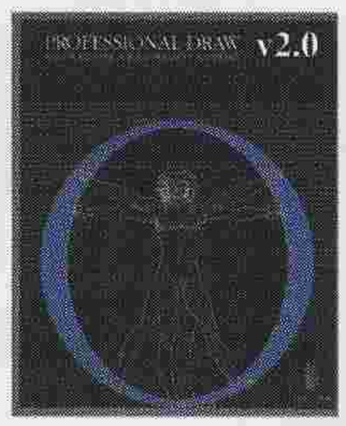
PRINTED IN CANADA

The AmigoTimes Typesetting Team:

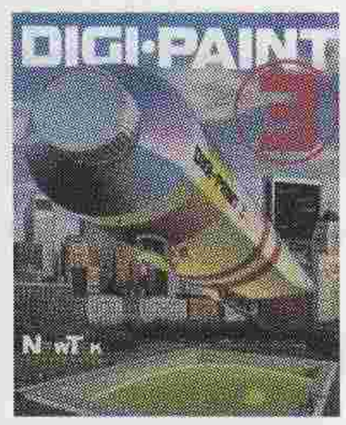
Eyo Sama . Olusegun Olaniyan . Jacqui Summers . Michael Hermann

This issue was created on Commodore Amiga computers with the aid of the following tools:

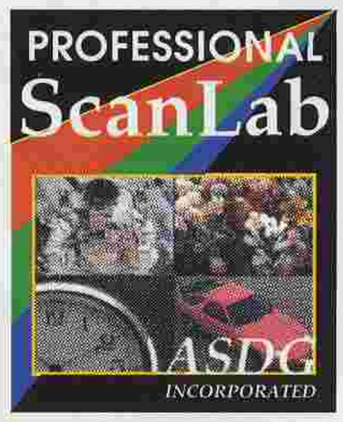




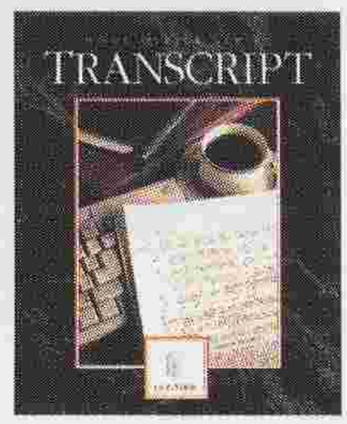


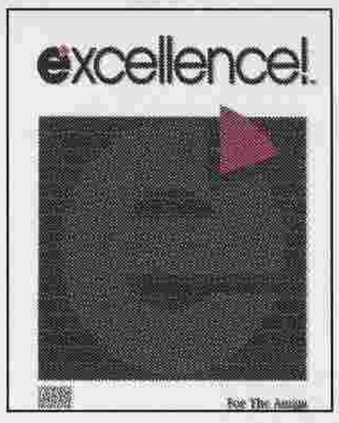






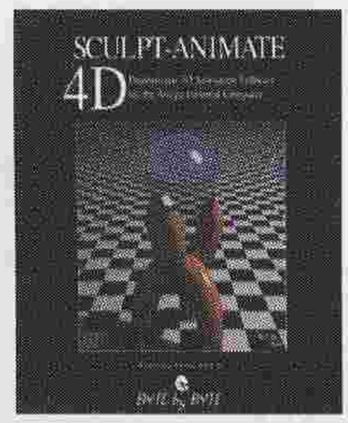


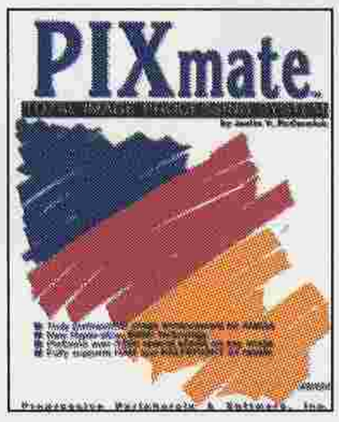


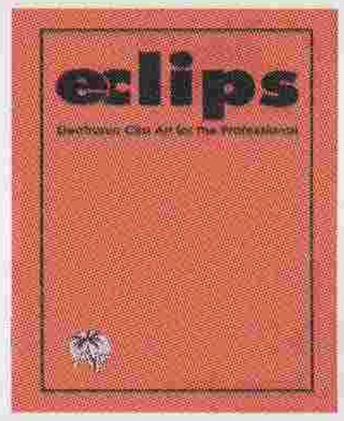




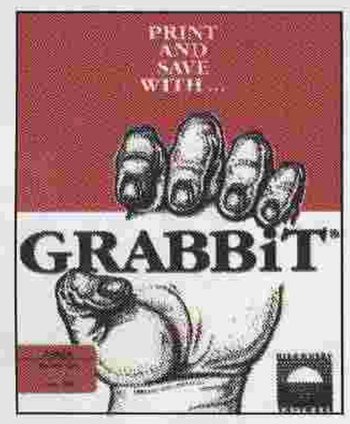




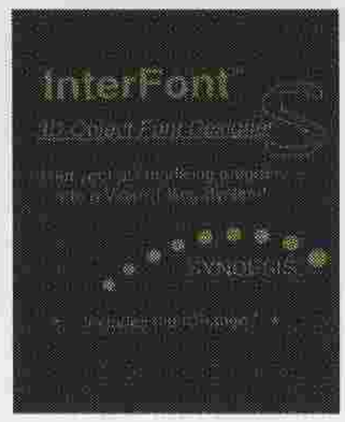


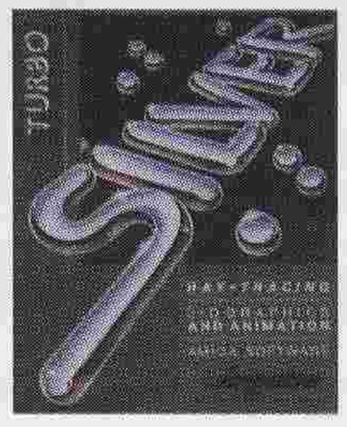


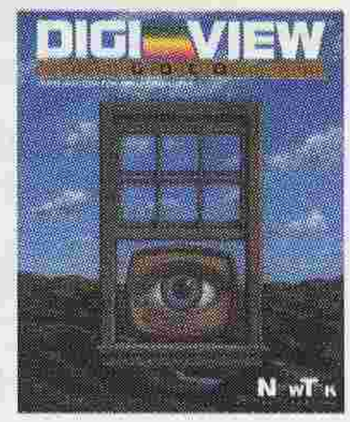


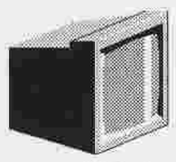








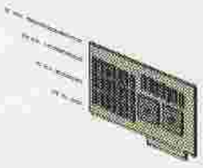




Microway FlickerFixer
NEC MultiSync II
NEC MultiSync Plus
SONY CPD-1303



CBM 2090
CBM 2090A
GVP IMPACT HardCard80Q
GVP IMPACT SQ44
GVP A3001-AT



CBM A2620
GVP A3001-030/25mhz



Fujitsu DX2100
Linotronic L300R/RIP3
QMS PS 800 II



CBM A2052
GVP A3001-RAM/8
M.A.S.T. MiniMegs
Micron MB-25-D2
Progressive Peripherals EXP-1000

AmigaTimes

Information Resource for the Professional and the Amateur AMIGA™ User

C O

FEATURES

8 **The Scientific Amiga** *by Matthew Leeds*
The uses of the Amiga in the Scientific Forum.

12 **The Amiga Advertising Campaign** *by Richard G. L'Hommedieu*
Commodore takes steps to promote the Amiga.

16 **Jim Sachs** *by Ernest Nagy*
A look at the man and his upcoming game 20,000 Leagues Under the Sea.

20 **Amiga Desktop Video In Education** *by John Pustai*
Part One: The Amiga stakes claim to the desktop video education market.

57 **The Future of Education** *by Phil Osborn*
Part One: The Amiga's role in the future of our educational system.



COLUMNS

6 **The Editor's Corner**

54 **Desktop Publishing** *by Eyo Sama*
The making of ASDG's Professional ScanLab ad.

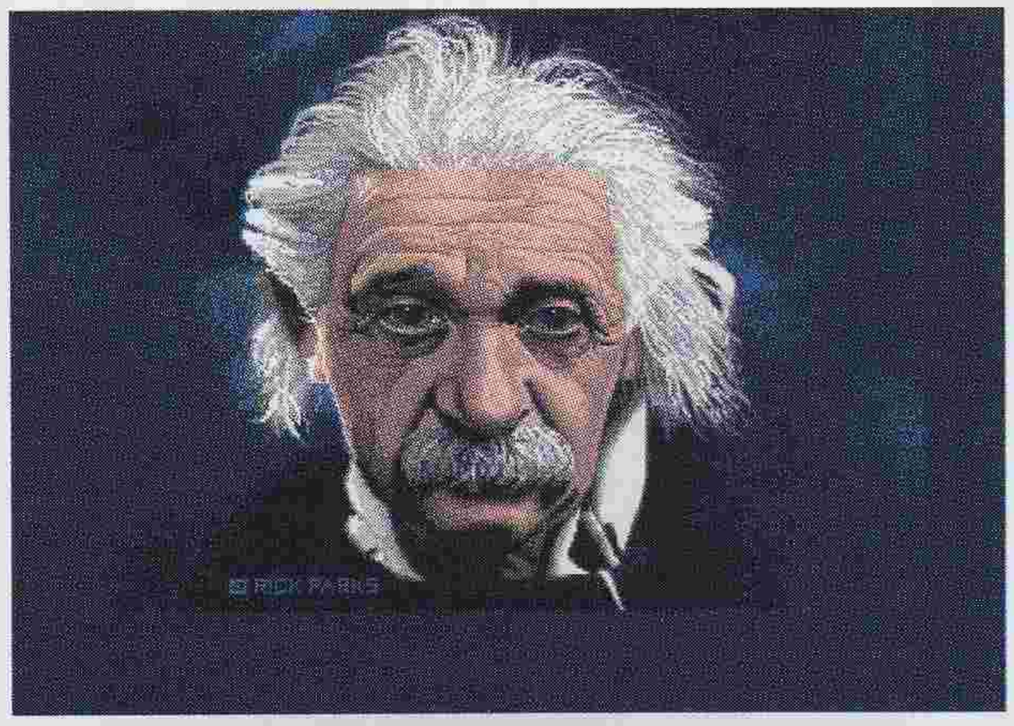
66 **MIDI: Untangling the MIDI Web** *by Serge Boucher*
Understanding the web of MIDI cables behind your system.

77 **Amiga Home Studio** *by Alain Rheault*
Putting MIDI to use.

79 **Telecomm** *by Harv Laser*
Yet another file compressor: LHARC.

81 **The Amiga in Education** *by Thorwald Esbensen*
An insight into what's going on in the Amiga education market.

88 **Video Production: First Steps** *by Nick Poliwko*
The in's and out's of starting a DTV business.



PROGRAMING

91 **AmigaBASIC Corner** *by Larry Clark*
MIDI using AmigaBASIC

96 **CLI Tutorial: Part 2** *by Mike Hubbartt*
A coverage of directories on the Workbench Disk.

100 **An Introduction to Modula 2:** *by Jim Shields*
Part 5: Pointer Variables.

CONTENTS

REVIEWS

28 **SimCity: The city simulator** *by Joe DiCara*
Control lives, bribery, greed, disaster, and corruption, just like the real thing.

30 **Dinosaurs Are Forever** *by Rick Broida*
Resurrecting the Dinosaurs in Color.

34 **C.L.A.S. 1.2a** *by Sue Albert*
Designing first class software for your students.

36 **Mypaint** *by Rick Broida*
What to offer a child that wants to paint on the Amiga.

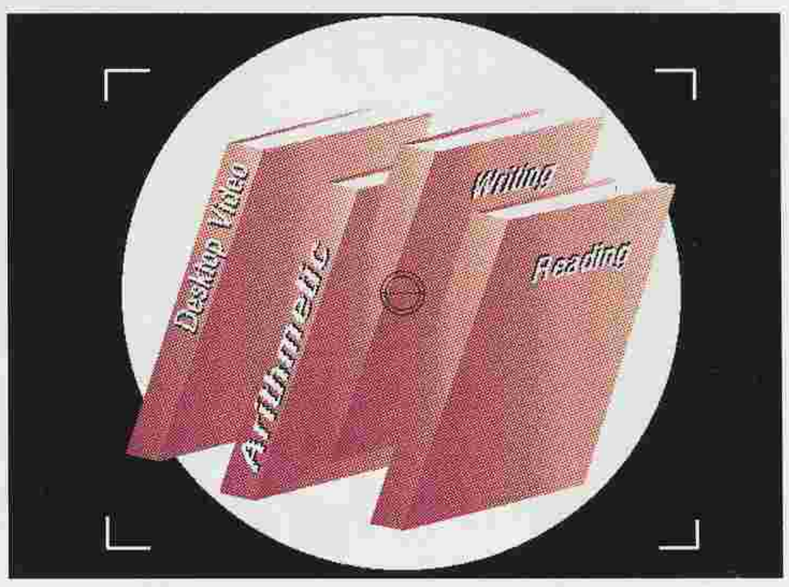
38 **Pen Pal** *by Marion Deland*
A full featured word processor with colour graphics and a database

68 **I.C.E.** *by Mike Hubbartt*
The Integrated Calculation Engine

84 **AniMagic** *by R. Shamms Mortier*
A videographic animation product with a possibility of 23,000 effects.

94 **Hostage** *by Rick Broida*
The embassy has been seized by terrorists, you have to get them out.

95 **Operation Wolf** *by Joe DiCara*
The arcade hit comes to home video.





DEPARTMENTS

45 **The Amiga Monitor**
Your source of information on what's new in the Amiga community.

64 **Letters**
Your chance to speak out.

71 **The Amiga Education Product Guide**
Software and hardware product listing for your educational requirements.

70 **The Art Gallery**
An exhibition of the works of Amiga artists.

109 **Product Index**
A listing of products reviewed and/or mentioned in this magazine.

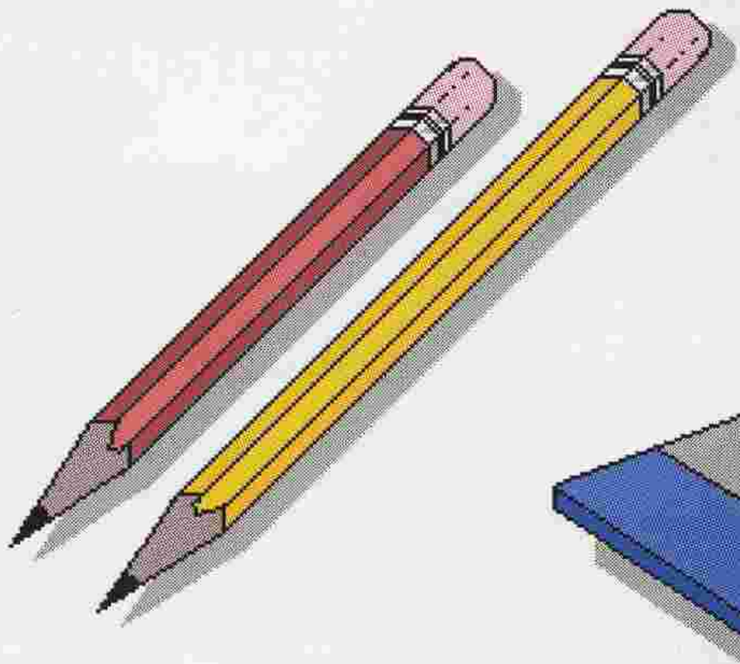
112 **Ad Index**

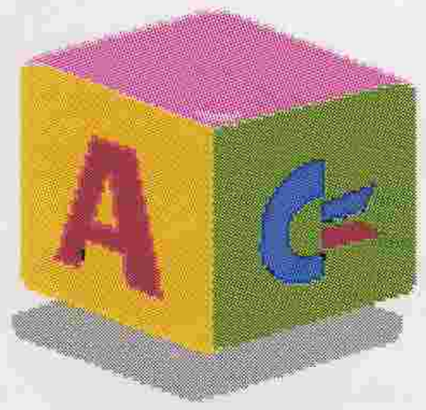
Cover:

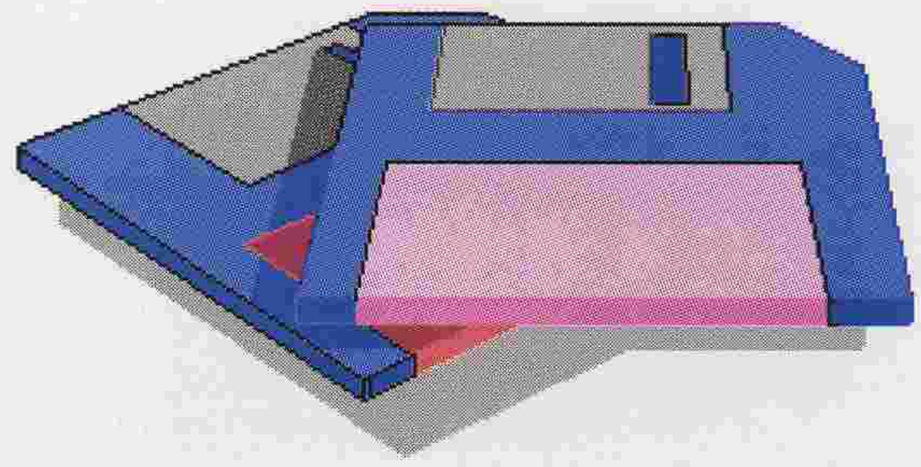
The cover was ray-traced using Sculpt/Animate 4D in 24-bit mode. Designed by Serge Boucher, Olusegun Olaniyan, and Eyo Sama.

VIDEO A PRODUCTIONS

The Editor's Corner







"Commodore is going back to School...."

It seems that Commodore is going back to school, at least that is what the cover of their latest press kit indicates; the press kit was a little school box which contained pencils, erasers, markers etc. This press kit is one of the most interesting and effective we have seen in quite some time. The all time greatest press kit we received was from Electronic Arts on the release of Deluxe Paint III, the kit contained an artists palette with paints and brushes. I think receiving such a press kit from Commodore shows that they are working hard on using more effective marketing strategies. When you read some of the features we have for you in this issue, you will find out more about the latest developments with the Amiga in the education market.

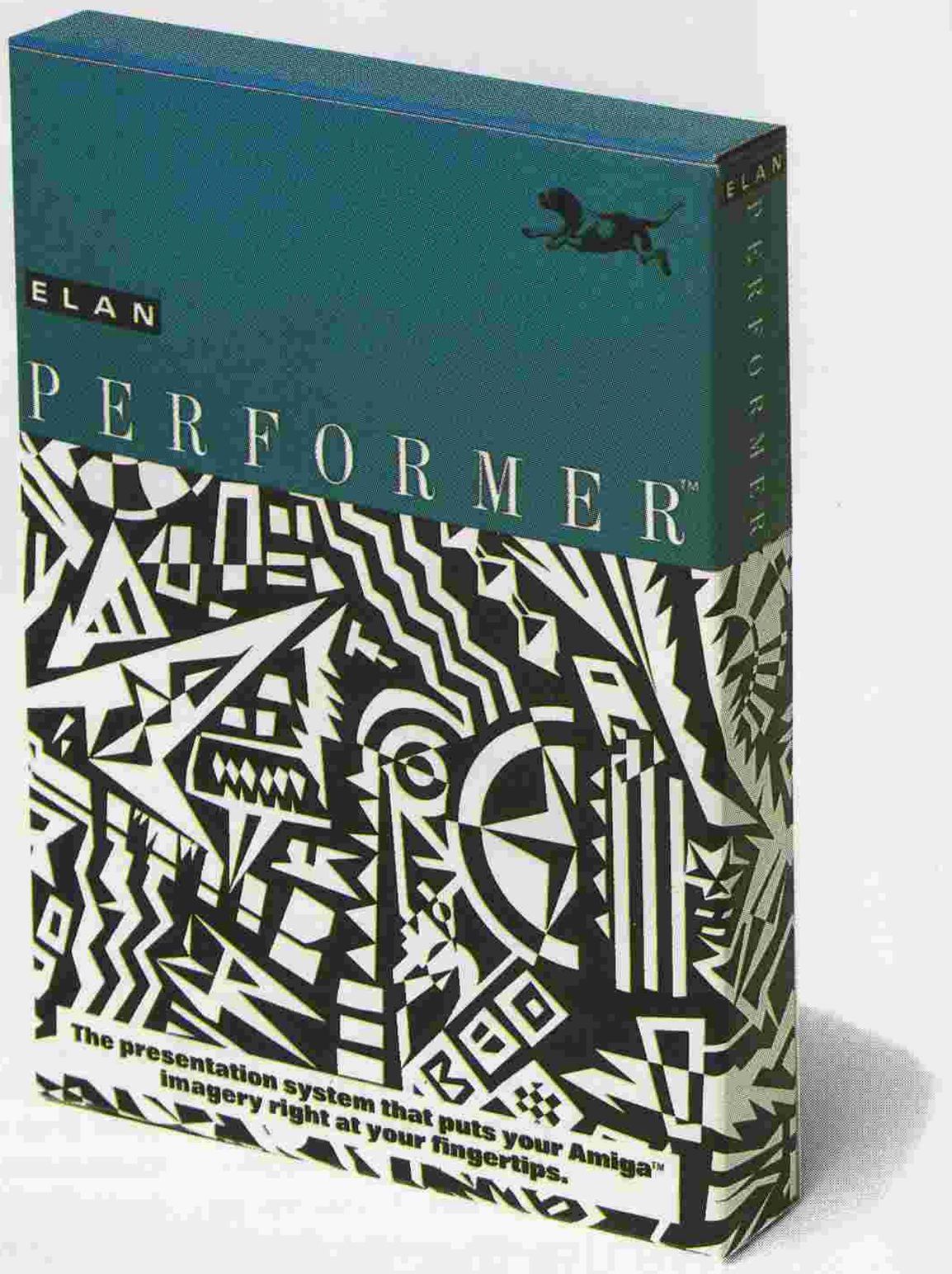
Although the Amiga is the ideal computer for the education field, it has not had much recognition in that market. What few people seem to realize is that there is a vast amount of educational software for the Amiga and if you browse through this issue's Education Product Guide you will see what I mean. My three year old daughter loves programs such as First Byte's Dinosaur and the Robot Reader series from Hilton Android Corp. but her all time favorite is still Mindware's game Aunt Arctic. One of my daughter's first words was 'Amiga', I was quite proud of her good taste in computers.

When I say the educational market I of course don't just mean programs for children and students because there are a host of universities and research departments using the Amiga for various tasks and operations. The University of Quebec in Montreal, uses Amigas in their Kinanthropology department to do real-time quantitative and qualitative analysis of various human motions. Concordia University has a host of Amigas in their Fine Arts department and Dawson College actually gives courses in Desktop Video and Imaging on the Amiga.

We also have a very interesting interview with two people who are working on the big advertising campaign that Commodore has planned for this fall. One of them is Ed Evanglista from Commodore's Ad agency who will be placing ads in major publications such as Time magazine, and the other is Peter Friedman from Lucasfilm who are producing the television ads for Commodore. It seems like we will be seeing a major marketing push over the next few months which will hopefully mean a higher installed base of Amigas for next year. There are very many people who are relying on the success of what may be Commodore's last chance at giving the Amiga the recognition it deserves. There are many software and hardware developers that have been disenchanted with the low sales they have been having, some have even stopped promoting and/or developing software for the Amiga. At the recent Siggraph graphics show in Boston there was quite a disturbing sight in the Byte-by-Byte booth (the makers of Sculpt-4D); they had several Mac II's at the front of their booth and one lone Amiga at the back with its name plate removed. I find it very sad when such things happen because there is no doubt about the Amiga's excellent capabilities, now if Commodore could only regain the lead they had when the Amiga had the best graphics in town, and if only they could make the Amiga's face more prominent in the circles that really count. I guess we will soon find out once the results of the latest campaign comes back. Judging by the latest developments in West Chester during the last couple of months, I feel confident that the new leadership at CBM have their heads on straight and that they are heading in the right direction so let's keep our fingers crossed.

Eyo Sama
Publisher/Editor-In-Chief

PUT ALL OF YOUR AMIGA VISUALS RIGHT AT YOUR FINGERTIPS WITH ELAN PERFORMER



It's a jungle out there—scores of paint and animation programs, all set up to help you create great imagery. But when you're ready to display it, how do you put it all together?

ELAN PERFORMER™ is the only presentation system to put all of your Amiga graphics in one place, where you can display them as quickly as you can hit a key. Whatever the format. No complex script or menu systems. No more loading all those different programs.

QUICK AND EASY

There is no faster or easier way to produce a presentation. Use a simple control screen to assign your images or animations to keys on the keyboard. Then, during your presentation, press any key and its image instantly displays on the screen. You never need to pull down menus or return to the control screen.

If you wish, you can fully automate your display to follow your precise timing and sequence settings, or use the mouse like a remote control to move forwards and backwards through your imagery.

Whether for business, education, creative projects, animation, or real-time editing onto videotape, ELAN PERFORMER is absolutely indispensable.

- Precise automatic sequencing or direct manual display from keyboard or mouse.
- Bring together imagery from your paint and animation programs into a single presentation.
- Powerful utilities let you cut animations into individual frames, splice any imagery into an animation, or convert animations between RIFF and ANIM formats.
- Control frame-by-frame, forward, and reverse playback of animations with mouse movements or arrow keys.
- Multitask with music and sound software.
- Supports IFF, HAM, RIFF, ANIM, and RGB formats. Works with Amiga graphics and animation programs such as Deluxe Paint,™ DigiPaint,™ Photon Paint,™ Videoscape 3D,™ Zoetrope,™ Turbo Silver,™ Sculpt™ and INVISION.™
- Works with minimum 512K of RAM.
- Handles all Amiga resolutions including severe overscan. Available in PAL or NTSC video formats.

See your dealer or contact:

ELAN DESIGN
P.O. Box 31725
San Francisco, CA 94131

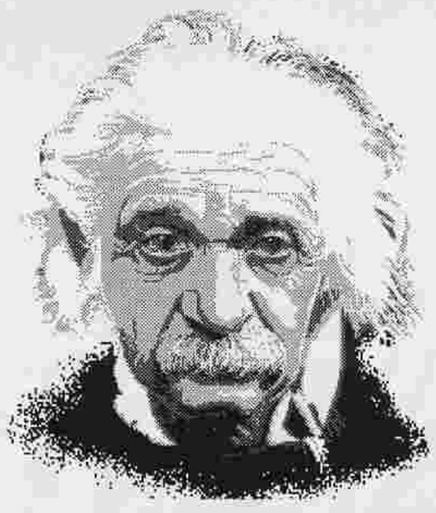
List price: ONLY **$59.**

Elan Performer is a trademark of Elan Design, Inc. Amiga, Deluxe Paint, DigiPaint Photon Paint, Videoscape 3D, Zoetrope, Turbo Silver, Sculpt and INVISION are the trademarks of Commodore Business Machines, Electronic Arts, NewTek Inc., MicroIllus ions, Aegis Software, Antic Software, Impulse, Byte by Byte and Elan Design Inc., respectively.

Circle 168 on reader service card.

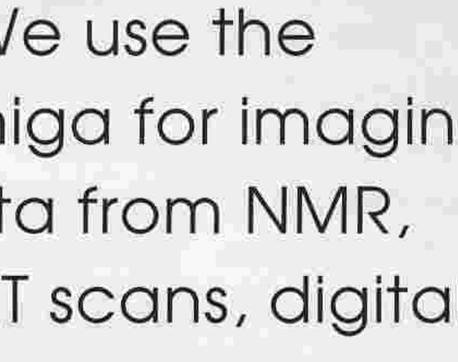
AMIGOTIMES
FEATURE

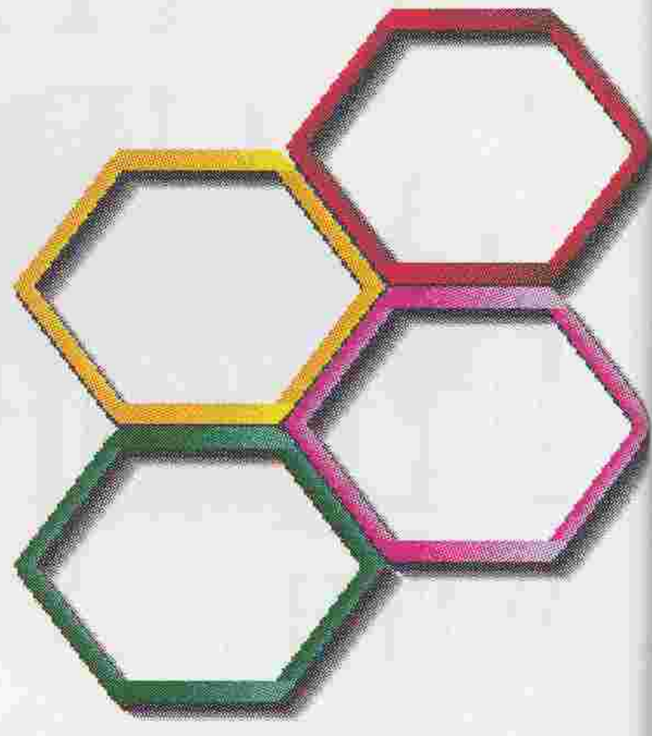
Scientific Amiga





...We use the Amiga for imaging data from NMR, CAT scans, digital subtraction angiography, and Positron Emission (PET) scans...





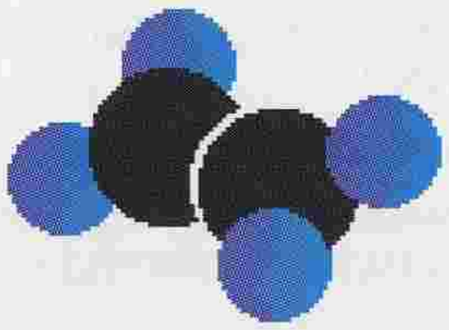
For many the Amiga is seen as the ultimate game computer, while others view it as the logical successor to the Commodore 64 as the perfect home computer. Perhaps less well known, but of far more importance to the long term success of the Amiga, is its acceptance in the scientific and university communities.

The Amiga has been called into use to solve medical mysteries, explore the innermost secrets of the atom, and help us redefine our understanding of the human body. In each instance a recurring theme is sounded; the Amiga provides power and function at a fraction of the cost traditional solutions had offered. I interviewed three prominent representatives of the scientific community, and asked them to present a few examples of how the Amiga is providing a remarkably cost effective solution to unique scientific questions.

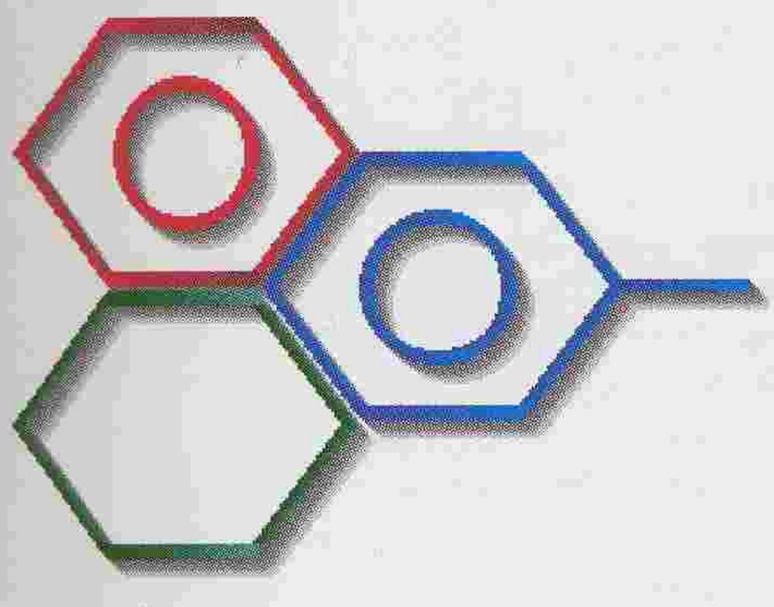
DR. MARVIN WIENSTEIN,
PHYSICIST
STANFORD LINEAR
ACCELERATOR LAB

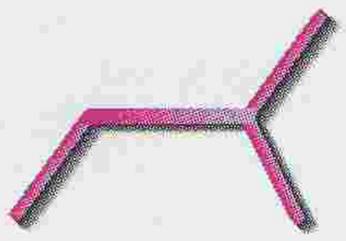
We're a national laboratory, in some sense our purpose is the generation of papers. One of the things we use the Amiga for is text processing. We basically need a machine that will let us preview TeX documents. We're using Amiga TeX, there is nothing that handles mathematical symbols and equations like TeX. The principal problem with TeX is that the mainframe we run it on has no preview capability. We needed something that would let us live on the mainframe, serve as a good color terminal, let us do things locally, that sort of thing. We run all our Amigas with the FlickerFixer and Zenith monitors. All our machines are 2000's, most with hard disk.

The other thing that is important about the Amiga is that it supports REXX. REXX is the language that we use on the mainframes, and much of what we run there we can use directly on the Amiga. We have interactive drawing programs that run on the mainframes and open a window on the Amiga to provide a graphical interface to the mainframe. We run a terminal program on the Amiga to connect to the mainframe, and programs running on the mainframe send REXX commands to the Amiga via the terminal program. When it gets a REXX command it dumps it straight to REXX. This all works because the Amiga is multitasking and since each program can have message ports to receive commands and data from other programs running concurrently.



By Matthew Leeds



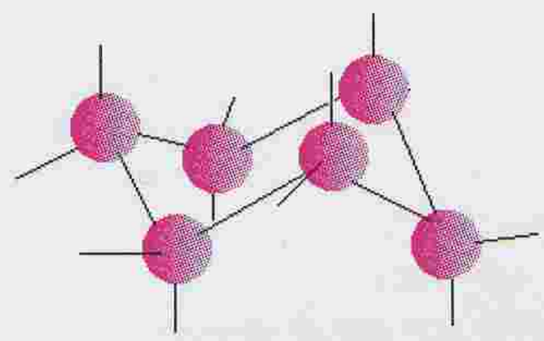


We have 1,500 to 2,000 users on the mainframe. There is no way to implement a graphical interface for applications on the mainframe, it would grind to a complete halt if we tried that. What we do is let the mainframe tell the Amiga to open windows, handle mouse clicks, present icons, and it just sends signals back to the mainframe when it's finished. In essence, the Amiga becomes a very smart terminal, it presents a seamless interface to the mainframe. You don't notice that you're running the Amiga as a terminal, in a sense the mainframe becomes a co-processor for the Amiga.

The Amigas are connected via their serial port, which makes for a very inexpensive networking implementation. You don't need all the smarts that a traditional network would need, such as file protocols, packet sending, arbitration, or Ethernet. Since the Amiga multitasks, it can just be told to send or receive data, and it waits for a chance to do so. For example, we have the TeX editor, TeX itself, and the previewed; three separate applications running at the same time, all tied together via REXX. It looks like a single program as far as the user is concerned.

The user goes into the editor, creates a document, goes up to the menu and says TeX this document. It looks around and finds out if TeX is running, if the previewer is running, and starts them up if not. Then it brings up some requesters to ask you some questions, and sends everything on its way as one integrated unit. If a better editor comes along, we can just replace the one we are using. It's a very modular way to use programs, that allows you to build your own environment.

We have about fifty Amigas at the lab, but in the near future there will probably be about another hundred. The Amiga is cheaper than buying a color graphics terminal, and there are no multitasking color graphics terminals available at any price.



DR. JOHN DAVIS, OPTIMUM COMPARATIVE TECHNOLOGIES

For a long time I've been looking for a way to quantify changes in the human body as a result of things like physical therapy and chiropractic treatment. The system takes before and after pictures of their body. It's called OptiComp, short for Optimum Comparative Technologies. The Amiga is able to compare the two images, and show differences between them in sort of a dynamic time lapse display. Since it operates at 24 bits, you can do certain transformations on the image such as removing the soft tissues and displaying the skeletal structure and the muscles. You can see how the muscles are attached to the bones. You can see things that X-rays don't show.

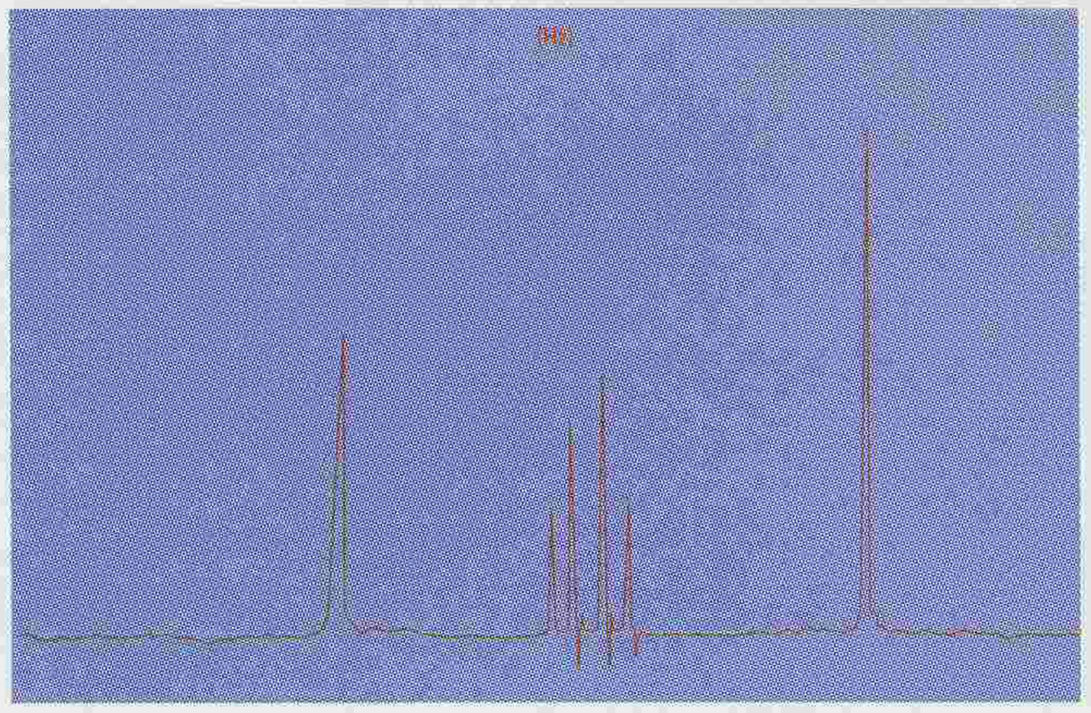
You can't really get an idea of what is going on in the soft tissues of the body from an X-ray or even an NMR (Nuclear Magnetic Resonance), but with this system you can.

This was the first application that we came up with. Shortly thereafter, after working for two and a half years with the human body, a structure that is constantly in motion and very difficult to analyze with still pictures, the system would be very useful in analyzing still objects. Currently we are working with Continental Airlines to set up an imaging station at the airport, where airplanes would taxi to prior to takeoff. The computer would examine the skin of the airplane using digital subtractive analysis, and would be able to find any differences in the airplane's skin from the last time it went through the imaging station.

Perhaps the airplane had a hard landing, this might affect the attachment of the skin to the frame, but may not be detectable by a normal visual inspection. Or possibly a cargo door might not be fully closed. The system would be able to find these and alert an inspection crew.

The Department of Defense, the Federal Aviation Administration in Washington state, and Continental Airlines are all interested in this system. We can put it in place for less than $25,000, it doesn't require a mainframe computer, nor does it require a dedicated operator. It also maintains a history for each airplane. This system can also determine the difference between and the presence of dirt or ice on the surface of the plane, a loose or missing rivet, or corrosion on or under the surface of the plane. This would let us find defect years before a human inspection might find it.

We've put together a turnkey system with a 19 inch high-res color monitor, a high-res video camera, 256 grey scale real-time digitizer, and an Amiga 2000 with a 100MB hard disk or optical disk. We also include custom software, both for the image processing and for



ATTENTION!
EUROPEAN READERS!
T.G.HAMILTON WHOLESALE LTD.
Is the European agent for:
AmigaTimes
Back issues can be obtained for £3.99 with disk and for £2.50 without disk. Disks for the back issues can be obtained for £1.99.
BACK ISSUES AVAILABLE

Amiga Productivity	V1.2
The Electronic Canvas	V1.3
Entertainment Software	V1.4
Desktop Video	V1.5
Amiga Music	V1.6
Business	V1.7
Desktop Publishing	V1.8

European Dealers Please Contact:
T.G.Hamilton Wholesalers Ltd.
Unit 19
Chelmsley Wood Industrial Estate
Off Waterloo Avenue
Chelmsley Wood
Birmingham B37 6QD
England
Tel: 021-788-3112
Fax: 021-788-1272

keeping track of the data generated by the system. The University of Virginia and Lynchberg College Motion Sciences Department have just ordered systems, and the U.S. Olympics Skating Team will be using it to train their next team.

Previously, there was no way to objectively measure the results of treatments from disciplines like chiropractic. One person might say a patient looks longer in the lumbar region, or that their chest is more open, and another might say that the improvement is non-existent. This system eliminates that uncertainty by providing quantitative measurements of the results of treatment.

You can also check for soft tissue damage. For example, say someone has a separated rib at the cartilage in the sternum. It's difficult to do a soft tissue X-ray. It requires the injection of contrast dyes into the soft tissue, and some people are allergic to these dyes. With my system you can do a scan, process it with the Amiga and show the finest edge maps of the entire area you have ever seen. These will show exactly where the separation might be. You can see the tissue spider up around the area, and see the break itself.

The Amiga is very capable as far as image processing. We are looking at a security system that watches an area for movement, and if it finds it dumps a picture to disk, sets off an alarm bell, and calls for assistance.

DR. RONALD M. HARPER, PROFESSOR OF ANATOMY UCLA

We use the Amiga for imaging data from NMR, CAT scans, digital subtraction angiography, and Positron Emission (PET) scans. The largest use for the Amiga however, is for data acquisition and analysis of long term sleep recording of cardiac, respiratory, and EEG data. This is data from infants at risk for sudden infant death (crib death), epileptic patients, and cardiac patients.

A multi-channel analog to digital converter is attached to the Amiga to collect the data, and we use some analytic routines to examine and display the data. We had been doing this on a PDP-11, but by using the Amiga we can get the same results for 1/10 of the cost. Also the Amiga is about 1/10 the size of the PDP-11, and it's ten times more convenient because we often need nurses or other medical personnel who are not familiar with computers. The Amiga lets us create a graphical interface to the software.

We also use the Amiga very heavily for presentation graphics during meetings. We typically use a digital data display program like Snip from Digital Dynamics, dump the display as a graphics file, bring it into Deluxe Paint or Express Paint to add text and labels, then convert it to 35mm slides using a Polaroid Palette film recorder.

A lot of data analysis is done on the Amiga such as cardiac intervals, and EEG data, reducing non-linear dynamics procedures, so-called CHAOS models, to look at data. We normally make heavy use of various plots: scatter, line, and sequencing plots. The Amiga is ideally suited for the graphical presentation of data. It gives us extraordinary features at virtually no cost.

We use a 512 x 512 RGB graphics board for the PDP-11 that costs about as much as an entire Amiga. The cost differential is so great, and the tools on the Amiga are good, too. We use J-Forth because you can develop programs with it very quickly, and it's an ideal real-time data analysis language.

The multitasking is invaluable in the laboratory. We have a separate processor that gathers the data. It's a computer in its own right, the Amiga can just sit there and receive the data, and write the data to a storage device. This leaves a lot of free CPU time on the Amiga. One thing we have to do is send a time code to the polygraph device, an analog tape, and in parallel with the data on the hard disk. This lets us synchronize the data. In the past we had to buy an expensive device just to generate the time code.

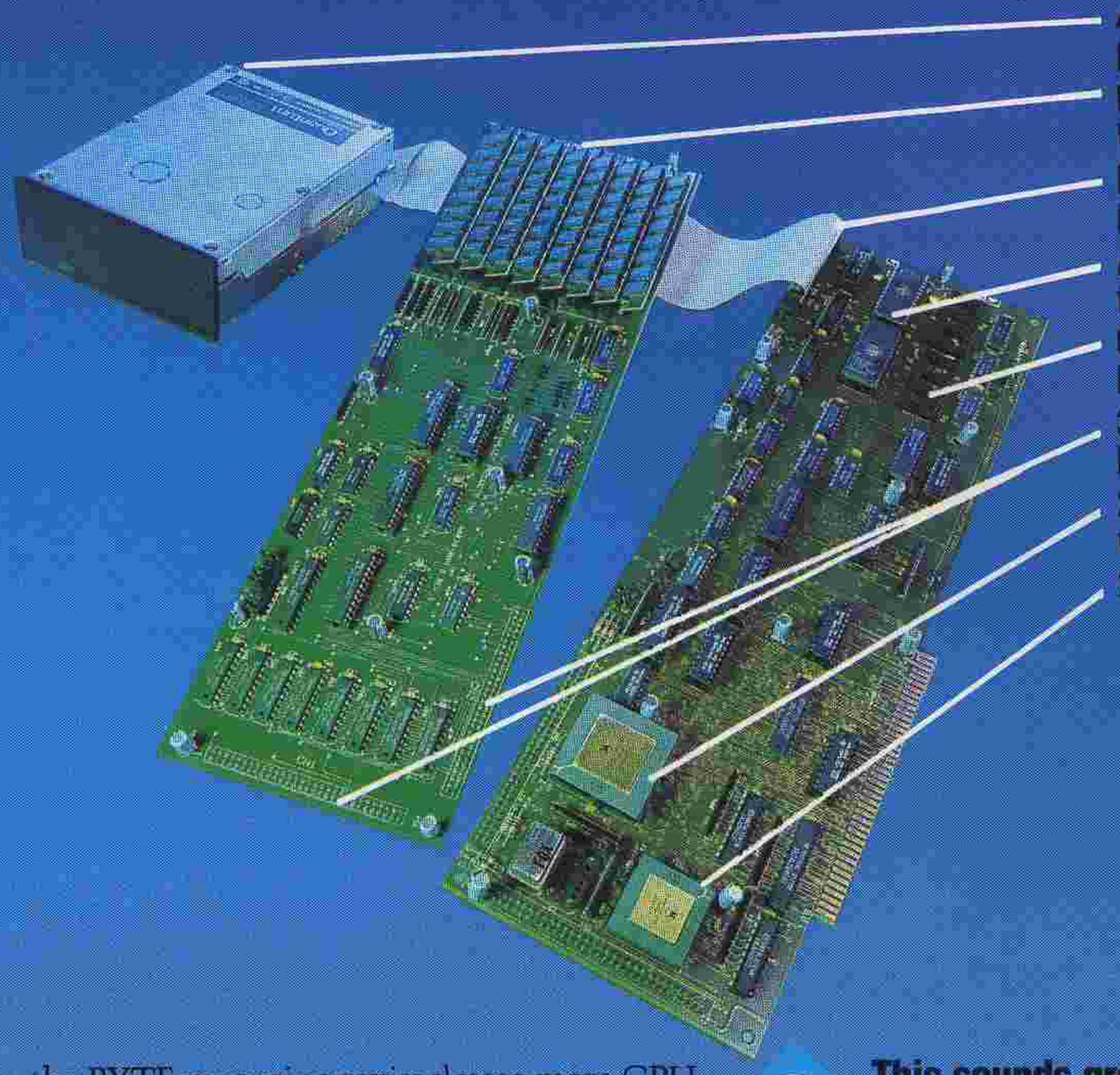
We've had Amigas in use here for about two years. If we tried to have dozens of any other machine, we would quickly overrun our budget. I can even afford to have one at home so that if I wanted to get some work done over the weekend or at night I don't have to drive back into the lab. ❑

Dr. Marvin Wienstein
(415) 926-2214
Dr. John Davis
(303) 459-3510
Dr. Ronald M. Harper
(213) 825-5303

Before you buy an A2500
READ THIS FIRST!
(or before you even add a hard drive to your A2000)

Christmas Special
Free copy of **Turbo Silver 3.0** with purchase of A3001 upgrade kit

Upgrade your A2000 to an "A3000 (PLUS 1)" TODAY! With the 25Mhz 68030, A3001 Upgrade Kit from GVP



Q **What is the A3001 Upgrade Kit from GVP?**

A The A3001 Upgrade Kit includes the following:

- 25Mhz 68030 accelerator board for the A2000.
- Factory installed 25Mhz 68882 Floating Point Processor.
- 4 or 8MB of 32-bit wide high performance 80ns NIBBLE MODE DRAM.
- Built-in AUTOBOOTing HIGH PERFORMANCE hard disk controller.
- Quantum 40MB or 80MB hard disk drive with an average read access time of 11ms (19ms on write) and 64KB read-ahead cache. If you already own a hard disk, this item can be optional.

Q **What does the A3001 really do for my A2000?**

A The A3001 provides the following, UNBEATABLE and UNMATCHED features:

- The world's fastest (and shipping in volume!) accelerator board for the Amiga.® The 68030 CPU includes an on-chip MMU and separate data and instruction caches. According to a recent review in the German "Amiga Magazin," performance is between TWO AND THREE TIMES FASTER THAN THE A2500.
- One of (we are being modest!) the world's fastest hard disk controllers. Measured with "diskperf2," data transfer rates of well over 700KB/sec are achieved. Of course this is not surprising as the hard disk controller is built-in directly on the 32-bit bus of the 68030 accelerator board!
- The up to 8MB of 32-bit wide DRAM is fully DMA-able (can be directly accessed by any DMA device) and is automatically AUTOCONFIGured. The A2500 is limited to only 4MB of (slower) 32-bit wide DRAM.
- GVP's unique DRAM design uses state-of-the-art 80ns NIBBLE MODE DRAMs, which allows full support and advantage to be taken of the 68030's BURST mode. In fact during burst mode, this amazing design manages to achieve an average of ZERO WAITSTATES even at 25Mhz! This DRAM design is similar to that used in Steve Jobs' NeXT® machine, although that design (according to the BYTE magazine review) uses more CPU waitstates at 25Mhz!
- 68000 fallback mode allows the 68030 CPU to be disabled, to ensure full compatibility with timing sensitive applications (e.g.: some game programs).
- Sockets are included for 68030 BOOT EPROMs, allowing future flexibility for running other operating systems.
- GVP's unique ASYNCHRONOUS design means that the 68030 has its own dedicated oscillator and runs completely ASYNCRONOUS to the rest of the A2000. This means better GENLOCK compatibility (not as sensitive to motherboard clock source) as well as providing the ability to run at any clock speed completely independently of the A2000 motherboard, limited only by the access speed of the DRAMs being used.
- For the REAL, math intensive, number-crunching fanatics there is an optional oscillator socket, allowing the 68882 FPU to be independently clocked at even higher speeds (e.g.: 33Mhz).
- ZERO SLOT SOLUTION! With the full-blown configuration installed (25Mhz 68030 & 68882, 8MB of 32-bit wide RAM and one or two AUTOBOOTing 40MB or 80MB hard disks), the A3001 STILL LEAVES ALL THE A2000 EXPANSION SLOTS FREE FOR FUTURE EXPANSION! The only slot in the A2000 which is used is the Co-processor/CPU slot. An equivalently configured A2500 would use an additional TWO valuable expansion slots!

Q **This sounds great, but what if I can't afford to buy the full A3001 kit now and all I need urgently is a hard disk drive for my A2000?**

A GVP also offers an "a la carte" approach to purchasing the A3001 kit. For example if you are about to purchase a hard disk drive and controller for your A2000, for only a little more you could instead buy the GVP 25Mhz 68030 accelerator board with its built-in AUTOBOOTing hard disk controller and the 40MB hard disk (suggested list price for both is only $1495). You would obviously not get the full performance increase mentioned above, until you added our 32-bit wide RAM daughterboard and the 68882 FPU. However, in this case your initial hard disk outlay is not lost and it can be regarded as a "down payment" on your full-blown 32-bit workstation! If you are working on a REALLY tight budget, call us and ask about our "A2501" upgrade kit for the A2000, which outperforms the A2500 with its 16Mhz 68030! This is also available in "a la carte" form!

Q **Why did GVP call this the A3001 upgrade kit?**

A The A3001, stands for "A3000 PLUS 1"! Yes, we believe that this solution offers everything the "A3000" may offer PLUS...!

Why wait, upgrade your A2000 to an A3001 today!

GVP

GREAT VALLEY PRODUCTS INC.
225 Plank Ave., Paoli, PA 19301

Amiga is a registered trademark of Commodore-Amiga Inc.
IMPACT and GVP are trademarks of Great Valley Products, Inc.
NeXT is a registered trademark of NeXT Inc.

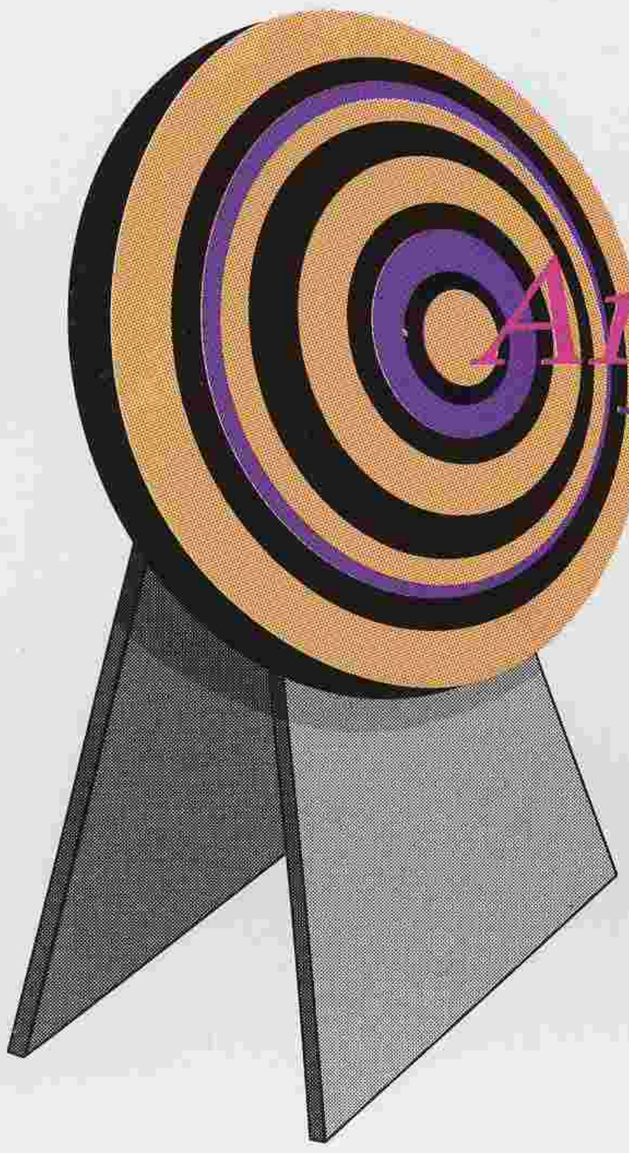
For more information, or for your nearest GVP dealer, call today. Dealer inquiries welcome.

Tel. (215) 889-9411 • FAX (215) 889-9416 • BBS (215) 889-4994

Circle 222 on reader service card.

AMIGOTIMES
FEATURE

The Amiga Advertising Campaign



The Computer for the Creative Mind

By Richard G. L'Hommedieu

One of the biggest gripes we as Amiga owners have had with Commodore has been the lack of an effective marketing strategy in bringing our beloved Amiga to the mass market. As the Amiga market expands, it will certainly be followed by more hardware and software development and the better our chances are for more powerful Amigas in the future. For that reason Amiga owners have, for the most part, been responsible for a strong 'grass-roots' marketing push that has allowed the Amiga to survive its most trying times. There was a lot of truth to the joke "Commodore does not sell Amigas.....Amiga owners do!" For that we all deserve to give ourselves a good pat on the back.

Now with the new management at Commodore firmly in place, something wonderful is starting to happen. They are finally realizing that not only is there a need for good customer and developer support, but they have to get the word out to the market just how wonderful a computer the Amiga really is. To accomplish this task Commodore has hired Messner Vetere Berger Carey Schmetterer as their advertising agent (One of the "Six hottest creative agencies" in the country...ADWEEK) who in turn hired LucasFilms (StarWars, Indiana Jones) and Matthew Robbins (Batteries Not Included) to do their TV commercials! With that kind of lineup, there has been an air of excitement in the Amiga community about this campaign and what it could mean to the future of the Amiga.

Well due to some very good luck, my son was chosen to be in one of the magazine ads (playing the game Falcon). During the course of the photo session I had the chance to meet and talk to some of the people involved in engineering this push into the hardball market of personal computers. I found everyone involved to be not only wonderfully creative, but they themselves are Amiga owners! Some newer than others, but all excited about the Amiga and what it can do.

Through the agency I was able to arrange two very interesting interviews. The first is with Ed Evanglista who is the art director in charge of developing the magazine ads that you should be seeing in Time, Newsweek and Life Magazines by the time you read this. The second is with Pete Friedman from LucasFilms, who is the Executive Producer of the TV commercials that will be aired on the major networks this

fall (it is projected that 92% of all adults in the U.S. will see these commercials at least 20 times!). Through them we can get some insight into where the Amiga is headed and how it is going to get there.

Before we get started I would like to take this opportunity to thank Ms. Jennifer Purdy for all of her help in arranging these interviews, Ms. Felica Sugerman for making myself and my family feel welcomed and Janice Moses for knowing just what to do, to help Brad find that muse.

AT: Most Amiga users are not familiar with Messner Vetere Berger Carey Schmetterer. What other campaigns have they done that we may be familiar with?

EE: The partners previously worked on Dunkin Donuts, Saab Timberland, Calvin Klein, Federal Express and Peugeot. We worked on George Bush and Ronald Reagan. We put those guys back in office, or in office...

AT: This is a big step for Commodore, we all know that marketing was never one of their strong suits. Do you think this new management at Commodore is committed to establishing a strong momentum in marketing the Amiga?

EE: DEFINITELY! Because these guys have the background from Apple Computers, these guys came in from Apple and they know they've got the whole crew to do this right. I think this whole campaign between print and TV is being done right! We have Matthew Robbins, who did the movie "*Batteries Not Included", directing these commercials. We also have George Lucas Productions and Steven Spielberg's company involved. Because this management (Commodore) is throwing so much money into this budget, they know if this doesn't fly then that's it, but they're going to take their best shot. But this is going to be really great because no one has known about this computer. The fact that in the past they haven't even taken a shot at getting it known is perplexing to me. The Amiga is absolutely unbelievable, whoever has one, knows how to use it, apply it and come up with new ideas can make themselves a lot of money on the side.

AT: Yes, it is a great computer. I take it you own an Amiga?

EE: I have a 2500, and every day I keep adding new stuff to it. I just got that Sculpt 3D and it's phenomenal! Between that, Falcon and Hybris games I can't stop! I want to get that table with the magnetic pen. I've seen it. Rick Probst, (who did the movie titles for "Three Men and a Baby") one of the guys we did for the shoot had one. It's unbelievable and that's how he did most of his movie titles.

AT: You mean the Easyl?

EE: Yes, I think that's what it is called. I think the whole key here is the software, the fact that the Amiga has some of the best software around, it's just phenomenal. The graphics and sounds are just unbelievable. It really is a great computer. This is the first time I've ever felt this way about any product that I've worked on. This thing has got to make it big, it's got to, I don't see how it can't! The ads alone are going to be so effective and it's such a timeless type of campaign, this thing is going to be running for a long time. The fact that we are finding all these people that have all these different applications and that there are so many out there that we haven't even touched on. Eventually we are going to want to do more advertising, we want to keep this thing ongoing and we're going to need more case studies. So if any of the readers have anything outstanding I want to hear about them.

AT: Can you tell me a little about the campaign and who are you actually targeting?

EE: We're targeting everybody! Right now we want to get the consumer aware of what's going on. The big thing now is we have to get Commodore back in the game. Commodore, through management, are reorganizing, they're finding out that they have to back up this thing. This new team is a really dedicated team, I think that it's going to put Commodore back on the map. It's going to be a major, major computer. I think it's going to give the Apple stuff and the Mac a run for its money.

AT: It's about time!

EE: I think so, I think it's really going to be a big player. I just finished shooting this whole campaign and I've got to tell you, everybody who speaks about the Amiga raves about it and I'm surprised that not that many people know about it.

AT: I think that may be due to Commodore's lack of marketing in the past.

EE: Yes, that's why I think this new managing group is dedicated. They're more effective. They're good guys, down to earth, very intelligent, very smart and they're not missing a beat. Everything is going to be done right. We're involved, we don't miss a beat either. We're very strong strategically and we're very strong marketing wise and as far as our conceptual and creative end, we're very strong.

AT: What plans, if any, are there for targeting the professional video, professional publishing, and professional music markets?

EE: Right now the main gist is, we have to make a major push by Christmas. We want to get the thing known, we want people talking about it, we want to get it in the air. Right now we're just touching on all the areas until we can get a whole mass group involved, a whole mass group to get the name on their lips. We're not trying to single out one specific area, as we go further we will be dumping more energy into each area, right now we just want to cover as much as we can.

AT: So you just want to get the word 'Amiga' on everyone's lips?

EE: Yes, but we want to get people talking about the Amiga and we want to get people

(continued on page 103)

Centaur puts the

CSI 3200 Silent Drive with...

Mypaint™



Educational Paint Program with built-in Coloring Book

Satisfied customers are writing in about My Paint:
"My kids love this program because it's so easy to use. The digitized sounds are great!"
Santee, CA

"This is an exceptionally well thought out product. My son loves it. Thank you!"
Highland Lakes, NJ

"The graphics are wonderful - The children love it and so do I."
Jamaica, NY

Now available: Even more fun for educator approved My Paint! New coloring disks with all new characters, objects, animals and sounds.

My Paint $49.95
Coloring Disks sold separately

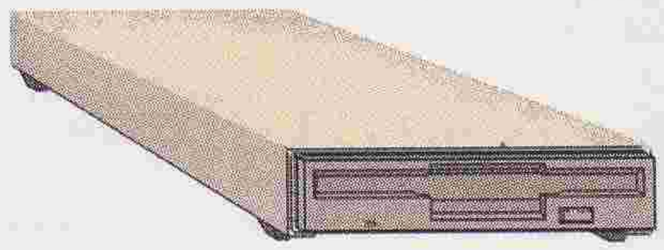
DATA DISKS $29.95

BOING MOUSE

Smooth Optical Mouse for all Amigas

- Double the resolution of the standard mouse for better precision
- Supports X-Windows, Amiga UNIX and Workbench 1.4
- Only Optical Mouse available for the Amiga
- No moving parts to wear out
- Smooth mouse movement

$149.00



B.A.D.

CSI 3200 SilentDrive

- Doesn't make the annoying click when disk drive is empty
- Small compact design in sturdy metal case
- Compatible with all Amigas
- Low Power consumption
- On/Off switch for saving memory
- Includes B.A.D. Disk Optimizer Software

SilentDrive with B.A.D. $195.00

Also available, the CSI2200 Internal drive for the Amiga 2000

Make your disks fly with B.A.D.

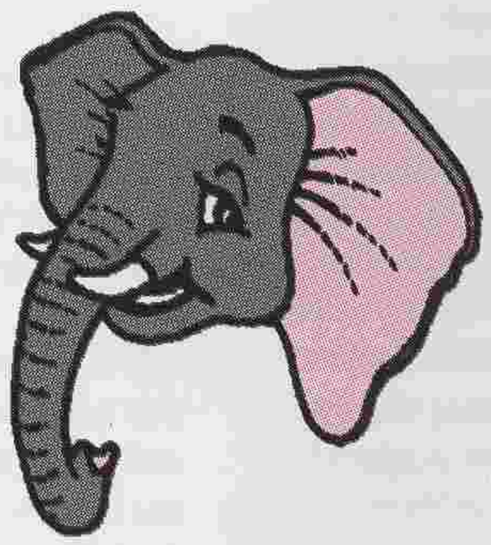
- The Ultimate Disk Optimizer
- Decrease Disk Access Time Up to 500%
- Works with Floppies AND HardDrives
- Supports Multiple Partitions
- FAST CLI Directory Access
- Incredible Workbench™ Performance
- 100% AmigaDOS Compatible
- Works with the FAST FILING SYSTEM

B.A.D. analyzes, restructures, and processes ANY AmigaDOS disk such that permanent speed increases will be realized. This is NOT a RAM cache based system!

B.A.D. Separately $49.95

MiniMax ...more memory for your Amiga

Get more out of your Amiga 500 with more memory. MiniMax internal RAM expansion allows you to expand your Amiga 500 up to a total of 2.3 megabytes internally!



- Available in 0K, 512K, 1 Megabyte or 1.8 MB
- INTERNAL in your Amiga 500
- Keeps your expansion slot on side free
- Expansion RAM disable switch, for older software programs incompatible with extra memory
- RAM-test software included
- Realtime clock on board with battery backup
- Amiga automatically recognizes extra memory
- Low Cost

PRO-NET PRO-BOARD

The complete professional solution from schematic to PCB!

PRO-NET

- Menu Driven
- Complete set of powerful schematic capture commands.
- Variable logic template size that follows MIL-STD-860
- Provides automatic device and section number assignment with zone control.
- Automatic page reference generation and insertion through post processing.
- Weight assignments which can be hidden.
- Dot Matrix, Laser Printer, Plotter and Gerber Plotter support.

PRO-BOARD

- PCB library part accuracy to 0.001 inch.
- 0.025 PCB grid.
- Supports 1, 2 or 4 layer PCB with silk screen.
- Single line auto route, 12 mil trace, 13 mil spacing.
- Provides wide traces.
- Component placement done by positioning DIP, SIP, 2-PADS and library parts.
- Complete set of powerful PCB layout features accessible through IFK's.

Circle 223 on reader service card.

fun in functional!

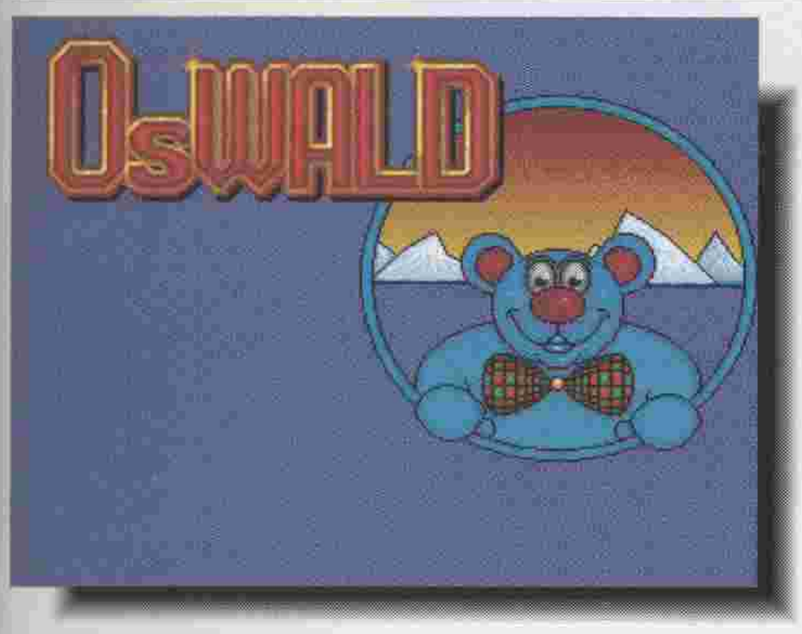
CENTAUR WORLD ATLAS



With World Atlas, a fun and educational utility comes to the Amiga. More than an atlas, this program gives you direct access to information and details on more than 170 countries, as well as the 52 United States. For students, educators, travelers, business executives, or just armchair explorers, World Atlas will provide an incredible wealth of knowledge and entertainment.

- Discover each country's history, language, population, customs and more!
- Choose by country and state list or world maps.
- Time sectors and earth facts too!

$59.95



Oswald is a fast paced and entertaining action strategy game. Oswald's a cold and hungry blue bear jumping across the ice floes. You help him avoid the hazards of the freezing north sea on route to his goal

- A wide range of digitized sounds
- Interesting adversaries
- Humorous animation

$39.95



XORRON 2001
Step into the year 2001 AD. All energy resources on the earth are exhausted. The only hope for new energy is the orbit station Xorron and you. Search for energy, collect it all and save the human race. Your way takes you through 21 amazing levels to find energy and another 21 levels to return to your space ship.

$39.95

QUASARSOUND

The ultimate stereo sampling/sound editing system! Save real-world sounds in IFF format for use in any music program that supports IFF or 8SVX sounds.

- High and Low Pass filter operations
- Can play and record up to 4 tracks in memory
- Easy to use user interface with visual editing
- Powerful editing features, including cut and paste operations
- POWERFUL RECORD TO DISK FUNCTION: With DISC-RECORDING, you can record sampled sounds longer than the capacity of your internal RAM on up to 4 disks at the same time to create auto-boot PlayDisks.

$59.95



PROFESSIONAL TECHNIQUES

FOR

DPAINT III

VIDEO CASSETTE

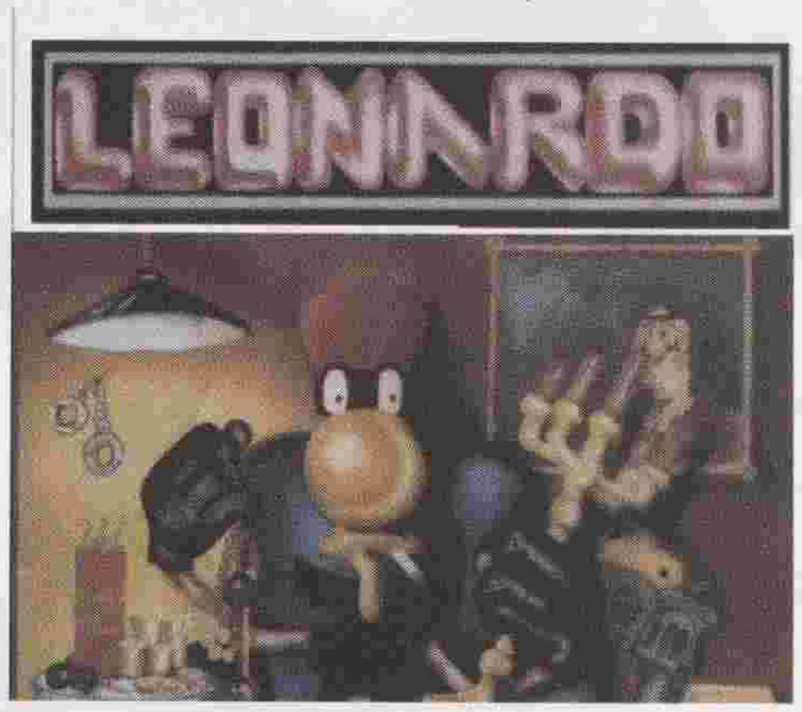
With this one hour video tape of tutorials, tips and techniques, the new user, as well as the seasoned professional, is easily shown how to best utilize Deluxe Paint® III's tools to achieve spectacular effects with professional results. Amiga artist Jeff Bruette will guide you step by step through DPaint's features including:

- Cel Animation
- New Tools
- the "Move" Menu
- Shortcuts
- Combining Effects
- 3-D Perspective

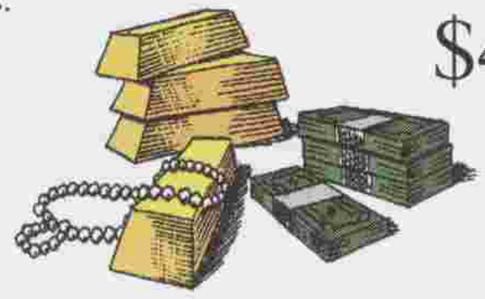
and More
Also features Deluxe Paint creator Dan Silva.

VHS $29.95

LEONARDO



LEONARDO
Leonardo is a thief who steals nearly everything he can get his hands on. Follow Leonardo's way through fifty different banks, museums and warehouses. Help Leonardo avoid the numerous alarm systems, guards and ghosts on his criminal trips.



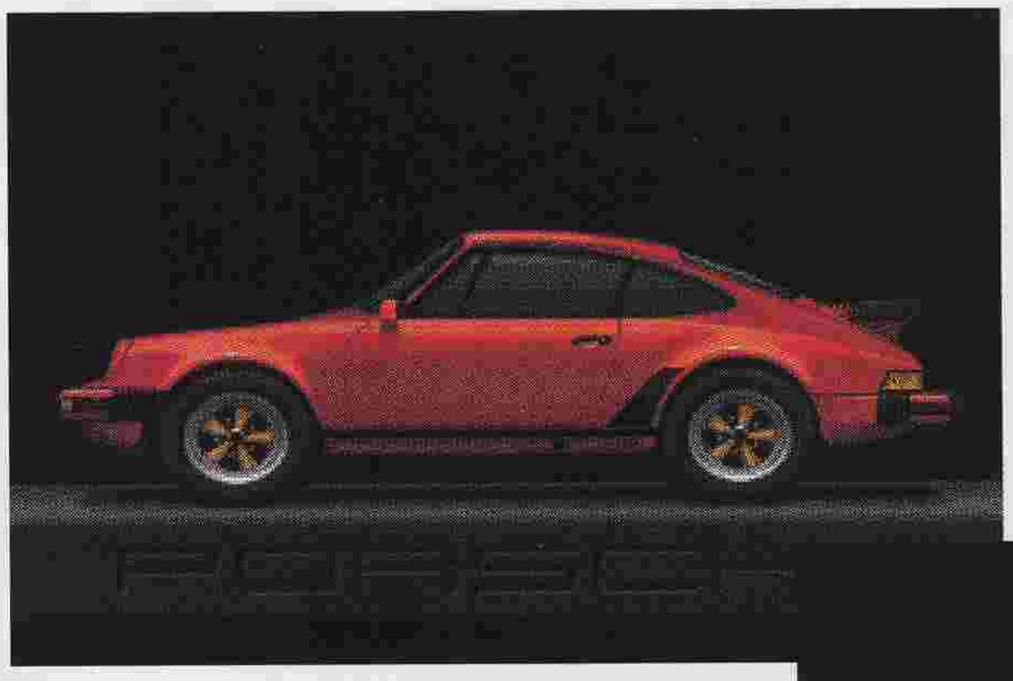
$44.95



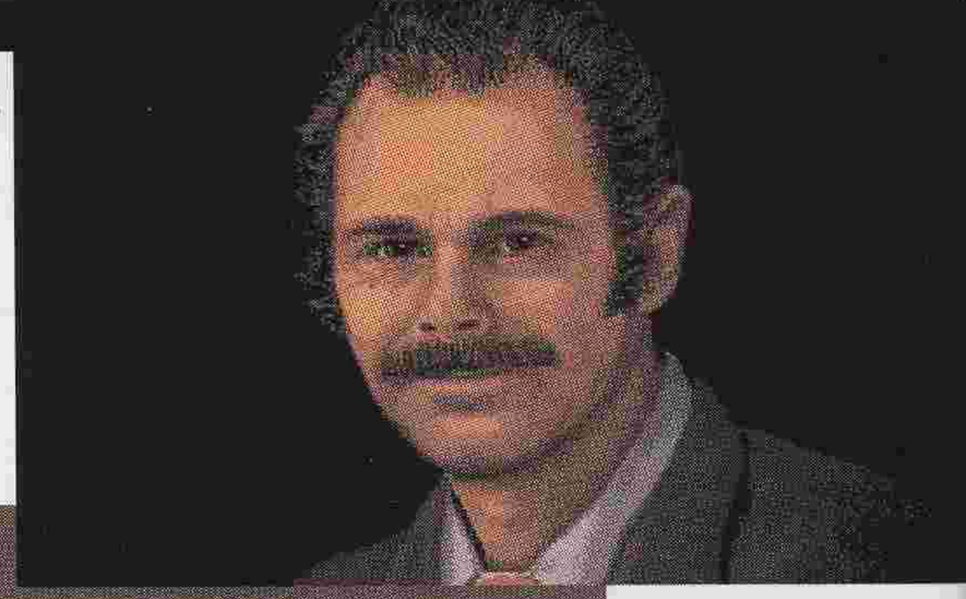
Centaur Software, Inc.
P.O. Box 4400
Redondo Beach, CA 90278
(213) 542-2226

Circle 223 on reader service card.

AMIGOTIMES
FEATURE



JIM SACHS







Jim Sachs, the premier Amiga artist, a look at his upcoming game "20,000 Leagues Under the Sea".

Jim Sachs the man, the myth, the legend was recently tracked down at the Chicago AmiExpo show on July 29th, while hosting a masters drawing seminar. This article is the result of the brief question period I managed to squeeze out of his busy schedule, and is intended to be a synopsis on the man and his upcoming ground breaking game "20,000 Leagues Under the Sea".

Jim Sachs' background is almost as colorful as his artwork. In 1971 he joined the Air Force where he achieved the rank of captain flying C141 cargo planes, and served his country for six years. Maybe it's his pilots training that allows him to stay cool when talking (or answering questions) about drawing on the Amiga. How does an Air Force captain go from flying C141's to drawing fantastic works of art and holding the title of most recognized Amiga artist. The road to working on the Amiga was a slow progression from the days when Sachs started creating art with his Commodore C64 for two of his games "Saucer Attack" and "Time Crystal". Saucer attack was completed and marketed, but Time Crystal never saw a final release date.

As soon as Jim Sachs got wind of Commodore's new computer, the A1000, in 1985, he quickly decided to become one of the first Amiga purchasers; when few and far in between computer users recognized that computers other than the Mac or IBM existed (many still don't). Once Sachs felt comfortable drawing in the new

---

By Ernest Nagy



A view from the Nautilus.

environment, using Deluxe Paint (the original release) and Aegis Images, he started creating artwork for Cinemaware for a game called "Defender of the Crown". Next Jim went to work for Aegis Development Inc. drawing scenes for "Ports of Call". In the two years that Sachs worked for Aegis he produced a total of 76 screens. He eventually left Aegis about a year and a half ago in order to strike out on his own and work full time on his new game "20,000 Leagues Under The Sea", which when completed will be marketed under the Legend production label. Since he left Aegis Sachs has produced artwork for the first two title screens of Silent Software's release of "Roger Rabbit", then Sachs went to work on the design of NewTek's 3.0 HAM paint programs tool gadget interface screen.

His latest achievement is yet to be seen by the public, it's going to be released by Electronic Arts and will be called CEASAR. The game was written by Kellyn Beeck (who also wrote Defenders of the Crown) and some of the artwork was drawn by Sachs.

Aside from games, Sachs has drawn numerous magazine covers including Amiga World (1987 special reference guide issue), Commodore Magazine and Rob Peck's book "The Amiga Companion". Sachs also has done artwork for Commodore's TV commercial and the video tape "Only Amiga". Reads like a rap sheet doesn't it!

Jim Sachs has been happily married for seven years to Mrs. Edi Sachs, and has a two year old daughter. The Sachs family lives in the secluded mountains of Arrowhead, California. Sachs says he has no pets, there's no need since their backyard is a forest and it's already populated with animals. Seeing them is easy because all you have to do is walk out the door; you can't get any closer to nature than this.

While at the Chicago AmiExpo show Sachs turned 40, and the nice folks from AmiExpo even went to the trouble of throwing him a bit of a birthday party with cake and all.

20,000 LEAGUES UNDER THE SEA

This novel was originally written by Jules Verne in the late 1800's (he also wrote a novel about a voyage to the moon), a visionary man years ahead of his time. "20,000 Leagues Under The Sea" was a tale about a submersible ship (known today as a submarine) called Nautilus and its captain Nemo, that patrolled the oceans in search of warships. Once a warship was located the Nautilus rammed the enemy ship's hull with the serrated edges protruding from the top of the Nautilus. The crew was ever faithful to their Captain Nemo and his cause, even while battling for their lives against a giant squid.

In 1952 Walt Disney bought the rights to produce a movie about Jules Verne's book (starring Kirk Douglas



There are over 50 islands to explore and search for food and water.

in one of his first major movie roles). The movie was released in 1954 and won two academy awards (one for special effects and the other for animation). Later on Disney made a TV special on the making of the movie, and once aired it also won an award.

Now, Jim Sachs has approached Walt Disney and leased the rights to design a computer game around the same concept for the Amiga. Disney provided all the detailed specifications of the Nautilus, from which Jim Sachs designed a balsa wood model to aid in the design of his artwork.

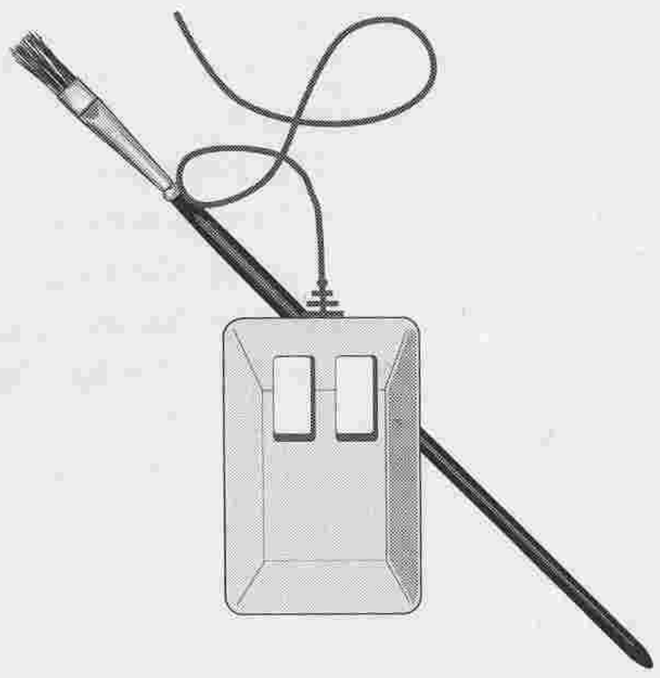
From fantasy to a computer game, if Jules Verne could only see the US Trident submarine and Jim Sachs' game rendition, he would be astonished what seed his initial vision and imagination spawned in the minds of his fellow humans.

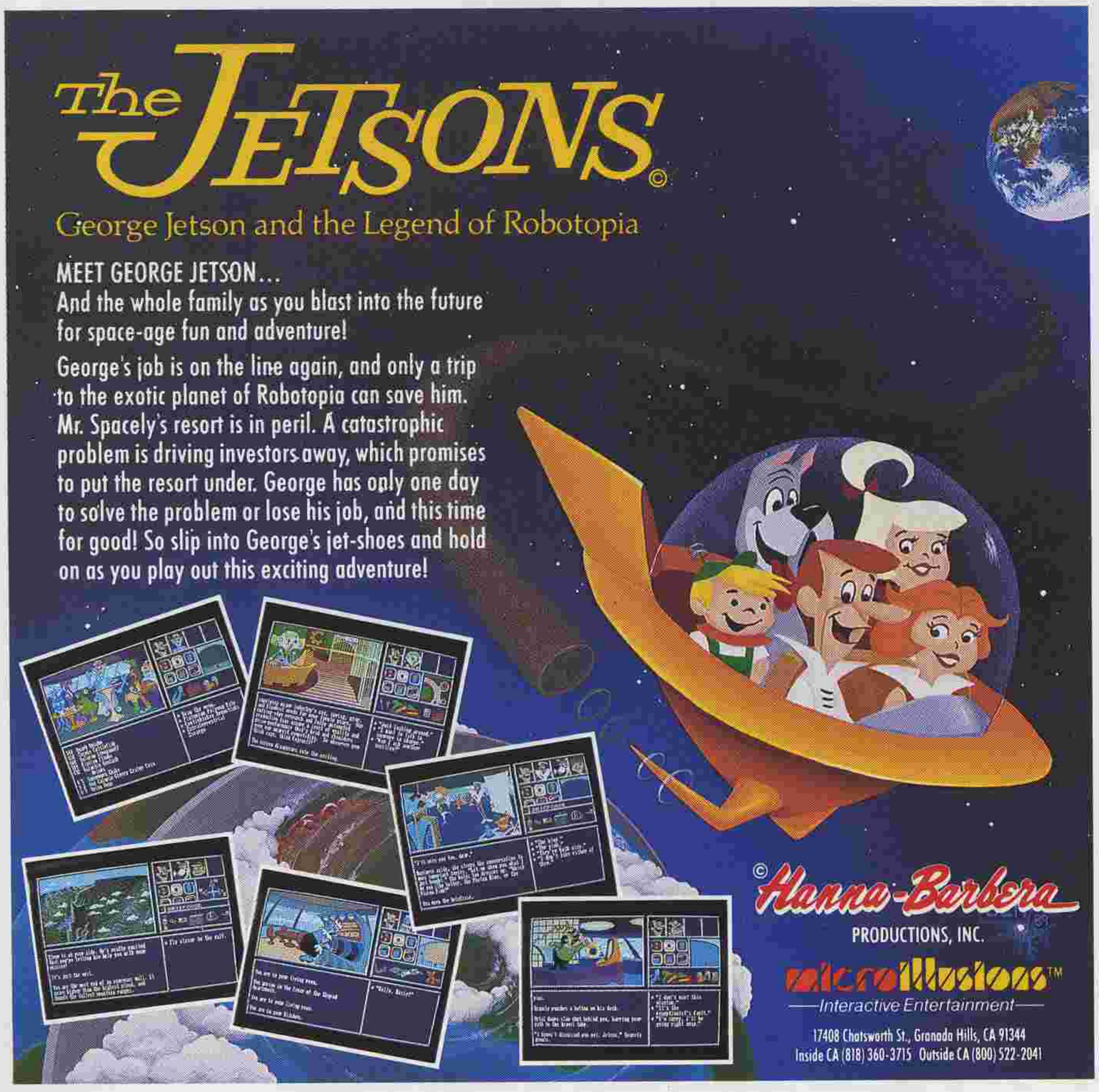
By any measure, this is no ordinary computer game Sachs is working on, he is determined to turn the computer game industry upside down with his newly developed techniques for game play design on the Amiga (or any computer for that matter). For example, there will be no wait states in 20,000 Leagues Under the Sea, everything is there the second after the disk is inserted. It has to be seen to be believed, and I have seen it, but I still don't believe it. The entire game is mouse driven and very intuitive; manual memorization is not necessary. Everything in the game happens in real time and careful attention was paid to detail in all the game scenes. As a matter of fact Sachs says the game is so close to being real it's more of a submarine simulation than a game.

When you are in the Nautilus your view from the submarine is through the two large port holes at the front of the submarine. The center of the screen is in high-res mode and while attacking warships you can control the Nautilus to attack from any desired angle. Most scenes in the game are in 32 color mode and the amazing clarity of the scenes in the game is due to Sachs efficient use of 24 different colors and 8 shades of grey in each carefully designed screen, as you can see in the screenshots on the previous page. You can even go out of the ship and row to any of the 50 islands surrounding you, but be careful because you never know what obstacles you will come up against; like wild animals and/or natives. You can even plunder the buried treasure of pirates (not the game copying type, but the real McCoys). You will even have to row to the islands to obtain food and fresh water.

Sachs has been working on the game for five years and there is still at least two more solid years of work to be done before it's released. To date, about 70% of all the game's artwork is completed and the main hurdle which remains is finding a way to take over the Amiga's operating system and crunching all those pictures down onto one disk (it will definitely not be released on two disks). In the meantime does Sachs have plans for the future? Well right now things are a bit sketchy and dynamically changing and it's still going to be another two years before "20,000 Leagues Under The Sea" is released. But Sachs is busy putting together a video tape on his drawing techniques and other useful drawing tips for working in the Amiga's painting environment; it's scheduled for release sometime in November.

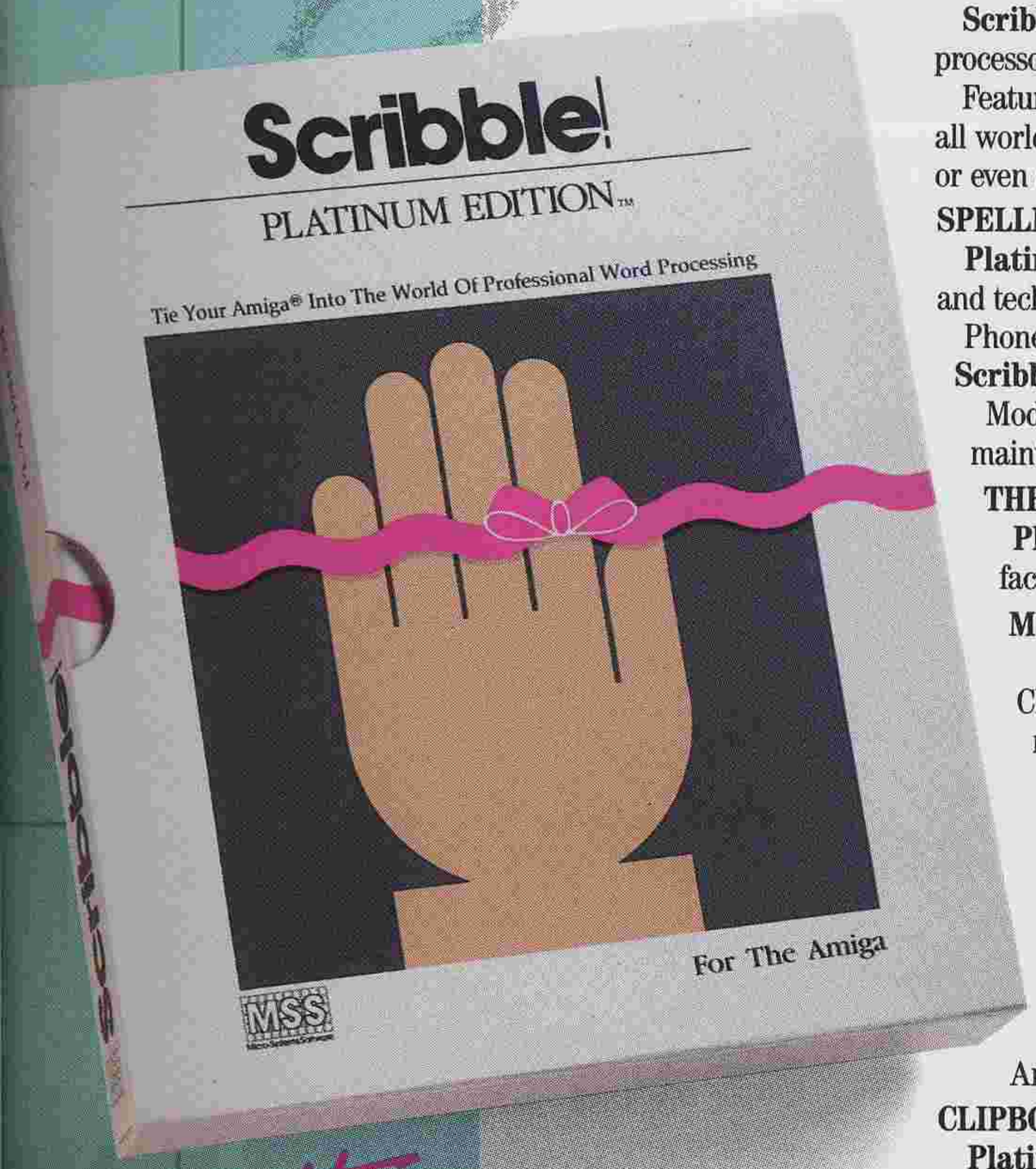
This sneak preview should have wetted your appetite just enough to make you want to run out and buy the game tomorrow. Well unfortunately you will have to wait about two more years, but at least you know more about it and it's no longer just another rumor. ❑





Circle 197 on reader service card.

You're never too old to Scribble!



Scribble! Platinum Edition

Scribble! Platinum Edition offers many improvements that make **Scribble!** the word processor of choice for beginning and experienced users.

Featuring rapid text entry and scrolling, **Scribble! Platinum Edition** offers the best of all worlds: power, speed, easy to use. In no time at all, you'll be writing memos, letters, or even a book!

SPELLING CHECKER

Platinum Scribble! shines in this area with a 104,000+ word dictionary with scientific and technical supplements. The Spell-As-You-Type option checks spelling on the fly.

Phonetic spelling, transposed letters, and contractions are no problem for **Platinum Scribble!** Enter *Kasil* and castle is suggested, *hte* finds the and *shalln't* finds shan't.

Modify the user dictionary by adding, editing and deleting words with the user dictionary maintenance program.

THESAURUS

Platinum Scribble! has a 470,000+ word thesaurus, with definitions. As a matter of fact, the word *right* displays 21 groups of synonyms.

MULTIPLE WINDOWS

Open up to 4 windows at once. Display your documents in 2, 4, or 8 color windows. Change the colors to suit your needs. **Platinum Scribble!** supports both interlace and non-interlace screens with horizontal and vertical overscan.

CUT AND PASTE

Copy, cut and paste text within a single document or from one document to another.

MAIL MERGE

Print form letters and mailing labels. Enter information at print time or automatically insert information from any mail merge text file.

IFF GRAPHIC SUPPORT

Print IFF graphics with any compatible printer supported by the Commodore Amiga printer drivers.

CLIPBOARD COMPATIBLE

Platinum Scribble! is clipboard compatible with Micro-Systems Software products.

OVERVIEW

• On-screen **bold**, *italic*, and underline, with highlighting for super and sub-script. • Support for laser printer font cartridges • Needs only 512k of memory • Not-copy protected • Easy hard drive installation • Free Technical Support for Registered Users.

better than ever

MSS
Micro-Systems Software

Committed to excellence since 1978

12798 Forest Hill Boulevard, Suite 202
West Palm Beach, Florida 33414
407-790-0770 FAX 407-790-1341

Dealers and Distributors Call 1-800-327-8724

See your local dealer for a demonstration.

Scribble! Platinum Edition is a trademark of Micro-Systems Software, Inc. Amiga is a registered trademark of Commodore Business Machines.

Circle 274 on reader service card.

AMIGOTIMES
FEATURE

AMIGA DESKTOP VIDEO IN EDUCATION PART 1

AMIGA STAKES CLAIM TO DESKTOP VIDEO EDUCATION MARKET



By John Pustai

Applications abound from 20 winners of the Amiga grant program. Amiga desktop video (DTV) is the new computer theology with the 20 winners being its first disciples. From initial accounts, these disciples are both fervent and innovative with their applications. It is because of these applications that every school will soon be doing desktop video with an Amiga.

Part 1 discusses the Amiga Grant Program, its goals, the approach, the educational philosophy behind desktop video in education, and the value of the Amiga in educational DTV. In next month's issue, we continue the series with powerful interviews with the Amiga Grant winners. Their ideas to improve education with DTV will astound and amaze even the most jaded of educators. Don't miss this series. You'll learn about different ways to apply desktop; a definite education 'plus'.

Commodore has claimed the educational DTV market as theirs. Elementary and high school students are connecting camcorders, laser video disks, VCRs, and editing machines to their Amiga, giving new meaning to the expression 'hands-on' education. Titling, animation, and frame-grabbing software abound. Teachers and students have adopted the 'genlock' battle-cry for the educational DTV revolution; a revolution sparked by the Amiga Grant program.

The revolution began this past February with the awarding by Commodore of an Amiga 2000 HD, an Amiga A2300 genlock, and a variety of DTV software to 20 school districts across the United States. The grant program was coordinated with the National School Boards Association's (NSBA) Institute for the Transfer of Technology to Education (ITTE).

TECHNOLOGY LEADER

ITTE, "Technology Leadership Network", serves 167 national K-through-12 school districts. Network members are districts that represent 37 states and Canada, with 68 students in the smallest district to over 100,000 in the largest. Of the 167 members, about 150 are school districts. The next largest group of members is composed of Regional Service Centers in Michigan, Kansas, Texas, California and New York.

ITTE Director Jim Mecklenberger comments, "These school districts gain

valuable experience with state-of-the-art technology. In return, they report lessons learned back to ITTE for dissemination to other schools. ITTE network schools are the first serious technology adopters. In the case of the Amiga Grant Program, many school personnel knew of the Amiga and its capabilities. They realized that the Amiga computer is the technology leader in DTV, and that the price is economical for their school systems". According to Mecklenberger, ITTE has asked each of the 20 winning school districts to submit a report as well as the video, which will in turn be published by NSBA-ITTE for any school district.

Commodore's participation in the Grant Program is headed by John DiLullo, Educational Coordinator. DiLullo spent 25 years teaching and administrating computers and technology in the Philadelphia school district before joining Commodore. DiLullo notes that, "This video grant program represents the re-establishment of an educational grant program for Commodore". According to DiLullo, "We developed our strategy of the grant program to increase the technological awareness of the general public about the Amiga machine, especially its video capabilities. The problem that exists is that teachers who don't already use computers will not suddenly embrace the computing technology".

"On the other hand," notes DiLullo, "everyone is familiar with video, because 98% of the schools and 60% of homes have VCRs. Today's children have grown up with TV. Teachers are comfortable with multi-media techniques, and have VCRs in their classrooms. These same teachers can immediately learn the computer with video without any other concerns. Therefore, video represents a real technological break point in the education environment".

DiLullo comments that, "We brought the power of big-time education, those same techniques used in government and industry, to schools. We have made an opportunity for schools to participate right now at a level that they can afford. The Amiga is an efficient and affordable delivery system for education. For example, more and more video laser disks are being produced for education. It is just a question of marrying the Amiga to the video disk technology. You can do it very high-end, or do it very inexpensively with the Amiga. The Amiga 2000 HD costs about one-third of the price of a Macintosh II. Similarly, schools may pay as much as $40,000 for beginning IBM DTV systems. But, a $2500 Amiga system will do the same thing".

"We want to stimulate thought and raise the level of expectations as to what can be accomplished with computers and video, particularly using the Amiga. That is basically our purpose with this grant program. The more exposure people have to the Amiga, the more capabilities they will discover.

"We want to stimulate thought and raise the level of expectations as to what can be accomplished with computers and video, particularly using the Amiga"

For example, multitasking might otherwise be incidental to video. However, it isn't if you are doing work at the same time as you are receiving a cable TV video signal. The Amiga's built-in speech capability might also be incidental to video, because most people will use an external video source most of the time. However, this speech capability is very important to education, and has many creative DTV applications".

DiLullo also anticipates continuous work with the grant winners in other areas where video can be used, such as teacher training. Also, there is some anticipation that a follow-on grant program will emerge for new educational applications.

"IT WAS REALLY EXCITING"

In order to make all 20 Amiga grant winners fully aware of the Amiga's capabilities, Commodore presented a two day training session that included genlock card installation and operation, Amiga applications and operation, and various software demonstrations. DiLullo noted that, "All the winners absorbed the technology rapidly. There was a general sense of awareness and excitement. We knew that when we got the grant winners together, they would think of even more applications. The ability for everyone to share their proposals increased everyone's expectations of the educational applications that could be done on the Amiga. It was really exciting. It was very rewarding".

Also making presentations at the training session were Kenneth Brumbaugh, a full time educational consultant, and Jim St. Lawrence, a TV producer and consultant. Both presentations covered a broad range of video, sound, and graphics software applications. Most of the training session was "hands on". DiLullo notes that, "The most surprising and delightful aspect of that event was how excited these educators were with their projects".

EDUCATIONAL DESKTOP VIDEO VALUE

In spite of the enthusiasm of the Amiga Grant winners, there are probably skeptics who question the use of DTV in an educational environment. Not so of Jim St. Lawrence, one of the speakers at the winner's training session. Mr. St. Lawrence, someone who would challenge even the most hardened skeptic, is a professional television producer/director, a passionate educator, and owner of SL Productions. He is also a writer and producer of numerous scholarly presentations on digital imaging, two-dimensional animation with computers, and 3-D modeling and animation for the New York Institute of Technology.

Because of the importance of educational DTV, it is worth a moment to provide St. Lawrence's professional credentials. St. Lawrence's most significant recent work is his contribution to "Power On! New Tools for Teaching and Learning". St. Lawrence is chief technical advisor to, and author of, one chapter and various sections of this report, commissioned by the U. S. Congress Office of Technology Assessment and by Congress in 1988. The report evaluated the state of computing and electronic technology in education, defined as "interactive technologies". The report also made recommendations to Congress for further funding for those interactive technologies.

In addition to his work with Congress, St. Lawrence is also a prominent guest lecturer. His talks include "Video in the Classroom", a presentation to the Council of Chief State School Officers Technology Conference; "DTV", the keynote speech to the Connecticut Computer Educators Annual Conference; "Computer Graphics in Education", presentation to N.Y. SIGGRAPH; "Implications of New Communications Technologies", a lecture to the New York chapter of the World Future Society; and "Interactive Computer Graphics", a lecture to the New York University, School of Interactive Telecommunications. St. Lawrence has also served as chairman for the "Seminar on Computer Animation and Special Effects".

St. Lawrence's education credentials are equally impressive. He is lecturer in the "Program in Arts Management" at Columbia University. He serves as Director of Administration and Production for the Interactive Technologies Laboratory of the New York Institute of Technology (NYIT). Also at NYIT, St. Lawrence is adjunct professor for the Masters Program in Communications and Arts in electronic field production. He has also taught interactive education and computer graphics systems at Wesleyan College.



His business experience includes work as a member of the Senior Scholars Panel for the "Apple Classroom of Tomorrow program"; technical consultant to "Children's Television Workshop" (creator of Sesame Street and Electric Company); and work on the Committee on Educating Americans for the 21st Century for the "National Science Boârd". He has been a contributing editor for production techniques to Videography Magazine, having written the "Video Class of 2000" for Videography Magazine.

For those who are educational-TV alert, he conceived, produced, and directed "FAST FORWARD" (TV Ontario). It is a documentary series about advances in micro-circuitry, communications systems, computers, television, and bio-medicine, and the fundamental changes they bring to the human environment. "FAST FORWARD's" 26 programs have sold to more than 30 foreign countries, virtually every PBS station in the U.S., and more than 150 institutions of higher learning as courseware.

NEW FORM OF LITERACY

It is with those credentials that St. Lawrence offers the support for DTV in education, and sums up his philosophy as follows. "Being an educator and broadcaster, my particular interest is in the dissemination of video and computer equipment in schools. Although children watch from 4 to 6 hours of television each day, they don't really know what they are seeing. The only way to make them critical viewers is to give them the tools, and let them discover how those tools are used. It is a new form of literacy".

"I am a dedicated educator," states St. Lawrence. "I have been pounding on doors and shouting that kids need to be educated in a certain way. Commodore has created a machine that is ideal, and has shown a great interest in getting this kind of education in the schools. By putting cameras and computers in the hands of children as creation technologies, those children discover in a way that is not possible using any other method, how television is made. They begin to understand the language of television, while appreciating the medium. This appreciation is important in the long run, because television is an information medium, not just an entertainment medium".

"Although children watch from 4 to 6 hours of television each day, they don't really know what they are seeing. The only way to make them critical viewers is to give them the tools, and let them discover how those tools are used. It is a new form of literacy."

According to St. Lawrence, television cannot become an information medium until people "understand its grammar. And, you can't understand the grammar unless you work with it. It is just like reading and writing. You can't understand properly how to read unless you know how to write. You don't properly appreciate music until you learn how to play an instrument".

"But, that is only part of the story. Of course, you play the instrument not to learn how to listen, you play to learn how to play music. And, similarly when kids and teachers learn how to use the tools that video provides, you find that it can be a very empowering device".

St. Lawrence alludes to the power of television in many ways. "If we are to remain a democracy, and not be led around by, and subject to our TVs, we have to cease to be passive viewers, and become active participants". St. Lawrence says that he is not trying to teach kids what to watch on TV, but how to watch TV. "Their parents may have tried to get them to understand what to watch, but nobody has taught them how TV programs are created".

One example of critical watching is given by St. Lawrence. "In a 15 minute section of a TV news program, I could show examples of 6 or 7 editing cuts, and you would be totally surprised, because it would look like a continuous news event. In news, this editing is significant. Even more important, how many edits do you hear? Most people think of picture editing when they think of editing. But, audio is just as important. In fact, the audio is perhaps more important than the picture. But very few people think about audio literacy? Yet, audio is always present. There is music, which influences the way we view the pictures. All these are elements which go into the way the world communicates".

Because of his experience, St. Lawrence views himself as the perfect viewer. He is aware of the music, editing, lighting, camera techniques, and notes that all the elements are significant. "I see where the cuts are happening. I know where somebody's speech has been cut out or left in. I know how it is shot. I know the questions are asked at a different time than the an-

WIN
Second Drive
and a year's supply
of New Titles published by
Gainstar NOW!!!
LOOK BELOW FOR MORE
INFORMATION

TARGHAN









Targhan

Far from Edengarhn is the castle of the evil one.

Far from your village, a lord keeps the secret, such a powerful lord that he cannot be human, a creature floating a world that dies and grows again . . .

Targhan is probably the most stunning game you'll ever play.

Targhan is an adventure-action game with more than 120 landscapes and 40 different characters. The game is playable on either keyboard or joystick.

The game offers digitised sound and outstanding graphics.

Look for reviews in Commodore User, Popular, The One, C&VG, Ace, ZAP, The Games Machine and Amiga User International soon!

Silmarils

Available for the AMIGA 500, 1000, & 2000. Can't find Targhan? Send check or money order for $39.95 to the address below.

DEALER ENQUIRIES WELCOME – SPECIAL DISCOUNTS
Distributor enquiries welcome

CALL (813) 222-0006

To enter our competition please send your warranty cards of TARGHAN and complete the following:

I like the game Targhan because .....

.....

Send your entries to: Gainstar, RR 1 Box 192, Alstead, NH 03602

Closing date: December 31, 1989.

GAINSTAR

Circle 276 on reader service card.

swers are given. However, somebody who is not aware of this editing can be easily misled".

St. Lawrence believes that the knowledgeable viewer will become the learned viewer. As a result, television will become an educational medium. "A better educated audience will have a different set of desires, and will demand more sophisticated television programming. As an example, he points to the difference between British television and American television, and notes that it is partly the British educational system which increases the sophistication of the viewer. "They have a better critical awareness of what is available. But this critical awareness has to be taught from the ground up. People will demand more sophistication when they know what is happening".

"If we are to remain a democracy, and not be led around by, and subject to our TVs, we have to cease to be passive viewers, and become active participants"

TECHNOLOGIES CONVERGING

St. Lawrence notes that the technologies of computers, video and telecommunications are all converging. "We have to ask where the technology will be 20 years from now. Computers and video and telecommunications are all coming together in new systems, and in different combinations, such as fiber optics and Integrated System Digital Network (ISDN). In 20-30 years, we will communicate using video on a daily basis".

"In fact," continues St. Lawrence, "some of us already use video on a daily basis. I will send a tape to somebody, as quickly as I will send a letter. I'll make a tape, add a title, do some animation, and use the tape as a presentation of my ideas. I use this technique in my talks, as well as the Hollywood-type productions I do".

"Because the merging of these technologies is so new, the literature about this merging is small. We don't know how best yet to use these technologies. We see great promise in them, we see applications in the classroom, but we don't really know if these technologies are effective in the long run? These are questions that yet need to be answered".

We asked St. Lawrence if there should have been a different approach to the Amiga Grant program. He indicated that the choice of winners has the widest variety of applications, in order to compare different applications. St. Lawrence noted that, "With this first set of winners, you can look at various age groups, and find out what they do with DTV. It was a good choice of winners. It was not necessary to seed the Amigas into colleges. A lot of colleges, such as Ohio State, and Rensellear are already into Amigas. Many of the colleges already have their media departments using Amigas. Really the need was at the lower educational levels".

St. Lawrence sees the Commodore Amiga Grant Program as beginning to answer many questions. "The Amiga Grant winners will serve as research test beds to help answer these questions. We can ask the winners what the technology does for them, how the technology affects education, and what should be the direction of the technology for the future. When we get answers to these questions, everybody will benefit".

"From my standpoint, I would suggest that Commodore does long range studies. They should choose schools from the winners where you can study a high ratio of video and computer machines at the first or second grade level. Then Commodore should follow those kids all the way through their educational career. Commodore should also provide these schools with up-to-date materials as the technology improves. I think a study like this will prove invaluable, especially since long term studies are few and far between".

According to St. Lawrence, the long range studies will help groups like the NSBA understand how to best use the exciting set of technologies that is coming onto the market and into the educational world. These studies are essentially "meta-studies", because they gather information from across the nation from the various bodies, colleges and universities who are doing original research on the impact of technology. They would also be of interest to the Office of Technological Assessment because they would be good, scholarly studies. They would be either anecdotal or controlled studies which would show how best to use DTV.

AMIGA'S VALUE

St. Lawrence considers the Amiga valuable in the DTV education market. "The advantage the Amiga has resides in it's ability to offer a powerful machine for the money, that comes already pre-configured", notes St. Lawrence. "It already comes with very acceptable video signal circuitry. You don't even need a genlock card, you can record video output directly onto tape, although you can't superimpose graphics over video without the genlock card."

"You can make music with it, because it has a very sophisticated stereo sound chip in it. It is enormously fast, which is a tremendous advantage in education. It is much, much faster than the APPLE II series or the IBM PC series of machines. The Amiga's specialized graphics capability is head and shoulders above the others. It is the most-ready-for-video computer available today, and is a good investment for the money. These are the fundamental educational arguments: speed, capability and cost. That is why it has attracted me and other dedicated educators, especially those educators with an eye to using it as a creation technology, and not just a technology with which one does drill and practice".

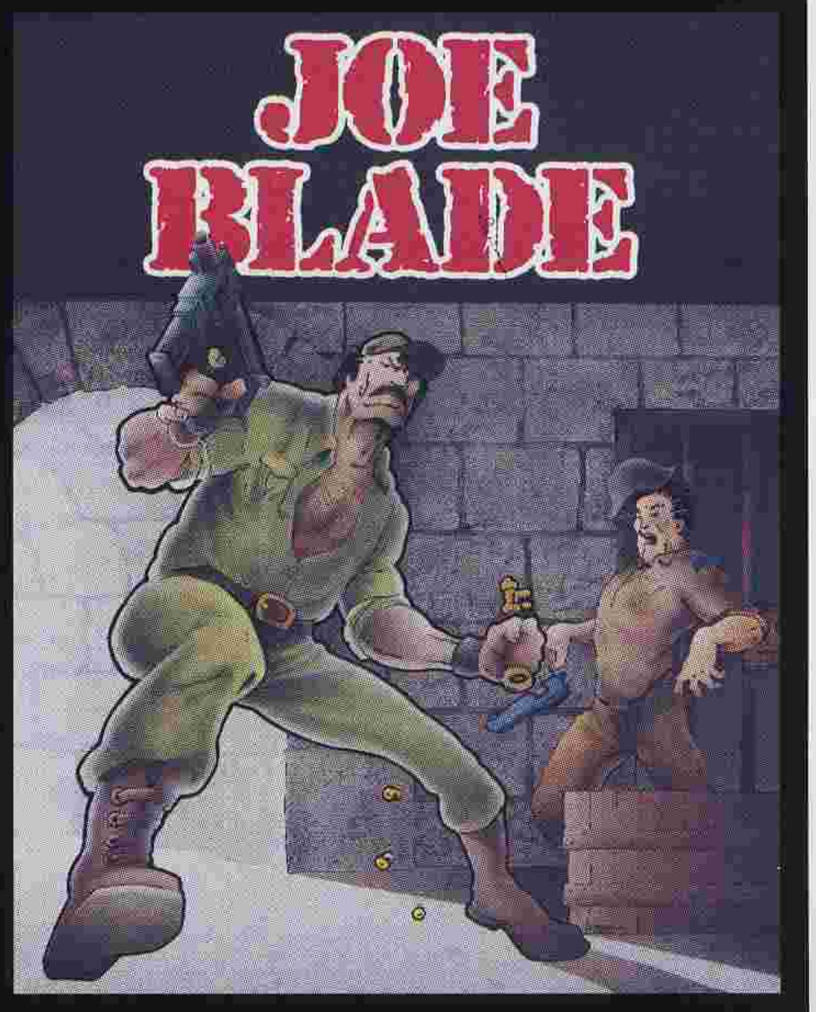
POTENTIAL USES

These educational creation technology applications abound, notes St. Lawrence. Using a video signal coming through live into the Amiga, educators can create an electronic blackboard like they do on television football games.

Teachers could be drawing over video information as fast as the video is coming into the Amiga. For example, suppose a video camera is focused on a botany specimen, and the Amiga is set up with a mouse or a light pen, not only

FUN. THRILLS. ADVENTURE.





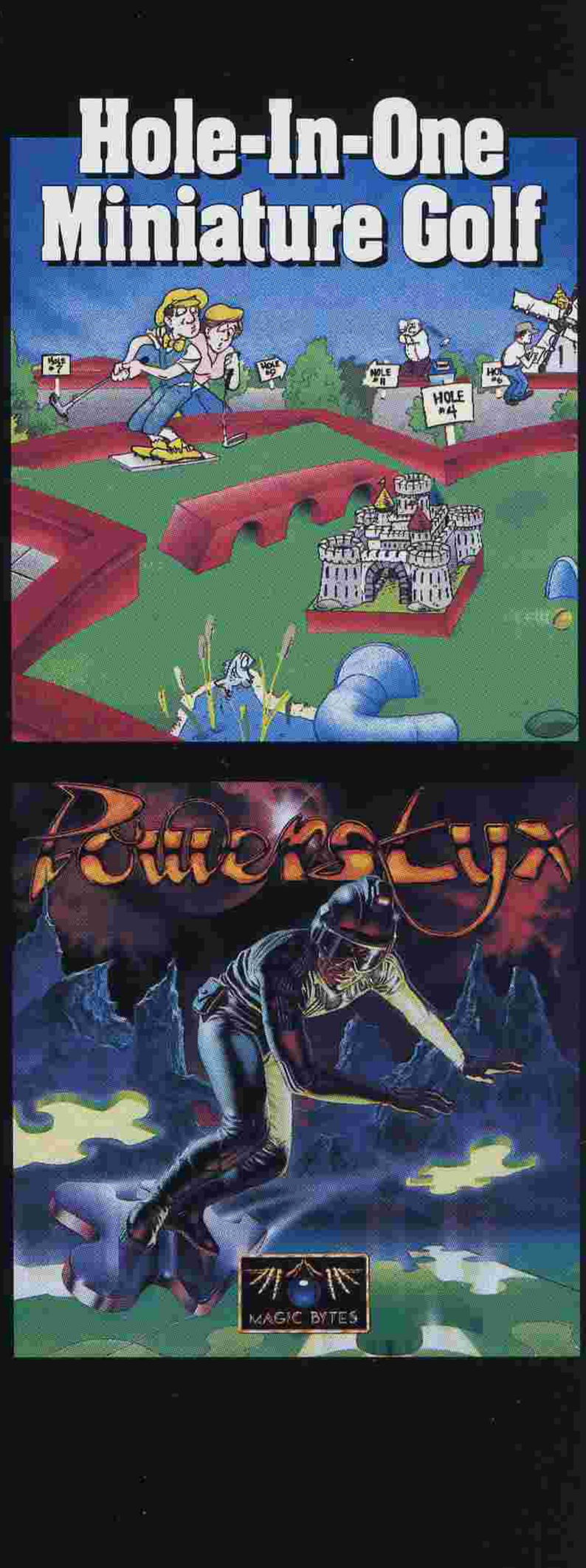
DigiTek Software

Six world leaders are kidnapped and only one man alive can rescue them – Joe Blade! To save them Joe must penetrate the fortress and its 127 rooms, locate the keys, free the hostages, disarm and reset the bombs, and then escape in time!

The detailed graphics and sound along with the great gameplay make this… "definitely one for the collection…" – **ZZAP** (silver medal award winner!)

"Joe Blade is an exceptionally well programmed product…" **Ahoy!'s AmigaUser**





Hole-In-One Miniature Golf is the best mini-golf game made! DigiTek Software has created a game so simple to play that the entire family can enjoy it together. Hole-In-One is pure fun! Complete with classic miniature golf holes as well as lively fantasy holes.

"Hole-In-One…is definitely the best game on this popular pastime ever published for the home computer" – **Video Games & Computer Entertainment**

"Hole-In-One…is quite simply the best miniature golf computer program ever designed – for home computer or arcades" **– Commodore Magazine**

Rated as one of the BEST of 88! by **Ahoy's AmigaUser** and **Video Games & Computer Entertainment.**

This is an arcade style game in which you must capture sections of the screen to gain points and see the mystery picture. Sound easy? It would be except for the roving lazer, the chomping skulls, ripping scissors and other equally deadly icons that pursue you. The excellent sound, animation, graphics and gameplay all contribute to making this one of our best and most popular arcade games!

"Powerstyx takes the popular thinking mans arcade game QIX and embellishes it tremendously making a superior version of the original" – **Commodore Magazine**

Amiga versions shown here.

8910 N. Dale Mabry
Executive Center, Suite 37
Tampa, Florida 33614
(813) 933-8023
(Programmers wanted – write us!)

Circle 158 on reader service card.

can the teacher show the specimen to the whole class on a monitor, but she can also write in labels over the top of the picture of the specimen. Teachers could also tape some educational video, pass the taped video through the Amiga, and draw over that video.

St. Lawrence notes that combining sound and picture using video machines and computers is almost infinite. It is a tremendously promising field for education. There is software that will digitize a frame of video, and software that will digitize speech and sounds. Teachers can generate music, or edit speech, or add echo. "The applications that we have seen that are actually using for DTV are very exciting. The kids are tremendously motivated. These kids learn like crazy from this, and for an educator that is exciting." notes St. Lawrence.

The Amiga is the most ready-for-video computer available today, and is a good investment for the money. These are the fundamental educational arguments: speed, capability and cost

As one example of educational use, St. Lawrence tells of a ninth-grade, earth-science teacher who went on vacation, and shot VHS footage of the Grand Canyon and Zion National Park. During a subsequent class, the teacher handed the footage to the students, asked them to research the sites, and make up 'wraps'-voice overs about the rock formations. The students did the 'wraps' along with the research and final editing. Because they were very highly motivated to do the project, the students got a great education in geology. And, they began to understand the techniques of editing and the grammar of television.

NOT JUST KID STUFF

DTV is not just kid stuff. Take for example "Prevue Guide" of Tulsa, Oklahoma. "Prevue Guide" provides cable television programming 24 hours a day to local cable TV providers. The "Prevue Guide" national network provides previews and listings of cable TV programming.

"Prevue Guide" is significant because they provide two Amigas to each local cable TV service that subscribes to their service. Cable operators receive an Amiga 500 and an Amiga 2000. The Amiga 2000 is configured with a genlock card, and the Amiga 500 is for use by the local cable TV station to do off-line graphics. "Prevue Guide" Vice-President of Marketing and Operations, Chris Bourne says that the Amiga is necessary for their programming service operation at the local level. The signals are sent via satellite. The Amiga 2000 is used at the cable station to choose the primary or default preview information, or a default graphics filler that is placed on the viewer's screen. "Prevue Guide" has been working with the Amiga ever since its debut.

Like the professional use of the "Prevue Guide" company, many Amiga Grant winners are using their Amigas in school-run television studios. These districts were interested in expanding their studio capabilities. Schools wanted more graphics, animation, and screen titling-capabilities they didn't have at their schools.

The variety of applications from the Amiga grant winners is large. Applications include the connecting of a video camera to the microscope, and using the Amiga to make diagrams and labels over the microscopic images. There were also other grant winners intending to use the Amiga for language training, especially since a lot of the software that has been developed for the Amiga involves voice generation. There are applications for teaching German or French. Some software developers have even come out with foreign language programs for the Amiga. Also, there are grant winners who are going to be using the Amiga for "English as a second language" (ESL).

SPREADING THE WORD

Videos produced during the spring from some of the 20 grant winners were presented at the National Education Computing Conference (NECC) held in Boston in July, and at the ITTE Technology Leadership Network Summer Meeting held in Colorado Springs in August. Commodore has also put together a single sample tape showing highlights of the educational applications of the grant winners. Presentations will also be made at NECC in November.

Also in November, Commodore will display the educational videos at still another major conference with "Making Schools More Productive" as its theme. The "Making Schools More Productive" conference also includes an exhibition which is the only conference besides the NSBA convention that has an exhibit.

If you missed either of these conferences, you won't want to miss next month's issue, where we conduct a series of interviews with the winners. You'll find out why students are learning more than just DTV technology. You'll discover an electronic classroom of the future that is in operation today. You'll learn how a high-school Fine Arts Department has put the 'pizzaz' in a senior prom. You'll learn how easy it is for students to produce "Nova-like" documentaries. You'll peek into the future, to get an idea of how tomorrow's DTV will help even below-average students learn how enzymes operate. Don't miss it!

Anyone interested in sharing their Amiga DTV applications may contact John Pustai at 3 Hillside Road, Hackettstown, New Jersey 07840, 201-852-7198; CompuServe ID is 75506,1372. ❑



Professional ScanLab

Professional Publishing Results

1.



16 million Color Scan

4-Color Separation









256 Grey Scale Scan



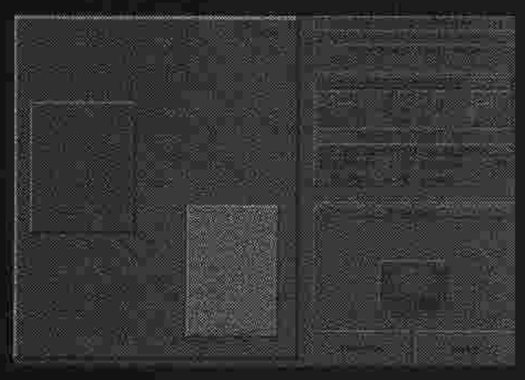
Able to control the SHARP JX-300, JX-450 and JX-600 color scanners, Professional ScanLab's pre-press capabilities include global color correction, brightness and contrast controls, the ability to process and convert between positive and negative images, and the ability to optimally choose smaller palettes based upon 256 grey or 16.7 million color scans.

Professional ScanLab will also produce excellent quality color separations embodying all 16.7 million colors and 256 grey scale images. On an Amiga 2500, these are produced six times faster than similar operations on the Mac II.

2.

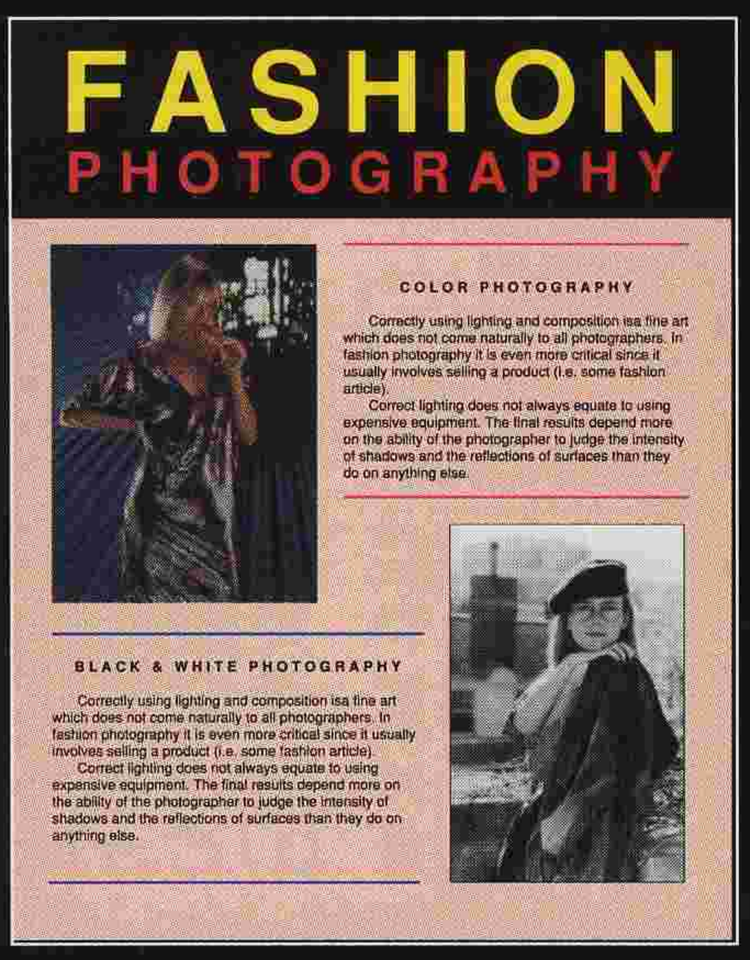






Three easy steps take you from scanning both color and black&white photographs, transparencies, or other artwork, to your final full-color page. Scanned images from Professional ScanLab can be positioned, cropped, and scaled using Gold Disk's Professional Page (desktop publishing software). ASDG's ReSEP will strip out the 12 bit separations produced by Professional Page, and strip in 24 bit color separations or 8 bit grey scale images produced by Professional ScanLab.

3.



This entire Ad was created using only the products and methods described here!

After outputting the resulting PostScript file to an image setter such as the Linotronic 300, your reward is a professional quality four color process page. Produced easily, quickly, and inexpensively right in your own office or business.
Professional ScanLab is also perfect for other print applications such as Screen Printing on fabric, plastics, or metals.
Professional ScanLab. Professional Results...

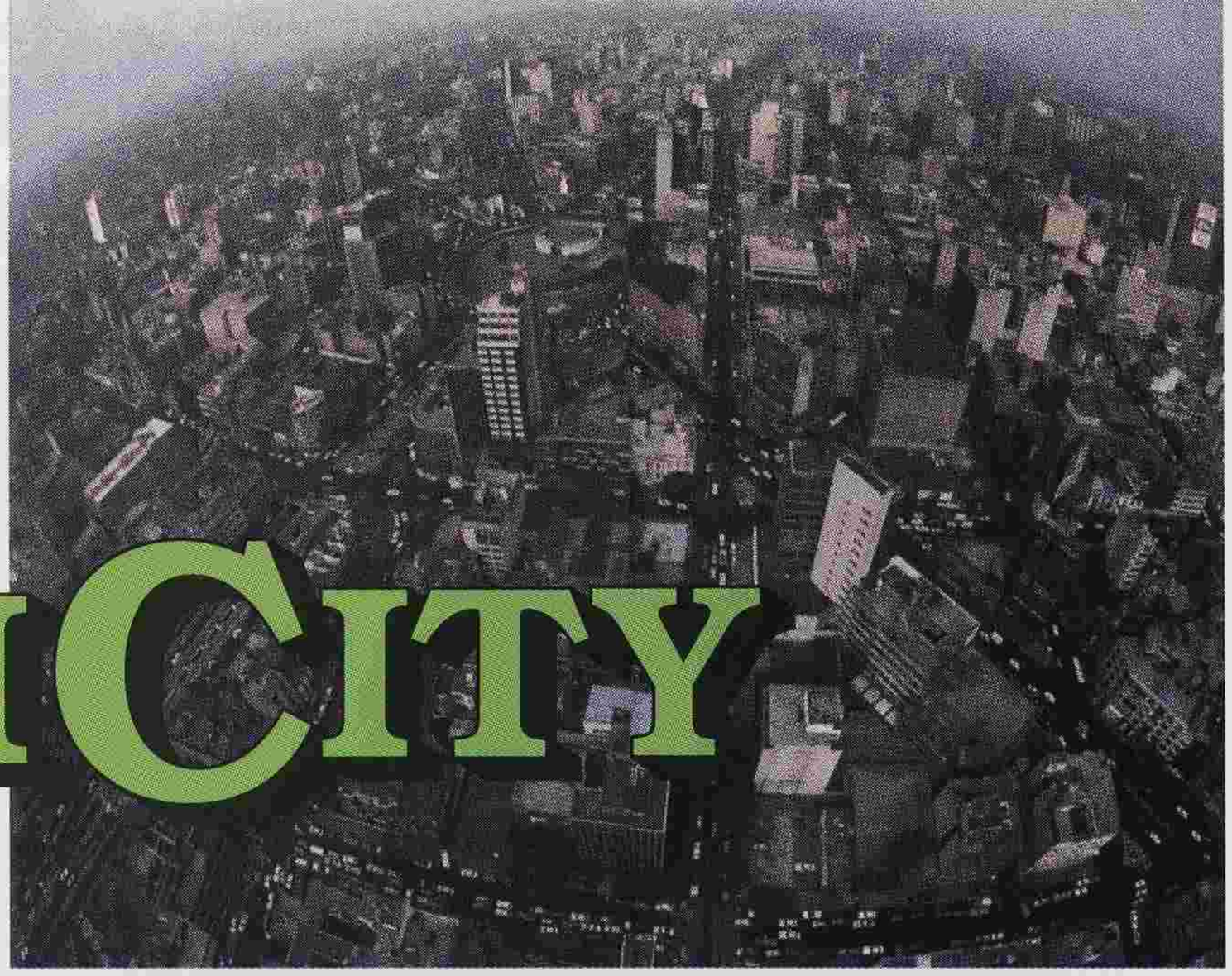
ASDG Incorporated

925 Stewart St.
Madison
WI 53713
(608) 273-6585

Professional ScanLab is a registered trademark of ASDG Incorporated. Professional Page is a trademark of Gold Disk Inc. PostScript is a registered trademark of Adobe Systems Incorporated. Amiga is a registered trademark of Commodore-Amiga, Inc. Linotronic 300 is a trademark of Allied Corporation. Photos are copyright Studio 5. Ad design by Eyo Sama, AmigoTimes.

Circle 182 on reader service card.

AMIGOTIMES
REVIEW



SIMCITY

As Monty Python would say: "And now for something completely different"! You've heard these claims before; "new breed" and "refreshingly different", right? Well, SimCity by Maxis is different. SimCity, short for Simulation City and named for the Sims that live there, is a simulation of an evolving city. Actually, Maxis calls this new type of entertainment/education software a system simulation.

The computer is a wonderful tool of many uses, and simulations of all types are its forte. Simulations we see on personal home computers model some specific aspect of real life. For example, my favorite is Ferrari Formula One. You can adjust or change everything that seriously affects race-car performance. But a system simulation would go beyond this, by including all the details and logistics necessary to develop, race, and transport the men and materials necessary to support an entire race season.

As a system simulation, SimCity attempts to let you experience first-hand all the intricacies and experiences that a city planner and mayor realize. Have you ever thought you could organize and run your community better than the people you voted in recently? SimCity gives you that opportunity!

PICK YOUR WORLD

You can start with an untouched meadow, or a quiet cove by a lake, or you can jump right into someone else's nightmare. Build "God's Little Green Acres" retirement community, or a new Gotham. This software gives you the chance to play with the simulated lives and destiny of hundreds, or, if you desire, tens of thousands. But beware! If it gets out of control, if you lose track of just one element within the system, or you become swayed by greed and corruption, disaster and revolt await.

SimCity for the Amiga is an integrated program that considers multiple simultaneous events, then in real-time generates reams of statistics, data and apparent live action. You will see the city develop and evolve right before your eyes, with your finger on its life pulse. Your power is limited; you can only provide the tools and opportunity to make the town. The people will actually build the houses, condos, churches, shopping malls and factories. They ultimately determine the character of your town, and depending on aspects that you manage (taxes, traffic, pollution, population, crime, land value, police and fire efficiency, and cash flow), will complain and move, or stay as the times dictate.

EXCELLENT DOCUMENTATION

As with most games that are this detailed, good instructions are a necessity. SimCity's documentation is clearly written, presenting its ideas, objectives, and operation in a concise manner. The first sections describe your goals and objectives. Next, brief but clear loading and startup instructions are given. Then the following 20 pages explain the complexities of the game. Finally, the last 10 pages give some real-world rules, a bibliography and further reading references.

After you've loaded and played the game and your initial curiosity has been satisfied, please read and study the documentation. While you can use the program without reading the docs, you'll get the hang of the simulation much quicker and enjoy it sooner.

Let me say, at this point, that this is a great program, but there is a very serious problem: this program requires 1 MB of memory. You will not be able to run the program if your 500 or 1000 only has 512K. So with that sad and only warning out of the way, let's continue.

GETTING STARTED

The opening graphic welcomes you to SimCity. On this screen you choose one of the existing scenarios, load a previously started city, or generate a new city. If you selected 'new', soon the program will randomly render a 10 square mile plot of land, and display it on a small, 2-D, 2 color map. If the layout of the land or the position of any bodies of water aren't exactly what you had in mind, simply request a new map. When the terrain is to your liking, name your town and select the game play level. A word of caution here: Before you continue, be sure to name your city. If you fail to do so, the name defaults to 'Somewhere', and this project will forever bear that name.

After exiting the startup screens, a number of windows will be opened and the flow of data begins. The first window is titled, Maps and Graphs. If you stop and study this window and all its icons and graphs, you might notice that time and the cost of owning this land are not standing still. The clock has started, but

By Joe DiCara

you haven't! So decide where 'downtown' is going to be, select that area, and return to the Editor. Its window reveals a close-up of the area you've selected. The icons represent objects, tools, and actions you can take. Of course, as you gain experience, your first actions will change; but you will always need three things to begin your city: a place for the people (the Sims) to live, places for the Sims to work, and electrical power to activate their town. Then you must make your first decision. The map reveals beautiful green forests, and a land dotted with clean water. But bulldozers and people are waiting. Only you can preserve its natural beauty. As the decades pass, will this place still be desirable and capable of supporting life, or will crime, and pollution have taken their toll?



In SimCity you have full control over the zoning, budgeting, power, maintenance, and transportation in your city. What you can't fully control though is the demand for and development of those areas and of course acts of God.



In the Map Editor you can fully examine your city, it lets you display the crime areas, roadways, pollution, police protection, fire coverage etc. and also lets you see how these factors are changing over the years.

EDUCATION VALUE

Shortly after receiving SimCity, I asked one of my children to start the game and describe its features and use. After getting through the startup, we arrived at the Editor Window. As he explained the use of the tools and equipment, his understanding of his decisions and their consequences amazed me. He had learned through first-hand experience (at the expense of unnumbered Sims) the cause and effect of his choices and the lack of his foresight and planning. He explained the importance of retaining forests and trees. How it effected property values, and how the Sims seemed more productive and creative if these surroundings were aesthetically pleasing. He had learned the economies and consequences in selecting things like powerplants. Coal plants were cheap, but dirty. Result: property values dropped nearby. While nuclear was clean and flexible, it is expensive and the potential for disaster needs serious consideration. Transportation systems, he learned, were very necessary, but a headache and an expense to maintain. He saw that growth and prosperity came at a high cost; the inner-city grew congested, crime increased, the potential for fire increased, and the people clamored for services, facilities and recreational areas.

I was impressed. My child had exposure in school to some of these principles, but this game seemed to bring it all together in a very real and subtle way. As I watched him play out other scenarios, I noticed his concentration, and intensity increase. As he quickly learned about the "what ifs", I knew SimCity truly was a new breed and refreshingly different.

But you know, all work and no play soon will cause anything to become boring. At Christmas my Dad would set the Lionel trains up, complete with roads and villages. At first, I'd be the ideal railroader. Everything was done correctly, procedures adhered to, and schedules maintained. But soon, strange things began to happen in Mr. Lionel's world. Locomotives began to take curves at too high a speed, whole trains would suddenly derail wiping out complete sections of downtown. Every once in a while, a plane or some indescribable creature would come crashing through the train layout. My parents never believed my explanations; I always got accused of being destructive. I know you folks don't know what I'm talking about, but the guys at Maxis do. If you peak into a menu entitled 'Disasters', you'll realize that Pleasantville didn't do too well at their house either!

We've got trouble in SimCity, so you think your utopia can stand up to anything, right? Well let's try a little fire here or there. Maybe a flood, earthquake, or tornado might be a good test of your civil defense capabilities. Can your hospitals and emergency facilities respond to an airplane crash? These happen, and randomly! And if, God forbid, you get totally bored or frustrated, well you can unleash old Godzilla, himself, on the poor little Sims.

I think Monty's Flying Circus would have enjoyed this game. It never ends the same way twice and you never actually lose. While you might find yourself out of a job (I have been impeached, sad to say), you can just click the button and start your havoc in another 'Somewhere'. But, oh those poor Sims, can they ever escape? Will they ever find a kind and capable leader?

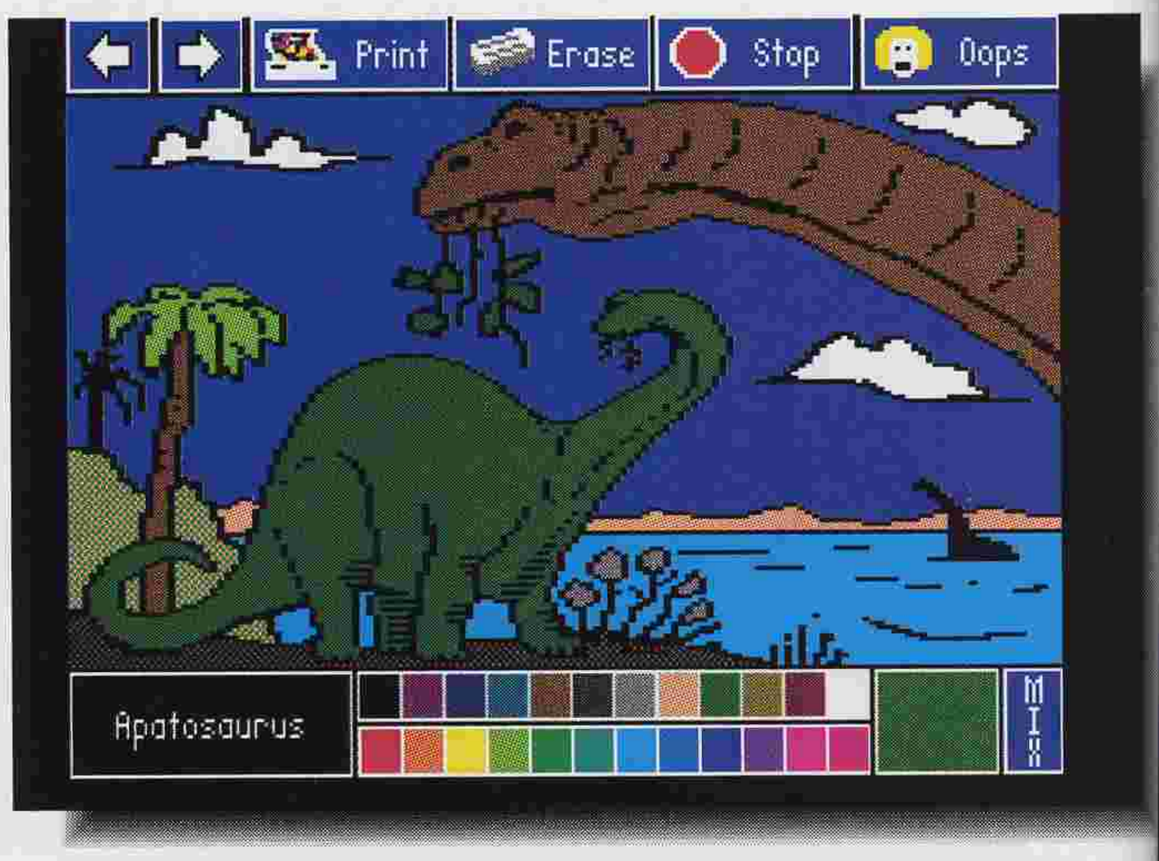
SimCity is an interesting, educational, and fun game which the whole family will enjoy. ❑

(See PRODUCT INDEX for more contact information on page 109)

AMIGOTIMES REVIEW

Resurrecting The Dinosaurs In Color!

By Rick Broida



Polarware's Dinosaurs Are Forever perfects yet another use for the Amiga, and the idea is so simple that you'll wonder why you didn't think of it first. The use of the Amiga as a coloring book is an underrated and, until now, unexplored fun. Conceptually it's an excellent idea; children can color pictures, print them, then erase and start over. No crayons strewn about, no torn pages, no mistakes. Parental worry over unproductive computer use can be eradicated. Polarware's Dinosaurs Are Forever is one of the first such coloring book programs for the Amiga, and hopefully not the last.

As the title denotes, the content of the program deals with dinosaurs, a popular theme among kids these days, particularly young boys. Included on the two disks are 26 uncolored dinosaur pictures and digitized sound effects to go with each. The feat of the artist is to fill in areas of the picture with any combination of 24 colors. This is done by using the mouse to point to a color, clicking to select that color, then clicking in the area to be filled. A crayon denoting the selected color acts as the pointer. Children ages 3 and up, the package clearly states, should have no trouble learning these functions.

Colors may also be mixed. If you select a color, say yellow, and then click on the Mix box, each of the 23 remaining colors is replaced with the combination of that color and yellow. Unfortunately, the resulting mixes are grainy and drab, but children will probably overlook this deficiency.

SCREEN FUNCTIONS

Five other screen functions, all of which should be explained to the artist(s) before using the program, are available: Next/Last Picture, Erase, Stop, Oops, and Print.

Next/Last Picture, which consists of left/right arrow buttons, is for changing pictures. Clicking the right button brings up the next dinosaur in alphabetical order, while the left does just the opposite. Disk access is slow, but the problem of going from the Ankylosaurus to, say, the Triceratops, can be overcome by pressing the first letter in the dinosaur's name (i.e. press 'T' to go to Triceratops). Clicking the Erase box clears all the colors from the picture.

The Stop box has two functions: saving each picture that has been colored, and exiting the program. Pictures will not be saved if the program is exited by other means (such as turning off the computer, rebooting, etc.).

Oops is for erasing the last area filled with color. Clicking the Print box will send the picture to your printer in one of many preselected forms: the picture alone; the picture with a calendar, in which you choose the month and year; the picture with a short description of the dinosaur; the picture with a message (the contents of a Message file on disk, easily edited with Notepad, are printed); the picture sideways; and the picture with a custom-created banner.

To take a young Picasso's work from the screen to the fridge might require a little parental assistance. The print options are selected via a pull-down menu, perhaps too difficult for the younger artists. Note that a color printer is essential in order to generate quality reproductions of your child's work.

The documentation provided in the Dinosaurs Are Forever package is very sparse, but quite clear. Parents who appreciate a reader's digest manual will find this most amenable. Five minutes with this leaflet will be enough to properly instruct the kids on all the essential functions of the program.

HISTORY OF DINOSAURS

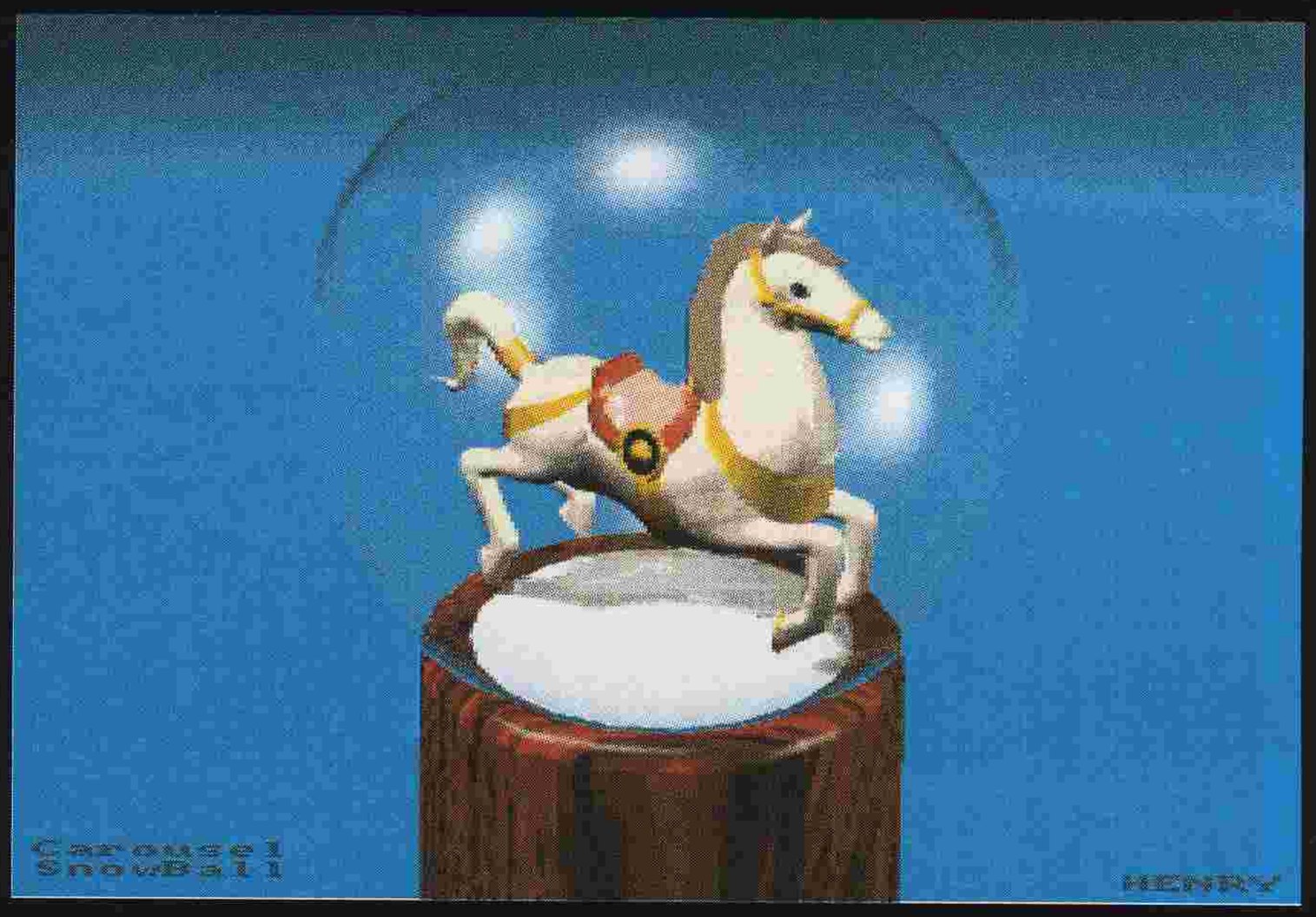
Also contained in the package is a "family tree", which charts the evolution of the dinosaurs throughout the Mesozoic Era. The chart is non-essential to the program, but might be fun for educational purposes. Another inclusion is a page of assorted stickers that don't necessarily relate to dinosaurs, but look nice and might serve as a good reward to budding artists.

The only problem parents might find with a program like Dinosaurs Are Forever is the "It's MY turn!" complaint. It's true that a second box of crayons is cheaper than a second Amiga, but the problem of multiple artists might be solved by having them cooperate in color selections for one picture, or by having them alternate dinosaurs, coloring every other one. A tiny amount of parental intervention will see to peaceful co-existence with Dinosaurs.

Dinosaurs Are Forever is an excellent way to calmly introduce children to the world of computers, without zapping this or bombing that. The designers did a superb job of porting the program to the Amiga, taking full advantage of its capabilities. Of course, if dinosaurs bear no interest to your kids, look for Polarware's release of their popular Sesame Street series for the Amiga, which should be available by the time you read this. ❑

(See PRODUCT INDEX for more contact information on page 109)

AmiEXPO Presents
THE 1990 AMIGA ART CALENDAR



A Complete 1990 Calendar • 13 Pieces of Original Amiga Art
Produced Exclusively On The Amiga
Each work 9" x 13" • Suitable for Framing

ORDER NOW AND SAVE $5.00
The 1990 Amiga Art Calendar is only $14.95
Coupon Worth $5 Savings On Any AmiEXPO

To place an order for your 1990 Amiga Art Calendar, either complete the included form and return to our offices or call us at 1-800-32-AMIGA. To place a telephone order, you must have a valid Visa or MasterCard. Please allow 6-8 weeks for delivery.

ORDER TODAY!
Order by Mail or Call 800-32-AMIGA Nationwide (or 212-867-4663)
For Your All Amiga Art Calendar!

❑ *Yes, I want my 1990 Amiga Art Calendar*

_____ *Calendars @ $14.95* _____
Shipping &Handling
Please add $2 per calendar _____
TOTAL _____

Make Check or Money Order Payable to:
AmiEXPO 211 E. 43rd St., Suite 301
New York, NY 10017

NAME _____
COMPANY _____
ADDRESS _____
_____
CITY _____ STATE _____ ZIP _____

For ___ MasterCard or ___VISA Payment
Expiration Date _____
Account Number _____
Name as it appears on card: _____
Signature _____

AmiEXPO™ is a registered trademark of AmiEXPO, Inc. © 1989 AmiEXPO, Inc.

Circle 103 on reader service card.

Creative Computers

ORDERS ONLY: 800-872-8882 OUTSIDE CALIF. 213-370-2009 INSIDE CALIF. 213-542-2292 CUSTOMER SERVICE OR ORDER STATUS

VISA, MasterCard, American Express, Discover, International Phone and Mail Orders, Educational, Corporate and Aerospace Purchase Orders Accepted.

4453 Redondo Beach Blvd., Lawndale, CA 90260 Mon.-Sat. 8 a.m.-6 p.m. PST FAX: 213-214-0932

HOT NEW PRODUCTS

VIDEO & AUDIO:
- Forms In Flight II
- Photon Paint II
- Music X
- Caligari
- The Performer
- Movie Setter
- MidiVU
- C-Zar
- Comic Fonts
- Pro-Sound Designer
- MIDI Magic
- Zoetrope
- Photon Cell Animator

GAMES:
- Double Dragon
- Designasaurus
- Baal
- Trump Castle
- Operation Wolf
- Bubble Bobble
- Rastan
- Dragon's Lair
- TV Sports Football
- Lords of the Rising Sun
- Univeral Military Simulator
- Advanced Dungeons & Dragons
- Kingdoms of England
- Hostage
- Test Drive 2
- Downhill Challenge
- Rampage
- Evil Garden
- Artic Adventurel

BUSINESS PRODUCTIVITY:
- Page Stream
- Works Platinum
- Pen Pal
- Tax Break
- Desktop Budget
- Pro-Net
- Pro-Board
- Professional DataRetrieve
- Professional Draw
- Aegis Draw 2000
- Superbase Personal 2
- Superplan

EDUCATIONAL:
- My Paint

UTILITIES:
- B.A.D. (hot floppy and hard disk accelerator)

HARDWARE:
- INTRUDER ALERT
- AMAC Emulator (Macintosh emulator!)
- Spirit Deluxe MIDI
- Vault-30

PLEASE CALL FOR PRICES

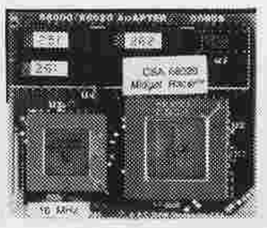
SOFTWARE

3-D GRAPHICS	36.13
3-DEMON	71.95
4 X 4 OFF ROAD RACING	32.46
4TH & INCHES CONSTRUCTION	9.95
4TH AND INCHES	29.24
64 EMULATOR 2, THE	49.95
A B ZOO	25.99
A-TALK III	64.97
AAARGH!	23.95
AC BASIC COMPILER	134.06
AC FORTRAN	199.00
ACCOUNTANT, THE	186.95
ADRUM	51.98
ADVENTURES OF SINBAD	32.46
AEGIS ANIMATOR	87.95
AEGIS DRAW 1.4	52.95
• AEGIS DRAW 2000	181.95
AESOP'S FABLES	19.95
ALGEBRA I	36.95
ALGEBRA II	36.95
ALIEN FIRES	24.95
ALIEN SYNDROME	32.46
ALL ABOUT AMERICA	38.95
ALTERNATE REALITY	27.95
• AUDIOMASTER II	64.95
• AUTODUEL	27.00
AWARD MAKER PLUS	31.16
AWARD MAKER: SPORTS	19.95
AZTEC 68/AM-D	194.95
AZTEC C PROFESSIONAL	129.95
• AZTEC 605K C68K SPEC.	369.72
• B.A.D. DISK OPTIMIZER	32.46
• BAAL	22.95
BAD CAT	30.25
BALANCE OF POWER	34.95
BALANCE OF POWER (BOOK)	8.51
BARBARIAN	25.95
BARD'S TALE	35.95
BARD'S TALE CLUE BOOK	10.95
BARD'S TALE II	41.95
BARD'S TALE II CLUE BOOK	10.50
BARDS TALE HINT DISK	13.95
BASIC GRAMMER SERIES	19.46
• BATTLE CHESS	32.46
BATTLE SHIP	19.46
BBS-PC	62.32
BECKER TEXT	99.95
BENCHMARK C LIBRARY	64.95
BENCHMARK IFF LIBRARY	64.95
BENCHMARK MODULA-2	129.95
BENCHMARK SIMPLE LIBRARY	64.95
CAPITALIZATION SERIES	19.46
CAPONE	25.95
CAPTAIN BLOOD	32.46
CAPTAIN FIZZ	19.95
CARRIER COMMAND	30.95
CASINO FEVER	25.95
CB TREE PLUS	64.95
• CBM DOS 1.3 WORKBENCH	24.95
CELEBRITY COOKBOOK	22.95
CENTERFOLD SQUARES	19.95
• CHARON 5	25.96
CHESSMASTER 2000	32.46
CHICKEN LITTLE	19.95
CHRONO QUEST	33.95
CITY DESK	93.95
CITY DESK ART COMPANION	19.95
CITY DESK BUNDLE	99.95
CLI MATE	24.95
CLIP ART #1-#8 (EA.)	12.95
COMBAT COURSE	25.95
• COMIC FONTS (NEW & NICE)	59.95
• COMIC SETTER	64.96
COMIC SETTER (FUNNY DATA)	22.95
COMIC SETTER (SF DATA)	22.95
COMIC SETTER (SUPERHEROS)	22.95
• COSMIC BOUNCER	19.95
CRAPS ACADEMY	25.95
CRASH GARRET	25.96
CRAZY CARS	25.95
CROSSWORD CREATOR	34.95
• CUBEMASTER	9.95
CUSTOMS SCREENS	43.73
• CYGNUS ED PROF.	64.95
DARK CASTLE	25.95
DATA RETRIEVE	49.95
• DATA RETRIEVE PROF.	211.95
DEATH SWORD	19.95
DECIMAL DUNGEON	32.46
• DEEP SPACE	9.95
DEFCON 5	25.95
DEFENDER OF THE CROWN	34.95
DEJA VU	34.95
DELUXE ART PARTS #1	21.95
DELUXE ART PARTS #2	21.95
DELUXE HELP CALLIGRAPHER	22.71
KAWAI K-1 ED/LIB	92.97
KAWAI K-5 ED/LIB	92.95
KCS	154.95
LEXICON ED/LIB	92.95
MIDI RECORD. STU.	43.50
MT-32 ED/LIB	92.95
MATRIX-6 ED/LIB	92.95
• DRAGON'S LAIR	46.50
DREAM ZONE	32.46
DRUM STUDIO	32.47
• DUNGEON MASTER	32.46
DUNGEON MASTER HINT DSK	12.95
DYNAMIC DRUMS	49.95
DYNAMIC STUDIO	139.00
DYNAMIC-CAD	299.00
EARL WEAVER BASEBALL	34.95
EARL WEAVER STATS	12.95
EASY LOANS	24.95
EBON STAR	25.96
EMERALD MINES	14.95
EMETIC SKIMMER	25.95
EMPIRE	34.32
ENCORE	45.95
EUROPEAN SCENERY DISK	17.95
• EVIL BARDEN	25.95
• EXCELLENCE	159.00
EXPLORER	32.47
EXPRESS COPY	29.95
EXPRESS PAINT 3.0	90.95
EXTEND	25.95
FACC II	21.95
FAERY TALE ADVENTURE	31.95
FAERY TALE GUIDEBOOK	7.95
FALCON	32.46
• FAMILY TREE	32.45
FANCY 3D FONTS	46.95
FANTAVISION	42.95
FERRARI FORMULA ONE	33.95
• FINAL ASSAULT	32.46
FINAL MISSION	19.95
FINE PRINT	41.95
FIRE 'N FORGET	25.95
FIRE ZONE	23.95
FIRE-BRIGRADE	32.46
FIREPOWER	16.95
INTERFONT	75.36
INTERNATIONAL SOCCER	25.96
INTROCAD	49.95
INVESTOR'S ADVANTAGE	64.95
• INVISION	99.95
IT'S ONLY ROCK & ROLL	21.95
J FORTH	77.96
JET	37.46
JET SET FONT SET	32.50
JINXTER	25.95
• JOKER POKER	32.46
KAMPFGRUPPE	41.95
KARA FONTS	54.95
KARATE KID II	25.95
KEY TO "C"	22.95
KICK-WORK 1.3	22.95
KIDTALK	27.95
KIKUGI	18.95
KINDERAMA	32.46
KINDWORDS	64.95
KING OF CHICAGO	34.95
MICROLAWYER	37.95
• MIDIVU	29.95
• MISSION CON-BAT	31.16
MODELER 3-D	65.00
MOEBIUS	39.95
MONEY MENTOR	64.95
• MOVIE SETTER	64.95
MULTI-FORTH	59.95
MULTI-PREFS	19.45
MURAL PRINTER	29.95
MUSIC MOUSE	51.95
MUSIC STUDENT	37.95
MUSIC STUDIO	34.95
• MY PAINT	32.46
NAG PLUS 3.0	49.95
NEWSLETTER FONTS COLOR	29.95
OBLITERATOR	25.95
OFFSHORE WARRIOR	25.96
OGRE	32.46
ONLINE 2.0	43.56
OPERATION CLEAN STREETS	25.95

SPECIAL HOT PRODUCT!
DELUXE PAINT III $99.95

KING'S QUEST I	32.95
KING'S QUEST II	32.95
KING'S QUEST III	32.95
KNIGHT ORC	30.95
LANCELOT	27.95
LASER UP! FONTS VOL. I	31.95
LASER UP! PLOT 1.2	39.95
LASER UP! PRINT 1.2	71.95
LASER UP! UTIL. VOL. I	31.95
• LATTICE "C" 5.0 COMPLETE	195.00
• LATTICE C++	345.00
LAZERSCRIPT	28.10
LEADER BOARD DUAL PACK	22.72
LEADER BOARD TORNA DISK	13.95
LEADER BOARD-GOLF GAME	27.00
LEARNING CURVE	51.95
LEARNING THE ALPHABET	19.46
LEATHER GODDESSES	32.46
LEATHERNECK	25.95
LEISURE SUIT LARRY	26.40
LEXCHECK	26.85
LIFE CYCLES AMIGA	19.46
LIGHTS! CAMERA! ACTION!	59.95
LINKWORD DUTCH	20.55
LINKWORD FRENCH	20.55
LINKWORD GERMAN	20.55
LINKWORD GREEK	20.55
LINKWORD ITALIAN	20.55
LINKWORD PORTUGUESE	20.55
LINKWORD RUSSIAN	20.55
LINKWORD SPANISH	20.55
LINT (GIMPLE)	63.70
LION'S/CALLIGRA FONTS	58.95
LITTLE RED HEN	19.95
LOGIG WORKS ADVANCED	189.95
LOTTERY MAGIC	19.95
LURKING HORROR	25.95
• M INTELLIGENT MUSIC	143.46
• MAGELLAN	119.00
MAGICAL MYTHS	32.46
MAJOR MOTION	25.96
MANIAX	16.95
MARAUDER II-DUPLICATION	27.47
MARBLE MADNESS	33.00
MASTER NINJA	30.95
MASTERING CLI	25.95
MASTERPIECE FONT, 20-DSKS.	167.95
MATCH IT	25.95
MATH MAGICIAN	27.49
MATH TALK	31.95
MATH TALK FRACTIONS	26.95
MATH WIZARD	32.46
MATH-AMATION	64.95
MAVIS BEACON TYPING	30.89
MAXIPLAN 500	93.95
MAXIPLAN PLUS	124.95
MEAN 18 COURSE DISK	14.96
MEAN 18 COURSE DISK II	14.95
MEAN 18 GOLF	28.95
MEDIALINE FONTS	22.95
MENACE	19.98
METACOMCO ASSEMBLER	68.95
METACOMCO PASCAL VER 2.0	92.95
METACOMCO SHELL	39.95
METACOMCO TOOLKIT	34.95
METASCOPE DEBUGGER	59.95
MICROFICHE FILER	69.95
MICROFICHE FILER PLUS	116.95
ORGANIZE	62.32
OTG DSM (DISASSEMBLER)	43.95
OUT RUN	32.46
P.O.W.	25.95
PAGE FLIPPER	31.23
PAGE FLIPPER PLUS F/X	103.95
• PAGE STREAM	129.95
PAGESETTER	93.72
PALADIN	25.95
PALADIN (QUEST DISK 1)	16.86
PCLO PRINTO CURCUIT LYOUT	199.95
PCLO+ PRNTD CURCUIT LYOUT	399.95
PERFECT SCORE	54.95
• PERFORMER (ELAN)	38.95
PHANTASIE	27.47
PHANTASIE 3	24.95
PHANTASM	22.95
• PHASAR-FIN'L MGMT	62.48
• PHOTON CELL ANIMATOR	99.95
PHOTON PAINT	64.96
PHOTON PAINT EXP. DSK.	19.95
PHOTON PAINT TRANS. CNTRL	194.95
PHOTOSYNTHESIS	97.95
PINBALL I.Q.	19.46
PIONEER PLAGUE	25.96
PIXMATE	45.95
PLANET PROBE	19.95
PLATOON	29.21
POKER SOLITAIRE	22.95
POLICE QUEST	32.46
PORTS OF CALL	29.95
POWER WINDOWS 2.5	58.47
POWERSTYX	22.95
PRE CALCULUS	36.95
PRESIDENT IS MISSING	25.95
PRIME TIME	25.95
PRINTMASTER PLUS	31.23
PRO MIDI STUDIO	130.95
• PRO VIDEO PLUS	184.95
PROBABILITY THEORY	36.95
• PROFESSIONAL DRAW	129.95
• PROFESSIONAL PAGE	229.00
PROJECT D	31.95
PROMISE. SPELLING CHECKER	34.95
PROSCRIPT	32.95
PROWRITE 2.0	78.10
PUNCTUATION SERIES	19.46
QRADRALIEN	19.95
QUARTERBACK	45.95
QUESTRON II	32.46
QUICK MERGE	37.95
QUINTETTES	29.95
QUIZ MASTER	49.95

MIDGET RACER



HOT NEW ACCELERATOR FOR ALL AMIGAS $349.00
- 68020 processor.
- Optional math co-processor up to 33 Mhz 68882!
- 50% average speed increase *without* math co-processor.

ALSO: Sculpt Animate 4D $399.95

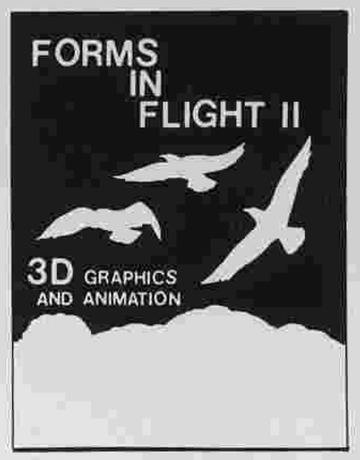
PACKAGE DEAL $979.00

INCLUDES: 1. SCULPT ANIMATE 4D; 2. MIDGET RACER; 3. 68882-20 CO-PROCESSOR; 4. 20 OR 24 Mhz CRYSTAL OSSC.

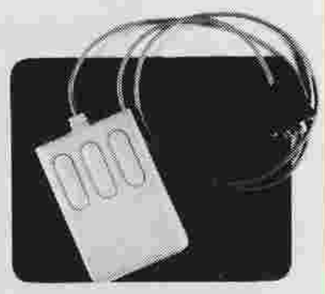
We carry OVER 1100 items
The best NEW products
The LOWEST PRICES

NEW PRODUCTS ARRIVE DAILY. CALL FOR UNLISTED ITEMS.

DELUXE HELP FOR DIGIPAINT	21.84
DELUXE HELP FOR DPAINT II	21.84
DELUXE HELP FOR PHOTON	21.95
DELUXE HELP PAGE SETTER	22.95
DELUXE MAPS	16.95
DELUXE MUSIC 2.0	69.95
DELUXE PAINT ART & UTIL	21.95
DELUXE PAINT II	89.95
DELUXE PHOTO LAB	99.95
DELUXE PRODUCTIONS	139.95
DELUXE VIDEO 1.2	89.95
DEMONSTRATOR	21.95
DES CARTES	22.95
DESIGN DISK:	
ARCH SCULPT or VSCAPE	22.74
FUTURE SCULPT or VSCAPE	22.74
HUMAN SCULPT or VSCAPE	22.74
MICROB SCULPT or VSCAPE	22.74
• DESIGNASAURUS	32.46
DESKTOP ARTIST	18.95
• DESKTOP BUDGET	45.95
DESTROYER	25.95
DEV DISK (ASSORTED UTIL)	7.95
DEVELOPERS TOOLKIT	36.95
DEVPAC AMIGA ASSEMBLER	64.95
DIGI-PAINT	41.95
DIGI-VIEW UPGRADE	13.95
• DIRECTOR'S TOOLKIT	24.95
DIRECTOR, THE	45.95
DISCOVERY EXPANSION DISKS	12.97
DISCOVERY/MATH	25.00
DISCOVERY/SPELL	25.00
DISCOVERY/TRIVIA	25.00
DISCRETE MATHEMATICS	36.95
DISK MECHANIC	58.50
DISK PRO PLUS	18.95
DISK TO DISK	34.95
DISK WICK	32.46
DISKMASTER	37.95
DISTANT ARMIES	29.95
DOCTOR TERM PROFESSIONAL	74.95
DOMINOES	16.95
DOS TO DOS	37.95
• DOUBLE DRAGON	27.95
DOUG'S MATH AQUARIUM	51.95
DOUGS COLOR COMMANDER	19.46
DR. T'S:	
4-OP ED/LIB	92.95
BACH SONGBOOK	17.95
CASIO V21 ED/LIB	92.95
COPYIST	155.38
CZ CARTRIDGE	51.95
CZ RIDER	92.95
D-110 ED/LIB	92.95
D-50 ED/LIB	92.95
DR. DRUMS	17.95
DR. KEYS	17.95
DX7 ED/LIB	92.95
ESQ-APADE ESQ-1	92.95
FIRST LETTERS & WORDS	33.00
FIRST SHAPES	33.00
FISH	29.95
FLEET CHECK	25.96
FLIGHT PATH 737	16.95
FLIGHT SIMULATOR II	37.46
FLOW	62.32
FONTS AND BORDERS	22.95
FOOTMAN	21.95
• FORMS IN FLIGHT II	79.50
FOUNDATIONS WASTE	23.62
FRACTION ACTION	32.46
GALACTIC CONQUERER	29.95
• GALAXY FIGHT	9.95
GALILEO 2.0	45.46
GALLERY 3-D (SCULPT)	51.95
GAMES, THE WINTER EDITION	32.46
GETTYSBURG	38.95
• GFA BASIC 3.0	90.95
GIZMOZ	45.95
GLOBAL COMMANDER	27.46
GOLD SPELL II	29.95
GOLDEN PATH	29.95
GOLDRUNNER II	25.95
GOMF! 3.0 (SOFTWARE ONLY)	27.95
GRABBIT	20.95
GRADE MANAGER	58.95
GRAND SLAM TENNIS	31.25
GRAPHICS STUDIO	38.95
GREAT STATES II	25.95
• GRETZKY HOCKEY	32.46
GUILD OF THIEVES	30.95
HAMANDEL	25.95
HARDBALL	28.95
HARRIER COMBAT SIMULATOR	32.95
HEAD COACH	32.46
HEROES OF LANCE HINT DSK.	13.95
• HEROES OF THE LANCE	27.95
HISOFT BASIC PROF.	103.95
HIT DISK VOL I	32.46
HOLE IN ONE	25.99
HOLLYWOOD POKER	25.95
HOME BUILDERS CAD	129.95
HOSTAGE	29.95
HOT & COOL JAZZ	21.95
HUNT FOR RED OCTOBER	34.95
• HYBRIS	25.99
ICON PAINT	58.95
IMPACT-BUSINESS GRAPHICS	62.46
IMPOSSIBLE MISSION II	32.46
INDOOR SPORTS	31.22
INOVA TOOLS	52.03
INSTANT MUSIC 1.2	33.00
INTELLITYPE	35.95
INTERCEPTOR	37.95
INTERCHANGE	29.95
INTERCHANGE CONVERSION	16.95
INTERCHANGE OBJECTS #1	16.95
INTERCHANGE TSLV MODULE	12.96



Forms In Flight II ($79.50)



Boing! Mouse

Professional Optical 3-button mouse for your Amiga.
- Optical technology eliminates friction and momentum coefficients for super-precise handling.
- No moving parts for increased reliability.
- Middle button makes it the only mouse compatible with A2024 software and X Windows.
- Compatible with ALL Amiga computers.

SPECIAL PRICE!
LIMITED TIME ONLY: $99.95

WE CAN BEAT ANY ADVERTISED PRICE! BUT WE SELDOM HAVE TO — OUR PRICES ARE THE LOWEST! (IF YOU SEE A LOWER PRICE ON AN ITEM, GIVE US A CALL.)

Circle 105 on reader service card.

R.R. AESOP'S FABLES 19.95
RAW COPY 1.3 ..... 38.95
REACH FOR THE STARS 27.95
READ & RHYME 31.95
READ-A-RAMA 32.46
REALM OF THE WARLOCK 22.74
REBEL CHARGE CHICKAMANGA 39.95
REEL FISHIN'—GONE FISHIN 30.88
RETURN TO ATLANTIS 34.95
ROAD RAIDERS 25.96
ROADWAR 2000 ..... 27.47
ROADWAR EUROPA 29.95
ROADWARS 23.95
ROB. READER UGLY DUCKLING 19.45
ROBBEARY 16.21
• ROCK CHALLENGE 25.95
ROCKET RANGER 32.46
ROCKFORD 23.95
ROMANTIC ENCOUNTER 25.95
SAMPLEWARE-DIGITAL 16.95
SAMPLEWARE-GRAB BAG 16.95
SAMPLEWARE-ORSHESTRAL 16.95
SAMPLEWARE-ROCK 16.95
SANTA PARAVIA & FIUMACCIO 19.95
SARGON III 35.95
SCARY MUTANT SPACE ALIENS 25.95
SCENERY DISK #11 EAST COAST 18.72
SCENERY DISK #7 EAST COAST 18.71
SCHEMATIC CAPTURE 199.95
SCRABBLE 27.46
SCRIBBLE 62.32
SCULPT 3-D 69.95
• SCULPT ANIMATE 4-D 399.95
• SDI: CINAMAWARE SERIES 34.95
SEASONS AND HOLIDAYS 21.95
SECONDS OUT 19.46
SECURITIES ANALYST 49.95
SEVEN CITIES OF GOLD 14.95
SEX VIXENS 25.95
SHADOW GATE 31.95
SHAKESPEARE 146.95
SHANGHAI-STRATEGY GAME 27.46
SHERLOCK 27.00
SILENT SERVICE 25.95
SINBAD & FALCON 34.95
SKY BLASTER 19.95
SKY CHASE 26.95
SKYFOX II 27.45
• SLAYSON 14.95
SMOOTH TALKER 33.95
SNAKE PIT 24.95
SOCIAL STUDIES 19.46
SOFTWOOD FILE SG 78.21
SOLITAIRE ROYAL 22.71
SONIX (AEGIS) 49.95
SORCERER LORD 23.95
SOUND OASIS 64.95
SOUNDLAB 209.95
SOUNDQUEST:
CZ MASTER 92.95
D-10 MASTER 92.95
D-110 MASTER 92.95
D-50 MASTER 92.95
DX7 MASTER 109.95
DX7-II MASTER 109.95
ESQ/ESQ-80 MST 92.95
GENERIC MASTER 77.95
K-1 MASTER 92.95
M-1 MASTER 92.95
MT-32 MASTER 92.95
TEXTURE 92.95
TX-802 MASTER 92.95
TX-81Z MASTER 92.95
SOUNDSCAPE PATTERN SPLAT 35.95
SOUNDSCAPE UTILITIES 1 ..... 35.95
SOUNDSCAPE UTILITIES II 42.95
SOURCE LEVEL DEBUGGER 49.96
SPACE CUTTER 19.95
SPACE HARRIER 32.46
SPACE MATH 29.95
SPACE PORT 27.38
SPACE QUEST II 32.46
SPACE RACER 19.46
SPACE SCHOOL SIMULATOR 22.95
SPACE STATION OBLIVION 32.46
SPACEQUEST 33.00
SPELLBOUND 25.95
SPELLER BEE 31.25
SPELLING IMPROVEMENT 25.95
STAR WARS EMPIRE STRIKES 30.25
STARFLEET I 29.95
STARGLIDER 30.95
• STARGLIDER II 29.95
STARRAY 19.95
STELLAR CONFLICT 28.95
STELLARYX 25.95
STOCK MARKET-THE GAME 16.95
STRIP POKER 27.46
STRIP POKER DATA #4 ..... 12.95
STRIP POKER DATA #5 ..... 12.95
STRIP POKER II 25.95
STUDIO FONTS V1 (COLOR) 29.95
STUDIO MAGIC 64.95
SUB BATTLE 24.95
SUMMER CHALLENGE 19.95
SUPERBACK 51.95
SUPERBASE 93.73
• SUPERBASE PERS. II 94.46
• SUPERBASE PROF. 3 ..... 209.95
• SUPERPLAN (SPREADSHEET) 99.95
SUPERSTAR ICE HOCKEY 32.46
SWORDS OF SODAN 32.46
SYMPHONY SONGS (EACH VOL) 15.95
SYNTHIA 59.95
SYSTEMS MONITOR 28.95
T SHELL 32.46
TAKE STOCK 32.46
TALES FROM ARABIAN NIGHTS 32.46
TALKING ANIMATOR 39.00
TALKING COLORING BOOK 18.95
TANGLE WOOD 25.95
TARGIS 28.95
TATE FONTS 45.95
• TAX BREAK 51.95
TECHNOCOP 32.46
• TELE EPIC 25.96
• TELE WARS II 25.96
TELEGAMES 23.95
TERA QUESTRON 25.95
TERRAIN FOR TURBO SILVER 19.95
TERRORPODS 25.95
TEST DRIVE 34.95
TETRA QUEST 25.95
TETRIS 21.80
TEXTCRAFT PLUS 59.95
THEXDER 23.95
THINKER 38.95
THREE LITTLE PIGS 19.95
THREE STOOGES 35.95
THUNDERBOY 22.95
TIME & MAGIK 26.95
TIME BANDITS 21.95
TOOL CADDY 32.46
• TOWER TOPPLER 32.46
TRACERS 22.95
TRANSCONTINENTAL RAILROAD 25.95
TRANSPUTOR 22.95
TRIANGO 29.95
TRIGONOMETRY 36.95
TRINITY 25.95
TRUE BASIC 68.95
TRUE BASIC ARITHMETIC 45.95
TRUE BASIC TRUE STAT 32.46
• TRUMP CASTLE 25.95
TURBO PRINT 32.95
• TURBO SILVER 3.0 ..... 129.95
TV SHOW 64.95
• TV SPORTS FOOTBALL 34.95
TV TEXT 62.32
TWILIGHTS RANSOM 19.95
TXED PLUS 51.95
ULTIMA III 28.95
ULTIMA IV 38.96
ULTRA DOS 37.95
UMS CIVIL WAR DATA DISK 12.95
UMS VIETNAM DATA DISK 12.95
UNCLE D CON SOUND TRATION 25.97
UNINVITED 34.95
• UNIVERSAL MILITARY SIMULTR 32.46
VAMPIRE'S EMPIRE 29.95
• VIDEO EFFECTS 3D 129.96
VIDEO VEGAS 24.10
VIDEO VISIONS 1 ..... 12.95
VIDEO VISIONS 2 ..... 12.95
• VIDEOSCAPE 3D 124.95
VIDEOTITLER 99.95
VIP VIRUS 32.46
VIRUS (GAME) 19.46
VOCABULARY IMPROVEMENT 25.95
W SHELL 31.95
WAR & MIDDLE EARTH 36.99
WARLOCK 22.71
WBEXTRAS 21.95
WESTERN GAMES 31.95
WHO FRAMMED ROGER RABBIT 29.95
WILLOW 25.95
WINDOW PRINT II 22.95
WINTER CHALLENGE 19.95
WINTER GAMES 27.46
WORD MASTER 32.46
WORD PERFECT 179.00
WORD PERFECT LIBRARY 84.95
WORLD CLASS LEADER BOARD 25.97
WORLD GAMES 27.46
WORLD TOUR GOLF 27.45
WRITE 'N FILE 59.95
• WSHELL 32.95
X-CAD 389.00
ZAK MCKRACKEN 29.95
ZANY GOLF 27.95
ZERO GRAVITY 19.46
ZING KEYS 31.95
ZING! SPELL 57.95
• ZOETROPE 89.95
ZOOM 21.95
ZORK TRILOGY 47.95
ZOUND SOUNDS VOL I 21.95
ZUMA FONTS VOLS 1 THRU 4 ..... 68.95
ZYNAPS 23.95

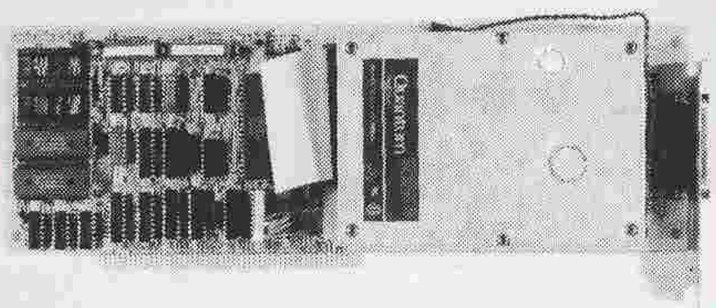
NEW FROM CENTAUR:
THE SILENT DRIVE $159

FEATURES: • CSI 3200 • Clickless • Small compact design • Metal case • Compatible with all Amiga computers • Low power consumption • Hinged dust cover • Drive disable switch • 1-year warranty.

ALSO AVAILABLE: CSI 2200 internal drive for Amiga 2000—100% compatible with same mechanism as Commodore 2010 ..... $149.00

HARDWARE

68020-12 CPU/PROC. 170.00
68030-16/20 CPU/PROC. 570.00
68881 CRYSTAL OSSC. 16MHZ 5.00
68881-16 MATH COPROC. 200.00
68881-20 MATH COPROC. 300.00
68882-20 MATH COPROC. 500.00
68882-25 MATH COPROC. 620.00
ALCOTINI SAMPLER 500/2000 ..... 89.95



GVP GREAT VALLEY PRODUCTS

For Amiga 2000:
IMPACT HC/45—48 MB 28ms Hard Card 799.00
IMPACT HC/40Q—42 MB 11ms Hard Card 799.00
IMPACT HC/80Q—84 MB 11ms Hard Card 1199.00
For Amiga 500:
IMPACT A500-SCSI/HD20—20 MB HD 749.00
IMPACT A500-SCSI/HD45—45 MB HD 995.00
IMPACT A500-SCSI/HD40Q—42 MB 11ms High-Speed Hard Drive 1049.00
IMPACT A500-SCSI/HD80Q—84 MB 11ms High-Speed Hard Drive 1449.00
Quantum 80S, 84 MB 11ms 3.5" HD 995.00
Shock mounted, 64KB cache (for 11ms speed), SCSI interface. Compatible with IMPACT or A2090 boards.
Quantum 40S—42 MB version of above drive 599.00

M.A.S.T. PRODUCTS

MINIMEGS: Expandable, external FAST RAM (up to 2-MBs), low power — available for Amiga 500 or 2000 —
• MINIMEGS 512K $299
• MINIMEGS 1 MB $449
• MINIMEGS 2 MB $749
TINY TIGER: Low cost, high performance, SCSI hard drives for all Amigas — complete — nothing else to buy —
• TINY TIGER 30 MB $629
• TINY TIGER 40 MB (Quantum) $799
• TINY TIGER 80 MB $1129
UNIDRIVE $159
TWIN DRIVE $269
(special price/limited time only)

MICROBT. HARDFRAME SCSI 239.00
MIDI GOLD 64.20
MIDI GOLD 2000 (INT) 68.47
MIMETICS MIDI INTERFACE 43.00
NERIKI GENLOCK 1975.00
OKIMATE 20 W/PLUG N PRNT 249.00
OKIMATE PLUG N PRINT 79.95
OMEGA STR. SAMPLER A1000 ..... 79.95
PAINTJET COLOR PRINTER 1095.00
PANASONIC WV1410 CAMERA 225.00
PANASONIC WV1500 CAMERA 320.00
PEOPLE METER BIO FEEDBACK 39.95
PERFECT SOUND DIGITIZER 67.95
• PERFECT VISION 169.95
PRO RAM A2000 2/8 MG 699.00
• PRO SOUND DESIGNER 119.95
PROCESSOR ACCEL CMI 159.00
PROGEN 399.00
QUANTUM 40 MB DRIVE, 11MS 599.00
QUANTUM 80 MB DRIVE, 11MS 995.00
• ROLLAND MT-32 TONE MOD. 549.00
RUGGEDWRITTER HP PRINTER 1395.00
SOUND SAMPLER 86.95
SPIRIT 0 MB FOR A1000 ..... 249.00
• SPIRIT DELUXE MIDI 214.95
STAR NX1000 PRINTER 199.00
STAR NX1000 RAINBOW 279.95
STARBOARD 2 SCSI MOD. 100.00
STARBOARD 2 UPPER DECK 80.00
STARBOARD 2/A500 0K 300.00
STARBOARD 2/A1000 0K 250.00
STARBOARD SB2000 ADAPTER 42.00
STEREO SOUND SAMPLER STRV 87.95
• SUPERGEN 699.00
• SUPRA 2400 MODEM 149.00
SUPRA DRIVE 20 MEG A500 ..... 699.00
SUPRA DRIVE 20 MEG A1000 ..... 699.00
SUPRA DRIVE 30 MEG A500 ..... 799.00
SUPRA DRIVE 30 MEG A1000 ..... 799.00
TOOL BOX, ESCORT FOR A500 ..... 170.00
TRUMP CARD SCSI CNTR 2000 ..... 168.96
• TWIN-DRIVES EXT 3.5" FDD 269.00
• UNIDRIVE 3.5" EXT. DRIVE 159.00
• VAULT-30 HARD DRIVE 30 MB ..... CALL
VI 500 VIDEO INTERFACE 59.95
VI 500 VIDEO/RF MOD. 69.95
VI 2000 VIDEO INTERFACE 69.95
VI 2000 VIDEO/RF MOD. 79.95
X-SPECS 3D 99.95
XEROX 4020 INK JET COLOR 1140.00
XEROX 4020 STARTER KIT 156.00

ACCESSORIES

A1084 CARRING CASE 51.95
A500 & MONITOR CARRY BAGS 69.95
AMIGA BAG 29.95
AMIGA BRASS KEY RING 3.95
AMIGA FASHION GOLF SHIRT 19.95
AMIGA FASHION JACKET 39.50
AMIGA MUG 6.95
AMIGA NOTE PAD!! 4.99
AMIGA PEN & PENCIL SET 19.95
AMIGA PINS 4.95
AMIGA PLASTIC VISOR 1.95
AMIGA SLEEVE TSHIRT 7.95
AMIGA TERRY CLOTH VISOR 5.50
AMIGA TOWEL 15.95
AMIGA TWILL CAP W/CORD 7.95
BOSS JOYSTICK 12.95
CABLE, 10' CAMERA 12.95
CABLE, 500/2000 IMAGE-1 ..... 19.95
CABLE, 500/2000 IMAGE-2 ..... 19.95
CABLE, 6' MIDI LINK 9.95
CABLE, A1000 TO IMAGE-1 ..... 19.95
CABLE, A1000 TO IMAGE-2 ..... 19.95
CABLE, AMIGA TO NEC II 24.95
CABLE, AMIGA TO SONY 1302 ..... 19.95
CABLE, AMIGEN TO 1084 ..... 19.95
CABLE, DB25M DB25F 8 FT. 19.95
CABLE, DB9M TO DB9F 6 FT. 16.95
CABLE, DRIVE EXT. 2 FT. 19.95
CABLE, DRIVE EXT. 3 FT. 27.95
CABLE, FLCK FIX TO NEC II 19.95
CABLE, FLCK FIX-SONY 1302 ..... 19.95
CABLE, M-CENTR TO M-CENTR 22.95
CABLE, MONITOR EXT 4FT 21.95
CABLE, MOUSE EXTENSION 14.95
CABLE, PARALLEL A1000 ..... 19.00
CABLE, PARALLEL A500/2000 ..... 19.00
CABLE, SCSI RIBBON, 2 FT. 15.95
CABLE, SERIAL A1000 ..... 19.00
CABLE, SERIAL A500/A2000 ..... 19.00
CLEANING KIT (ALLSOP) 14.95
CLEANING KIT SM. ALLSOP 6.95
CONTROL CENTRE FOR A500 ..... 71.95
COPY/CAMERA STAND, LIGHTS 64.95
CURTIS DIAMOND 33.95
CURTIS DIAMOND PLUS 46.95
CURTIS EMERALD 40.95
CURTIS PHONE LINE SURGE 12.36
CURTIS RUBY 58.95
CURTIS SAPPHIRE 56.95
DESKJET BLACK CART. 15.95
DESKJET COURIER FONT CART. 62.95
DESKJET DUST COVER 29.95
DESKJET EPSON FX-80 EMUL. 62.95
DESKJET HELV 8 & 10 PT. 79.95
DESKJET HELV ASCII FONTS 104.95
DESKJET LANDSCAPE FONT 79.95
DESKJET LANDSCAPE UPGRADE 79.95
DESKJET LETTER GOTHIC 79.95
DESKJET PRESENTATION FONT 79.95
DESKJET PRESTIGE ELITE 79.95
DESKJET RMN/HELV SOFT FNT 79.95
DESKJET STAND/ORGANIZER 84.95
DESKJET TMS RMN 8 & 10 PT 79.95
DESKJET TMS RMN ASCII 104.95
DIGI-DROID 69.95
DISK FILE 30 ..... 7.95
DISK FILE 80 ..... 19.95
DUST COVER FOR A500 ..... 8.95
DUST COVER FOR A2000 ..... 11.95
DUST COVER, A1000 W/MON 13.95
EPYX 500XJ JOYSTICK 14.95
ERGO STICK 17.95
FLICKER MASTER 13.95
FLOPPY WALLET 7.95
FOUR PLAYER ADAPTER 11.95
• FUJI DISKETTES 19.95
GAME PLAY COMPACT DISK 12.95
GENDER BENDER (DIGI-VIEW) 20.95
KEYBOARD SKIN A2000 ..... 19.95
KEYBOARD SKIN A500 ..... 19.95
KEYBOARK SKIN A1000 ..... 19.95
KRAFT MAZEMASTER JOYSTICK 9.95
LASERJET-2 TONER CART 104.00
LASERJET-2 8.5 X 14 TRAY 104.95
LASERJET-2 COURIER FTS. 144.50
LASERJET-2 ENVELOPE TRAY 79.95
LASERJET-2 LASER CNTRL SW. 117.95
LASERJET-2 PLOTTER SOFTW. 117.95
LASERJET-2D ENVELOPE TRAY 279.95
LIGHT GUN 48.95
MICHTRON DISK FOLDER 10.95
• MIDI MAGIC 97.95
MIND LIGHT 7 ..... 164.95
MOUSE COVER W/GLASSES 5.95
MOUSE MATS 6.95
MOUSE WASH 6.95
PAINTJET BLACK CART. 23.60
PAINTJET COLOR CART. 29.10
PAINTJET CUT-SHEET PAPER 19.10
PAINTJET DUST COVER 19.95
PAINTJET PAPER CATCHER 23.95
PAINTJET PRINTER STAND 66.95
PAINTJET TRANSPARENCY FLM 54.05
PAINTJET Z-FOLD PAPER 14.95
POWERPLAYERS JOYSTICK 19.95
PRINT & WEAR 13.95
QUICKSHOT II JOYSTICK 12.95
RAM, 1 MEG X 1-10 CHIPS 30.00
RAM, 1 MEG X 8-12 SIMMS 340.00
RAM, 256K X 1-12 CHIPS 12.00
RAM, 256K X 1-15 CHIPS 10.00
RAM, 256K X 8-12 SIMMS 88.00

PROGRAMMERS BOX:

LATTICE C 5.0 ... $195.00
LATTICE C++ $345.00
AREXX ..... $ 32.95
W-SHELL ..... $ 32.95
GFA BASIC 3.0 ... $ 90.95

RUGGED W. 16KB +4 FONTS! 124.95
• SONY DISKETTES, COLORED 22.95
SONY DISKS 10 PACK 20.95
TAC-2 JOYSTICK 10.95
TEAK-TECH 120 DISKHOLDER 32.95
TEAK-TECH 60 DISKHOLDER 27.95
TRACKBALL (2 BUTTON MOUSE) 39.95
TRANSVESTOR 1000 ..... 23.95
TRANSVESTOR 2500 ..... 41.95
WINNER JOYSTICK 14.95
XEROX 4020 4-PACK INK 19.95

FREE SHIPPING!*

CREATIVE COMPUTERS is both a mail order company with a store's support and three store showrooms with mail order prices. Visit one of our showrooms today. You'll be amazed!

3 RETAIL SHOWROOM LOCATIONS TO SERVE YOU

SANTA MONICA & WESTSIDE: 318 Wilshire Blvd., Santa Monica, CA 90401. Tues.-Sat. 11-7 p.m./Sun. 11-5 p.m./Phone: 213-394-7779

LAWNDALE & SOUTH BAY: 4453 Redondo Beach Blvd., Lawndale, CA 90260. Mon.-Sat. 11-7 p.m./Phone: 213-542-2292

VENTURA, OXNARD & SANTA BARBARA: 2112 E. Thompson Dr., Ventura, CA 93001. Tues.-Sat. 11-7 p.m./Sun. 12-5 p.m./Phone: 805-652-0325

COMMODORE AMIGA™

THE CREATIVE COMPUTERS ADVANTAGE:
- Authorized Amiga Dealer
- The largest dealer of Amiga products in the World
- Three store locations means excellent support
- Amiga-specific—unlike the competition, we don't claim being Amiga specific while selling other brands under another business name
- Authorized service center
- Uniform low pricing and largest selection, no hidden costs or catches
- We don't charge your card until the product ships

CUSTOMER SERVICE: Call 213-542-2292 from 11 a.m. to 7 p.m. PST for technical questions.

VISA · MasterCard · American Express Card · DISCOVER

***SHIPPING INFO:** No surcharge for Visa/MasterCard; 4% surcharge for American Express; 1% surcharge for Discover. Shipping within the continental United States for software orders over $100 (U.S.) is FREE. Please call for all other shipping information. Educational, corporate and aerospace purchase orders accepted.

RETURN POLICY: Call Customer Service at (213) 542-2292 for return authorization. All returns without authorization number (RMA#) will be refused. Returned products must be in original condition and packaging. No refund on defective products or products that do not perform satisfactorily. We make no guarantees for product performance.

CONDITIONS: Creative Computers reserves the right to limit the sales of any items to local in-person pick-up only. Prices and availability subject to change without notice.

CREATIVE COMPUTERS GOES INTERNATIONAL!

INTERNATIONAL TOLL-FREE ORDERING POLICIES: Minimum order $100 U.S. Orders only please. Absolutely *no* product inquiries, or any shipping inquiries, will be taken over the toll-free phone lines. For any other information, please call (213) 542-2292. We have operators versed in the following languages: English, French, and Spanish, only. Shipping prices vary and are quoted following your order. Payment is made via credit card or electronic fund transfer. For any other information please call our regular toll lines.

INTERNATIONAL PHONE NUMBERS: Canada 1-800-548-2512; Italy 1678-74086; United Kingdom 0800-89-1178; France 19-0590-1099; W. Germany 01-30-810466; Japan 0031-11-1351; Australia 0014-800-125-712; Netherlands 06-022-8613; Norway 050-12029; Denmark 0434-0297; Switzerland 046-05-3420.

MORE CREATIVE PROMOTIONS:
NEW NEW NEW
SCULPT-ANIMATE 4D JR. $99.95
CENTAUR TRUE FLIGHT $59.95
(Proportional control yoke for Flight Simulator II)

Computer systems & package deals available ..... CALL FOR DETAILS!

- FREE VCR with purchase of computer — call for details.
- Amiga Live! 2000 ..... $349
- Flicker Fixer (A2000 only) — *Eliminate all flicker and scanline gaps 100% — optional multisync monitor* $479

WE CAN BEAT ANY ADVERTISED PRICE! BUT WE SELDOM HAVE TO — OUR PRICES ARE THE LOWEST! (IF YOU SEE A LOWER PRICE ON AN ITEM, GIVE US A CALL.)

AMIGOTIMES
REVIEW

C.L.A.S. 1.2a



YOU TOO CAN BUILD FIRST CLASS SOFTWARE FOR YOUR STUDENTS

If you are lucky enough to have an Amiga in the schoolroom, or at home for your children, you have probably noticed that the selection of quality educational software for the Amiga, though growing, is still comparatively meager. The college student fares best with many fine applications at their disposal, but there are many gaps in the available titles for the K-12 group. Once you weed out software that was simply ported over from other machines it's rather slim pickings.

Of course, even if there were uncountable educational products, parents and teachers would still need programs to fit individual, unique, or specialized situations. Some would always rather build their own. CLAS or Computerized Lesson Authoring System by MicroEd tries to fill these needs by placing in the hands of the parent or teacher a powerful tool for creating customized, interactive, educational software.

What is CLAS? Shortly after I began working on the tutorial a little bulb lit up over my head. I realized that CLAS is actually a pre-formatted, high level computer language. By pre-formatted I mean that it builds a pre-determined style of program with many automatic subroutines. Its aim is to provide the minimum number of commands necessary to construct effective courseware, while retaining the utmost flexibility within that framework. The 'automatic' built-in features can save hours of tedious coding that would be needed in most languages to set up screens and interactions. This means of course that you must be content with the MicroEd approach and style.

The CLAS Software comes in a plain vanilla box with three unprotected disks and a single sheet of instructions. There is a Student Disk, Author Disk, and a Tutorial Disk. Programs are developed on the Author Disk and transferred for running to as many Student disks as needed.

The tutorial disk is filled with many clever examples of programs already created with CLAS and the series of tutorials. The tutorials are instructive and fun. They contain a sly bit of reciprocity. The teacher or parent is dosed with their own medicine as the tutorial forces the user to fill in the correct answers to the sample drills and quizzes before progressing. MicroEd is kind...the answers are easy.

The page or screen in a CLAS creation is always presented with a narrow blue border at the top and bottom. These bars hold course and lesson titles at the top, and messages, hints, and instructions, at the bottom. If a student enters an incorrect character the screen flashes red and the program will not let typing continue. The Help key will supply either hints or the correct answer which must be flushed with the space bar and re-entered correctly to progress, or the student can quit with the Esc key. Scores are presented at the end of a lesson and missed answers are reviewed with the right answer inserted for reinforcement. There's more positive reinforcement when a right an-

By Sue Albert

swer is given. The screen flashes green and the Amiga voice chants, "Good", "Perfect", etc. As I said, these features are automatically programmed into CLAS.

All student disks created will self-boot directly into the lessons and can be used without the mouse. The space bar is used for paging. There is an option that will automatically log scores on the student disks for transfer to the teachers records or a database.

GO TO THE HEAD OF THE CLASS

The Authoring program operates like a simple word processor. A command bar at the top supplies many options to speed up the job. One pull-down menu has eight of the most frequently used commands with keyboard equivalents that will type themselves into the program listing. You can cut, copy, and paste whole segments of code instead of retyping and move around freely within the program to edit.



A sample C.L.A.S. (Computerized Lesson Authoring System) lesson set-up, using pre-formatted codes provided in the system

CLAS supports just about all the Amiga features with a direct simplicity. You can import 640x400 low-res IFF pictures. Draw lines, boxes, and place dots for diagrams and emphasis. It's a cinch to have CLAS speak words or sentences or use IFF sounds. You can play musical notes and chords, create mathematical problems, have the program randomize the presentation order of questions, time them, even 'judge' the student's answers with complex branching. There are even two simple eye-hand coordination games that can be used as rewards or incentives for children. It can be as easy as putting together tinker-toys to create tutorials, testing, or drill and practice sessions with only a little practice.

EXTRA CREDIT

Get CLAS together with a Digi-View, Perfect Sound or a sound disk like AlohaFonts' Zounds! Sounds, add a few disks of fonts and clip art. You could look like both a professional artist and a programmer by creating software to rival the commercial products. There's a world of pictorial examples a teacher could use to add punch and clarity to lessons. One finger data entry, speech, and large size type are natural elements for creating software for the handicapped. You could even put together simple job training tutorials. Think about using CLAS for introducing computer programming. Instant gratification has its value.

You don't have to stay with educational software. You could create charming interactive picture books or letters from digitized illustrations and photos. I can imagine a software joke book with canned laughter, or perhaps a romantic collection of poetry with bird song and flowers is more your style.

STAND IN THE CORNER

Into the MicroEd suggestion box I have dropped my request for more keyboard shortcuts. I do love not having to type in commands. I also long to change the color of the background screen which is always black. Ditto the top and bottom borders which remind me too much of the "C64 blues".

I had two problems with CLAS. I finally solved the first problem myself. The second though was compounded by a procedure that lacked safeguards to make it foolproof, and I mean that as in "secure from fools". CLAS 1.2a has a new feature to let you 'try' your program with the CLAS program module on your Author disk. This is the same program 'engine' that runs your created program on the Student disk. It worked fine until I tried to exit and return to the Author module. There was no on-screen message to guide me and nothing in the documentation so I invented my own procedure. The program did not prevent this heresy and after several sessions I corrupted my file and met Mr. Guru in a brief meditation.

Both problems were at the root, only one problem...my reading, not reading, or misreading sometimes scanty documentation. In designing CLAS, Tory Esbensen, President of MicroEd, purposely tried to eliminate the need for a manual. He wanted a program so easy to use that it wouldn't require printed documentation, so you are given on-screen messages, Help screens, and an interactive tutorial. Unfortunately, the new 'Try' feature is complex and needs the loopholes eliminated and a very clear step-by-step explanation.

The tutorial material doesn't print out. You can load the example programs into the Author program and print them. The Help Screens within the Author program contain a list of all commands and fair explanations of many procedures. These will all print out. When you are working on a program however, and you get stuck as I did, you must hunt in two places for information. That's one place too many. The simplest solution would be to provide hard copy of the tutorial screens either from disk or pre-printed.

THE PRINCIPAL'S OFFICE

I spoke to Tory Esbensen and to his programmer Paul Falstead about my frustrating experience with 'Try' and the need for more detailed documentation. They are giving the problem a priority examination. Tory Esbensen is always sensitive to comments from users and has the flexibility to incorporate changes rapidly. Even as I write this CLAS V1.2a is becoming the CLAS V1.2b it will be at publication time. It is sprouting new packaging and a feature to allow import of hi-res IFF files. I fully expect CLAS V1.2b to be a very tight and powerful program. Tory has a vested interest in this program being simple and efficient. He now uses it himself to design his MicroEd software. ❑

(See PRODUCT INDEX on page 109 for more contact information)



YOUR PAINT, Mypaint



Let's face it, Deluxe Paint III is entirely too difficult for young kids. So what can you offer a child that sees you create masterful artwork with a complex paint program and wants to paint too? Prism's MyPaint, the first 'child-tested' paint program was created especially for kids.

Anyone who can use a mouse can use MyPaint. The program is logically, yet simplistically designed, making the most basic of paint functions readily available to budding artists. A few minutes of parental instruction is all it will take to turn the youngest of computer users into Rembrandts. Well, almost.

GETTING STARTED

The MyPaint package contains one disk and an instruction manual. The latter is short and simply written, so even those parents who aren't Amiga whizzes will have no trouble in learning and explaining the program's features. The disk itself is bright yellow, with the intent that it will stick out among blue and grey diskettes in a disk box, making it easy for a child to spot.

When the program boots up, the title screen displays the MyPaint logo and a very large Help key (yes, MyPaint goes down in history as one of the few programs to take advantage of this neglected key!). Pressing Help right off the bat is a good way to illustrate all the features of the program, since that's exactly what it does. A large arrow and short text explanation appear under each feature in turn, while the computer 'reads' the explanation aloud. Unfortunately, the voice is not a digitized one, but the Amiga's own Arnold Schwarzenegger. In addition, the features cycle automatically. That is, there's no "click to continue" option during this help session; it goes at its own pace, which is a bit too fast. Nevertheless, the Help option is a good one and an intelligent addition.

PAINT OPTIONS

Two main paint options are available: painting on a blank page, and painting a pre-drawn picture. There are 28 uncolored pictures included on the MyPaint disk, ranging from a butterfly to a rocket ship to a dinosaur. These may simply be filled with color or actually painted on with brushes. A great addition to this option is the 'Mouth' icon, which will either say the name of the object/animal or provide the appropriate sounds. All these sounds are digitized and very easy to understand.

Starting with a blank page is much like any other paint program. Two brushes, fat and thin, and twelve colors are available. These (and all other functions) are selected by simply pointing an oversized hand with the mouse and clicking with either mouse button. When a color is chosen from the large palette, a smiley face appears on that color and a musical tone sounds. Also, when a brush (or any of the other options) is selected, that brush is very visibly highlighted.

Drawing is done by simply holding either mouse button and moving the mouse. Since this action is so similar to drawing with a crayon, children will have no trouble in understanding it conceptually. From then on it's all a question of artistic inclination.

Across the top of the screen are the features available to the artist. These are all represented by large, animated icons. For instance, the Erase icon has a pencil eraser constantly rubbing out a drawing. The Undo icon shows a man shaking his head. The Color Cycling icon has, of course, cycling colors, and so on. The other icons offer a mirroring feature, a multi-colored brush, a fill option, a disk to access the pre-drawn pictures, and the aforementioned mouth. To reiterate, these features are very easy to learn and varied enough to entertain even beginning adult artists.

SNAGS

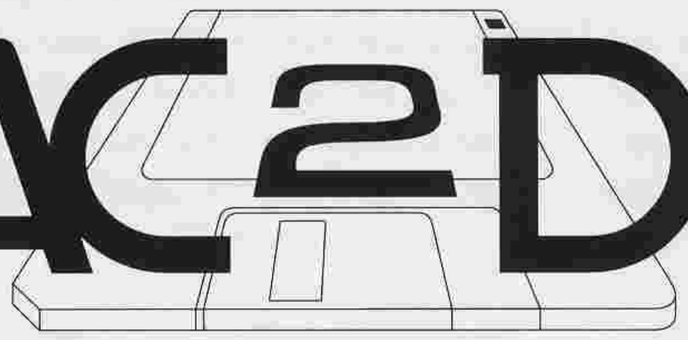
Only a few complaints about MyPaint. First, there is no visible save feature. The manual refers to this as an 'adult' function, and says it is possible by pressing Alt-S. Pictures will be saved in an IFF format to another disk.

This leads to the next problem: no print option. While it's true that few Amiga owners have color printers, no paint program should be without such a feature. This deficiency can be overcome, however, by loading a parentally-saved picture into a 'grown-up' program and printing it there. The final problem is that clicking the disk icon automatically brings up a pre-drawn picture. Although it is possible to return to the previous work, the suddenness of this action might upset a young child. Make sure they understand how the disk icon works, or have them stay away from it altogether.

Although MyPaint doesn't offer a myriad of paint features like its 'grown-up' counterparts, it offers more than enough for parents who want a friendly, gradual introduction to computers for their kids, and for kids who just want to play with what looks like an adult toy. ❑

By Rick Broida

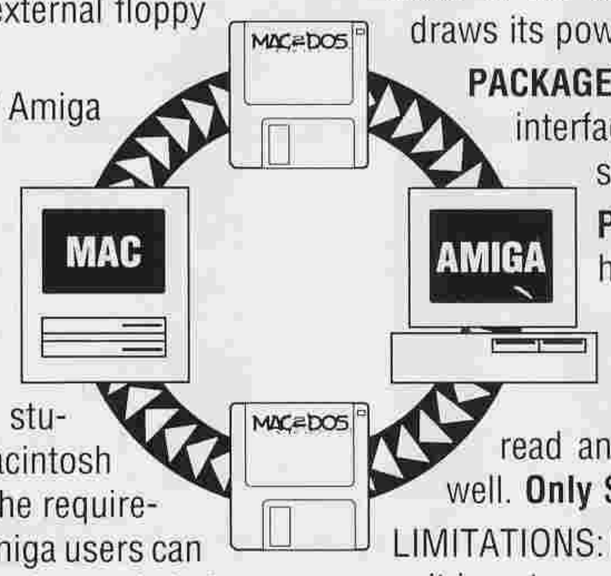
MAC 2 DOS™



Mac-2-Dos lets you read and write Macintosh diskettes on your Amiga!

Mac-2-Dos gives your Amiga the power to read and write files to and from 400k and 800k Macintosh floppy disks using a standard Macintosh-compatible 3.5-inch external floppy disk drive connected to your Amiga.

Here are a few typical Mac-2-Dos uses: ✔ Amiga users can now have access to the extensive variety of Macintosh clip art available on Macintosh disks! ✔ Amiga users can now take their Amiga PostScript files (on a Macintosh diskette) to most any typesetting service bureau to be output on professional typesetting equipment! ✔ College students who are required to have a pricey Macintosh can now choose the Amiga and still meet the requirement of being Macintosh compatible! ✔ Amiga users can transfer all kinds of files, like word processing and desktop publishing files, spreadsheet files, or database files. ✔ Musicians can quickly and easily transfer Standard Midi Files (SMF) between the Macintosh and Amiga!



Mac-2-Dos includes a custom hardware interface, driver software, file conversion software, and, optionally, a Mac-compatible 3.5-inch floppy drive. The hardware interface plugs into the Amiga external disk drive connector or into the last external drive of the daisy-chained disk drives. The Mac drive draws its power from the Amiga.

PACKAGE A: Package A includes a custom hardware interface, file transfer software, and file conversion software. **Only $99.95***

PACKAGE B: Package B includes a custom hardware interface, file transfer software, file conversion software, a Mac-compatible 3.5-inch floppy drive, and a software driver to allow the Mac drive to be used to read and write standard AmigaDOS diskettes as well. **Only $349.95**†

LIMITATIONS: Mac-2-Dos is a disk file transfer utility program; it is not a communications program, nor is it a Macintosh emulator. It DOES NOT permit Mac programs to run on the Amiga.

* Plus $3.00 shipping/handling, † Plus $5.00 shipping/handling
CO residents add appropriate sales tax.

QUARTERBACK™

The FASTEST Hard Disk Backup Utility!

"Many in the Amiga community consider Quarterback V2.2 the standard of our community.... My overall impression of Quarterback is smooth and complete.... For the average Amiga harddrive owner, Quarterback is still the utility of choice."

*- Steve Dock, **The Amiga Sentry**, March, 1989*

"...Quarterback is the program I've chosen to keep my hard disk backed up.... Given the added power and lower price of Quarterback, it would be my first choice for a hard disk backup program."

*- Matthew Leeds, **Commodore Magazine**, June, 1989*

"The fastest of the lot, Quarterback V2.0 copied my 4.3 megs to five floppies in four minutes and fifty seconds. The user interface is smooth and intuitive, the process painless and reliable, and the speed a good sight better than even second runner up.... There are just enough gadgets around to make things easy, and not so many as to make them confusing. This is the program we use to back up our hard disk and Bernoulli data." *- Mark R. Brown, **INFO #26**, May/June, 1989*

Only $69.95 Plus $3.00 shipping and handling, CO residents add sales tax.

Coming Soon! **QUARTERBACK TOOLS**
A collection of high-quality user-friendly utilities.

DOS 2 DOS™

Transfers MS-DOS and Atari ST files to and from AmigaDOS!

It transfers both binary (pure data) and ASCII (text) files.
Let DOS-2-DOS be your PASSPORT to the world of foreign disk formats.

Only $55.00
Plus $3.00 shipping and handling, CO residents add appropriate sales tax.

CCS™

Central Coast Software
424 Vista Avenue
Golden, Colorado 8040
Phone 303 / 526-1030
FAX 303 / 526-0520
Dealer Inquiries Welcome

MasterCard VISA

Circle 226 on reader service card.

AMIGOTIMES
REVIEW

Pen Pal

A full featured word processor with colour graphics and a database manager which makes the dividing line between word processing and desktop publishing even more fuzzy

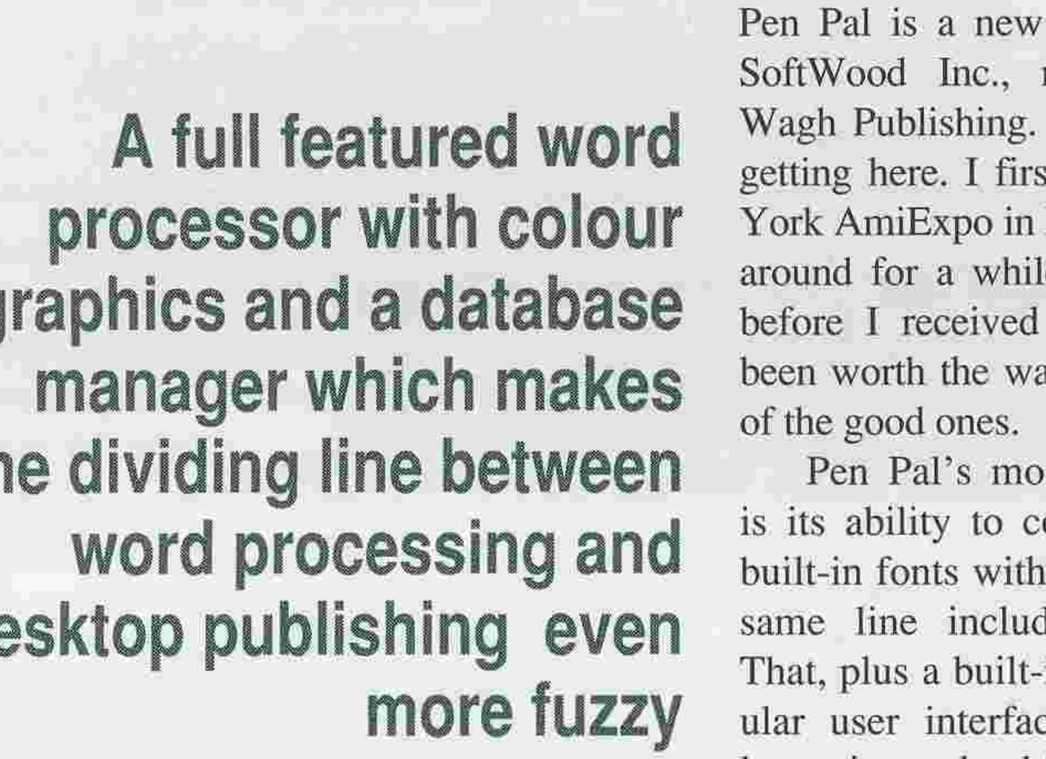
Pen Pal is a new word processor from SoftWood Inc., marketed by Brown-Wagh Publishing. It's taken a long time getting here. I first saw a demo at New York AmiExpo in March, and it had been around for a while then. It was August before I received a finished copy. It's been worth the wait, though. This is one of the good ones.

Pen Pal's most outstanding feature is its ability to combine your printer's built-in fonts with graphics, even on the same line including text run-around. That, plus a built-in database, a spectacular user interface and a surprisingly low price make this one of the most useful new programs introduced for the Amiga lately. But beware, in spite of months of beta-testing, I still found the occasional bug.

On the Amiga the dividing line between word processing and desktop publishing can be a little fuzzy. Pen Pal doesn't pretend to be desktop publishing; there are no scalable fonts, PostScript output nor color separations. However, you can import full-color graphics into your document, run text around them, draw lines and boxes with the click of a mouse, and print it all out with the benefit of the clean, fast fonts built into your dot matrix printer. That's what many people want from desktop publishing.

Pen Pal comes on two disks; a program disk and an 'extras' disk. Installation is easy. If you want to boot with the Pen Pal disk, you first click on an 'InstallPrinter' icon, which transfers your printer driver to the program disk. Then you're ready to go.

Be sure to specify the name of your data disk in the document preferences; swapping floppies brought on the guru a couple of times for me. This program really prefers a hard disk, and there's a 'HDInstall' for easy installation. It's best to do this right away, before you make any changes in the default directories or import any graphics.



You can view the whole page in one side of the screen, as you work in the other half.

By Marion Deland

GOOD MANUAL, ADEQUATE HELP FILES

Pen Pal is meant to be easy to use. Even buying the program is easy, because the package includes a detailed list of features and clear illustrations.

Much thought went into the manual, by Woody Williams (writing), Lisa Frawley and Steve Wagh (designing and editing). There are step-by-step instructions for everything, plus a simple getting-started tutorial in the first chapter. A detailed table of contents and index make it easy to find answers in the manual, though the index could be improved by more cross-referencing. The overall design of the manual is excellent, with features like shaded chapter boxes that are visible from the side of the book. (I'm going to remember that one!) I also liked the illustrations of menu selections in the margins.

Several paragraphs in the manual are included to explain the way Pen Pal manages Chip memory and Fast memory. Pen Pal uses a lot of memory. The program requires 1 MB to run, and recommends using an interlaced screen to import graphics. It does a lot of juggling to fit as many graphics as possible into 512K of CHIP RAM. Instead of holding them all in memory, for instance, it reloads them from disk when you switch pages or documents.

Beware of trying to import hi-res pictures into a Pen Pal document; there isn't enough CHIP RAM available, unless you are one of the lucky ones with a MB of chip memory. Lo-res pictures work fine, and you can import a hi-res brush of a reasonable size, but not a full screen.

Pen Pal has extensive help screens, which you select from a 'help' directory. I didn't like using them, though, because they are sized to fit a non-interlaced screen and can't be resized. Since the program expects you to use interlace if you're working with graphics, this doesn't make much sense.

On the subject of help, SoftWood is trying an interesting experiment. To coax people into sending in their registration cards, they are offering a free disk of templates, word processing, databases, and IFF graphics files. A nice idea, but it means that you don't have those templates when you're first learning to use your new toy. They do offer one sample document and database on the 'extras' disk. There's also a document named "Adjust Graphics", which puzzled me until I read a paragraph in the manual about lining up text and graphics on the printer.

HELPFUL MOUSE POINTERS, FULL-PAGE VIEW

Pen Pal is one program that really lives up to the Amiga's potential. In fact, its user interface may set a whole new standard for the Amiga. Program developers Woody Williams, Terrance Wright and Michael Sinz are to be congratulated.

The screen is clean and well-designed, and the default colors are subtle and attractive. The text window is framed by rulers and the "tool box" - gadgets to select boxes, lines, colors and text. You can hide the rulers and scroll bar, or pop your text window to maximum size, simply by clicking on a screen gadget.

Another gadget lets you see a reduced-size view of the entire page in the left half of the screen, with the normal view of the document in the right half. As you move the pointer in the normal view, a tiny cross-hair pointer follows along in the full page view, letting you know where you are at all times. Move a graphic, and an outline moves in both windows.

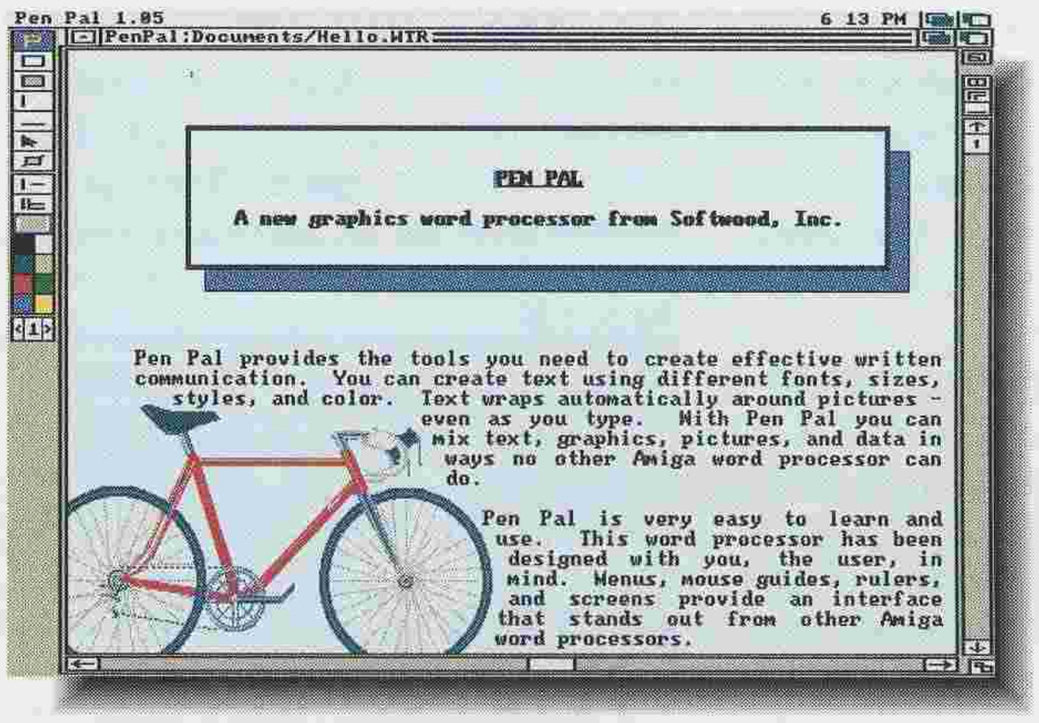
Then there are those neat mouse pointers. The pointer actually changes as you move across the screen. Kind of "instant help". Move into the document tool box, and the pointer names each section as it passes over it. You don't have to click in it, just pass over it! The pointers are nicely designed; the "Please wait" pointer has a tiny watch with spinning hands, and when you load a file, a little scroll bar in the pointer fills up. Even the simple arrow pointer is not the blocky Amiga arrow, but a gracefully curved one.

This may all sound a little gimmicky, but it's truly a useful tool that does wonders for the learning curve on the program. And it is an amazing piece of programming!

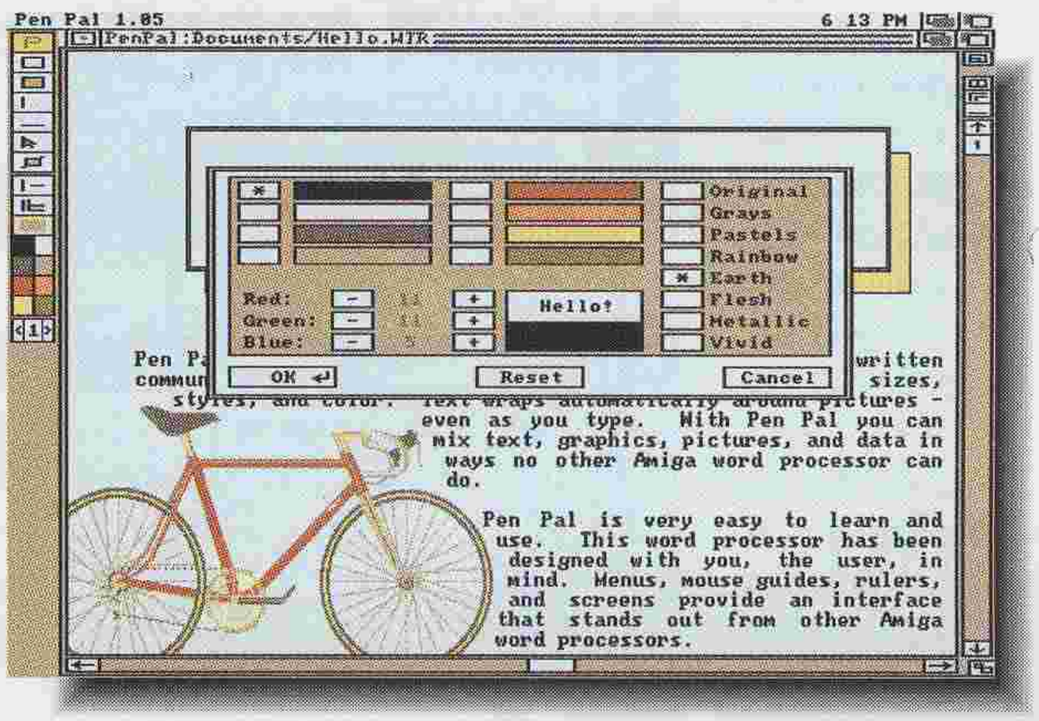
There are other nice touches in the user interface. For instance the way the text cursor, a neat little vertical bar, changes color to be visible against the background color, and the fonts are listed two ways: by size and by font. If you have many fonts (up to 200 are supported), the overflow goes to yet a third menu.

Requesters are easy to read and understand. The file requester is intelligent, showing only those devices you have mounted. It lets you use the RETURN key for 'OK', and the OK button has a little RETURN mark on it to tell you so. Be careful, in mine this brought on a crash in the "SAVE AS" requester.

You never saw so many preferences!



An interlaced screen is recommended for documents with graphics, to prevent distortion.



Pen Pal provides a selection of screen color palettes

five screens! In addition a whole chapter in the manual is devoted to the subject. Many of them are the standard Amiga Preferences, but better organized. You can also set preferences for the program defaults: to start with a new document or database, or with the OPEN requester for an existing one. The document preferences let you set default drawers for documents, graphics, dictionaries, and so on.

I didn't like the scroll bars. Instead of being sized in proportion to the document, they are all the same size. When you click ahead of the scroll bar, it may make a flying leap or a tiny step, depending on how long or wide the document is. This seems to be change for the sake of change.

WORD PROCESSING FEATURES

Pen Pal stands on its own feet as a word processor, with many sophisticated features.

For a graphics word processor, typing is fast and smooth. Automatic page numbering, automatic date, headers and footers are available. (You can put graphics in a header or footer, but you can't wrap text around them.) Margins, indents and tabs are changed by clicking on the appropriate gadget and dragging; matching guidelines in the text area show you exactly where you are. You can have left-justified, right-justified, centered or decimal tabs, created with a click of the mouse in the format bar.

"Page setup" lets you format facing pages with wider margins (a 'gutter') in the center. Pen Pal will also analyze sentence structure by counting the number and length of words, giving you an estimate of the reading level needed to understand your writing.

The spelling checker is complete (100,000 words) and reasonably fast, even when operating from a floppy disk. It needs updating, though. I ran it on an outline for a talk on how to buy a computer, and words like 'spreadsheet' stumped it. On the other hand, can someone tell me what a 'desmocranium' is?

You can create your own user dictionary. In fact, you could create several specialized ones, and specify the one you want to use in the document preferences before running the spelling checker.

Pen Pal has a forms mode. You design a form as you do any other document, with lines and boxes and text, but with brackets where you want to enter data. When you select "fill in form", the cursor jumps from bracket to bracket. So far, so good. The limitation is that you have to print the entire document, form and all. I would like an option of printing only the data, so I can use it with a ready-made form.

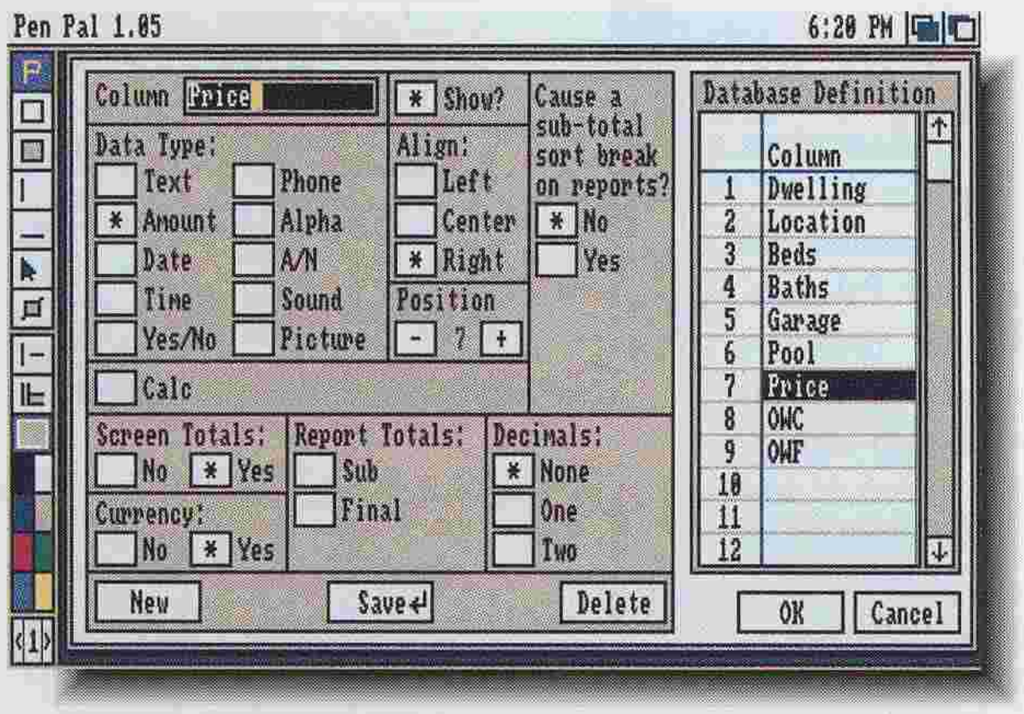
One thing I miss in Pen Pal is columns; they seem natural for a program that makes page layout so quick and easy. Perhaps in an upgrade?

BOXES, LINES, IMPORTED GRAPHICS

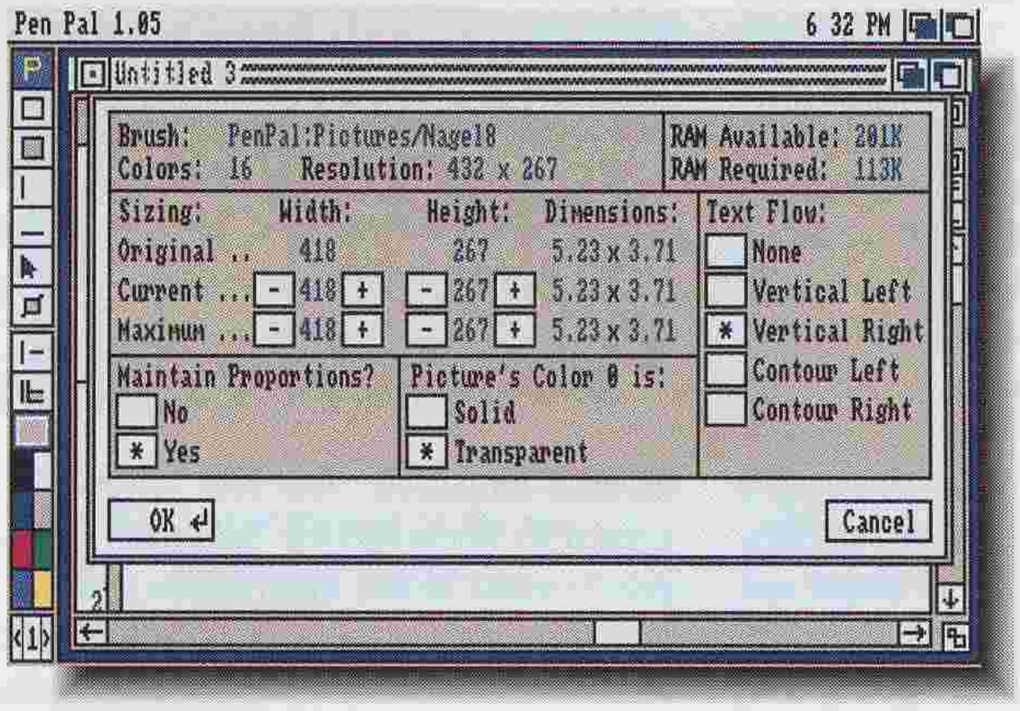
Pen Pal will draw lines (horizontal and vertical) and boxes (empty and filled), with a "snap to" option. There are no drawing tools per se, but you can import IFF graphics files, crop and resize them.

There are eight screen colors you can use for lines and boxes. (Text is black, unless you prefer a 'WYSIWYG' printout.) Pen Pal thoughtfully provides 8 predefined palettes: grays, pastels, metallics, etc., as well as the default one. Or you could create your own and save them with blank document files for later use. (Be careful here. The program can get confused when it prints out.) An imported IFF graphic will print out in its original colors, but only the screen colors will show on screen.

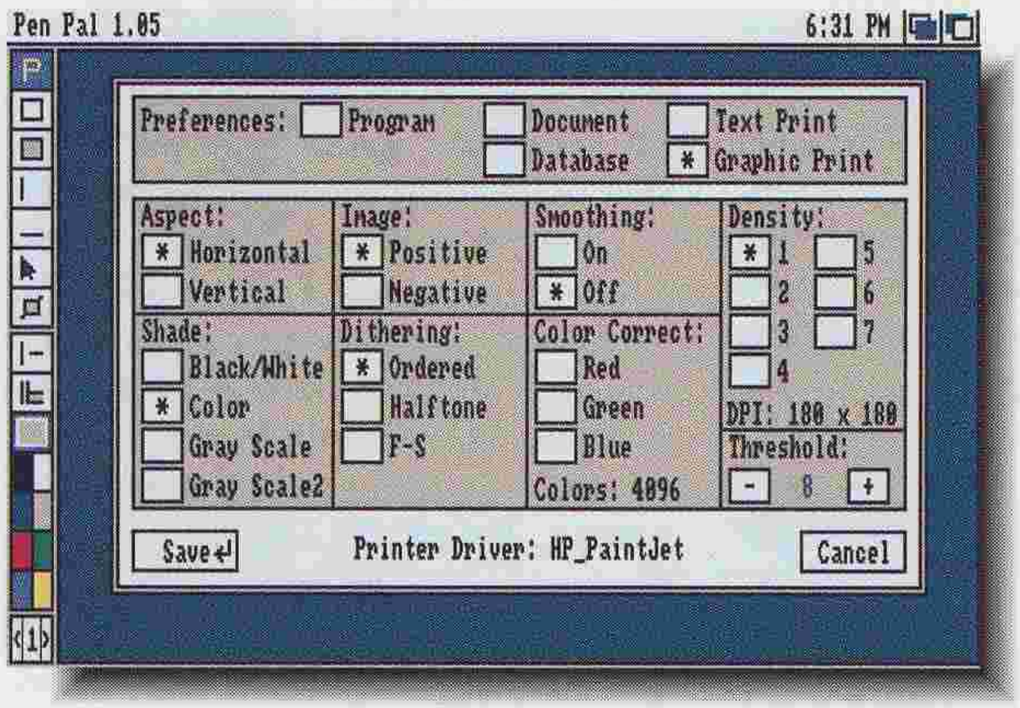
You can 'layer' graphics. You could, for instance, frame an imported graphic



The database offers a wide choice of data types, including date, time and calc fields.



There are several options for importing graphics, including text runaround.



Pen Pal's Preferences requesters allow you to change the Amiga's graphics preferences from within the program.

with a box, and give it a shadow by placing another box behind it. Text can be run around a graphic, left or right, but not both. You can choose vertical runaround or 'contour' (not available for HAM pictures). You can also print text over a graphic, with no text runaround.

Importing IFF graphics into your document is quick and easy, but the process is still buggy. The Picture Settings requester tells you how much RAM you have available (actually Chip RAM) and how much is required by the graphic you've selected. If the 'required' number is larger than the 'available' number, and you try to load the graphic, you get a black Guru. There is a passing mention of this in the manual; you are advised to compare the two numbers in the requester before importing the graphic. The program should do this arithmetic for you.

My Amiga also crashed resoundingly several times during a graphics import when I tried to go into a directory of pictures. I got a crash once when the data disk was inadvertently protected. These bugs may all be fixed by the time you get the program.

So does Pen Pal really deliver the output it promises? Well, on my HP PaintJet, the results were gorgeous! Full-color graphics, colored boxes and backgrounds, plus printer fonts.

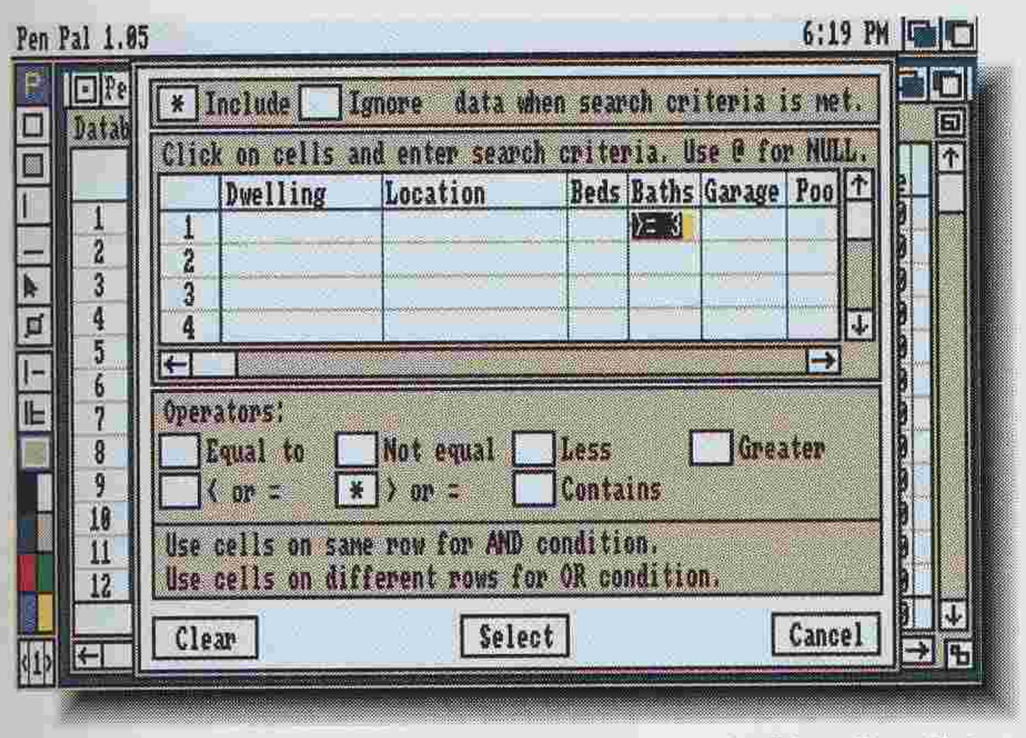
You can print in Text mode (printer fonts plus graphics) or Graphic (Amiga fonts plus graphics). To deal with printer fonts and graphics on the same line, the printer does the text first, then backs up to do the graphics. It's actually quite fast, since only graphics are printed at the slower graphics speed, the text is printed normally.

A DATABASE, NOT JUST A MAIL MERGE

The Pen Pal database is a lot more than a simple mail merge. It has features you would expect to find only in a dedicated database program, and it's fast and easy to use.

The database is laid out table-fashion, like a spreadsheet, one field per column. You can have date and time fields, phone and calculated fields. There's a Yes/No field that accepts all variations on 'Y' and 'N'. There are also sound and picture fields, purely for the sake of compatibility with Softwood's File IIsg database. (The manual suggests "future versions" of Pen Pal will support picture data.)

Like the rest of Pen Pal, the database is friendly. Column widths, for instance, are changed by dragging with the mouse, and you can select records for cutting and pasting simply by clicking on the record numbers. You can save several different Views of a database, with different sorts and search lists.



The database search requester is complete, but not easy for a novice to understand

A sort is a simple matter of clicking on columns or fields. It helps, though, to have some understanding of database terms and use. The search criteria requester refers casually to 'AND' and 'OR' conditions and null data, difficult concepts for new computer users. Maybe I'm not being fair here, though, since several pages of the manual are devoted to an explanation of this requester, including diagrams and examples.

Something I particularly liked was the "locate duplicates" feature, which will search for duplicates in sorted fields and list them, allowing you to clean up your database quickly and easily.

You can import data from other database programs, within limits. Fields are limited to 64 characters, records to 1024 characters and 32 fields, and either a comma or a tab can be used as a field separator. I created a comma-delimited file in Superbase, and Pen Pal accepted it happily, naming the fields '1', '2', '3', etc. (I renamed them.) All fields were treated as text, but allowed me to change the data type afterwards by redefining the database.

I had trouble getting a handle on the report function. I'm used to thinking of a report as a sub-set of the database, where I select the fields I want to have in the report. Pen Pal thinks of a report as the database. To define the report, you redefine the database, or rather a View of the database, hiding the columns you don't want and telling Pen Pal which ones you want totalled and sub-totalled.

The result is a 'columnar' report, printed from the database side of the program. You can't save it as an ASCII file, but you can copy the contents to the clipboard, paste it into a word processor document, and save it from there. Or add the report to the end of your document.

Labels can also be printed out from the database or merged into a label template in the word processor. The label requester has the usual options: size, number of labels across, number of copies, etc.

So, a word processor with graphics and a database manager. Is it worth buying Pen Pal if you have a word processor already? (Most of us do.) Yes, it might be. Compared to other graphics word processors, Pen Pal is fast, easy to use, sophisticated in its features, and the output on a color printer is outstanding. With its low list price of $149.95, it's one of the best buys around. ❑

ABOUT THE AUTHOR

Marion Deland is a New York City computer consultant and author who works with both the Amiga and the PC, specializing in the productivity needs of small businesses. She is program coordinator of the AMUSE user's group.

(See PRODUCT INDEX on page 109 for more contact information)

AmigoTimes

Designer Disk Set

What are AmigoTimes designer disks?

The AmigoTimes DESIGNER DISK SET was created because of the large volume of interesting Public Domain programs that we have collected, but due to size constraints, are unable to place on the AmigoTimes issue disk accompanying the magazine.

Each DESIGNER DISK SET deals with a specific theme, and is packaged as a three (3) disk set, packed with close to 2.6 megabytes of information relating to a specific theme. This gives you the freedom to choose only those programs that you would like *to have.* ***To order any of the Designer Disk Sets, use the subscription form in this Issue.***

ANIMATIONS

DESIGNER DISK SET

This was the first *DESIGNER DISK SET*, with the theme being animations. Many of these animations are must haves (check issue v1.2 for a description of some of them) and would never have appeared on the disk accompanying the magazine. All the necessary tools needed to run the animations are on the three disks, all you have to do is double click on their icons and away they go.

INCLUDED ON THE SET

BOING THROWS (WITH SOUND)
FROG_MOVIE
TELLSTAR-ONE
GHOSTPOOL (WITH SOUND)
KHANANKAS (WITH SOUND)
MOTION_MACHINE
BUBBLES
CAR
TOWER

UTILITIES

DESIGNER DISK SET

Here is the next *DESIGNER DISK SET* following in the footsteps of its predecessor. The idea is exactly the same, just the topic is different. Its three disks full of handy utilities, including icon tools, dir tools, accelerators and many more important utilities that will help you function more productively. Some of the programs that will be appearing on this DDS have been around for a while, but are either classics, must-haves or updates.

MAIN CATEGORIES ON THE SET

DIR_HELPERS (4 progs)
GADGETS (4 progs)
SPEED (6 progs)
CLI_HELPERS (12 progs)
SYSTEM_MONITORS (9 progs)
PROTECTION (3 progs)
POTPOURRI (21 progs)
MOUSE_HELPERS (5 progs)

PLANNED DESIGNER DISK SETS

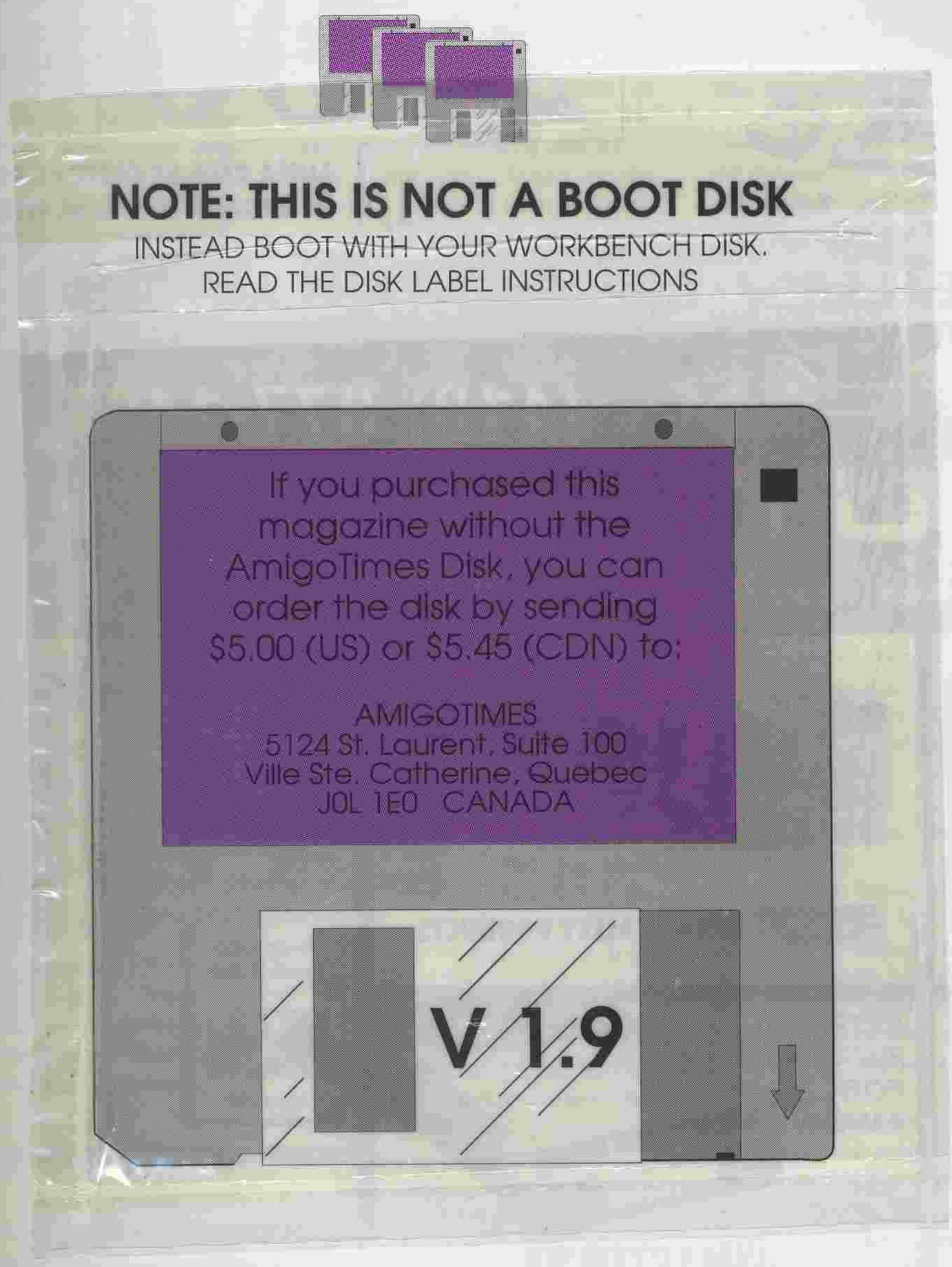
MIDI & Sound Samples
AT_ANIMATION_CONTEST_WINNERS
(you saw them in issue v1.5)
TELECOMM
GRAPHIC
UTILITIES
SPECIAL FONTS
PICTURES EXTRAVAGANZA

The above disk sets are currently in production and as soon as they are available, will be announced in AMIGOTIMES magazine. *All DESIGNER DISK SETS are sold separately.*



Why include a disk with a magazine?
It allows AmigoTimes to provide the reader with some of the latest and best commercial demos, shareware, and public domain software available. Making demos of commercial programs available on the disk allows you to have hands on experience with the program before actually going out and buying the original package. How about public domain software and shareware? You now have access to a vast, continuously changing library.

As a programmer you will have available to you pretested source code that does not have to be typed into the computer; most of the source code and running programs that are referred to in AmigoTimes articles can be found on the disk.



All material on the enclosed disk has been made available by third party individuals releasing them as public domain software or shareware. Some of the programs were specifically written for AmigoTimes. All DEMOS provided on the disk are made available both with the consent of the Companies, and agreement to their distribution as PUBLIC DOMAIN material. The AmigoTimes Disk is freely distributable and belongs in the PUBLIC DOMAIN. We fully support the shareware concept and suggest you contribute the amounts requested by shareware authors if you find their programs useful.

CONTENTS

DISK_INSTRUCTIONS
GENERAL_INFO
README_1st
TTT
TTT.DOC

C (dir)
DARC
ReadAll

TeleComm (dir)
Lharc
Lharc.Amiga.DOC
Lharc.IBM.DOC

MUSIC (dir)
MusicX_to_MIDI
MusicX_to_MIDI.DOC
Smooth_Clocker

Tools (dir)
CPU_Speed
CPU_Speed.DOC
DiskX
DiskX.DOC
DUTILS2
DUTILS2.DOC
Epsonset
Epsonset.DOC
Fragit
Fragit.DOC
FRAGIT.SRC.LZH
QuicPref
QuicPref.DOC
Sherlock
Sherlock.DOC
SlowDown
SlowDown.DOC
SLOWDOWN.SRC.LZH
Speed
Speed.DOC
SPEED.SRC.LZH
SpriteAdjust

Arp_vl.3 (sdir)
ArpInstallArp.DOC
AshMan.DOC
ONLY_THRU_CLI (sdir)
MemWatch (ssdir)
MemWatch
MemWatch.DOC
MEMWATCH.SRC.LZH
MemWatchLib.DOC
MEMWATCH_LIB.SRC.LZH

Xspell (sdir)
Dictionary
X_spell
X_Spell.DOC

HAMbench (sdir)
Brisby
Brisby.info
ConvCMAP
Disk.info
Fixicon
HamBench-WB
HamBench
HamBench.DOC
HamBench.README
MakeIcon
palette.dat
ShrinkWindows

PROGRAM_LISTINGS (dir)
Modula-2 (sdir)
ListDemo
ListDemo.MOD
RecordIO.DEF
RecordIO.MOD

AmigaBASICorner (sdir)
Amigo4

AMIGOTIMES DISCLAIMER

The entire risk as to the quality, results and performance of the software supplied on the disk is assumed by the purchaser of this media publication. In no event will AmigoTimes, their distributors, or their retailers be liable for any direct, indirect, or consequential damages resulting from the use or inability to use any of the software on the AmigoTimes disk.

The above limitations and implied liabilities for incidental or consequential damages may not apply in geographical areas having laws against the exclusion or limitation of such policies.

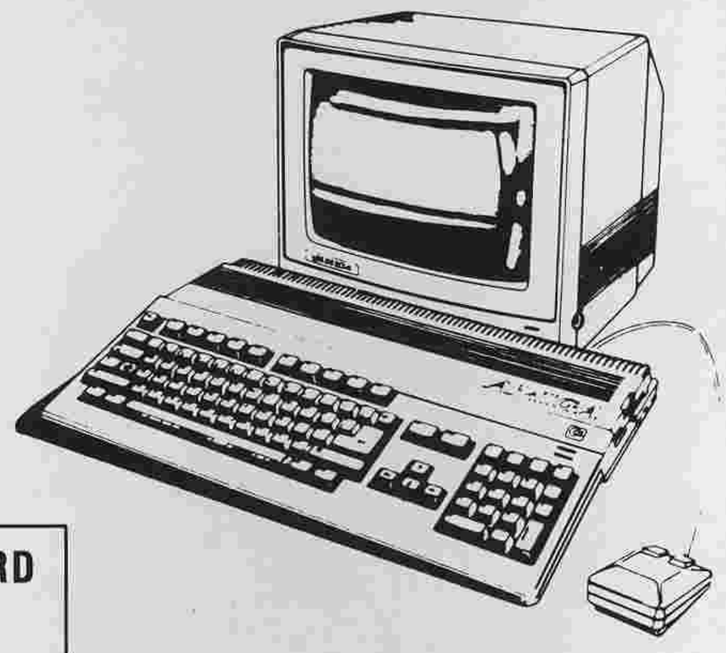
If the disk you receive is faulty, please return it to AmigoTimes for a free replacement (no refunds provided). Return disks to one of the following address:

AmigoTimes
P.O.B. 1158
Champlain, NY 12919-1158
USA

AmigoTimes
5124 St. Laurent, suite 100
Ville Ste. Catherine
Quebec, J0L 1E0
CANADA

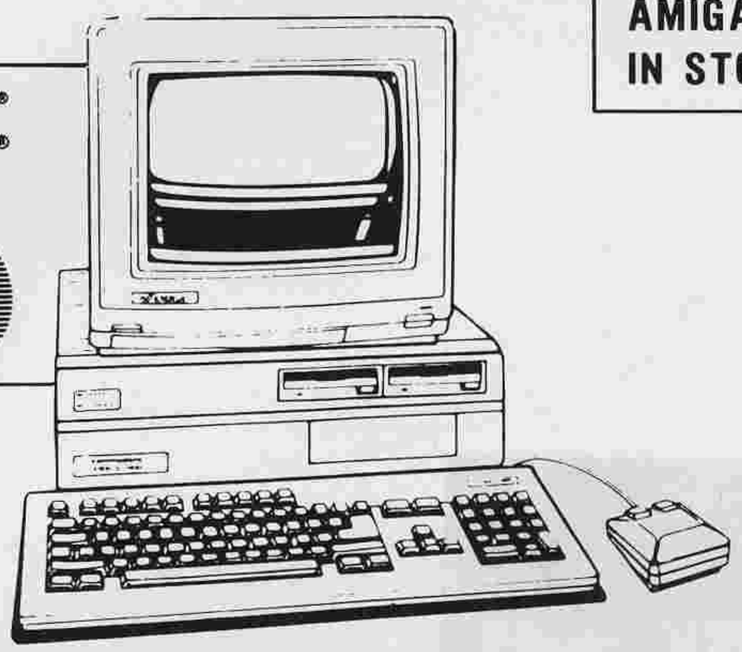
Commodore®
AMIGA®

AMIGA 500



AMIGA 2500 AND AT 2286 CARD
IN STORE FOR DEMONSTRATION

Commodore® AMIGA® 2000



AMIGA® 2500

AMIGA 2500 ET CARTE AT A2286
EN MAGASIN POUR DÉMONSTRATION

AUTHORIZED DEALER / REPRÉSENTANT AUTORISÉ

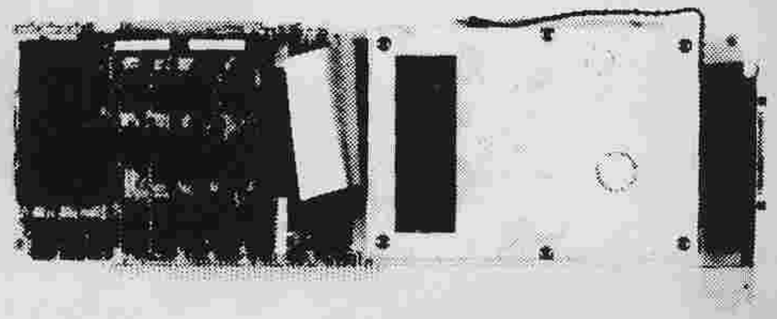
AZIMUT
INFORMATIQUE inc.

(418) 877-1497

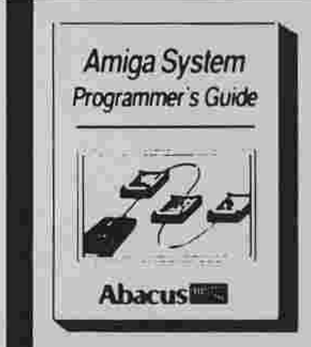
5237, boul. Hamel, bureau 120, Québec G2E 2H2 CANADA

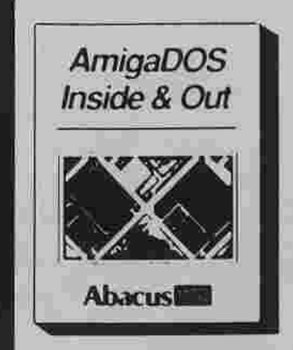
MasterCard VISA





GVP GREAT VALLEY PRODUCTS





Abacus

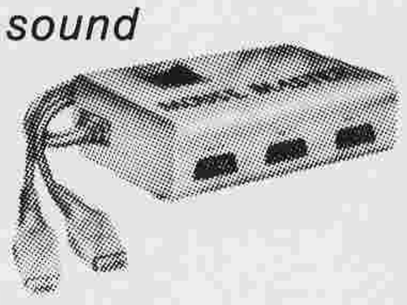
MANY OTHER TITLES AVAILABLE

PLUSIEURS AUTRES TITRES DISPONIBLES

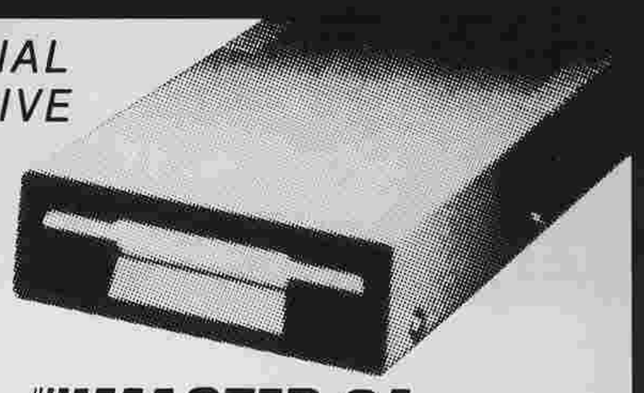


AVAILABLE / DISPONIBLE

- *Haitex, 3D glasses*/lunettes
- *Deluxe Paint III*
- *Pro-sound/Perfect sound*
- *Dragon's Lair*
- *Digiview gold*
- *Mouse Master*
- *Broadcast titler*
- *Dust covers*/housses
- *Joysticks*/manettes



EXTERNAL 3½" DRIVE FOR AMIGA



IMASTER-3A

LECTEUR 3½ po
EXTERNE
POUR AMIGA
OFFERT CHEZ NOUS

Comprendre et bien exploiter son Amiga (1,3)



NOUVEAU MANUEL FRANÇAIS INDISPENSABLE POUR TOUT UTILISATEUR D'AMIGA

The Amiga monitor

Vol. IX

HYPERCARD FOR THE AMIGA?

HYPERMEDIA ARRIVES FOR THE AMIGA

Intuitive Technologies, and American Software announced that they are now shipping UltraCard, a new multitasking, information construction environment that links images, numbers and text into fully interactive, custom information bases.

Although it's modeled on HyperCard for the Apple Macintosh, UltraCard adds an additional dimension by giving users easy access to the Amiga's unique color graphics and multitasking abilities. It can even be used as an authoring system for CD-ROM and video disk technologies.

UltraCard can also be used to develop commercial data storage and calculating applications, and to construct user interfaces for other programs including linked AREXX compatible applications.

UltraCard presents the user with a 'card stack' metaphor for browsing through various kinds of information (text, numbers or imported IFF images), stored on individual cards or 'frames', and then linked via easily defined buttons and transparent 'hot spots'. It can use the Amiga's powerful built-in multitasking environment, 4096 color palette and video genlocking abilities. UltraCard's integrated support for controlling external laser video disk players, means that UltraCard can be used as the cornerstone for an Amiga-based interactive video authoring system.



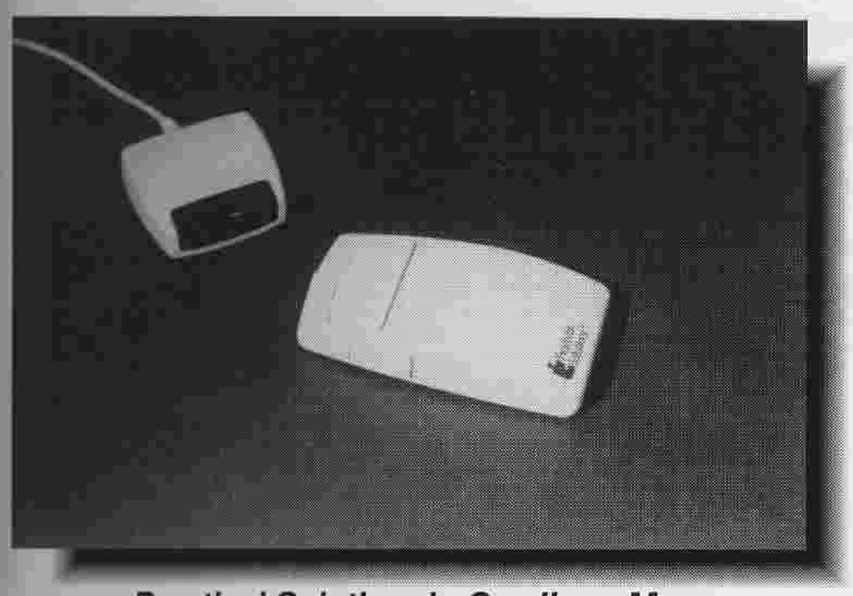
The UltraCard index card interface

It supports AREXX, a macro language used to control and move data between 2 or more Amiga programs running simultaneously. Thanks to AREXX support, commercial Amiga software programmers can use UltraCard as the front-end control panel for a virtually limitless range of custom industrial, retail or educational solutions.

suggested retail price $49.95
Reader Service # 243

For more information on any or all of these products circle the appropriate Reader Service Number on the Reader Service Card in this magazine or see the Product Index on page 109.

CORDLESS MOUSE



Practical Solutions's Cordless Mouse

Practical Solutions, Inc. announces the Cordless Mouse, a new innovation in input control. Compatible with all Amiga computers, the Cordless Mouse utilizes the latest in infra-red signal transmission technology to give all mouse users long-awaited freedom. It can be operated from up to five feet away from its base receiver, eliminating those old cable tangles, while providing faster and smoother mouse movement.

It features a sleek, lightweight, contoured design of the new three button variety allowing ease of use for both right and left-handed operators. Using an 8 bit, 12 MHz CMOS CPU, the Cordless Mouse provides a high resolution of 200 cpi and a tracking speed of up to 600 mm/sec. The Cordless Mouse also has an automatic shutoff to extend battery life (two "AAA" batteries required). No special gridplate or mousepad is necessary.

The Cordless Mouse is scheduled for release in November with a suggested retail price of $129.95.

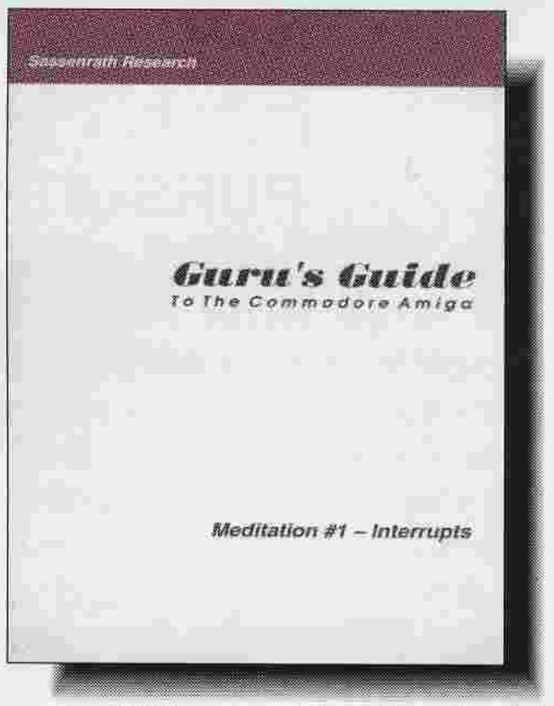
Reader service # 244

GURU'S GUIDE

Carl Sassenrath's Book is the first volume in a new series of Amiga technical reference books authored by the designer of Amiga's multitasking system. Written for all levels of programmers, this volume supplies you with vital information for understanding the complex and often mysterious topic of Interrupts.

On the Amiga, the interrupts function at the core of multitasking and complete knowledge of interrupts is essential to programmers attempting to harness the power of Amiga's custom hardware. As the designer and programmer of the interrupt system software, the author's perspective is especially insightful.

Chapter one places the Amiga in its historical context and introduces you to the major components of the system. This background material provides a basis for discussion and gives an overall starting point for understanding the system. Chapter two acquaints you with the theoretical side of interrupts. Without getting involved in programming detail, you are presented with an in-depth view of interrupt operation from both the hardware and software perspectives. Chapter three offers you a powerful arsenal of useful techniques and is filled with explicit examples. The programming rules are carefully explained and you are guided to the creation of well behaved applications within the demanding environment of the Amiga.



Suggested retail price $14.95
Reader service # 232

FLICKERFIXER GENLOCK COMPATIBILITY

OPTIONS FOR THE AMIGA 2000 & 2500

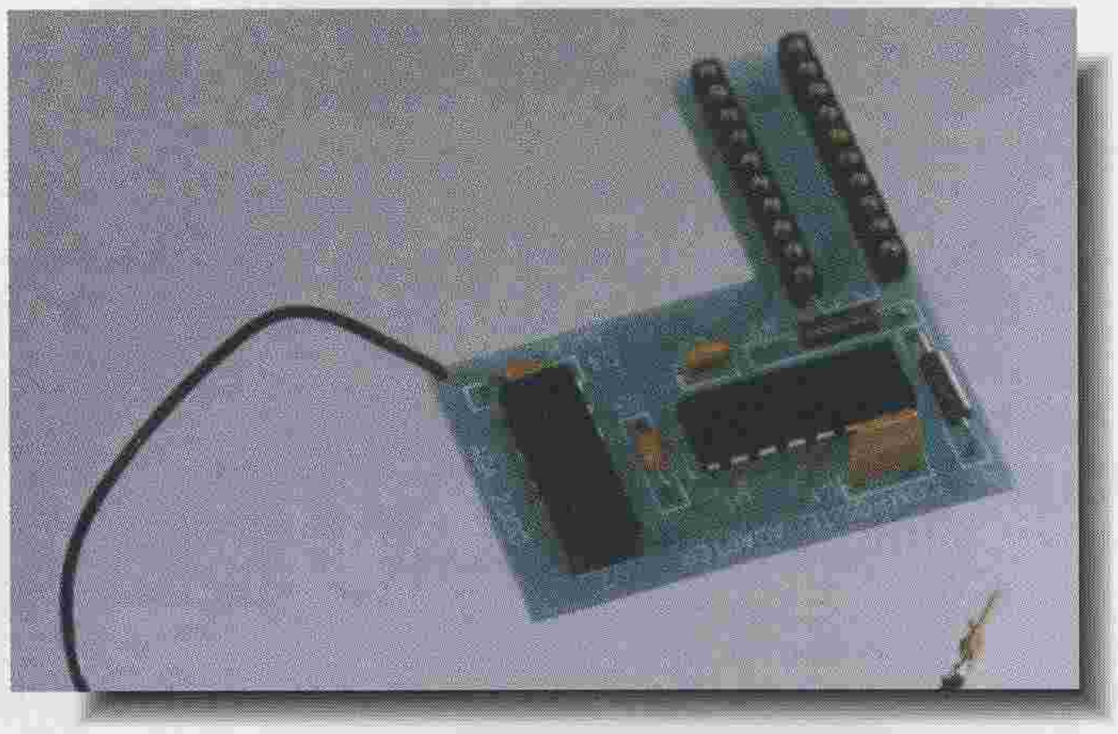
MicroWay announced the release of the flickerFixer Genlock compatibility option. This enhancement module allows the award-winning flickerFixer to be operated in Amiga 2000s and 2500s using external NTSC genlocks, such as AmiGen and SuperGen.

Now Amiga users can generate high quality VGA compatible display while simultaneously genlocking an NTSC signal. This feature makes the flickerFixer essential for advanced video graphics and convenient to use because the genlock no longer needs to be unplugged in order to use the flickerFixer. The Genlock compatibility option is a small module that piggybacks on to the flickerFixer board. Therefore, it does not utilize any expansion slots.

MicroWay's flickerFixer and flickerfixer Genlock compatibility option allow the user to take advantage of the full capabilities of the A2000 and A2500 in professional graphics and business/industrial environments.

The price of the flickerFixer Genlock compatibility Option is $50.00. It comes with a one year warranty and is now in stock.

Reader service # 110



The flickerFixer genlock attachment module.



Ferrari F-40 Pursuit simulator

FERRARI F-40
PURSUIT SIMULATOR

Titus Software brings you to the wheel of the Ferrari F40, in a race against time. As you go tearing through four states in search of the quickest way to accomplish your mission, you will have problems with the policemen who don't appreciate the sight of a Ferrari F40 crossing their state at 200 miles per hour.

You will have to find out your direction with the four state map displayed on screen. It will show the actual byways that you will speed on. Beware, the shortest routes aren't always the easiest as the sight and sound of a red and blue flashing light will soon make you realize. Be aware to take the correct intersection at the right time, if not you could drive several miles in the wrong direction and lose time. You won't realize how fast the time goes. Quickly the night appears making speeding more hazardous.

Your Ferrari F40 is the ultimate speed machine flying on the road in the world as we know it. It features the latest hi-tech radar, enabling you to detect police road blocks. They've been set up to stop you, therefore keep an eye on the freeway junctions as you may be forced to change your direction.

Master the control of right or left 360 degree spins, it could allow you to control this car when you're driving off road. It will also help you to avoid head-on crashes with road blocks. Car chases, realistic 3D road junctions, hills, road blocks, real mapped byways, and great graphics.

Suggested retail price $44.95
Reader service # 250

CROSSDOS...
THE MS-DOS FILE SYSTEM

CrossDos is a software product that allows the user to read and write 360K and 720K MS-DOS/PC-DOS/Atari ST formatted disks (Version 2.0 or higher) directly from AmigaDOS. Because it is an MS-DOS file system, it fully integrates itself into the Amiga operating system to allow your MS-DOS formatted disks to be transparently accessed from virtually any utility or application, just as any other Amiga file or directory.

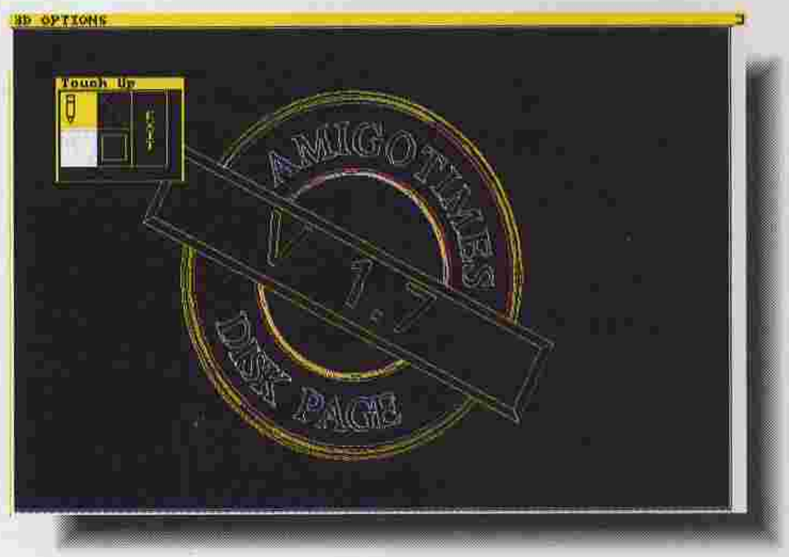
CrossDos works with the standard Amiga hardware including 3 1/2" and 5 1/4" floppy drives. Most AmigaDOS functions are available with CrossDos: Relabel the disk, rename files/directories, set/clear file/dir attributes, obtain disk information, create directories, set file/directory dates, seek file positions, allocate more cache buffers.

Suggested retail price $30.00 plus $3.00 s/h.
Reader service #234

3D OPTIONS VERSION 2.0

With Rainbows Edge Productions' program, now you can use all those Dpaint and digitized images in your favorite 3D or CAD package. You can make use of the auto tracing feature to let the computer do the tedious and boring part of tracing. It supports most popular software and formats including: VideoScape 3D, Aegis Draw, Aegis Animator mCAD (Shareware), PostScript, DXF (AutoCad), IFF bitmapped files, HPGL (Plotter), Turbo Silver and Sculpt 3D/4D.

Suggested retail price $89.95
Reader service #248



A bit-mapped image ready to be auto-traced in 3-D Options

LABEL ONCE
ERASEABLE DISK LABELS

Multicomp, Inc. is now offering LabelOnce erasable labels. They are revisable labels for floppy diskettes, data cartridges, tape reels, and VHS videotapes.

LabelOnce labels are made from a micro thin, pressure sensitive plastic base with an erasable, clear plastic laminate. LabelOnce takes the work out of labeling by 1) eliminating the need to change labels 2) eliminating the need to mark-out obsolete or revised file names; 3) eliminating the non-standard appearance of multiple label types and diverse paper materials in diskette files; and 4) eliminating the placement of one label on top of the other. LabelOnce provides a clean, standardized look; in effect, the user has a permanent, lifetime label that's a pleasure to look at and use.

Text is entered on the label with a permanent marker. Unlike dry erase markers, the ink does not smear during normal use. Markers are available in a variety of colors. To make textual changes, one simply erases the ink with the white vinyl ink eraser supplied in LabelOnce kits; or for complete, rapid wipe off of all permanent ink, a small bit of alcohol on cotton will do the trick.

The base material and clear laminate of the labels are manufactured from one of the most durable, space age micro-thin plastic materials available. No paper material is used, providing the user with the ultimate reusable label.

For 3.5" or 5.25" diskettes: Sealed poly bags with labels: 25-$9.95; 50-$13.95. Sealed poly kits of labels, label pen, ink eraser, and removable color codes: 25-$9.95; 50-$13.95; Tube kits with labels, pen, ink eraser, alcohol erasing fluid (refillable squeeze bottle), color coding sheets: 100-$26.95.

Reader service #247



Fiendish Freddy's Big Top O'Fun

FIENDISH FREDDY'S BIG TOP O'FUN

Mindscape's Fiendish Freddy's Big Top O'Fun offers a satiric, twisted look at six circus events, rendered in slapstick style and brought to life by breakthrough, movie-quality animation and art. Take center ring as you test your daredevil skills on the trapeze and high-wire and in four other cartoon-style circus events. But look out for Fiendish Freddy, the cynical circus saboteur who will thwart you at every turn.

Test your balance as Freddy throws Frisbees to knock you off the tightrope. Flip through rings of fire as he tries to snip off your trapeze ropes. High-dive into a tiny bucket of water as Freddy attempts to blow you off course with a fan. Other events include the knife throw, a juggling act with bombs that explode if you drop them, and a human cannonball shoot.

Suggested retail price $49.95
Reader service #152

We deliver across Canada and the U.S.

Deep in the heart of the Service Bureau Jungle...

Many companies offer Linotronic output services for desktop publishers, but few offer full Linotronic support for Amiga PostScript files.

You can count on Photocomp RB to promptly service your requirements for repro or film output and color keys from 8 a.m. to midnight Monday to Friday.

Photocomp rb

1478 St. Catherine St. West
Montreal, Canada H3G 1S8
Tel. (514) 933-8154 • Fax 933-6953
Toll-Free from Eastern Canada
1-800-363-6061

Canada's First Authorized Linotype Imaging Center

6 Linos • 3 modems • Open Mon. - Fri. 8 a.m. to midnight

Linotype, Linotronic and PostScript are Registered Trademarks of their respective parent companies.

Circle 114 on reader service card.

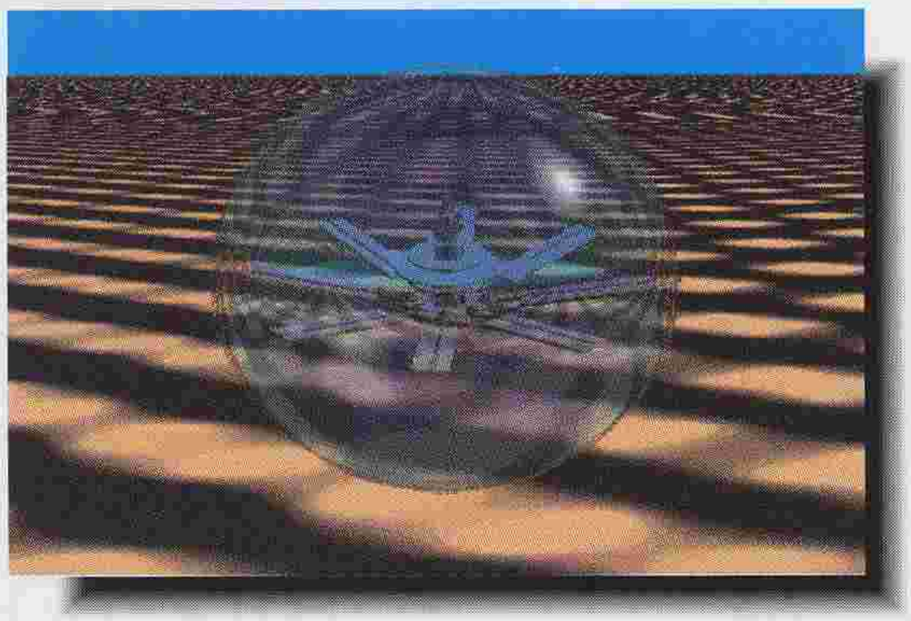
CREATE THE FINAL FRONTIER
WITH STARSHIPS FROM POLAR ARTS

Polar Arts Software is proud to announce the release of a new product for the Amiga entitled Starships 2050.

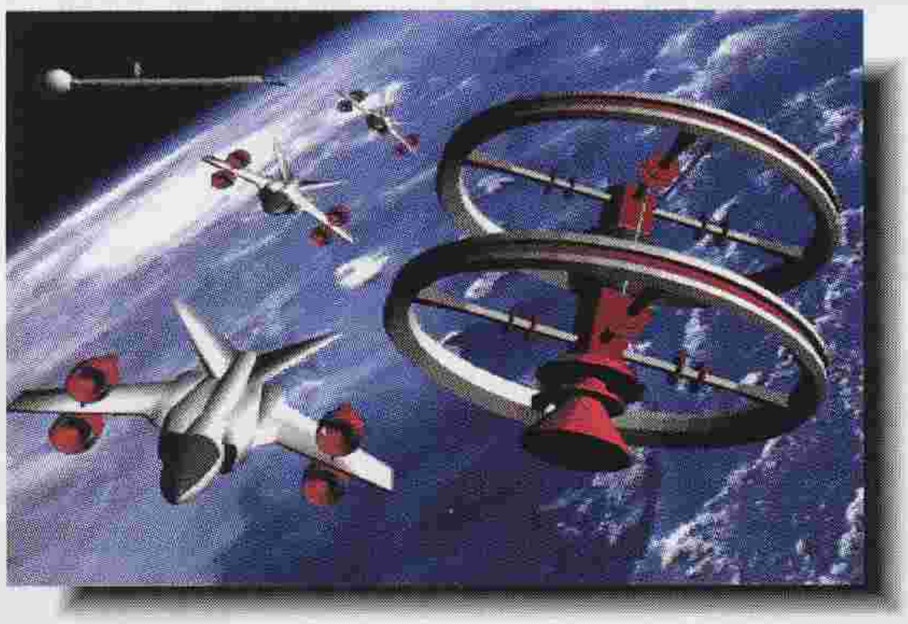
Starships 2050 is available on a three disk set of professionally sculpted 3-D models which will include starships, moonbases, fighters, satellites and many more. The set will also include a full disk of digitized NASA photographs for use as backgrounds in animations and renderings.

Designed for use with other modeling and animation software such as Turbo Silver, Sculpt-Animate 4-D and Sculpt Animate 4-D Jr., this set contains completed 3-D models for creating high quality images and animations. These intricately crafted models are constructed in fine detail with face color and textures for optimal detail and rendering time.

With this set one could easily compose animations of intergalactic exploration and futuristic space settings using the starships or star fighters. They can be used by the professional for their designing of logos, or for special effects in videos. This set is designed for both the weekend animator as well as the graphics and animation professional.



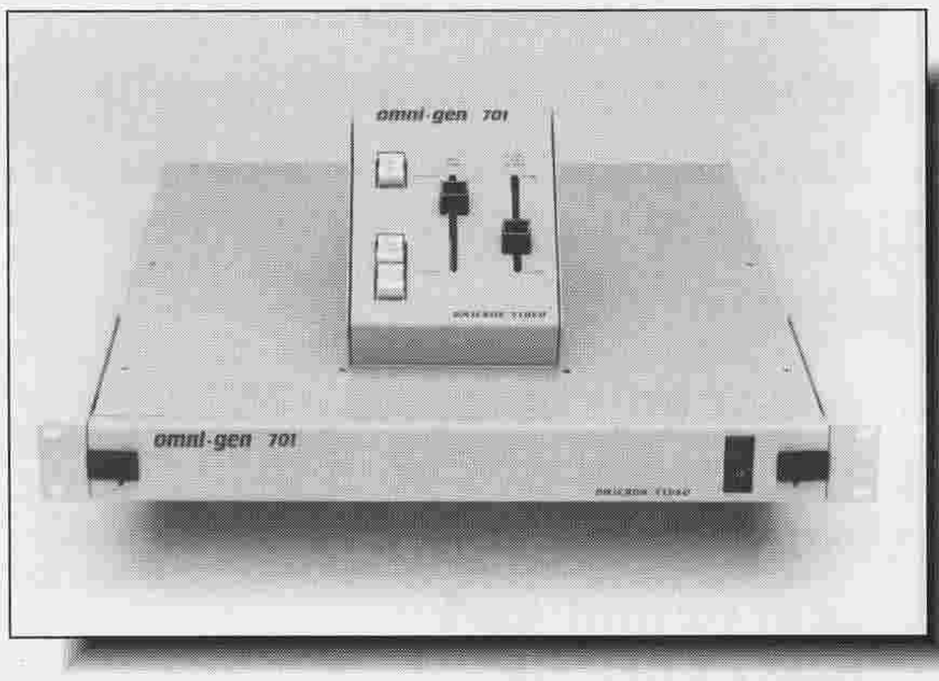
Spaceprobe created with Starships 2050 objects.



Professional quality renderings thanks to Polar Arts.

Suggested retail price $49.95
Reader service #271

OMNI-GEN 701 AND 702



Omni-Gen Amiga genlock system

Omicron Video has released two Amiga computer Genlock systems.

Omni-Gen 701: The Model 701, for NTSC system genlocks Amiga 500, 1000, 2000 and 2500 computers without requiring any modifications in the computers. All image data created in the Amiga computers are converted into broadcast-quality video signals, NTSC standard composite signals or Y/C 358 signals; versatile Amiga software for "Desktop Video" applications are to be adopted in the video field, NTSC standard composite signals or Y/C358 signals; versatile Amiga softwares for "Desktop Video" applications are to be adopted in the video field. Keyer/Fade-to-black controls on a remote control panel offer simple and fundamental functions to compose video images. Built-in is a broadcast-standard sync generator, conforming to RS170A, which provides capabilities to adjust phase of horizontal pulses and sub-carrier so as to facilitate the system to be one of the total video system. The sync generator genlocks to VTR/VCR's without TBC. Sine squared/comb filering is provided to minimize horizontal crawl effect.

Suggested retail price $1,595.00

Omni-gen 702 Amiga Computer genlock system: All the features of the Model 702, for PAL system, are identical to the Model 701, except it converts image data into PAL standard signals conforming to system I/CCIR Report 624-1, or into Y/C 443 signals, and employs no comb filtering.

Reader service # 277

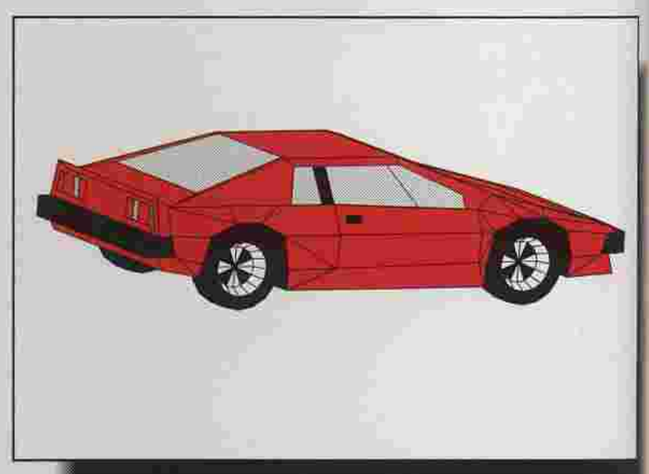
NEW INTERFONT CONVERTER

Syndesis announced the release of InterFont version 1.2, including a new Professional Draw Converter and twenty InterFonts. With the Professional Draw Converter, InterFont users can create their own clip art ready for use in Gold Disk's Professional Page and Professional Draw desktop publishing programs. InterFont has always included an Aegis Draw Converter, another popular structured drawing format for the Amiga.

A total of twenty InterFonts are now included with the package, fourteen more than the initial release. InterFont users can create 3D text objects for modeling programs supported by the InterChange system such as Sculpt 3D, VideoScape 3D and Turbo Silver, and text clip art for desktop publishing programs such as Professional Draw and Soft Logik's PageStream. InterFont text clip art can include up to sixteen colors.

InterChange users can now translate 3D objects to clip art, too. Converting a 3D object to Professional Draw art results in a structured drawing that can be printed without jaggies on a PostScript printer. Converting to Aegis Draw means realistic 3D illustrations can be added to CAD drawings for plotter output.

Suggested retail price $119.95
Upgrade $10.00
Reader service #206



The "RedLotus" object from Videoscape converted to a Professional Draw structured drawing by InterFont Version 1.2

RESTORE THE PLANET!

ARCHIPELAGOS

FanFare, Britannica Software's new entertainment software line releases Archipelagos, a mystical, 3D action-strategy game.

In this mouse-controlled game the player has a 3 dimensional view, above the ground, which can be rotated 360 degrees to see all around. The landscape is a flat checkerboard, with a number of objects which can be located on it. Actions are performed by using the cross-hair cursor to click on the object or square. The player will enter into strategic, complex and real-life challenges on 9,999 archipelagos.

Man has virtually destroyed all life forms on the once beautiful earth with plastics, poisons, deadly gases and nuclear waste. Now Man wants to reclaim it. Specially trained ecological engineers, called Environmental Purifiers (EPs), are being sent to earth to undo centuries of damage. The player will enter the earth's hazardous atmosphere, then begin to destroy radioactive nodes and obelisks. Build land bridges and fly across oceans.

Always be careful for the dangers on earth still exist! Contaminations everywhere and it is spreading rapidly in the form of viral trees and eco eggs. Wandering necromancers and sweeping air cleaners are out to eliminate anything in their path, including life-preserving EPs.

Suggested retail price
$39.95
Reader service #245



Archipelagos for the environmentally conscious.

EASE THOSE ACHING WRISTS



The Wristrest is exactly what its name suggests, a soft corduroy covered cushion where you rest your wrists and hands while you type. It's 11" deep and 17" wide, and is made of 100% cotton corduroy. Because of its design, the Wristrest can fit snugly under any standard keyboard without clips or connectors.

At home or at the office, the Wristrest can ease the stress of working with hardware.

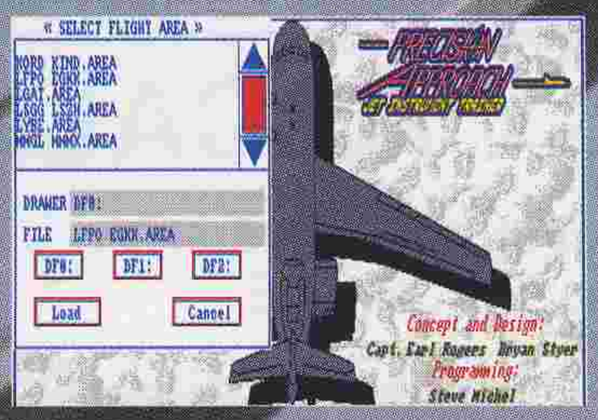
Suggested retail price
$12.95
Reader service #278

PRECISION APPROACH .INC

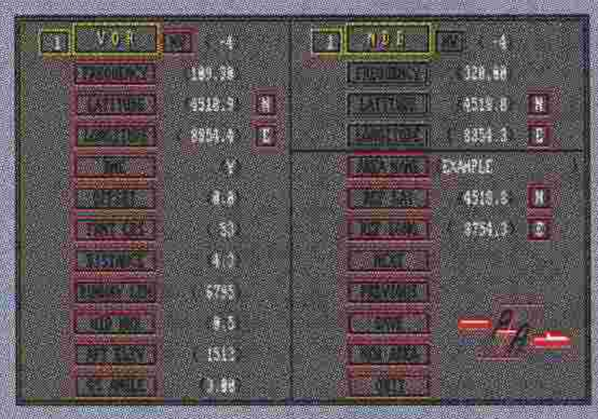
JET INSTRUMENT TRAINER

FOR COMPUTER PILOTS WHO ARE SERIOUS ABOUT DEVELOPING PROFESSIONAL FLYING SKILLS

- Speeds over 460 knots in Jet mode.
- Speeds over 190 knots in Prop mode.
- Use the Joystick for realistic and stable flight characteristics.
- Full radio package includes: Dual VOR, Localizer, Glide Slope, Dual DME, Marker Beacons, ADF.
- Novice instrument pilots may check aircraft position using the on-screen miniature plotter.
- Advanced pilots will be able to take over and land visually at minimums after completing a successful ILS approach.
- Turbulence mode available for greater challenge.
- Altitude and Position SET, Position HOLD.
- Wind up to 150 knots from any direction.
- Set ceiling from 0 to 550 ft above.
- Position aircraft instantaneously over any navigation aid.
- Fly all over the world!







Includes special programming module to build your own library of areas and approaches using real navigation charts.

"Fun, but not a game!" - Non-pilot computer enthusiast
"You almost forget you're flying a computer!" - Airline pilot B-727
"Very well designed! Accurate navigation! Easy to fly!" - Airline L1011 Captain

US $89.95 Includes Shipping, CHECK OR C.O.D. CALL (815) 537-2211
PRECISION APPROACH, INC. 207 E. 3rd ST. PROPHETSTOWN, IL 61277

Circle 107 on reader service card.

MAC-2-DOS, YOUR TICKET TO THE WORLD OF MAC

Central Coast Software has released Mac-2-Dos which lets you read and write Macintosh floppy disks using a standard Macintosh-compatible 3.5 inch external floppy disk drive connected to your Amiga.

Here are a few typical Mac-2-Dos uses:

-Amiga users can now have access to the extensive variety of Macintosh clip art available on Macintosh disks.

-Amiga users can take their Amiga PostScript files (on a Macintosh diskette) to most typesetting service bureau to be output on professional typesetting equipment.

-College students who are required to have a pricey Macintosh can now choose the Amiga and still meet the requirement of being Macintosh compatible.

-Amiga users can transfer all kinds of files, like word processing and desktop publishing files, spreadsheet files, or database files.

-Musicians can quickly and easily transfer standard MIDI files between the Macintosh and Amiga.

Mac-2-Dos transfers all types of Mac files to and from the Amiga. Mac-2-Dos converts MacPaint files to and from the Amiga. Mac-2-Dos converts MacPaint files to and from Amiga IFF and Mac ASCII files to and from Amiga ASCII. As it transfers files, Mac-2-Dos automatically transfers and converts icon for the files, or creates icon, as necessary. Mac-2-DOS conversion options include resolution choices which simplify the problems caused by the incompatible screen resolutions of the two computers.

Mac-2-Dos provides split-screen directory listing Amiga files and Mac files available for transfer. You can select individual files for transfer, quickly tag multiple files, or transfer entire groups of files with one command.



Access the Macintosh world with Mac-2-Dos

It includes a custom hardware interface, driver software, file conversion software, and optionally, a Mac-compatible 3.5 inch floppy drive. The hardware interface plugs into the Amiga external disk drive connector or into the last external drive of the daisy-chained disk drives, if any. The Mac drive draws its power from the Amiga.

Mac-2-Dos works with any Amiga, supports multitasking and conforms fully with the published software and hardware guidelines for the Amiga. It requires a Macintosh-compatible 3.5 inch disk drive, and works with all available Macintosh external drive, you can use it with the Mac-2-Dos interface on your Amiga to transfer Mac files.

Suggested retail price $99.95
Reader service #226

RECALL TO ACTIVE DUTY

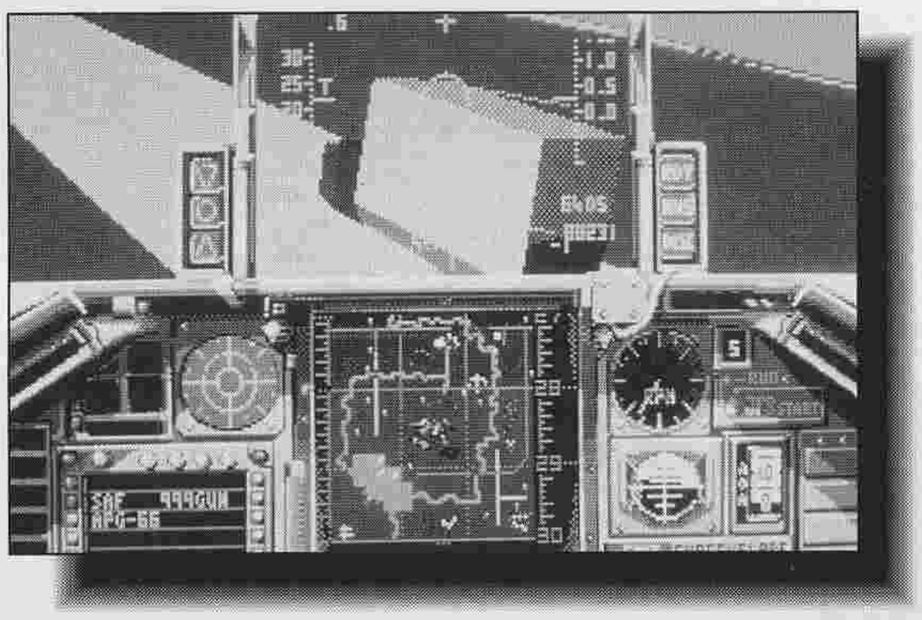
FALCON MISSION DISKS

Spectrum HoloByte announced the shipment of the Falcon Mission Disk, Operation: Counterstrike. The program works with the company's F-16 fighter simulation, Falcon, to expand it to a full campaign with all the extras.

Twelve all new missions, set in a new landscape, comprise the campaign and bring to Falcon a whole new level of strategy and non-stop action. The missions are designed for successive play with the overall objective of flying the Falcon fighter into enemy territory and destroying the enemy's offensive potential.

A deadlier enemy now confronts the pilot. Enemy forces include four types of moving vehicles: tanks, trains, amphibious landing craft, trucks, and MiGs.

While defending the airbase and his plane against assault from ground forces and the MiGs, the fighter pilot is asked to fly missions to destroy the enemy's stationary targets- SAM sites, a power station, an oil refinery, a factory and bridges.



Top Gun and Beyond in Falcon

Vigilance and speed are required. If a pilot takes too much time, the home airbase may be captured by enemy tanks and the campaign is lost.

Every enemy target destroyed contributes toward success, but points are awarded for destroying specific targets depending on which mission has been selected. Five levels of difficulty, designated by rank from 1st Lieutenant through Colonel. Pilots who earn enough points may be decorated with one of five medals from the Purple Heart to the Medal of Honor. The Medal of Honor is achieved only by causing total enemy industrial shutdown while flying at Major rank or higher.

Another feature in Operation: Counterstrike is the ability to go head-to-head in dogfights against an opponent on a second computer. Using either direct connect or 1200 baud or faster modem, players can link ST to ST, Amiga to Amiga, ST to Amiga, or either ST or Amiga to an Apple Macintosh.

Each version has a suggested retail price of $24.95
Reader service # 153

NEW HORIZONS SHIPS MAJOR PROWRITE UPGRADE

New Horizons Software, Inc. is shipping ProWrite version 2.5. ProWrite 2.5 is a major upgrade to their ProWrite 2.0.

Heading the list of new features in ProWrite 2.5 is the capability to print near letter quality text and pictures with one pass through the printer.

Page sizes are now user adjustable, allowing odd-sized documents such as mailing labels to be printed. The top and bottom page margins may be turned off allowing the full page to be utilized for text or graphics. The current date and time may be inserted anywhere in a document. It may be automatically updating or static. Centered tab stops are included. Formatting control has been added for files with line feeds after each line. And, the ProWrite interface has been enhanced.

Suggested retail price $124.95
Reader service #139

DESKTOP VIDEO PRODUCTION SYSTEM

The MediaPhile system, by Interactive MicroSystems Inc., gives you the power to perform automatic edits from a one thousand entry edit decision list. Overlay titles and graphics. Create wipes, fades, dissolves, and digital special effects and record computer animations on videotape automatically. All under computer control.

Mouse control makes editing easy. All deck functions including freeze-frame, single frame step, visible high speed search, jog shuttle and digital special effects can be selected from the control pad on your computer screen.

Video editing features include adjustable pre-roll for smooth, professional looking insert and assembly edits, inter format editing, a preview mode with a 5 second freeze frame at IN and OUT points, accurate control track or SMPTE time code positioning and an edit decision list of over 1000 computer graphics and videotape entries.

Enter video deck or SEG infrared commands in the edit decision list to create picture-in-picture, solarize, pixelize, mosaic and other digital special effects. Enter switcher and genlock commands to control wipes, fades, and dissolves between video sources. Send infrared commands to audio compact disk, video laser disk and other infrared controlled players from the edit decision list.

Use infrared controlled VHS, Super VHS, 8mm, Beta or ED Beta video decks as players and your camcorder or another deck as the recorder. Control laser and compact disk players and audio tape decks as audio and video sources. Control three video decks for A/B rolls.

You can also use the MediaPhile system to:

-Record and playback an audio database of 24 hours of digital stereo sound on one 8mm cassette.

-Record and playback a videotape database of thousands of crystal clear still images.

-Playback from two decks. One deck seeks the start of the next selection while the other plays.

-Record computer animation frames to video tape from popular animation programs automatically.

MediaPhile Desktop Video systems are being used in video production, automatic playback of audio and video in nightclubs, radio and cable TV stations, interactive training, surveillance, automated telephone transaction recording and processing, medical imaging, real estate video databases and interactive presentation.

Reader service #236

MEDIAPHILE VIDEO PRODUCTION SYSTEMS

COMPLETE VHS SYSTEM INCLUDES:

Deck/Sony SLV-50 $476.00
Computer/Commodore-Amiga 500 w/512K RAM & 3.5" 880K Drive $650.00
Monitor/Amiga 1084S RGB HiRes $338.00
Genlock/Digital Creations SuperGen $750.00
Controller/ MediaPhile 1.3 MP Infrared $195.00
Software/MediaProcessor Video Production $149.00
Software/Aegis-Video Titler $104.00
Total $2662.00
Your Price: $2499.00
For Super VHS video production substitute the JVC 5000 SVHS deck for $839.00
Ask about the JVC 10000 Super VHS deck and GF-S55OU SVHS Camcorder.

COMPLETE HI 8MM SYSTEM INCLUDES:

Camcorder/Sony CCD V99 $1799.00
Deck/Sony EV-S900 $1749.00
Computer/Commodore-Amiga with lMB RAM & 3.5" $813.00
Disk Drive/Amiga 3.5" 880K $222.00
Monitor/Amiga RGB Hi Res $338.00
Genlock/Vidtech Scanlock $933.00
Controller/MediaPhile 1.3 MP $195.00
Remote Control/Sony RM151KA $94.00
Software/Media Processor Video Production $149.00
Software/JDK Pro VideoGold Titling $188.00
Total $6480.00
Your Price: $6199.00

EDV-9500 MEDIAPHILE BROADCAST ED BETA SYSTEM:

Camcorder/EDC-55 $6126.00
Deck/EDV-9500 $2782.00
Computer/Commodore-amiga 2500 with 3MB RAM, 40 MB Hard Disk, 3.5" 880K Drive, & 68020 CPU $3818.00
Monitor/Amiga RGB HiRes $338.00
Genlock/Digital Creations SVHS 2000S $1595.00
Controller/MediaPhile 1.3 MP Infrared $195.00
Remote Control/Sony RM151KA $94.00
Software/Media Processor Video Production $149.00
Software/Broadcast Titler $187.00
Software/EA Deluxe Paint III $119.00
Total $15403.00
Your price: $14999.00



The VidGen background generator from Microsoft Software, Ltd.

VIDGEN

Microft Software, Ltd. announces VidGen, the first Amiga software package designed to create embossed background graphics from symbols which can be used in video production and multi-media presentations. VidGen is mouse-driven, supports multiple resolution modes including overscan, features an intuitive graphical control panel, and is used with titling, paint and presentation software.

VidGen is quick, just load your brush into VidGen, and almost instantly background graphics fill the screen. It is flexible, you can make instant changes in spacing, contrast, color, depth, or a combination of these and other controls! Use numerous resolution modes including Overscan.

VidGen is compatible. Edit your saved background graphics with an standard Amiga paint program. Use your background graphics in video titling or business presentation titling programs such as ProVideo Plus from Shereff Systems, Inc. or TV Show from Zuma Group. Inc. to make award-winning presentations and videos.

-Complete and concise manual included.
-Not copy protected for your convenience.
-Easily installed on a hard disk drive.
-Not sold in any store.
-Purchase direct for $149.95.
-Shipped UPS free of charge.
-90 day limited warranty.
-Technical support.

Reader service # 249

PERFECT SOUND 3.0

SunRize Industries is proud to announce a new release of our sound digitizer for the Amiga. Perfect Sound lets you record in stereo then edit, mix, play, or save digital sound. You can create instruments for music programs, or add custom sound effects to your Amiga. In addition, version 3.0 of Perfect Sound includes many new features:

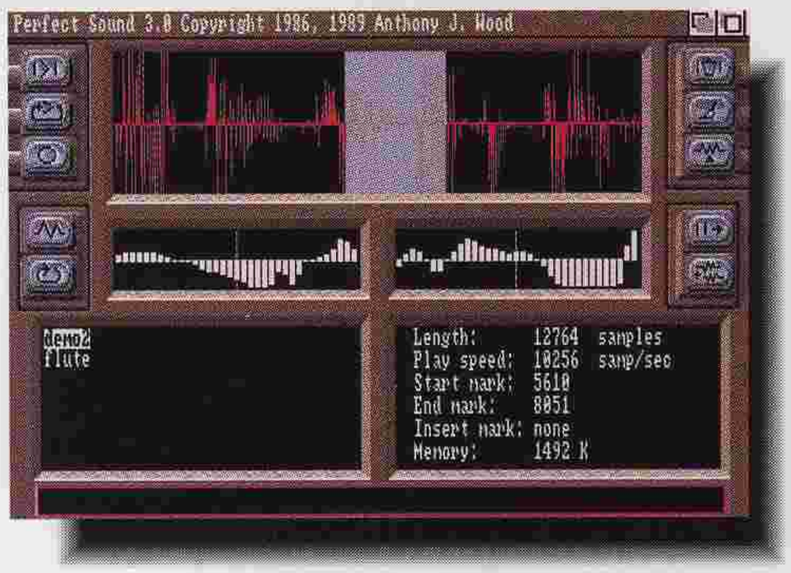
Revamped User Interface: A redesigned user interface is now easier to use and more powerful. You can use your mouse to easily mark sections of a sound on the graph for editing. Three graphs, including two magnified views, allow easy and precise editing.

New tools: Many new editing tools have been added. Using just a few of the new tools, you can mix or ramp sounds, add echos, reverb or interactively loop sounds.

Digital filter: The new software allows you to apply a low pass filter algorithm to sampled sounds. The result is improved sound quality.

Digital Gain: You can now adjust the input volume via software. No knobs need to be adjusted on the hardware.

Precision Sampling: Perfect Sound now sets its sampling rate via a hardware clock. This method is much more accurate and produces sounds with less distortion than the software timing method used by other samplers.

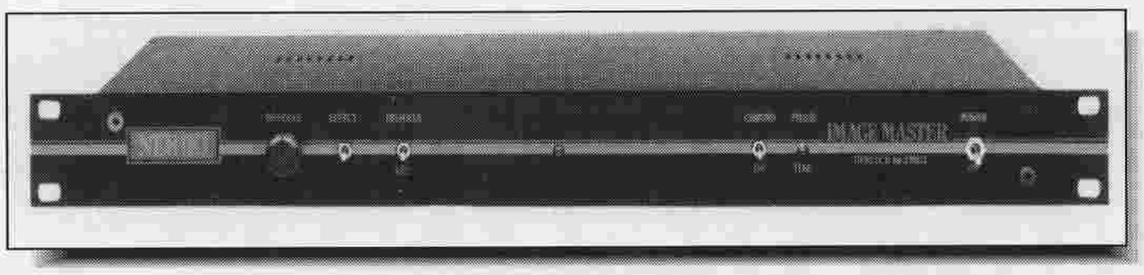


Create instruments for music programs or add custom sound effects to your Amiga with Perfect Sound 3.0

Fast Sampling: Sampling rates of up to 40,000 samples per second are supported. Faster sampling rates mean better quality audio, especially when used with Perfect Sound's new digital filter.

Microphone Input: As well as right and left line inputs, Perfect Sound 3.0 includes a mic jack and preamplifier, so you can connect a microphone directly to your sampler.

Suggested retail price $99.95
Reader service # 205



The new Neriki Image Master Genlock from Telmak

NERIKI IMAGEMASTER GENLOCK

The new Neriki Image Master genlock achieves broadcast quality encoding with any Amiga computer and all Amiga graphics, text, animation and paint software. Encoding at 5.5 mHz, the genlock produces full 500 line resolution under NTSC standards with the result that even third generation tapes meet broadcast quality.

The Neriki Image Master genlocks to any suitable video source (studio reference, black burst, camera, TBC, Betacam, and video tape in any format including S-VHS) and puts out high quality composite or RGB baseband video. It supports a fully controllable luminance keyer, a key to background color, and auto key cuts into the background.

As a standalone, rack-mountable unit, the Neriki Image Master is self-powered. Unlike internal genlocks made for Amiga computers, no slots are taken up and there is no drain on computer power supplies. Further, all controls are built into the genlock so no software commands are required for its operation. The genlock can be used up or downstream. Front panel controls consist of a power switch, chroma phase (coarse and fine), effect key, enable, key invert, dissolve and fader switch. With its variety of controls, a full complement of inputs and outputs, and its ability to interface with switchers and other RGB input devices, the Neriki Image Master is designed to meet professional standards with exceptional economy.

The Neriki Image Master is RS-170A approved and comes with a one-year limited warranty. To meet broadcast quality on a non-broadcast budget, Telmak also offers the economical new Neriki DeskTop genlock.

Suggested retail price
$2200.00
Desktop $1050.00
Reader service # 235

COMMISSIONER'S DISK FOR EARL WEAVER BASEBALL

Electronic arts announced the release of the Commissioner's disk for the A500, 1000, and 2000 series. For use with Earl Weaver Baseball and Season Data Disks, the Commissioner's Disk provides players with complete control of any baseball league imaginable.

Commissioner's Disk was initially developed to enhance Earl Weaver Baseball, but as a sophisticated tool for managing league baseball, players may use it independently for managing real-life leagues, from Little League to softball leagues.

The Commissioner's Disk offers the chance to become General Manager, as players may draft and schedule a league, hire free agents, update player and team files, and trade up to five players at a time while attempting to operate a successful league. Player rosters and league schedules may be customized and printed once team has been organized.

Acting as a league commissioner, players will edit accumulated statistics and merge stat disks with the commissioner's Disk. There is also an advanced statistics display where you can view entire league player stats by batting average, slugging percentage, pitching performance, and player position. Individual players' stat cards may also be printed for quick reference to a specific player.

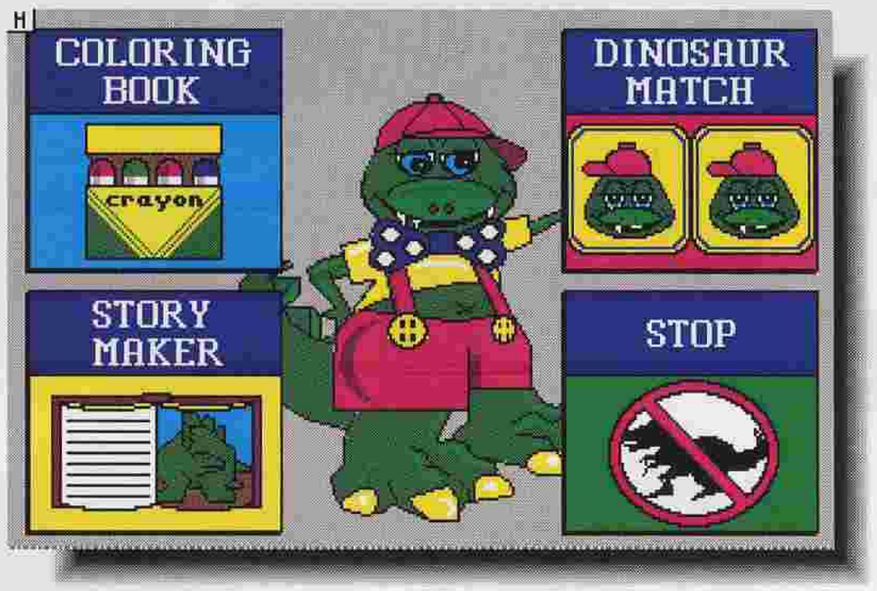
While taking full advantage of being the commissioner, players may design their own ballpark or redesign the classics. Editing other components of a ballpark may also be something players choose to manage- customizing foul territory, park capacity, even wind conditions. In addition to this advanced ballpark editor, there are many new edit features for use with Earl Weaver Baseball.

Suggested retail price $19.95
Reader service # 179



Commisioner Disk for Earl Weaver Baseball

EDUCATION NEWS FROM FIRST BYTE



Screen from First Bytes' Dinosaur Discovery Set

First Shapes and First Letters and Words have become integrated learning tools throughout the Kindergarten and First Grade curriculum at Emery Park. The programs were selected because of their exploratory, child controlled emphasis that is enhanced by the unlimited speech technology. Gail Lovely, Technology Coordinator says, " Programs for young children normally give kids very little control over the activities. This is not the case with First Byte programs. Children make their own choices and explore freely. In addition, the talking characters completely engage the children in the learning activity".

The "voice-like" speech, while sounding more artificial than human speech, has been a tremendous help to both young children and ESL Students "As soon as the children are told this is computer talk they have no problem getting used to the voice", teachers commented.

With KidTalk, the talking word processor, the children begin by simply typing their names and from there build a variety of talking stories. Gail Lovely recalls one very special ESL second grade student named Carlos. He was one of those children having a very difficult time with writing and reading, as well as concentrating on any task. He came to the computer lab with the rest of his class to type a story using KidTalk. Getting his name and story title typed into the computer took him 15 minutes as he labored over finding the letters on the keyboard. But when he made the computer say his words, he beamed! He was in control making it repeat the words over and over. He didn't even want to leave the lab at recess...a first for Carlos. He went on to create the entire story. When it was printed, Carlos was able to turn in something for the first time that everyone could read and understand.

Emery Park teachers see First Byte products as success stories for the children and themselves. The children, because of how independently they tackle problems and learn skills, and themselves as computing teachers because the programs have been successfully integrated into the curriculum. The programs have provided a lot of enjoyment and opportunities for learning. The only project that eluded success was initiated by some imaginative first graders who tried to make the First Shapes Bear giggle by tickling the keyboard and monitor. The Bear just smiled and said "Welcome to the toy Factory", but their teacher is still laughing about it.

Reader service # 238

NEW FEATURES IN M1.1



A 2 disk update of M1.1 from Intelligent Music

In response to feedback and continued development of M for the Amiga, Intelligent Music is pleased to announce the availability of M 1.1.

The M1.1 program corrections are as follows:

-The output length numerical updated correctly when opening existing files.

-Legato values fully extend from 6% to 800%.

-The new command in file menu works correctly.

-Problems with the input control system are corrected.

-Display problems encountered in the pattern editor when using Hold/Do are corrected.

-Menu items in new files are correctly enabled when files are loaded.

-M 1.1 generally functions properly with Soundscape including sending multiple channels.

The M disk 2 corrections:

-The easter drawer now appears on the Workbench.

-Violins3 file can now be opened.

M 1.1 new features:

-Continuous time base denominator values from 1 to 48.

-You can preview timbres on your synth by shift-Commodore-key clicking. You can also "scroll-preview" timbres by just Commodore-key clicking a numerical and scrolling it.

-Commodore-key clicking anywhere in a window while holding down the left mouse button will bring that window to the front.

-Double clicking on the pattern group variable will open the pattern editor to the pattern selected in the patterns area.

These features and corrections are available in a two-disk update for $20.00.

Reader service #246

FLY WITH THE BLUE ANGELS

In 1946 the U.S. Navy created an American tradition when, for the first time, it allowed the public to witness the grace, precision and power behind the sleek fighter jets flown by its pilots. Since that time over 220 million people across the country have witnessed the spectacular heart-stopping flight patterns of the acrobatic Blue Angels. Now Accolade, for the first time is about to give the public the opportunity to do more than look up as the Blue Angels soar by. With The Blue Angels, computer owners are guaranteed a view unlike any other as they gain a pilot's perspective from the cockpit of a Blue Angel fighter jet.

The Blue Angels will allow computer owners to learn over 25 of the same maneuvers performed by the real Blue Angels, then select any one of the four F/A-18 Hornet jets and take off with the squadron.

You'll be taken through a progressive training sequence. Beginning in a wire-frame flight simulator, you will learn specific maneuvers such as the double Tuck Over Roll, the Knife Edge and the 8-Point Roll by following a three-dimensional path of the stunt in relation to the other Angels in the formation. Once you learn the ideal flight path of the maneuver, you can practice it from the cockpit perspective and watch your flown path plotted in 3D against the ideal path.

Practice in Stop Time or Real Time then watch your progress in instant replay mode and make corrections accordingly. When you've mastered several maneuvers on your own, it's time to practice a series of linked maneuvers with the rest of the Blue Angels. The final test will come in an actual air show in which you are in complete control of one of the jets in the formation.

Suggested retail price $44.95

Reader service # 163

DTP

THE AMIGOTIMES DESKTOP PUBLISHING COLUMN

By Eyo Sama



The making of ASDG's Professional ScanLab AD.

This page was created using Gold Disk's Professional Page v1.3 and Professional Draw, the SHARP JX-450 scanner, and ASDG's Professional ScanLab and ReSEP.

In the last issue, and in this issue (page 27), you may have noticed the new full-page color ad for ASDG's Professional ScanLab. In this month's DTP column I will be going through the steps I took in designing and creating this ad. Preparing this ad required just about all of the new features in Gold Disk's Professional Page v1.3 and quite some work with Gold Disk's Professional Draw.

THE START

When ASDG first approached me about creating an ad for them, I asked them to give me a rough layout of what they would like to have and also to give me all the text they wanted appearing in the ad. Figure 1 on the next page shows you the layout I received, it was enough to give me an idea about what they wanted their ad to express. Now it was time for me to actually get down to some work. First I had to find some suitable photographs to scan, so I got in contact with Studio 5 (the people who take most of our front cover shots) and asked them if they could get anything suitable for me to use. I needed a color and a black&white photo; the color photograph had to be multi-colored so as to show-off the quality of Professional ScanLab's color reproduction while the black&white photograph had to depict a wide range of grey shades. Anyway, the final pictures we came up with are those you can see in the final ad.

SCANNER MAGIC

It was now time for Professional ScanLab to do its magic, the photographs were both 5"x7" prints so I scanned them at 150 dpi (dots-per-inch) which is sufficient for a 150 lpi (lines-per-inch) offset press. You always have to determine what resolution to scan at by comparing the line density you print at with the actual physical dimensions of your scan once it has been laid out. Scanning at your maximum scanning resolution is not always the best thing to do; scanning at too high a resolution often means you are wasting extra separation time and disk space. Using a dpi scanning resolution that is 1.5 times the lpi setting you intend to print at, is usually the best ratio to use; remember, this assumes that you will output your image at the same scale that you scanned it at, if you scale your image down then you can use an even lower scanning resolution. Another thing to remember is that your main limiting factors are usually the output device and the deficiencies in PostScript halftoning.

After scanning the photographs, I used Professional ScanLab's in-built utilities to adjust the scanned images' contrast, brightness, and color balance. The color image was saved as both 24 bit (16 million color) IFF and as HAM (4096 color), while the black&white image was saved as both 8 bit (256 grey) and 4 bit (16 grey) IFF. The color image was then also color-separated into CMYK (cyan, magenta, yellow, and black) 8 bit files. For the four separations that you see placed under the main color scan I re-scanned the color photo at a lower resolution since the file would end up being very large anyway (the separation of the final page took up about 16 megabytes of disk space). The smaller scan was then separated and the HAM version of each color CMYK was saved to disk.

PROFESSIONAL PAGE'S TURN

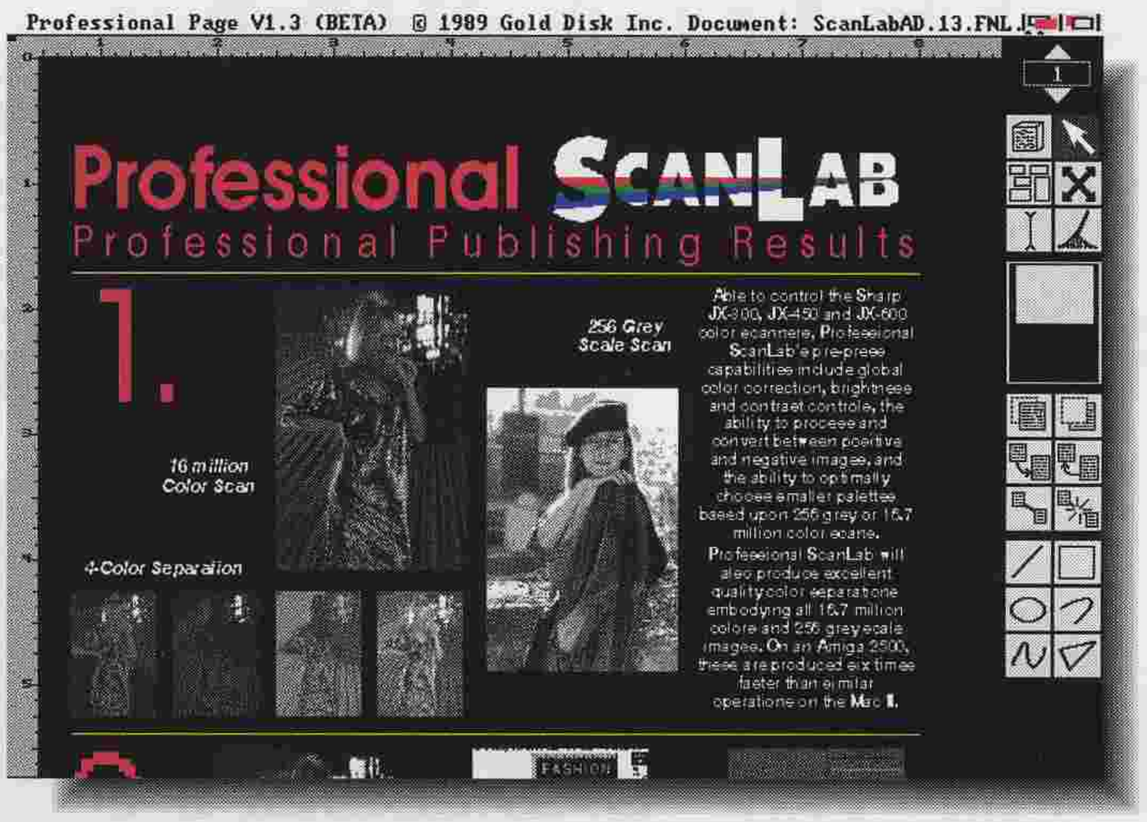
I found that the initial rough layout of the ad had too much text on it, this seemed to overpower the scanned images and other screenshots, so I removed a lot of text from each section (actually I removed the first section altogether). I think that the main sense of any ad should be to display and showoff what the program or product is best at. I would have liked to have made the scans appear even larger but some of the text had to remain to explain the various capabilities of Professional ScanLab.

The main body text was 11 pt Helvetica, I made it bold because I wanted the text to show up well on the black backdrop, and I set the tracking to -1 because there was so much text. The main title and the section numbers were created using the Avant-Garde font while the word ScanLab was hand-crafted using Professional Draw. The HAM version of the color scan and the 4 bit version of the grey scale scan were loaded into boxes, as were the screen shots depicting the creation of the example page in section 3 of the ad.

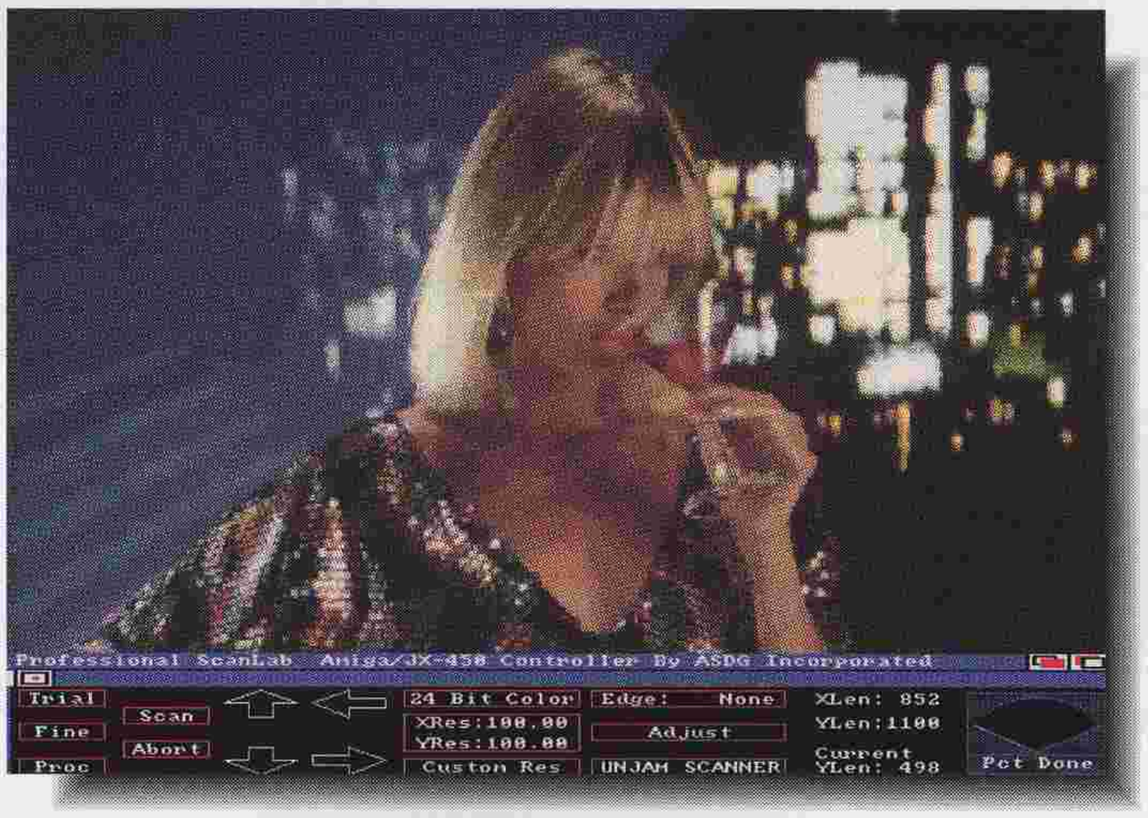
The example page which you can see in section 3 of the ad, was designed in a separate document also using Professional Page. The scans were again loaded onto this page along with the dummy text which would appear beside each scan and the main title 'FASHION PHOTOGRAPHY' which was typed using the new Triumvirate font which is available in the new Professional Page v1.3 package. Once finished, the example page was color-separated as a color EPSF file (Encapsulated PostScript File) straight to a disk file. The EPSF file was then loaded into a box in the main ad document, and sized and scaled to the size you can see in the ad.

LET'S DRAW

I really had to change the plain text logo that Professional ScanLab has had until now, so I started to play around with a few design ideas using Professional Draw. I needed a font with a very heavy weight, preferably Black or Ultra. Un-



The Entire page was assembled with Professional Page v1.3, the main body text is Helvetica Bold while the title is Avant-Garde. The word ScanLab was designed with Professional Draw.



The photos were scanned with Professional ScanLab (shown here) the image is the HAM representation of the actual 24 bit file, which is also in memory.

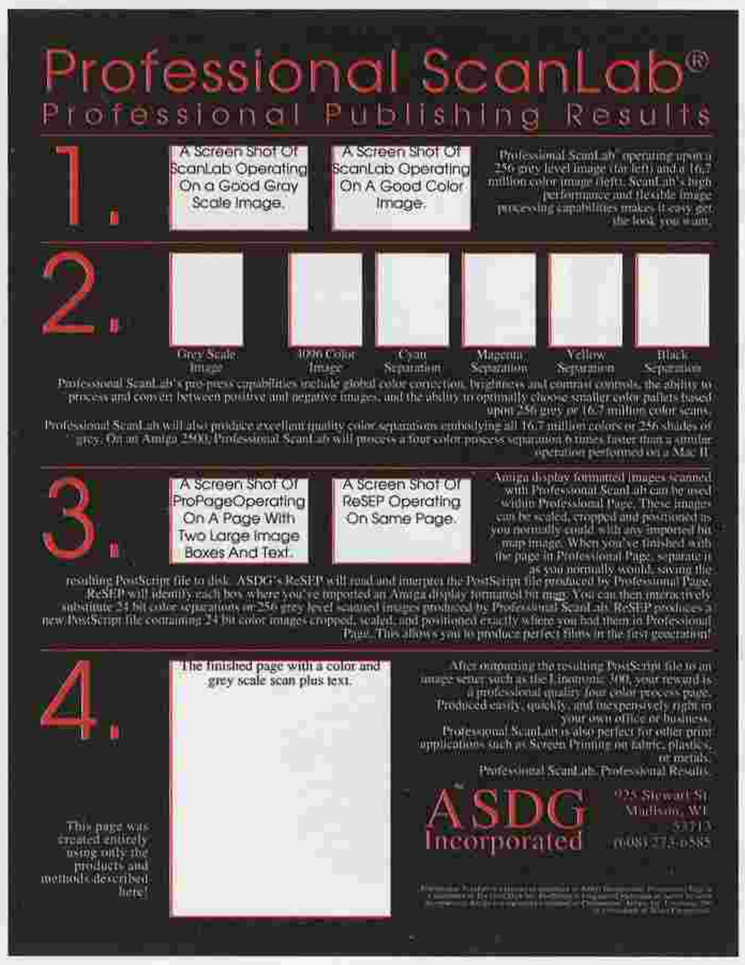
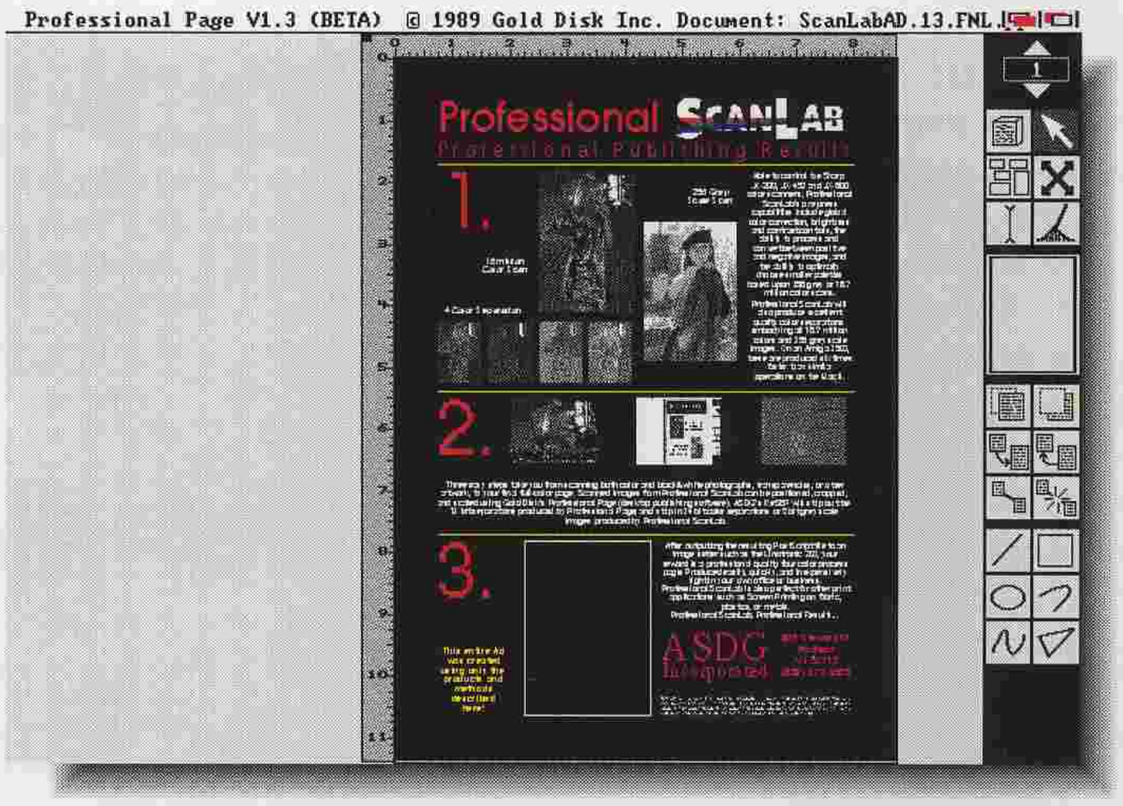


FIGURE !

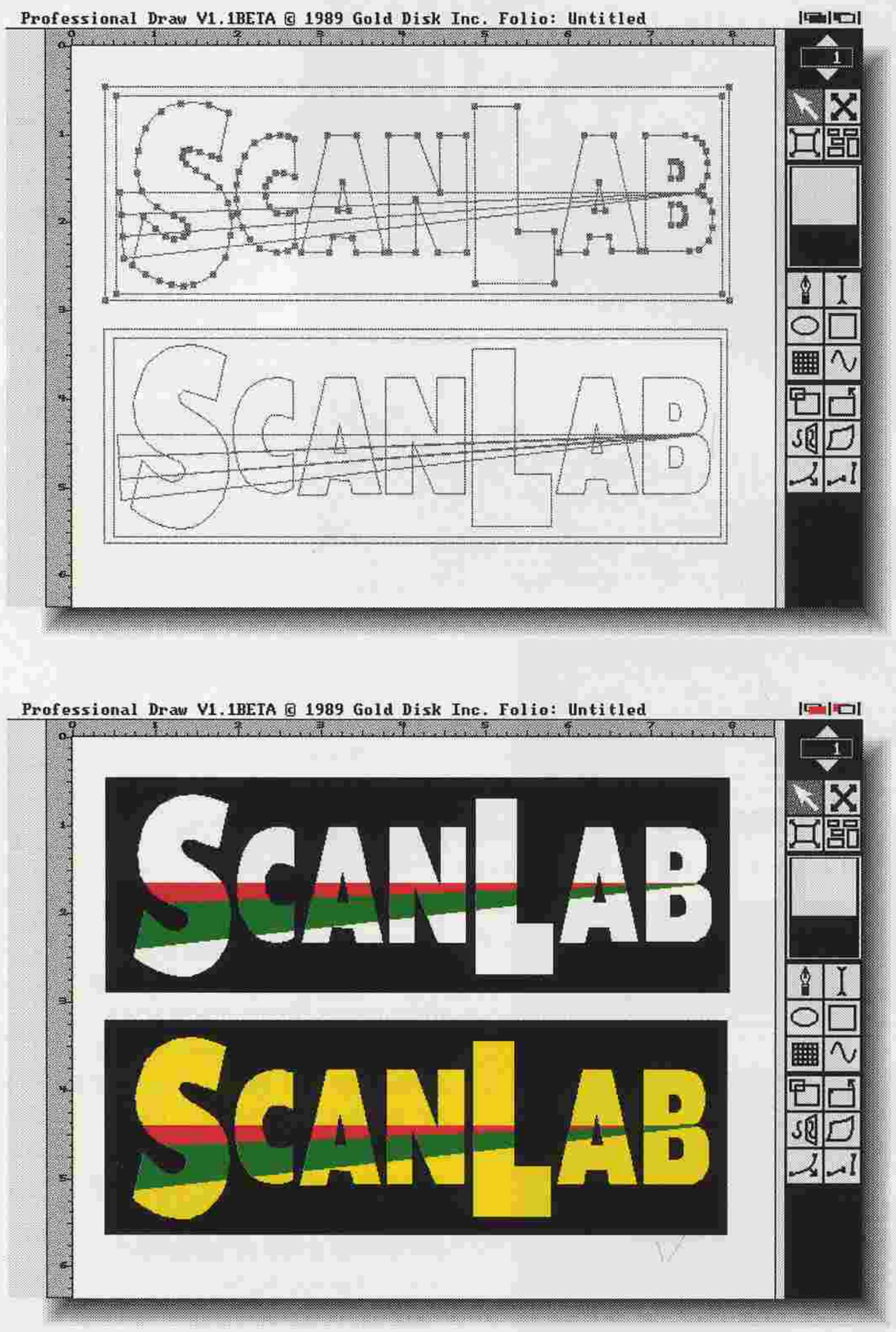
This is the rough layout which was supplied by ASDG. This was enough to give me a fairly good idea about what they wanted to stress in the ad. I removed a lot of the text since I think an ad is much more effective when it is visually impacting than when it contains a lot of detailed textual information.

fortunately there is still a very limited selection in fonts for both Professional Page and Professional Draw, but Gold Disk has promised to release a variety of high-quality Compugraphic fonts which will be usable in both Professional Page and Professional Draw. Anyway, there was no heavy font available at the time (and there still isn't) so I had to design the word ScanLab by tracing a bitmapped version of a heavy font. Tracing each character was a real pain so I am looking forward to the auto-tracing capabilities of Professional Draw 2.0 once they are fully implemented.

Once each character was traced I split the path of each character at one of its control points. I placed a rectangular box around the characters and connected the split ends of each character to the box, thereby turning everything into one object. I changed the fill color of the object to black (the same as the ad background). The actual characters where now transparent which is what I wanted because I wanted to have the color prism show through the characters. The color prism was drawn and then placed behind the main object before the whole design was defined as a clip and saved off to disk so that it could later be imported into Professional Page.



The final document just before color-separation.



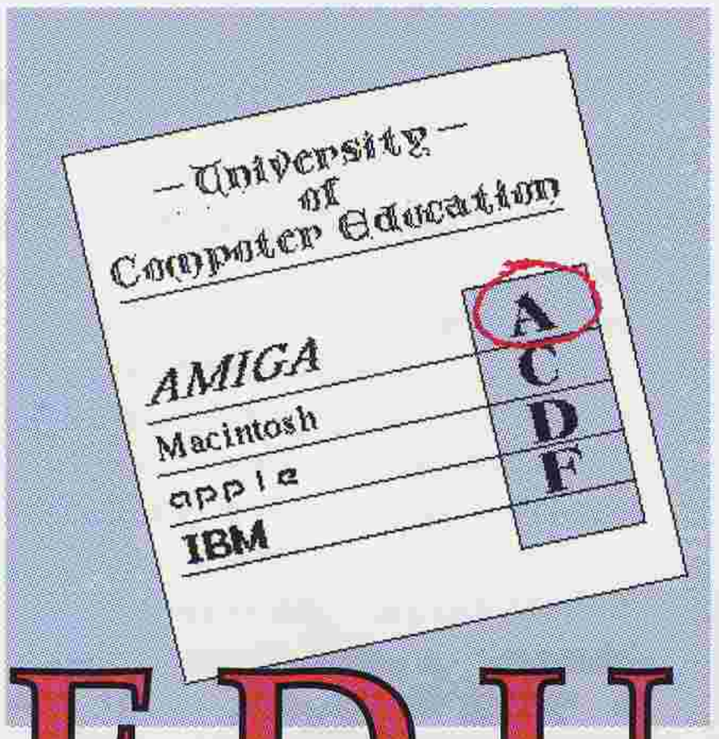
The ScanLab logo was designed with Professional Draw. The whole logo was designed as one object which acts as a mask above objects that are placed under it.

Here you can see the final logo. I tried different color combinations but settled for the white backgound.

FINALLY

Once the Professional Draw clip of the logo was imported, and the EPSF file of the example page positioned, I proceeded to color-separate the entire ad. The 8 MB PostScript file that was generated was then loaded into ASDG's ReSEP which then replaced all the HAM Professional Page separations with 24 bit separations and 8 bit grey scale files from Professional ScanLab. The resulting 16 MB PostScript file was then sent directly to negative film on a Linotronic L300R. The finished product is the ad on page 27. ❑

(See PRODUCT INDEX for more contact information on page 109)



AMIGOTIMES FEATURE

The Future of EDUCATION

PART ONE

It's time to examine both the system and what role the Amiga can play in it.

BACKGROUND

My interest in education as a philosophy, science, technology and business began when I discovered The Autobiography of John Stuart Mill in 1967. A year or two later, Ayn Rand's journal of philosophy introduced me to Montessori. In 1971, with a fresh B.S. in Physics, I tried teaching public Junior High. The kids learned a lot, but the school and I did not get along. I hung on for a few months until realizing that I simply did not have the personality for the continuous power contest of classroom teaching. Besides, many of the kids were bigger and meaner than I was.

In 1971, I joined a small, radical bunch of followers of Ayn Rand to start one of the first Montessori schools in South Carolina. There I studied Montessori and epistemology and fomented anarchist revolutions for three years until I suddenly lost all reason and morals, (coincidentally right after I challenged our Great Leader's infallibility) and was purged from the group. Even then, I was enthusiastic about the possibilities for someday integrating the computer into education.

In 1979, my total computer experience consisted of an intensive semester of FORTRAN IV on an IBM mainframe and a disastrous COBOL encounter on a mini. Nevertheless, I had already sketched a Montessori based computer education environment. I waited for price and power to improve.

Then I read an article criticizing computer education. The gist was that only children of middle-class, well-educated families would have the incentive or support to use classroom computers. Thus, educational computers would lead to further class division and suppression of the "lower classes". Therefore, educational computing should be outlawed. I concluded that this was just the opposite of the truth. The computer would facilitate class mobility. While many YUPPY kids would be dragged kicking to the machines, the deprived kids would be fascinated. I looked for a test case.

THE WATTS EXPERIMENT

I discovered Sheenway, a private school in the middle of the Watts 'ghetto'. Dr. Sheen was deceased, and his daughter Delores (Dee) Blunt Sheen was in charge. She had various degrees, a black belt in karate, and was totally committed and fearless.

The gangs were on the rise. Twice gang members invaded Sheenway at night and tortured and slaughtered farm animals that the children kept. Gunshots could be heard frequently. Gang wars and killings went on daily. Dee decided she had had enough. She went out, by herself, and walked into the various gang headquarters. She pointed out that so many people getting killed was no good to anyone. She proposed a truce between the local gangs.

Having little idea what was going down, I visited Sheenway during the most crucial negotiations. The staff and everyone else had fled, fearing threatened bombings. A visiting artist and I found ourselves manning the phones as calls came in from the New York Times, Washington Post, etc., while Dee put her life on the line for her school. She got her truce. I decided this was my testbed.

I first spent several months trying to reach the right bureaucrat to get a grant for Apple IIs for Sheenway. Finally, a friend introduced me to Larry Bauder, one of the first teachers involved in Commodore's Toronto Computer Ed. project. Now he was working for Data Equipment Supply in Downey, CA, the first West Coast Commodore dealer, and our biggest educational dealer. Bauder and I disagreed on everything, until he finally stated, "So you want me to create a computer program at Sheenway. Fine. I'll do it."

Months later, the program started with a Sheenway class bussed to DES. The results were better than I hoped. After two hours of learning BASIC programming, the kids virtually had to be torn away from the PETs to drink Cokes. Sometime later, Richard Pryor got involved and put Big Buck$ into a gang project, which finally led to the "Computer Gang Project". The results with Sheenway and the Gangs kids were published nationwide. I never heard the class argument raised again.

Since then, my friends and I have organized the two major non-sectarian

By Phil Osborn

West Coast Home Schooling conferences. I've put a bunch of C64's into private schools on a volunteer basis, and (natch) I've long been an Amiga fanatic. A lot of Apples sit on the shelf, in the closet, or still boxed up in school district warehouses. I can't imagine that fate for an Amiga. The Amy is exactly the machine we educators have dreamed of. Yet it is not going very far, very fast in education, except in specialized areas in colleges. The real educational problems and challenges are not at the college level. They're with elementary, pre-school and infant care. A generation of kids are entering college who cannot read, write or think, and it is too late to retrain them. Why is that? What can we do about it?

This subject could easily fill a shelf of books. What I'll try to present herein are some basic parameters for educators, parents, and educational programmers that will get everybody upset and excited. I'm a radical, and I've been at this for a long time. I don't expect either complete or instant agreement. What I hope is that you'll bear with me and do your own investigation, if only to nail me to the wall. There is a list of references and resources at the end for you to refute or ignore, should you be so inclined.

Meanwhile, to get things off to a rousing start, let's look at a potential future for Amiga education.

A DAY IN THE LIFE: CIRCA 1992

Johnny is home a little late this afternoon, having met a new neighbor's dog on the way. Skipping and running the last block leaves him breathless, so it takes two tries to convince the door that it's really he. On his second recital of the entry code, however, the dumb door realizes its mistake and apologizes. After his milk and cookies ceremony, he looks for things to do. No one else will get home soon. His buddy Richy is down with the flu. But there's always Teddy!

The monitor shows Teddy's front door, and a sign hung on it - "THE BEAR IS IN"! (The screen was blank until Mandala recognized that someone entered the room.) A folded newspaper lies on Teddy's front step.

Johnny knocks on the door (via his Mandala image), "Teddy, Teddy, Tehdeee, come out and play!"

A moment later, Teddy appears, rubbing his eyes, "What day is it?"

Johnny laughs, "Hibernating again! It's Monday, Teddy!"

Teddy picks up the paper and opens it, "So it is." He starts chuckling.

"Let me see", begs Johnny.

The screen splits and a 'Garfield' comic strip appears with a typical 'Monday' scenario even Johnny can appreciate. Teddy patiently reads the (downloaded) comics, and his voice is echoed on the TextStrip at the bottom of the screen, words and syllables highlighting as he pronounces them. Johnny's own words appear one line lower.

When Johnny doesn't understand a word that Teddy uses, Teddy pulls out his dictionary and looks it up. Teddy's dictionary has pictures and little animations to explain new terms.

Sometimes Teddy doesn't understand all that Johnny says, and then Johnny has to explain what he means in terms of what Teddy knows about. Teddy will keep asking questions until he understands. Johnny has learned a lot about how to ask questions from teaching Teddy. Sometimes Teddy misunderstands the words themselves, but what can you expect of a Bear, anyway? Then Johnny has to point to the word on the textline and correct Teddy.

They finish the comics and the daily ritual moves on.

Teddy, "How was school today?"

Johnny discusses his day, to the accompaniment of a lot of questions and comments from Teddy. Teddy knows the names of Johnny's friends and teachers, their gender, and quite a bit more in some cases. Johnny mentions the new dog.

"I was late because I played with Rover!"

"Who or what is Roefer?"

"ROVER, not Roefer, Teddy. Rover's a dog!"

Teddy has a dog, too, named Rex. Rex is a mongrol. Teddy shows Johnny dog pictures from the encyclopedia. "Does Rover look like this one? This is a German Sheppard."

"No, Rover has more hair, I think. And his nose is longer."

Johnny finally identifies Rover as a probable collie.

Teddy pulls out a banjo and sings a little song about dogs, with Rex barking enthusiastic accompaniment. Teddy asks Johnny where he met Rover, and displays digitized pictures of the neighborhood that Johnny sees on the way home. Johnny points to one house.

"Oh, so Rover lives at Mrs. Finch's house?"

"Yes, but she wasn't home."

Teddy reviews the lessons that Johnny learned in his preschool, and brings out games from his closet for them to play. The games reinforce what Johnny learned and incorporate what he has learned up to this point. Finally, Johnny's Mom appears.

"Hello Teddy, hello John John. How's everything?"

Johnny and Teddy fill her in. Teddy holds up the picture of Mrs. Finch's home, with a collie superimposed.

"Thank you, Teddy! Johnny, you mustn't go into Mrs. Finch's yard just yet."

"But why, Mom?"

"Rover doesn't really know you. His job is to guard the yard from strangers, and to him you're a stranger. We'll go visit Mrs. Finch later this week and see if it's all right for you to play with Rover, Ok?"

"OK, Mom."

A DO-ABLE FANTASY

The point is that, except for voice recognition, which the Amiga is certainly more capable of than a C64, all the basic components already exist. Using DNET and AREXX, a household could link Johnny's Amiga 500 to a main household machine, a 2000 or 2500, running a CD-ROM off the bridgecard, with the Grolliers Electronic Encyclopedia or other reference works on board. (The only reason the Amiga side couldn't do it is that no one has bothered to write the CD controller software as yet.)

The main machine could also access any of several major services (eg., CompuServe) to download news, comics, etc. Mandala or VidiMice would allow 'Teddy' to 'watch' Johnny to a limited degree, and would allow Johnny to directly participate in events on screen. Teddy himself would consist of a set of animation and display routines with full AREXX hooks, linked to Mandala and, also to the family main machine via DNET. Teddy's interactive and conversational abilities would consist of a Magellan module passing to an Eliza type conversation engine running off the 2000. This module would call submodules off the 2000's hard drive that were expert in specific areas, and access a resource data-base of games, simulations,

and the on-going history of its interaction.

For a five-year-old like Johnny, Teddy could be a very effective companion, playmate and mentor. Daily conversations could be stored for review by Johnny's parents, who could then add rules and directives to Teddy. This could be invaluable to parents in general - and particularly those with young latch-key kids. If trouble ever arose, or if Johnny was overly late getting home, 'Teddy' would call the parents, or, failing that, the neighbors, or the police, using the 2000's home security system. With the laser disk access of VIVA, combined with Mandala as the input system, Teddy and Johnny could explore zoos, museums, factories, submarines, fly airplanes, or you name it!

Now let's look at the reality of education and the Amiga.

There are other articles that review particular alleged educational software or discuss specific school experiences from a traditional educational perspective. Sneaking Amigas into traditional education, however, will predictably meet the same kind of limited success in the future as it has in the past until we focus upon what the fundamental problems are. Of necessity, much of this discussion will lack ancillary argument and reference, or may be severely simplified, which will cause much gnashing of teeth in certain quarters. Sorry.

First, a definition: Education - a more-or-less systematic process of learning aimed at achieving a particular state of knowledge and/or proficiency. (I will try to distinguish my concept of education from a more prevalent one - a chaotic, whimsical imposition of adult authority aimed at degrading young human beings through twelve years of boredom and imprisonment.)

Consider the range of beliefs concerning education. Even within the 'mainstream' we have such extremes as Montessori vs. the U.S. public school variations of Dewey/Thorndike's Progressive Education.

Montessori assumes that children under six years old can and should learn disciplines such as reading, writing, and math through beginning algebra. The Dewey/Thorndike schools stretch this same learning out for the next eight or more years, and, until recently, absolutely denied that children under six either should or even could learn these disciplines.

Montessori said children have a natural desire to learn, and need only opportunity. Progressive education assumes that punishment and reward are essential (and positive!) factors in forcing the child to learn (who is in charge).

The Montessori method is based on fifty years of careful, fully documented experimentation with equipment and techniques devised by mathematicians, philosophers and scientists, with detailed daily notes kept on each of several hundred thousand children on every continent. The Progressive education system is based on the avowed purpose of producing a particular social product.

Montessori is aimed at producing powerful, independent-minded individuals who will rock the boat - eg., Anne Frank or Milton Friedman, both Montessori educated. Progressive education is aimed at producing "socialized men", conditioned to put up with boredom and unquestioned authority, who will make good soldiers or assembly-line workers, the common man's career expectation in the Dewey/Thorndike era.

As for objective results, there is ample documentation and commentary from within academia. The University of Chicago has done extensive tracking of children raised in different home and educational environments. Montessori kids maintain an average three year academic advantage. The continuing decline of the public, progressive educational system speaks for itself. Yet its philosophy is still vigorously defended on the basis of the social ends that it is intended to achieve.

This is not to say that Montessori is perfect, or that Progressive education is totally evil (who would believe me?). I merely emphasize that 1) the techniques and philosophies of education, even within the mainstream, are hardly standardized or subject to any general consensus of agreement, and 2) that these techniques often were developed out of complex political, ethical or epistemological theories and motivations that go far beyond what we generally consider 'education' to be about. (Or, that's the kind [mealy mouthed] way to put it.)

Yet, despite the fact that our methods of classroom education are less than two centuries old, despite the contradictory variations within accepted academia that are contra-indicative of scientific sound-



Circle 197 on reader service card.

ness, despite the dearth of good results, despite all of the indications, both experimental and philosophical, that what passes for education has gone seriously astray, there are few people more devoutly convinced of their sacred mission or more resistant to change than educators. And, unfortunately, my experience is that this applies as much to most Montessorians as to anyone else.

This should hardly be surprising. The human species cannot agree upon much of anything involving philosophical interpretation. Is there a Supreme Being or not? If so, who speaks for Him? Or, consider all the mutually contradictory schools of philosophy or psychology or economics or political science. The more doubtful the validity of our arguments, the more fanatical our adherence to them and the more we feel the need to silence the doubts of others. That education is largely controlled by government bureaucracies does not seem to help. (joke)

Most of us have been through at least twelve years of conditioning and indoctrination by the very system for which the introduction of computer assisted learning is contemplated. Recognize that our concept of what education is all about - for most of us - has been largely restricted to variations on what could well be a thoroughly invalid theme.

The 'educational' experience most of our children are subjected to is at best seriously out of date. Our "modern classroom" was modeled on the 19th Century factory. It was considered important then to provide a cheap basic education to the masses. The methods employed were rote learning motivated by punishment and reward by teacher and/or parent. Immediately prior to that era, however, learning took place largely at home. There is no indication that the factory/classroom was an educational improvement over home education. Rather, the problem was that in the lower economic classes both parents worked outside the home. In the U.S., the impetus came from the Civil War, when the father was typically in the army, and the mother in the factories, often leaving the children alone.

Most of our kids will probably never be either assembly line workers or soldiers. The attitudes conceived as essential to the "good citizen" in 1900 A.D. may not even have been valid then, and are certainly not today! Just as the industrial revolution replaced muscle drudge work, so the information revolution is replacing every function of human processing that can be translated into a data-processing algorithm. This leaves the essentially human - creativity, integration, imagination, humor, intuition - ie., the functions that are unique to true sentience, as opposed to its emulations, such as expert systems.

FUTURISM NOW!

To compete, survive, and prosper in a world of robots and smart expert systems, our children must develop the powers that are theirs by virtue of their humanity.

"The 'educational' experience most of our children are subjected to is at best seriously out of date. Our 'modern classroom' was modeled on the 19th Century factory."

It really does not make sense to spend years preparing to be John Henry's to $49.95 Spelling Checkers or a $.99 gas station fill-up bonus calculator. But what is it that differentiates people from machines.

The first and foremost thing is that we are *alive!* Living things are not simply organic machines. They contain within their very nature their own inherent purpose; to survive and pass on their ancestral and/or acquired means of doing so. Every aspect of a living creature can be explained by the billion year competitive refinement of that purpose. For a living creature, information or knowledge is never neutral. Every 'Is' implies an 'Ought' measured against the requirements for that creature's life. For a machine, data is simply data, and its evaluation of that data is simply a reflection of the choices of designer or programmer. This doesn't imply that a machine might not evolve into a form of life or true sentience someday (with a lot of help from clever DNA based parents). That's probably a couple of decades off, however.

The common educational mythology, nonetheless, treats humans as though they were machines into which verified copies of programs and data are to be placed. The public school rationale is that there is a core curriculum of essential academic material without which a person will have difficulty becoming a productive citizen. Most children, however, not only will not voluntarily memorize this core curricula, but will actively resist it. This is only to be expected from traditional (Freudian) psychology. The process of civilizing a child, as seen by establishment Freudians, who advise academia, is one of teaching them to efficiently repress their natural desires, sublimating them into socially constructive purposes. (And yet the myth is not even true! Consider the Colfaxes, whose home-schooled, self-directed sons are among the top achievers at our most prestigious universities.)

'Education' is seen as a long, arduous process of forcing a child to accept socially desirable beliefs. Vast effort is expended upon the artificial rewards and punishments to motivate that acceptance. Even so, the process is extremely inefficient. Early in this century, a study was conducted to determine how long it might take to bring a totally illiterate adult up to an eighth grade level of proficiency. The adult volunteers were able to pass the eighth grade tests after nine months of intensive effort. So what happened to the other seven years?

Part of this waste is due to the very small fraction of each traditional school day spent "on subject", typically only about one hour. Another great part is undoubtably due to the vast diversity of learning styles and paces that the assembly line approach is ill suited to address. Finally, though, there is a stubborn residue that reflects the basic inappropriateness of method. People are not machines. Assembly line education might be excused as a temporary expedient to deal with hoards of illiterate immigrants or Civil War 'latch-key' kids, but it is not the method that we have used for most of human history, and its success rate is dismal and falling.

What about the computer? Imagine a school shortly after the printing press's invention that decides to reject printed texts as "too artificial". Only hand-copied, illuminated texts are allowed in classroom. How many students could that school handle? How long before its texts were hopelessly out of date? The differ-

ence between machine and hand-printed text is slight compared to the potential difference between printed text in general and the interactive electronic media. Yet how many times have I heard some teacher say, "You're not going to *computerize* my children!"

A DAY IN THE LIFE...

Despite the potential, the computer is hardly, as yet, a major factor in education. Consider the teacher's point of view. She (usually a 'she' in the lower grades) has a class of thirty kids who are supposed to pass a standardized state proficiency test. This and maintaining order define her job, at least what is demanded of her. Any deviation from the standard curriculum is generally frowned on and the risk of failure will fall on her, while success will bring only personal satisfaction. Her personal motivations have been conditioned by years of day-in, day-out power contests with her captive audience. None of this tends to induce gung ho enthusiasm about introducing innovations that encourage independent, self-paced and directed projects.

So now she is presented with one or two classroom computers, or, alternatively, access to a computer room or library computer section. Generally only a few students at a time can take advantage of this opportunity, so this interrupts the assembly line. Second, she probably has little or no computer experience, whereas at least one out of four of her students will be reasonably proficient with them from long experience at home - which makes her look stupid and destroys that sense of control she has fought to preserve for the last X years.

How does she choose software? Is there any software that is appropriate? By appropriate, we cannot mean "appropriate to understanding the subject matter". For her, 'appropriate' means "leading to passing the standardized state tests". If she is lucky, there will be some simple programs that run the kinds of drills and electronic workbooks that could much more easily (and cheaply) be mimeographed, and these can be used for remedial work and as a reward (or punishment). This is most of computer ed, folks - in the schools, that is. (My apologies, condolences, and awe go to the dedicated computer educators that are somehow achieving real results in spite of everything.)

The private schools have it somewhat better. Many couldn't afford expensive Apples, so they bought better educational machines such as C64s. Typically, the computer teacher is also the coach or the Spanish teacher, and has not had his or her mind warped by the bizarrely bad courses that dominate the college Education curriculum, at least not the new (usually Apple based) computer ed curriculum. So he or she blithely teaches fifth graders to write terminal software in Pascal, never imagining that the kids are much too young. The resistance to integrating the computer into general curriculum is still there, however, so the kids generally learn word processing and some programming, and there it ends.

Within classroom education, there is only one area that has made any major effort to integrate computers into curriculum, and that's Special Ed. Unfortunately, their effort has been restricted by simple budgetary constraints. Only the most severely handicapped students typically have reasonable computer access.

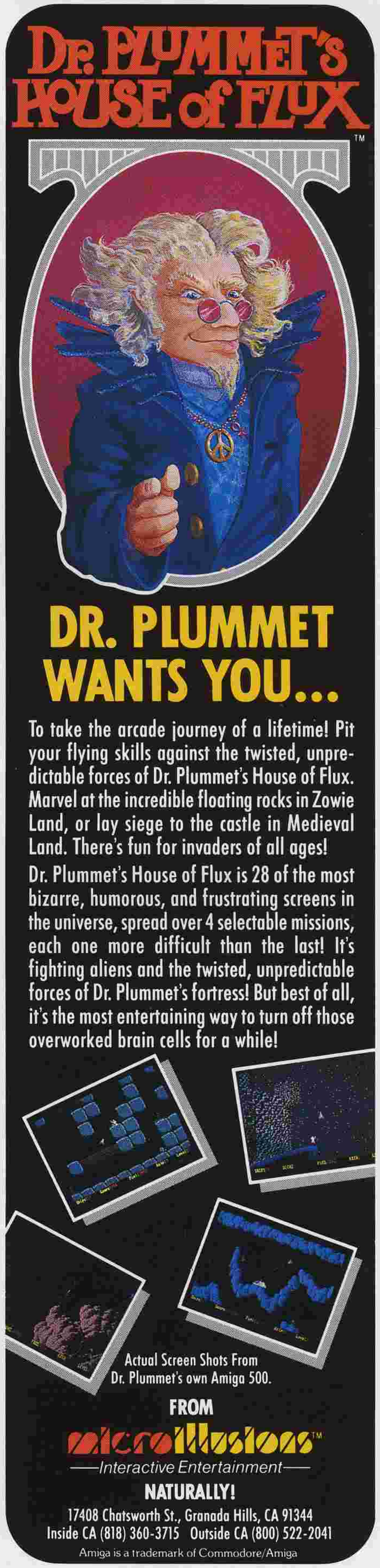
After all, only so much can be accomplished with one computer per twenty kids. Many schools do not have that. Yet the ratio in homes with elementary age kids is more like one in three and rising.

AMIGA WHO?

For us, there are several additional hurdles. First, most U.S. schools are long committed to Apple, and there is no Apple emulator for the Amiga (the PC Apple card will work with the Bridgeboard, but costs around $400, plus the Bridgecard. Used complete Apple systems can be acquired at computer swap meets for around $200.). The very first question I typically get from a school's computer lab person is, "Is it Apple compatible?"

The second question - if there is one; often the first question ends the discussion - will either be a) "Does it have a good LOGO?" ('no', not as I'm writing this, although Gail Wellington did announce at WoC, L.A. that Commodore will be releasing their own version for the Ami) or b) "What kind of educational software does it have?" ("Not much.")

Yet an Amiga 500 is easily far and away the best machine for general education through high school. Even if there is never an Amiga LOGO, or a beknighted Apple emulator (the Apple II line is only two full generations out of date!), or



Circle 197 on reader service card.

much educational software per se, the off-the-shelf commercial and Public Domain tools the Amiga has, put it in a class by itself.

Our future looks interesting. Combine Amiga's sophisticated, fully multitasking OS and powerful, cheap hardware with process control languages like AREXX or Scripit, along with hypermedia systems like Thinker or VIVA, expert systems like Magellan, and accessing massive optical data resources, and we've got a supremely cost effective powerhouse that can challenge NEXT, OSII, or System 7! Will all this be enough to challenge the Apple hegemony in U.S. schools?

Probably not. The schools have never displayed much foresight or good judgement concerning computers. That's why they were putty in Apple Marketing's hands. The public high schools will probably buy a few Amigas for graphics, video, or specialized lab use. The private schools may do a little better, but, remember, they don't have the budgets.

The only thing that might get Amigas into the general school market would be a cheap Apple II emulator. But who would write one? It's certainly as do-able as the Transformer, or the C64 Emulators, but the Apple II is correctly seen as a dead end by developers. The fact that NOT having an Apple emulator keeps Amy out of the ed market does not impress them. They know that few educators will actually buy it, because once they see what the Amiga can do, they will forget about Apple compatibility. Yet meanwhile, not having it bars us from that market.

THE REAL EDUCATION MARKET

So, is the Amiga dead in the educational water? Hardly! How much real education occurs in schools to begin with? For most kids, not much. The typical home-schooled child is considerably more academically advanced than his schooled peer. (This fact, as established via Federally sponsored research, has finally led to de-facto acceptance of home-schooling in most of the U.S.) Not surprising, home-schoolers were also much more heavily into computers a lot earlier than the general population. My last questionnaire from a home-schooling conference I put together in '86 indicated at least 40% of the families had one or more home computers.

Home-schooling is simply not practical for a lot of parents - particularly when both parents work full time. But the home-schoolers are the experts at education at home. What I'm indicating is a potential market that could serve as an effective test bed for educational software, as well as a source of it. We don't have the traditional school market, and we aren't likely to get it in the foreseeable future, so let's quit worrying about it and focus on what is do-able.

Montessori is a substantial potential market. Montessorians have had great resistance to computers in the pre-school environment, although they do frequently use them with the older kids, for that minority of Montessori schools that go beyond preschool. At a recent Montessori conference, an enormous dealers' room was jammed with Montessori and derivative equipment, books, aids, etc., and one solitary green screen attached to an ancient Apple, running a mindless Mathematics workbook program on a level with 1979 era PET educational software. The program was advertised as "Montessori on the computer"! It had nothing to do with Montessori, and was a decade obsolete. But note that at least they're not locked into Apple! With that kind of exposure, no wonder they've resisted computers.

The Montessori people are not bound by bureaucratic control like the public schools, and their basic educational philosophy has no conflict with the computers. Montessori herself would have loved them! Furthermore, the other methods of preschool ed look (covertly) to Montessori as the standard, and constantly borrow Montessori methods and equipment. And, Montessorians network and conference a lot. A single serious thrust of marketing effort to the Montessori people that sold a few influential schools Amigas could quickly snowball. All we need is a core of true Montessori-based programs that do things that their traditional equipment does not. More about that later.

Many parents are deeply concerned about their children's education. Probably most would agree with many or most of my criticisms of the schools, even though they are not ready or able to create a full alternative at home. The opportunities for home educational software in areas such as remedial education, reference, and preschool, early-learning and skill building are there. The same software developed for a Montessori classroom, for example, could go in a library of home-learning software. The parents don't have to - and probably won't - buy the Amiga just for the kids. An Amiga 500 is an affordable system that provides a full range of capabilities for the entire family.

PROBLEMS = OPPORTUNITIES

All the problems I've identified are opportunities! While I'm not sanguine over the likelihood of replacing Apple in the schools, there are plenty of parents who already have Amigas, or would buy an Amiga if they thought it might tip the balance in their child's education and development. Let's look at some opportunities and possibilities and how we might take advantage of them.

Next issue, I will go into more detail on the issues of writing good educational software. ❑

If you've got any interesting educational ideas that you see a need to involve me in, I'm on PLink - id WEL907, and my own phone is (714) 957-1375.

Basic References

An Introduction to Objectivist Epistemology, Ayn Rand*

Childhood Education, Maria Montessori*

The Montessori Revolution in Education, E.M. Standing

Nienhuis Montessori Catalog, (415-964-2735)

The American School 1642-1985, Joel Spring

Mindstorms, Seymour Papert

A Society of Mind, Marvin Minsky

The Psychology of Self-Esteem, Nathaniel Branden*

Homeschooling for Excellence, David & Micki Colfax

Teach Your Own, John Holt*

The Autobiography of John Stuart Mill, John Stuart Mill

Teach Your Baby Math, Glenn Doman*

How to Raise a Brighter Child, Joan Beck

The Brain Book, Peter Russell

*Author has other related works.

AniMotions

VOLUME 1: HUMANS IN MOTION

AniMotions is a collection of accurate human movements (walking, running, sitting down, climbing stairs, and many more) which can be applied to several included mannequins or to humanoid characters you have designed yourself. Using the included scripts and Sculpt-Animate 4D™ you can automatically create realistic animations of humanoids going through several of the motions. The mannequins are accurately sculpted and range from a matchstick figure to a complete mannequin with all the body's joints and limbs. Each joint and limb is named in an hierarchical manner and can easily be manipulated either manually or automatically through the scripts. AniMotions is a must for any serious animator and is also a great learning tool for the beginner.



US $49.95
CDN $54.95

SAMA SOFTWARE INC. 5124 St. Laurent, suite 100, Ville Ste. Catherine, Quebec J0L 1E0, CANADA, ✆ (514) 638-6304

For direct orders or dealer enquiries contact the above address or phone. AniMotions, © 1989 SAMA SOFTWARE INC. and Tom Macri.

Circle 7 on reader service card.

AMIGOTIMES
LETTERS

AmigoTimes

LETTERS

DTP FAN

Let me first congratulate you on your Desktop Publishing Column and all the helpful hints you provide. I am a graphic designer who uses the Amiga and DTP programs on a daily basis and your ideas are very much appreciated. It is refreshing to find new and creative ways to present printed material.

In issue 1.7 (August 1989) you wrote about special effects possible with ProDraw and ProPage. You mentioned that it is not possible to rotate words in ProPage which is true to an extent, but you overlooked one way to get around that. By positioning the word(s) you want to rotate on a page itself, rotating the whole page and selecting "No Eject" it is possible to get this effect in ProPage without having to import from ProDraw. I have done this numerous times and it works beautifully! Also, you can extend and compress letters by changing the scale in the PostScript/Output Specs option of each page, again without having to import from ProDraw (and stretch in ProPage), which limits you to only 2 fonts. This is briefly explained in the manual for ProPage, but if you have any questions, please do not hesitate to call me, I'll be happy to explain in more detail how this is achieved.

I thought this information might be appreciated by you and your readers since it provides one more way to add pizazz to documents. I look forward to reading your next column for more information on how to use DTP programs to their maximum potential.

Carmen P. Ramirez
Tampa, FL
USA

MANAGING THE WORKBENCH

I have three questions that I hope you may be able to solve for me. Firstly, I am interested in making the CLI window larger than when it appears on the screen. I am aware that the new NEWCLI file contains the commands that set up this window size, however, I am not sure what editor I can use to read in the file, change it and save it. Can you recommend an editor or is there another way to adjust this window size?

My second question involves icons. When I copy various programs (on different disks) from CLI environment and place them on the same disk, chances are quite good that many program icons will overlap. Thus when I do click on the disk's icon the screen is rather jumbled. Is there any way to change the location of where the program icon appears in relation to the disk's window?

Finally, on the numeric keyboard there exist various other functions the keys can perform (e.g. PrtSc, NumL, Del, etc.). Is there any way to use these functions or are they only available by software that allows their use?

Thank you very much for your time.

Mark Williamson
Willowdale, ONT
CANADA

If you use Workbench 1.3, you should be using the Shell instead of the CLI. With the Shell, it's a simple matter of clicking on the Shell icon and selecting Info in the Workbench menu. In the text string marked TOOL TYPES are the default settings. Change them to your specs and click on SAVE.

You can't define where the icon will be placed. If you need to reposition icons move them to the desired position by dragging them with your mouse and then selecting Snapshot from the Workbench menu. The new position will be saved. If there many icons jumbled in the window, select the drawer or disk icon of the window and in the Workbench Special menu, select Clean Up However, this does not save the positions automatically. You must select the icons (depress the Shift key and click on each of the icons with the left mouse button) and select Snapshot. Then click on anything but an icon to deselect the icons.

As far as we know, there is no way to use the special functions on those keys except when you are running IBM software, such as the new AT Bridgeboard.

CORRECTIONS!

AmigoTimes v1.8:
Ip.109: Amiga Product Index
nky Dink (ink for ink jet printers) was omitted. To find out more about Inky Dink, contact:

Software Sensations
1441 S.Robertson Blvd.
Los Angeles, CA 90035
(213) 277-8272

p.109: Amiga Product Index
The Star NX-1000 was incorrectly listed as the NX-100.

LOST DUTCHMAN MINE™

Available for Amiga, Atari ST, IBM & Tandy



Journey to the Old West in search of the fabled LOST DUTCHMAN MINE!

Enter the town of Goldfield to buy food and supplies. Play poker in the saloon, read the local news, or visit the bank, jail, livery, doctor or assay office.

Out in the desert, you can fish in the river, pan for gold, and explore over 100 abandoned mines and caves. Freezing nights, scorching days, rattlesnakes, bandits and renegade Indians are a constant threat. Features digitized sound, fabulous graphics and animated sprites.

Available for: Amiga, Atari ST, IBM CGA/EGA/MCGA & Tandy. Suggested Retail: $49.95.

Circle 161 on reader service card.

Magnetic Images™

Distributed by

INNERPRISE Software, Inc.

128 Cockeysville Rd • Hunt Valley, MD 21030 • (301) 785-2266

AMIGOTIMES
COLUMN



UNTANGLING

THE MIDI WEB

Because there are dedicated MIDI ports and cables for Input and Output signals, it can lead to the need to change the cabling of a setup depending on what has to be done

By Serge Boucher

In the last issue we looked at the hardware aspect of the MIDI standard. We saw that, because of the nature of the system itself, a number of problems could emerge. There can only be one controlling device at a time. Because there are dedicated MIDI ports and cables for Input and Output signals, it can lead to the need to change the cabling of a setup depending on what has to be done. The MIDI system was created to make things as simple and as reliable as possible in a live situation. However, with the emergence of the MIDI studio, these problems have to be dealt with on a daily basis, even in a small home studio. This has given birth to a whole new type of equipment meant to help reduce these problems. Let's look at a few of them and how they can help untangle the web of MIDI cables.

MULTIPLYING MASTERS

A basic MIDI setup consists of one master device, usually a keyboard, and one or more slave devices. The signal can easily be sent out to the slaves, but adding another device that can send data at the same time is a more complicated matter and was not foreseen in the MIDI standard. If you must have two controllers sending data to the same setup, at the same time, the easiest solution would be to get a MIDI Signal Merger. This device has multiple inputs and one output. This is more complex than it may sound. Remember that the MIDI signal is a digital signal, so you have to do more than just building some kind of "Y" cord for the merging to take place. The device has to be able to take both signals at the inputs and reconstruct a signal stream, one byte at a time, which will retain the logical contents of both signals.

In some cases the signal will have to be filled in so every piece of data makes sense; this is "running status". When a device sends data, it can send the status byte only once, when it starts transmitting. Then it only sends the actual messages as long as the message type is consistent. For example, a Note On status can be sent followed by a series of note and velocity numbers. The receiving device will recognize them as being Note On messages even if the actual status byte was only sent once. You can imagine the confusion while merging two signals with this method. If the proper message is to get through to the correct channel, the status byte

must contain the proper data. There is no way of knowing which channel the data is meant for if two controllers are sending it on different channels using running status.

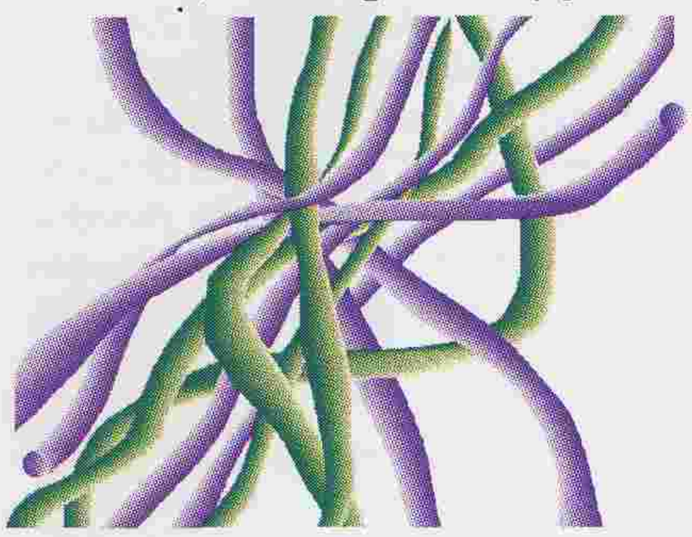
If you want more than one controller, but won't be using them at the same time, you could use a simple input switching device that would let you choose what controlling device will send data to the setup. Because MIDI cables only contain two wires, you could easily build this type of switch yourself. However, there is another type of device that can take care of almost all your cabling problems: the MIDI Patch Bay.

A MIDI Patch Bay is a simple device containing several Inputs and Outputs in one small package which will let you recable your setup more easily. Some models are even controlled with a MIDI signal, and no cable swapping takes place, it is all done electronically inside the device. In addition they have the ability to remember configurations, also called patches. You can then preprogram a number of patches for setting up your system in the different configurations you use the most. For example, one patch could be for recording from one controller, while another would be recalled when you want to program sounds with your computer on a certain module. One such device, the MIDI Patcher by 360 Systems, has 8 inputs and 8 outputs. In addition, it is also capable of keeping 100 different patches in its own memory that can be recalled from either the device's controls or through MIDI signals. Some units like the Akai ME30PII, along with the patching features also include a two input MIDI signal merger! These devices are usually not too expensive, and it is money well spent. It sure beats wasting time trying to find what cable does what and where it should go when you want your setup to be in a specific configuration.

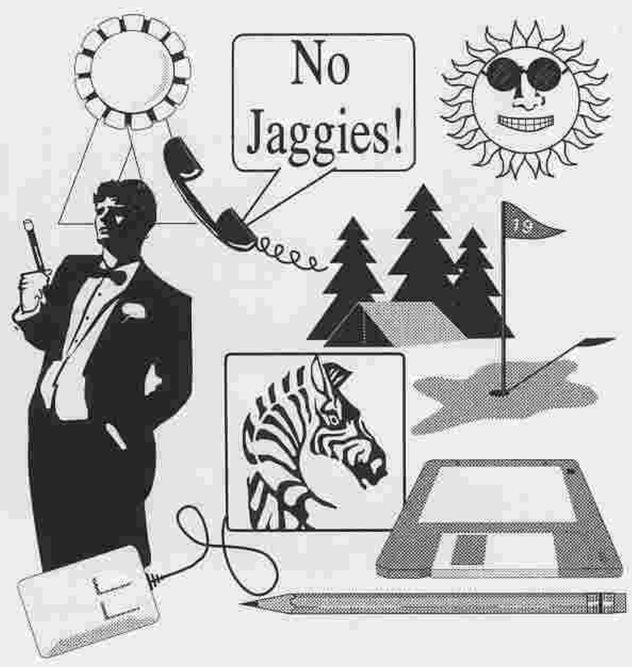
If you have a small setup, I guess switching cables is not that bad, but it sure would make things easier if the MIDI plugs on the synth would not be hidden on the back of the machines. If you are handy at building things, here is a simple solution for you, simply bring those plugs where they will be reached more easily. In other words a 'manual' patch bay. Simply put some MIDI In and Out plugs on the back of a box, and another set on the front, connected one to one to those on the back. The different synths and modules Ins and Outs would be plugged to the back while you would do the patching with the plugs on the front of the box. The plugs in the front don't even have to be MIDI DIN plugs. If you prefer, you could use stereo audio cables and plugs, like the one found on the end of your stereo headphones. It's as simple as that.

RUNNING PROGRAMS FROM THE DISK

Some of you have had problems when trying to run MIDI programs included on the AmigoTimes v1.6 disk including 'PlayMF.' This program plays standard MIDI sequence files and needs the MIDI.library to run. However, this program will only work with the most recent version of the MIDI.library, the one labeled 2.0. As you know, this program and others found on the AmigoTimes disk require that this library be in the 'libs' directory of the system disk (the one you booted with) in order to run. I should have included it on the v1.6 disk, but forgot to do so. It is included on this month's disk and should be copied to the 'libs' directory of your Workbench disk, the one you booted with when you want to run programs from the AmigoTimes disk. MIDI programs that will be included in future issues will also use this library. The MIDI.library is in the public domain, and is without a doubt the easiest way to get into MIDI programming (see AmigoTimes v1.3 for more info on using the MIDI.library). Version 2.0 of this library adds new functions and we will take a closer look at them in a future installment of this column. If you have any questions about music or MIDI on the Amiga, please feel free to contact me, I will be glad to help you. ❑



Finally, Professional Clip Art for the Amiga®



eclips

Electronic Clip Art for the Professional

Structured clip art compatible with Professional Page® 1.2 or Professional Draw®.
Jaggie free! Maximum resolution depends upon your printer. PostScript® recommended.
Designed for black & white desktop publishing.
Ready to use. Or modify color and design with Professional Draw.
Wide selection of clip art subjects. Boxes - Borders - Attention getters. Perfect for your newsletters, ads, or flyers.
Four disks.
Over 300 clips.
Not copy protected. Just drag onto your hard disk.
Works with all Amigas - A1000, A500, A2000, or A2500.

$99

Available from your dealer. Or send $99 + $4.50 S&H to AlohaFonts. CA residents add 6.5% sales tax.

AlohaFonts
P.O. Box 2661
Fair Oaks, CA
95628-9661

Circle 170 on reader service card.

AMIGOTIMES
REVIEW

I.C.E
INTEGRATED CALCULATION ENGINE

Ok, how often have you been working on your computer, and discovered a need to do some quick calculating? Ever wanted to figure how much money pay day will bring in for the much-needed purchase of that new hard drive, but misplaced your handy pocket calculator and you can't multiply two numbers together to save your life? What's a guy to do? Not give up (on math or the hard drive!), but find a suitable software alternative (a program!) for use with this fine multitasking computer.

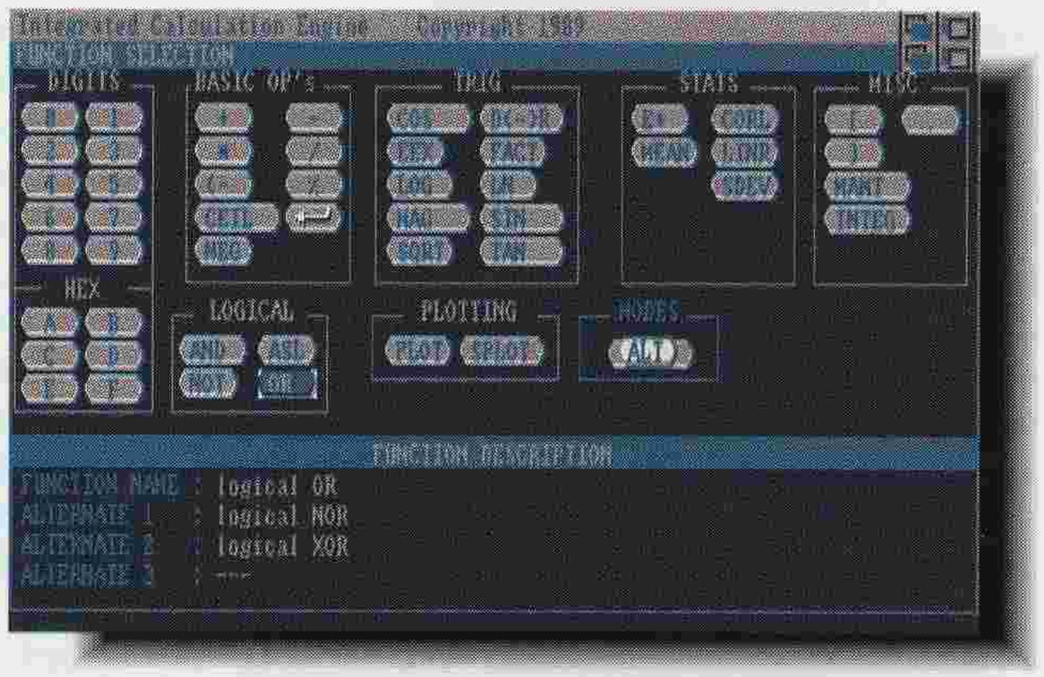
Although there are quite a few public domain and shareware calculators for the Amiga, there are sufficient reasons to consider purchasing a calculator program like ICE, instead of using a free one from the public domain. ICE generates calculators, even programmable ones, letting you pick and choose the functions and button placement for each one. Let's take a look at what you get when purchasing ICE.

THE MAJOR ADVANTAGES OF ICE

ICE comes on a single disk, with a small but reasonably detailed manual. ICE works from either Workbench or the CLI, and consists of two main programs: Constructor and Install. Use Constructor to build the calculator; choose the buttons, button placement, and the answer display size from within this module. Constructor has 2 windows: one called Buttons - where the desired buttons are chosen; and one called Slate - where the buttons are assembled into a calculator, and the user specifies the exact placement by dragging the buttons around the Slate with the mouse - simple enough, eh?

The Install program inserts the calculator into your Amiga's memory for use as a background task. ICE is useless without Install, which is not freely redistributable like the calculator files generated, so don't plan on sharing calculators with your friends unless they also own ICE.

ICE multitasks, quietly sitting in the background waiting to be called up with a couple of keystrokes. Use R-Amiga + Enter to pull the calculator up, and click on the close gadget to hide it. The ICE menu bar has a selection to remove the old calculator from memory if you wish to use a different one; the normal close gadget hides the calculator. I start up a general calculator during Wshell's startup sequence, and put it in the background until needed - very handy. You cannot install two different calculators at the same time, yet it's simple enough to remove it and start up a different calculator if there is a need; this is not such a disadvantage when you choose which functions each calculator has.



Choosing buttons for your custom calculator from the Buttons window of I.C.E. Constructor program

ICE generates programmable calculators. This is one of the best features of ICE, and is an excellent reason for choosing it over other Amiga calculators. Being programmable, ICE calculators have flexibility to perform repetitive tasks normally done on a computer. The manual has a small but thorough section explaining the basic concepts of programming your calculator; this section will explain the features well enough for users experienced with either programming computers or calculators, but perhaps not enough for the complete beginner to programming. Any book for programmable calculators will fill in sufficient details on calculator programming for even a programming novice to effectively utilize the same features in ICE calculators. I would suggest the author include a list of suggested reference books in a future update of ICE.

The programmable features of ICE include:

Labels - which mark a place in programming code for subroutines to access with either the BASIC-like commands of GOTO or GOSUB;

By Mike Hubbartt

Variables - specified with letters and/or numbers, using a maximum of 32 for each variable;

Functions - which accept an argument input from the user, and performs a series of calculations on it and provides the answer; If...then constructs - for conditional branching/executing within a program;

Plot - which will construct a graph of a user-selected function; Splot - plots a graph of currently accumulated data, allowing the user to select the X and Y axis minimum and maximum values.

I already hear a few WHOAs out there. These programming features sound similar to BASIC or C language commands. Does it seem like you can write basic programs in ICE? You bet! Set up conditional checking of variable values, jumping to subroutines when needed, and even generate a graphic plot of your data!

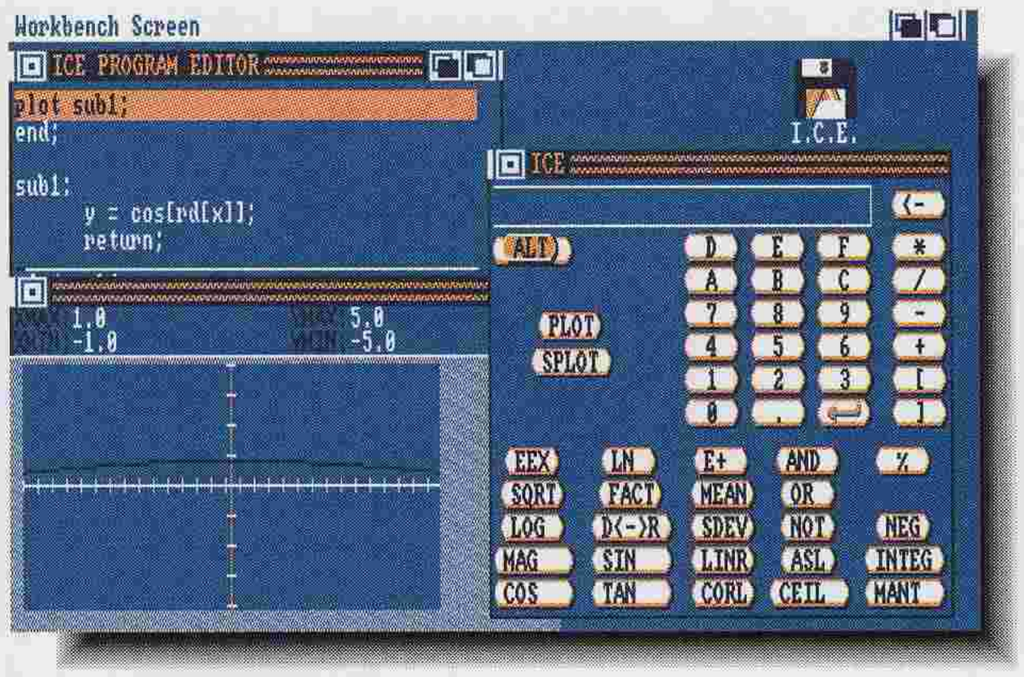
Let's take a look at the available functions for ICE calculators. Besides the standard addition, subtraction, multiplication, and division, there are the three numeric base modes: binary, decimal, and hexidecimal. To convert from decimal to binary or hexidecimal, select binary or hex from the mode menu, enter the number, and then press the return or enter keys. The trig menu is active while the calculator is, and has Degrees, Radians, and Gradians as menu items. Most of the calculator buttons have more than one function it can perform.

Below is a chart with the buttons and their alternate function modes:

Button	Alternate1	Alternate2	Alternate3
And	Nand	---	---
Asl	Asr	---	---
Cei	Floor	---	---
Corl	---	---	---
Cos	Acos	CosH	AcosH
Dr	Rd	---	---
E+	---	---	---
Eex	---	---	---
Fact	---	---	---
LINR	---	---	---
Ln	---	---	---
Log	---	---	---
Mag	Ang	---	---
Mant	Expon	---	---
Mean	---	---	---
Neg	Abs	---	---
Not	---	---	---
Or	Nor	Xor	---
Plot	---	---	---
SDEV	---	---	---
Sin	Asin	SinH	AsinH
Splot	---	---	---
SQRT	SQR	---	---
Tan	Atan	TanH	AtanH

As you see, most buttons have only one available function.

Since ICE calculators are programmable, the product has a built-in editor for entering and executing a program. The program disk has two examples on it; one which demonstrates sinusoidal waveforms from values input. To use the editor, select the editor menu item while the calculator is active and start entering a program.



The I.C.E. calculator in use on the Workbench, with the I.C.E. program editor and a plot derived from calculations within I.C.E

King Publishing had spare room on the distribution disk, and they did not let it go to waste! There are six public domain/shareware/freely redistributable programs including Qmouse, VirusX, DiskSalv, SuperView, TextEd, and Scan. All are extremely useful and although are available on Fred Fish disks or a BBS, many people might not normally have access to them or to a modem to download them.

MAJOR WEAKNESSES

The weak treatment of the statistical aspects of owners manual, and failure to include information in the Appendix B Reference section on either Standard Deviation or the Tangent trig function detract from the amount of useful information in the manual. If you need help on statistics applications, don't look for it in this manual. This was a disappointment, although the manual did a fair job covering the other topics well enough. Additionally, Lsl and Lsr were listed in the reference section of the manual, and the Slate window had a button for Asl (and Asr as alternate 1) instead.

Memory consumption concerning a typical ICE calculator was checked, with the AmigaDOS avail command, at three different times: After installation and calculator was hidden in the background, after installation and calculator was active, and after permanently removing ICE from the system's memory.

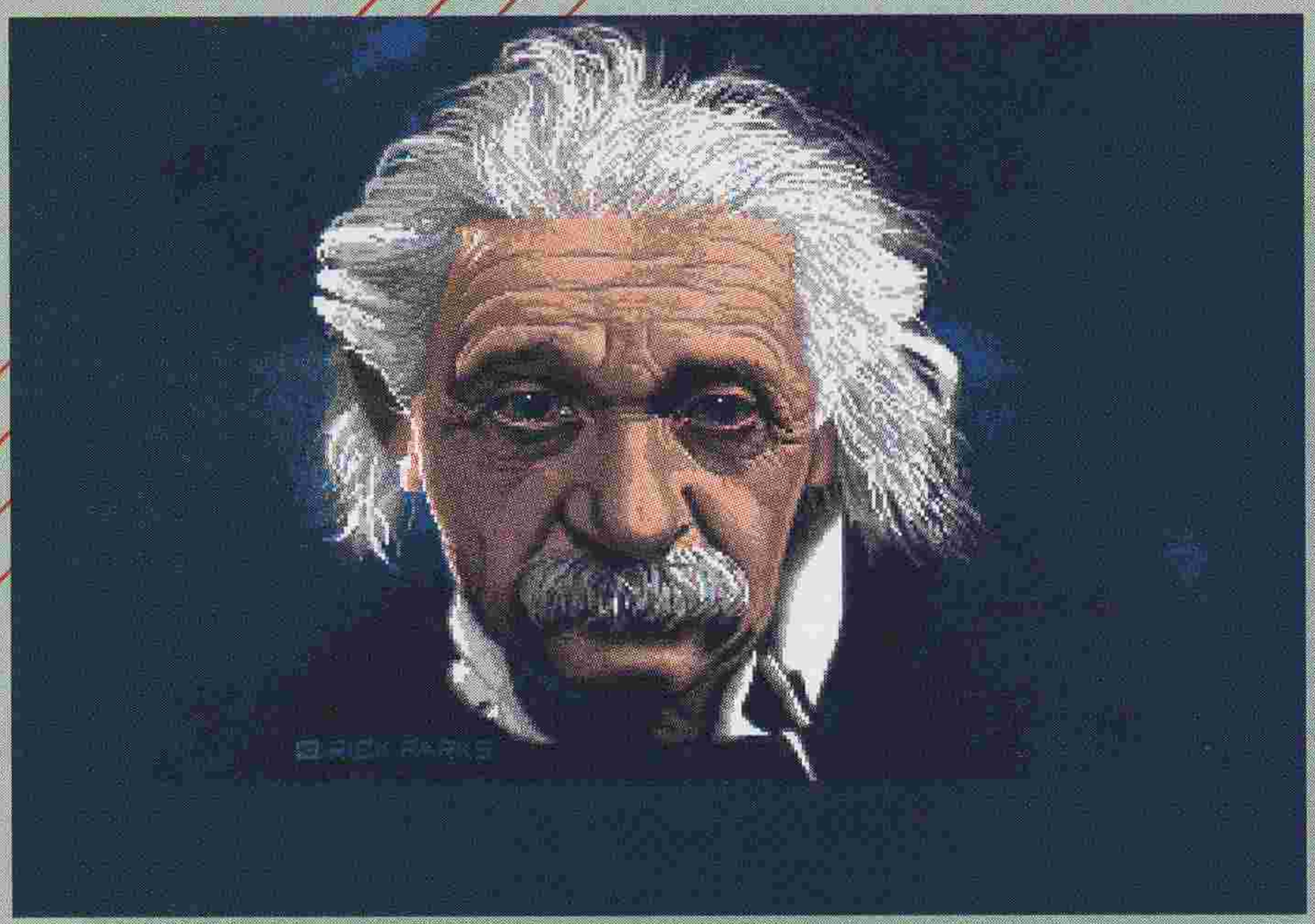
After installing ICE and hiding it as a background task, RAM in-use was 520712. After activating the calculator, RAM in-use was 528336 - a difference of 7624 between these two states. After removing ICE from system memory, RAM in-use was 422796. This shows that 97,736 is used when the calculator is installed and hidden, and 105,360 when installed and active, which could pose a problem for 512K Amigas trying to run Workbench and ICE simultaneously.

I normally run MemWatch from John Toebes of the Software Distillary to check for programs that overwrite critical sections of memory. While working with ICE's option of viewing graphs of the sinusoidal example included, I received a warning from Memwatch that critical low memory ranges were being corrupted! This is not good! I would hope that this error will be corrected in updates to ICE, as many people may not have Memwatch to save their work, like I did. This was the only error I ran into while using ICE during the three months of otherwise safe use.

The price of $89.98 seems too high for this type of product for typical consumers, although educational facilities will find the price reasonable. Do I recommend the purchase of this product? After working extensively with it for over three months (and being a calculator collector), I would be lost without it - I retired my solar-powered scientific calculator to the nightstand, not wishing to tie up space on the already-crowded computer desk. A good handheld calculator can be had for around $30 to $40, so most will probably think twice before laying out almost $90 for this useful but expensive product. ICE is currently utilized by several major universities using Amigas in research, according to King Publishing. ❑

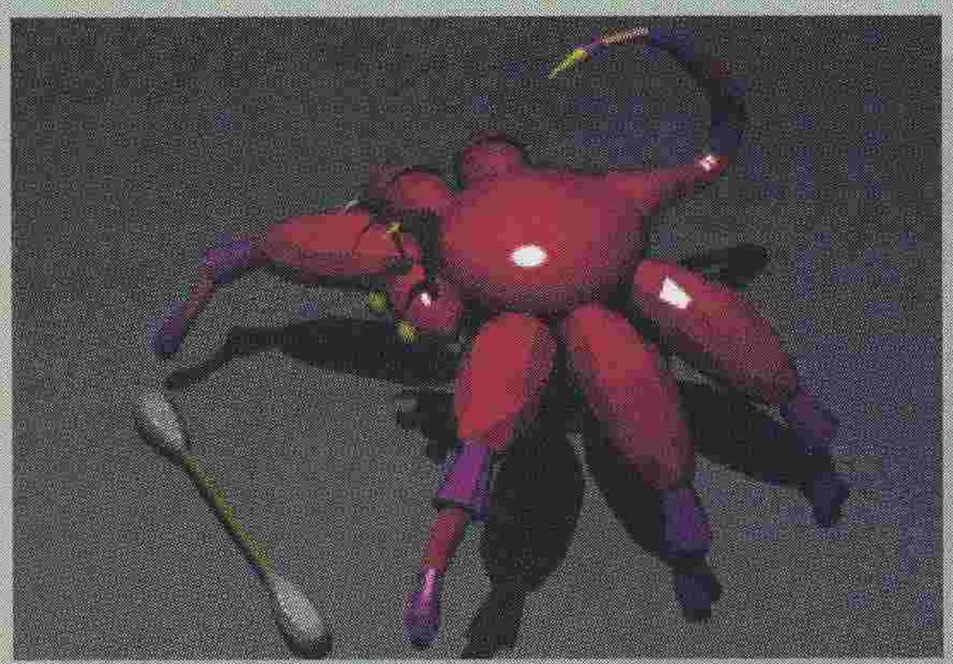
(See PRODUCT INDEX on page 109 for more contact information)

ART GALLERY



"Einstein"
HAM Image rendered with
Unknown
by Rick Parks

"Missing Peace"
HAM Image rendered with
Deluxe Paint, Photon Paint,
and Digi-Paint
by Behzad Jamshidi



"Unfairfight"
HAM image rendered
with Unknown
by Richard Fortier





"The Ring"
EHB Image and
animation rendered wi
Deluxe Paint III
by Ali Balouch

If you would like to see your work exhibited in the Amiga Art Gallery, send your masterpieces on a 3.5" formatted diskette to:
AmigoTimes, Amiga Art Gallery, 5124 St. Laurent, suite 100, Ville Ste. Catherine, Quebec J0L 1E0, CANADA

AMIGA PRODUCT GUIDE

EDUCATION

COMPILED BY SANDRA MONGEAU

The Amiga is an ideal computer to learn or teach with because of its graphics, sound, and multitasking abilities. Because of this, Education software development is a burgeoning field. More and more products are becoming available all the time. You can study almost any subject with all the available software for Education and you can learn quickly in the comfort of your own home at a very low cost.

This month we'll cover several different areas of education for young and old: Language Arts, Mathematics, Social Studies, Science and Health, PreSchool, Self Instruction, Miscellaneous programs as well as Authoring systems which allow you to create your own education programs.

With these education oriented software packages you and/or your children can learn a new discipline or brush up on a subject. Computers provide an exciting method to interest your children and students in their studying while teaching them valuable information.

As usual, only products certain to be available have been listed. Upcoming and soon to be released products can be found in the Amiga Monitor on page 45. Finally, all prices are in U.S. dollars.

LANGUAGE ARTS

A CHRISTMAS CAROL
Jumpdisk

A two-disk illustrated bookdisk of Dickens' A Christmas Carol with talking slide show. $7.00

(THE) ADVENTURES OF SINBAD
Unicorn Software

3 stories, over 600 questions. 1-2 players. Join Sinbad to earn his fortune and see the world. Includes mini word processor. $49.95

AESOP'S FABLES
Unicorn Software

12 illustrated stories with reading and vocabulary questions. It has an 800 word spelling list. Ages 6-9, 1-2 players. $49.95

AMERICAN ENGLISH FOR GERMAN SPEAKERS
MicroEd

Teaches English with the learner's own German language. Price unavailable.

AMERICAN ENGLISH FOR SPANISH SPEAKERS
MicroEd

Teaches English with the learner's own Spanish language. Price unavailable.

ANTONYMS
MicroEd

Increases vocabulary development by having the learner work with words opposite in meaning from one another. $29.95

ANTONYMS
Queue, Inc.

Prepares students for college aptitude tests by identifying and explaining antonyms through examples and drills. $34.95

BASIC GRAMMAR
MicroEd

Teaches students to identify nouns, verbs, adjectives, prepositions, conjunctions, and interjections. $29.95

BEGINNING GERMAN
MicroEd

A 2-disk beginning German language course. The Amiga speaks German throughout each lesson. $69.95

CAPITALIZATION
MicroEd

Teaches students how to capitalize words correctly within sentences. $29.95

COLLEGE APTITUDE READING COMPREHENSION EXERCISES
Queue, Inc.

Practice for high school level readers; helps prepare for college aptitude tests. $65.00

COMPLETE PRACTICAL COMPOSITION SERIES
Queue, Inc.

Practical Composition I-V. Improve your writing skills with this 5 disk set. $229.95

DISCOVERY EXPANSION DISK: LANGUAGE
Microillusions

Speech, grammar, vocabulary, communications and more. $19.95

DISCOVERY EXPANSION DISK: SPELLING I
Microillusions

Spelling game for grades 1 through 10. Requires Discovery program disk. $19.95

DISCOVERY EXPANSION DISK: SPELLING II
Microillusions

Spelling proficiency advances through 10 levels. Grades 9 through 12. Requires Discovery program disk. $19.95

FRENCH GRAMMAR I-II-III
Queue, Inc.

Each level has ten lesson modules. Sold separately. $34.95 each.

GHOSTLY GRAMMAR
Unicorn Software

Learn grammar through tutorial and games. Parts of speech, punctuation, and sentences. Grades 3 through 12. $49.95

HOW TO SPELL
Queue, Inc.

A tutorial on the rules of spelling. $39.95

IMAGE SPINNING
MicroEd

Provides practice for students in putting together effective images that can be used in any kind of creative writing. The Amiga acts as an idea starter, while the results are entirely the student's own. $49.95

KIDTALK
First Byte/Electronic Arts

Talking notebook reads back in M or F voice. Pull-down and graphic menus; built-in pronouncing dictionary. $39.95

LEARNING ENGLISH AS A SECOND LANGUAGE
MicroEd

11 disks. English as a second language for the beginner. Features many digitized pictures and the Amiga voice. $189.00

(THE) LEGEND OF SLEEPY HOLLOW
Jumpdisk

A complete bookdisk of the Legend of Sleepy Hollow. Includes over 10 illustrations and talking slide show. $4.00

LESSONS IN READING AND REASONING I
Queue, Inc.

Teaches logic and reading by exam-

ining various fallacies. This lesson examines shifty-word fallacies and circular reasoning. Lesson II addresses fallacies of inadequate data and the red herring fallacy. Lesson III examines stereotyping. Lesson IV examines sexism proverbs and fallacies. All for grades 9 and up. Sold separately for $39.95.

LINKWORD LANGUAGES
Artworx
Software and audio tapes. French, German, Spanish, Italian, Dutch, Greek, Portuguese, and Russian. Uses mental imagery to link foreign words to acoustically similar English words. Learn 400 words in 10 hours, less than 1/3 the time of conventional teaching methods. $29.95

(THE) LOGIC MASTER
Unicorn Software
Helps develop high-level thinking skills in analogies and number series. Includes fantasy role playing game. Grades 5-12. $49.95

MAD LIBS
First Byte/Electronic Arts
Students supply nouns, verbs, and adjectives, and the program inserts the words into a story, often creating nonsensical and humorous results. Using the built-in speaker, the computer reads the story aloud. $19.95

MAGICAL MYTHS
Unicorn Software
Three stories with graphics, glossary, and questions. Several games, mini word processor. Ages 8-12, 1-2 players. $49.95.

PRACTICAL COMPOSITION I
Queue, Inc.
Making Words Work. $44.95

PRACTICAL COMPOSITION II
Queue, Inc.
Logical, clear sentences. $54.95

PRACTICAL COMPOSITION III
Queue, Inc.
Selecting the best approach. $44.95

PRACTICAL COMPOSITION IV
Queue, Inc.
Making sentences work. $44.95

PRACTICAL COMPOSITION V
Queue, Inc.
Using words correctly. $44.95

PRACTICAL COMPOSITION PACKAGE I
Queue, Inc.
Includes Volumes I-III. $144.95

PRACTICAL COMPOSITION PACKAGE II
Queue, Inc.
Includes Volumes IV & V. $144.95

PRACTICAL VOCABULARY
Queue, Inc.
High-school level drill for recognition and use of definitions, antonyms, synonyms, word roots and prefixes. $54.95

PUNCTUATION
MicroEd
Teaches students how to punctuate properly. $29.95

READ & RHYME
Unicorn Software
Outer-space theme talking language arts activities in phonics, reading, rhyming and more. Ages 5-10, 1-2 players. $49.95

READ-A-RAMA
Unicorn Software
Talking program with 6 language arts activities. Includes authoring system for parents to create lessons. Ages 5-8 $59.95

READING ADVENTURE I-II
Queue, Inc.
Interactive reading game allows players to participate in completing in completing the story. I: $39.95 II: $59.95

READING AND THINKING I-II-III
Queue, Inc.
Reproducible classroom exercises in inferential thinking and reading comprehension. Sold separately. $54.95 each.

ROBOT READERS
Hilton Android
Reading game uses popular fairy tales to help children learn to read. Child reads aloud, each word changes color as it is read. Including Aesop's Fables, Chicken Little, Little Red Hen, The Ugly Duckling, Three Little Pigs and The Three Bears. $29.95 each.

SENTENCE COMPLETION
Queue, Inc.
Reading comprehension exercises help students improve scores on sentence completion items on college aptitude tests. $44.95

SMOOTHTALKER
First Byte/Electronic Arts
Converts English text or numbers into natural sounding speech. Use it to proofread, tell stories, etc. Adjust gender, pitch, tone, volume, and pronunciation. $39.95

SPANISH GRAMMAR I-II-III
Queue, Inc.
Each level has ten lesson modules including at least one review of Spanish grammar and vocabulary. Sold separately. $34.95 each.

SPELLER BEE
First Byte/Electronic Arts
Talking speller coach encourages students in three challenging word games. Use the 150 word list or make your own. $39.95

SPELLING
MicroEd
Blends speech with screen printed text. For grades 2-6. 18 programs per grade-level disk, 360 words, spelling and pronunciation. SP-902 through SP-906. Sold separately. Each $29.95.

SPELLING DETECTIVE GAME
MicroEd
Learn how to spell the 100 most frequently misspelled words. Also teaches the use of phonemes. $39.95

TALES FROM THE ARABIAN NIGHTS
Unicorn Software
Three stories with graphics, questions, and glossary. Several games with mini word processor and more. $49.95

USAGE BONERS
MicroEd
The learner identifies common mistakes in English Use. $49.95

(THE) WONDERS OF THE ANIMAL KINGDOM
Unicorn Software
Six activities teach about the animal kingdom and develop reading and vocabulary skills. 1-4 players, graphics, voice. Age 6-12. $49.95

(THE) WORD MASTER VOCABULARY BUILDER
Unicorn Software
Four educational activities designed to build word-power skills, including placement test and Pac-Man type maze game. $49.95

WORDS THAT SOUND ALIKE
MicroEd
Increases vocabulary development and spelling skills by having the learner work with homonyms. $29.95

UNCLE D'S CONSOUNDTRATION
Alohafonts
Three games, four skill levels and over 80 different colorful graphics and digitized sounds. Includes ABCs game, 123s game and PICs game.

VOCABULARY ADVENTURE I-II-III
Queue, Inc.
Players earn treasures by answering progressively challenging vocabulary questions. Sold separately. $59.95

VOCABULARY SERIES
MicroEd
High level package includes words from New York times, Atlantic Monthly, etc.. $49.95

VOCABULARY SERIES (HIGH LEVEL)
MicroEd
This higher-level vocabulary program deals with words found in publications. The lessons are learner-controlled and are based on the mastery-learning strategy. $49.95

WORD DEMONS
MicroEd
A lesson in usage of homonyms and verbs. $29.95.

MATHEMATICS

(THE) AD GAME
MicroEd
Learn to read and interpret data on a bar graph. Students are given a product to sell and a profile of the audience. They must then choose the most effective advertising medium. $29.95

ALGEBRA
True Basic
Covers beginning to more advanced algebraic topics such as roots, solving quadratic equations, graphing, functions, geometric measurement, radicals etc. $49.95

ALGEBRA 1
True Basic
Work with functions, numeric expressions, geometric measurement,



systems of equations and radicals. Find roots and solve quadratic equations, linear equations and more. $49.95

ANALOGIES I & II
Queue, Inc.
Analyze, solve, and practice analogies to improve scores on college aptitude tests. $65.00 each.

ARITHMETIC
True Basic
Educational programs for studying and reviewing topics in arithmetic. Includes fractions, percent, square roots, metric system and more. $49.95

BALANCING ACT
MicroEd
The learning objective is to be able to check a bank statement for errors through addition and subtraction. $29.95

BRANDED
MicroEd
Improves a student's ability to name, as a fraction, the relationship of a part to its whole. $29.95

CALCULUS
True Basic
Covers graphing and a routine to perform symbolic differentiation on any y=f(x) function. Display formulae for multiple derivatives, and plot the function and its derivatives on single graph. Topics include limits, tangents to a curve, minima and maxima, area under a curve, using approximation methods. $49.95

DECIMAL DUNGEON
Unicorn Software
Escape the dungeon master by answering math decimal problems. Incorrect answers lead to full-screen explanations. Age 9 and up. $49.95

DISCOVERY EXPANSION DISK: MATH I
Microillusions
Basic four function math drills for grades 1-7. Requires Discovery program disk. $19.95.

DISCOVERY EXPANSION DISK: MATH CONCEPTS
Microillusions
Prepares you for SATs, practice problems in algebra, geometry, trig and more. Requires Discovery program disk. $19.95

DISCRETE MATHEMATICS
True Basic
Educational foundation for introducing computer science. Construct truth tables, Venn diagrams, build binary trees and do binary searches, compare sorting algorithms under different conditions. Includes True-BASIC source code. $49.95

DOUG'S MATH AQUARIUM
Seven Seas Software
(Reviewed v1.7)
Graphic program plots mathematical expressions in 2D and 3D color. $89.95

EARLY MATH
MicroEd
Adding and subtract with objects and figure out what number is missing. $49.95

FIGURING THE ANGLES
MicroEd
The student learns to estimate, with increased accuracy, the size of acute and obtuse angles. $29.95

FRACTION ACTION
Unicorn Software
The only way to pass through the electrified gates and escape the Mad Professor's Mansion is to correctly answer the fraction problems. Incorrect responses are explained on the screen. $49.95

FRACTION CONCEPTS
MicroEd
Teaches the primary concepts and skills needed to work with fractions. $79.95

HOW-TO ADDITION
MicroEd
Helps students master up to fourteen levels of addition. $29.95

HOW-TO SUBTRACTION
MicroEd
Helps students master up to eight levels of subtraction. $29.95

(THE) LOGIC MASTER
Unicorn Software
Analogy and number-series problems are presented in this educational game for grades 5 through high school. In the analogy section, students can learn about cause and effect, avoidance, relationships of whole and part, nouns and their actions, and analogies of degree. $49.95

MATH-A-MAGIC
The Other Guys
Add, subtract, multiply, or divide fractions or whole numbers. Play, practice and learn with graphics and speech. $39.95

MATHTALK
First Byte/Electronic Arts
A talking computerized math tutor teaches addition, subtraction, multiplication and division. Ages 5-13. $49.95

MATHTALK FRACTIONS
First Byte/Electronic Arts
Talking tutor helps students master fractions, decimals and percentages. Teaches students to complete assignments, prepare for tests, and gain new confidence in class. Age 8-15. $49.95

MATH WIZARD
Unicorn Software
Four educational math games for 1 or 2 players, ages 5-13. Talking program with several skill levels. $49.95

MAXI TAXI
MicroEd
As a taxi driver, the player tries to earn as much money as possible each hour. The amount earned is based on the rate and the time required for each ride. Three cabs are available to drive. $29.95

MEDAL WINNER
MicroEd
Arrange digits of two numbers to produce the highest product. Create a multiplication problem with three digits (four in advanced level) that will produce the highest product. $29.95

ON THE LINE
MicroEd
Teaches students how to name an improper fraction as a mixed number, and vice versa. $29.95

PAIL GREEN
MicroEd
The student names equivalent fractions. This program could also be used in a teaching unit on ratio and proportion. $29.95

PARKING LOT
MicroEd
The learner attempts to make the greatest business profit by applying the law of supply and demand. $29.95

PARTING SHOTS
MicroEd
Teaches students how to write a proper fraction in its simplest form. $29.95

PINBALL I.Q.
MicroEd
Division lessons combined with a video pinball game. Find the whole number part of a quotient in division. Correct answers light up bumpers on a pinball machine and build up score. Game ends when all numbers are lit. $29.95

PRE-CALCULUS WITH TRIGONOMETRY
True Basic
An introduction to calculus and trigonometry. $49.95

PROBABILITY THEORY
True Basic
Introduction to probability theory and decision-making processes. Simulate coin toss, dice throw, and random walks. $49.95

SCARE CITY MOTEL
MicroEd
The player manages a motel and tries to make the maximum profit by adjusting the supply of rooms to the demand of guests. $29.95

SPACE MATH
Intracorp
Users of this program play a space game while learning math facts. The forces of the universe must be challenged while attempting to land the spaceship on an alien planet. $49.95

SPELL M-O-N-E-Y
MicroEd
The student works with definitions of basic economic terms. $29.95

SUM-IT MOUNTAIN
MicroEd
Success depends on the student's ability to add numbers rapidly. Carry flag to the top of the mountain; mistakes return you to the bottom. Clock records climbing time. $29.95

TRUESTAT
True Basic, Inc.
uses an interactive approach to introduce statistical analysis. Features built-in editor and syntax. $79.95



SCIENCE & HEALTH

AIDS INFORMATION GAME
MicroEd
Provides basic information on the AIDS virus in a game format for 1-4 people. $39.95

BIRDS'N BEES: 7-12 YEAR OLD VERSION
Intracorp
For ages 7-12. Helps youngsters in that age group to learn about the facts of life. $59.95

BLOOD BANK
MicroEd
Helps students master a set of basic terms about the human circulatory system. $29.95

DISCOVERY EXPANSION DISK: SCIENCE
Microillusions
General science for education or SAT. Includes health, biology, chemistry and physics. Grades 9-12. $19.95

EXPLORER'S DIGEST
MicroEd
Helps students master a set of basic terms about the human digestive system. $29.95

PLANET PROBE
MicroEd
Teaches facts about the solar system through an arcade-style space simulation. Learn about planets and build up fuel supply as you attempt to land space ships safely on nine planets. $29.95

(THE) PLANETARIUM
Microillusions
See over 9,000 stars to the 7th magnitude. Hemisphere and topocentric views, latest NASA stellar and planetary ephemerides, skies from 12,000 years in the past to 9,000 years into the future. Accurate representations account for recession, mutation and atmospheric refraction. $69.95

SALVAGE
MicroEd
Helps students master a set of basic terms about the human excretory system. $29.95

SECOND WIND
MicroEd
Helps students master a set of basic terms about the human respiratory system. $29.95

SPACE PHOTOS
Signs Etc. By D. Knox
A pictorial history of the US space program. 170 digitized and annotated color pictures from NASA archives. $20.00

SUNNYSIDE UP
MicroEd
Helps students master a set of basic terms about the human reproductive system. $29.95

SOCIAL STUDIES

ABRAHAM, FRIEND OF GOD
MicroEd
Religious program dealing with Abraham's trust in God, and with God's promise to Abraham that he would become the father of a great nation. Includes a hard cover book. $29.95

ACROSS THE PLAINS
MicroEd
Two disk set program features 20 digitized pictures depicting the journey of American across the Great plains to the West Coast. $59.95

ADAM AND EVE
MicroEd
Religious program describing how mankind's special relationship with God was spoiled. Includes a hard cover book. $29.95

ALL ABOUT AMERICA
Unicorn Software
U.S. history and geography with 16 stories, illustrations, questions, maps and quizzes. The map disk contains maps of the 13 colonies, the U.S. before the Civil War, the current 50 states and quizzes on the states. Ages 6-11. 2 disks. $59.95

AMERICAN HISTORY ADVENTURE
Queue, Inc.
Students meet and identify American historical characters in a challenging game format. $59.95

(THE) BIBLE ON DISK
MicroEd
Six document disks containing the King James Version of the Bible. Because these are text files, they can be accessed by any Amiga-compatible word processing program. $99.00

DISCOVERY EXPANSION DISK: GEOGRAPHY
Microillusions
Physical and political geography. Students are tested on U.S. and world geography, the environment, and ecology. Grade 9 through 12. Requires Discovery program disk. $19.95

DISCOVERY EXPANSION DISK: HISTORY
Microillusions
Ancient, Medieval, modern and American history. Grades 9- 12. Requires Discovery program disk. $19.95

DISCOVERY EXPANSION DISK: SOCIAL STUDIES
Microillusions
Politics, religion, population growth and more. For grades 9-12. Requires Discovery program disk. $19.95

EARLY GREAT LAKES FUR TRADE
MicroEd
a 3 disk book. Interactive text, 30 digitized pictures of the European-Indian relationship in the 17th-19th centuries. $79.95

(THE) FIRST CHRISTMAS
MicroEd
Religious program recounting how, without pomp or fuss, God's Son was born in a stable in Bethlehem. Includes a hard cover book. $29.95

GREAT STATES 2
Designing Minds Inc.
Learn facts about the US, including: nick'names, abbreviations, extensive tutorials about various states. $39.00

HOMETOWN USA
Publishing International
Lets you use your computer to design and build hundreds of custom buildings patterned after those found in an average small town.

IN THE BEGINNING
MicroEd
Religious program dealing with the creation of the world by God. Includes a hard cover book. $29.95

IN THE PROMISED LAND
MicroEd
Religious program of 5 disks based on Volume 3 of the Harper & Row seven-volume series, *The Bible and Its Story*. Uses fifty digitized picture screens. $89.95

INTRODUCING MAPS
MicroEd
Two disks. Digitized pictures. Improve students knowledge of geography. $59.95

LEWIS AND CLARK EXPEDITION
MicroEd
Fifty digitized photographs and drawings provide pictorial settings for Lewis' and Clark's achievements. $89.95

MAKING OUR CONSTITUTION
MicroEd
Four disks. Features digitized pictures of the people and events associated with the making of the Constitution. $79.95

SOCIAL STUDIES VOCABULARY
MicroEd
Elementary level. Social studies vocabulary in farming, forest, desert, ocean, manufacturing, trading and political fields. $29.95

(THE) STORY OF THE GOOD SAMARITAN
MicroEd
Religious program re-telling one of Jesus' best-known stories. Includes a hard cover book. $29.95

Let them know you saw them in AmigoTimes

TRANSCONTINENTAL RAILROAD
MicroEd
Interactive instructional program with digitized pictures of the story of the transcontinental railroad. $39.95

U.S. GEOGRAPHY ADVENTURE
Queue, Inc.
Game format teaches student to identify states, cities, and other geographical features of the U.S. $59.95

WORLD ATLAS
Centaur Software
The first program that gives you valuable information on more than 165 different countries around the world, easy access to information by graphic map or keyboard. $59.95

WORLD GEOGRAPHY ADVENTURE 1-2-3-4
Queue, Inc.
Game format teaches student to identify countries, cities, and other geographical features of the world. Sold separately for $59.95.

PRESCHOOL

FIRST LETTERS & WORDS
First Byte/Electronic Arts
Talking computer friend teaches young children letters and words, upper case and lower case letters and helps build reading vocabulary. $39.95

FIRST SHAPES
First Byte/Electronic Arts
Talking computer tutor teaches geometric shapes to children. Encourages children to make toys or challenges skills in a matching game. $39.95

KINDERAMA
First Byte/Electronic Arts
5 talking games with animated graphics. Beginning addition, subtraction, upper and lower case letters. $49.95

MATCH-IT
The Other Guys
Teaches children basic colors and shapes through games and tutorials. $39.95

THE SESAME STREET CRAYON SERIES
Polarware
The Sesame Street Gang introduces children to ABC's. Offers coloring entertainment and education. Contains dozens of reusable pictures with point and click coloring. The series includes: Letters for You, Numbers Count, Opposites Attract and At the Zoo. All sold separately for $29.95.

THE TALKING COLORING BOOK
J.M.H. Software of Minnesota, Inc.
Talks to the child and teaches color recognition. Drawing option allows children to draw, color, and print their own pictures. $29.95

SELF INSTRUCTION

DELUXEHELP FOR CALLIGRAPHER
RGB Video
Online interactive tutorial runs with calligrapher. $44.95

DELUXEHELP FOR DELUXE PAINT
RGB Video
Online interactive tutorial runs with Deluxe Paint. $34.95

DELUXEHELP FOR DELUXE PAINT 2
RGB Video
Online, interactive tutorial runs with DPaint II. Select from 54 lessons with real-time demonstration and speech. $34.95

DELUXEHELP FOR DIGIPAINT
RGB Video
Online, interactive tutorial runs with DigiPaint. Select help lessons with real-time demonstrations and speech. $34.95

DELUXEHELP FOR PAGESETTER
RGB Video
Online, interactive tutorial runs with PageSetter. $34.95

DELUXEHELP FOR PHOTON PAINT
RGB Video
Online interactive; tutorial runs with Photon Paint. $34.95

DISCOVERY GAME DISK
Microillusions
With this educational game, players must solve problems in order to complete a space rescue mission. Problems can be selected to match the age and education levels of players. The master disk comes with either a math or spelling problem set. Nine additional expansion disks are available separately. $39.95

INTELLI-TYPE
Intellisoft/Electronic Arts
Sophisticated typing program combines customized lessons with adventure story. Monitors errors, recognizes when wrong hand is used. Bar charts show accuracy, speed, and error type. In depth analysis of error types. Performance analyzed over each lesson or all lessons combined. $49.95

MAVIS BEACON TEACHES TYPING
Software Toolworks/ Electronic Arts
Typing program for all ages. Her arcade-quality Road Racer Game and 3D graphics knock your socks off from start to finish. It diagnoses your specific typing problem quickly, and creates a typing program just for you. $49.95

TYPING TUTOR + WORD INVADERS
Academy Software
Typing tutor/game. Teaches touch typing. Word invaders uses game to teach typing techniques. Blast the invading words out of the sky. $34.95

AUTHORING SYSTEMS

CLAS
MicroEd
(Reviewed in v1.9)
Designed for the user who doesn't know how to program the Amiga, but knows what he/she wants for educational software. With Clas users can create imaginative programs. You can digitize picture screen, add voice and music. [Editor's note: All problems mentioned in the review of Clas have been corrected in newest update]. $129.95

V.I.V.A. PROFESSIONAL
Michtron
Object-oriented authoring system for interactive presentations and computer-based training. Can use graphic images or laser videodisk segments. $595.00

VIVA
Microdeal
A Hypermedia authoring environment for the user. Lets you create, manage, and display information. Control text, graphics, video, color, and animation. Also controls video recorders, laser video disk players, and a full range of visual media devices. Use as stand alone interactive environment or an information dispensing system. Icon driven program is easy to use. $99.95

MISCELLANEOUS

DESCARTES
Mindware International
(Reviewed in v1.7)
2D graphing package. Allows up to 50 equations composed of all standard operators and functions to be displayed simultaneously in a palette of 8 out of 4096 colors. Calculates derivatives of functions instantly. Allows easy formatting of axes, grid, and labelling, either linear or logarithmic. $39.95

FTD PILOT
Flight Training Devices
Programmed Inquiry learning or teaching. Pilot FTD implements the PILOT language developed for CAI. Unlike earlier Pilot versions, FTD PILOT uses sound capability. $39.95

HOW A BILL BECOMES A LAW
Queue, Inc.
Realistic interactive game in which students become Congressmen trying to pass a bill. $49.95

STARTING A NEW BUSINESS
Queue, Inc.
Realistic simulation teaches the principles of starting a new business venture. $59.95

TRIVIA 1 EXPANSION DISK FOR DISCOVERY
Microillusions
Trivia categories include Nobel Prize winners, sports, and famous quotes. Discovery program disk required. $19.95

TRIVIA 2 EXPANSION DISK FOR DISCOVERY
Microillusions
Trivia categories include movies, space travel, and famous people. Discovery program disk required. $19.95 ❑

DON'T LET US EXCLUDE YOU FROM THE PRODUCT GUIDE

If your company has some products relating to upcoming themes as listed in the Editorial Calendar, please send information or press releases to AmigoTimes, c/o Product Guide Dept. at the address listed in front of magazine.

COMPANY LISTING

Reader Service Number

256 ACADEMY SOFTWARE
P.O. Box 6277
San Rafael, CA 94903
(415) 499-0850

170 ALOHAFONTS
P.O. Box 2661
Fair Oaks, CA 95628-9661
(916) 631-9633

257 ARTWORX
1844 Penfield Road
Penfield, NY 14526
(716) 385-6120

223 CENTAUR SOFTWARE, INC.
14040 Tahiti Way
Suite 528
Marina Del Rey, CA 90292
(213) 821-5995

258 DESIGNING MINDS, INC.
3006 N. Main
Logan, UT 84321
(801)752-2500

179 ELECTRONIC ARTS
1820 Gateway Drive
San Mateo, CA 94404
(415) 572-2787

259 FLIGHT TRAINING DEVICES
P.O. Box 91723
Anchorage, AK 99509
(907) 276-6719

260 HILTON ANDROID
P.O. Box 7437
Huntington Beach, CA 92615
(714) 963-4584

261 INTRACORP, INC.
1460 SW 139 Court
Miami, FL 33186
(305) 252-9040

262 J.M.H. SOFTWARE OF MINNESOTA, INC.
7200 Hemlock Lane
Maple Grove, MN 55369
(612) 424-5464

263 JUMPDISK
1493 Mountain View Ave.
Chico, CA 95926
(916)343-7658

270 KNOWLEDGEWARE
P.O. Box 2292
Paso Robles, CA 93447
(805) 238-5233

195 KYOCERA UNISON WORLD
1321 Harbour Bay parkway
Alameda, CA 94501
(415) 748-6670

220 MICHTRON
576 S. Telegraph
Pontiac, MI 48053
(313) 334-5700

251 MICROED
P.O. Box 24750
Edina, MN 55424
(612) 929-2242

197 MICROILLUSIONS
17408 Chatsworth Street
Grenada Hills, CA 91344
(818) 360-3715

101 MINDWARE INTERNATIONAL
110 Dunlop W.
Box 22158
Barrie, Ontario
(705) 737-5998

252 POLARWARE SOFTWARE
1055 Paramount Pky., Suite A
Batavia, IL 60510
(214) 385-2353

264 PUBLISHING INTERNATIONAL
333 West El Camino Real
Sunnyvale, CA 94087
(408) 738-4311

265 QUEUE, INC.
338 Commerce Drive
Fairfield, CT 06430
(203) 335-0908

266 RGB Video
2574 PGA Blvd.
Suite 104
Palm Beach Gardens, FL 33410
(305) 622-0138

203 SEVEN SEAS SOFTWARE
P.O. Box 411
Port Townsend, WA 98360
(206) 385-3771

267 SIGNS ETC. BY D. KNOX
P.O. Box 628
Carmichael, CA 95609
(916) 944-4282

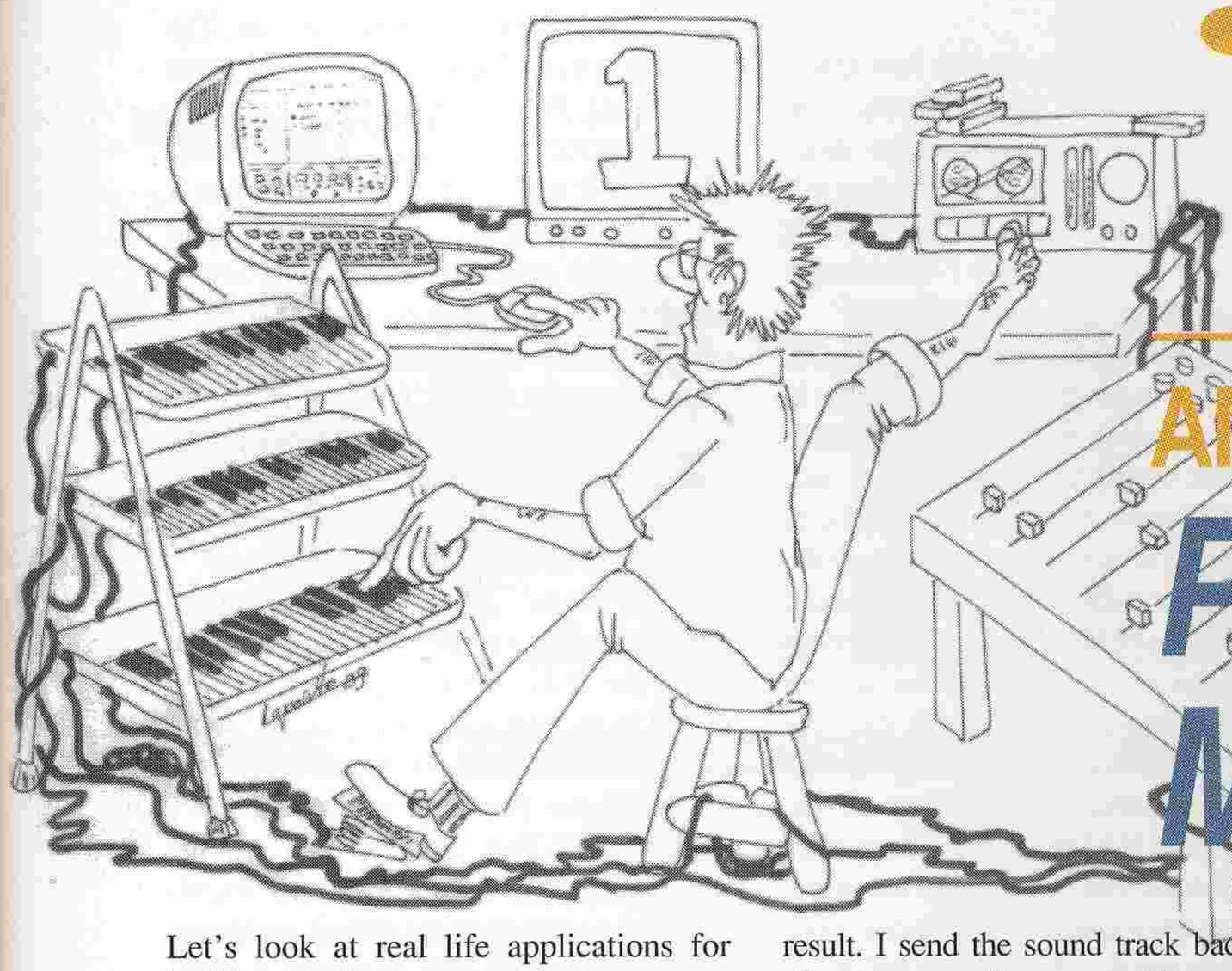
149 THE OTHER GUYS
55 N. Main
Suite 301
Logun, UT 84321
(801) 753-7620

268 TRUE BASIC, INC.
39 S. Main St.
Hanover, NH 03755
(603) 643-3882

269 UNICORN SOFTWARE
2950 East Flamingo Road
Suite B
Las Vegas, NV 89121
(702) 737-8862

For more information, circle the appropriate Reader Service number on the Reader Service Card in this magazine.

AMIGOTIMES
COLUMN



AMIGA HOME STUDIO

PUTTING MIDI TO USE

Let's look at real life applications for building tracks, sequences and songs using the MIDI concept. On stage MIDI can be used to substitute a few musicians (hopefully not all!). It can run many sound modules in your stage set-up. It is also sophisticated so it can run the mixer and even the lighting. A future instalment of the Home Studio column will be dedicated to this subject in which I will tell you about my on-stage experience with the Amiga.

There are many ways to use MIDI in the studio. As always, I will only talk about those I have experienced. I will also discuss how other Amiga musicians apply this technology, so if you would like to share your experiences with others, please do so.

My first real job was to work on a score to accompany a video saluting 25 years of loyal service by a suburban town mayor. The video was 1/2 inch VHS and a synch signal was not necessary as the music was to be recorded to audio tape and mixed to video by the client himself.

Almost at the same time I got another job that sounded interesting but quickly became quite boring. I had to do as many versions of "Happy Birthday" as I could; A Western version, Rock & Roll, Waltz, Cha-Cha, Reggae, Big Band, small club quartet, solo harmonica, etc. After 30 or 40 renditions you're ready for the guys in white to take you to a rubber room!

Most of the time I don't see the final result. I send the sound track back to the client on an audio cassette. However, I did have a chance to see the finished "25th Anniversary" video. I was amazed that it came from my basement. Three cheers for MIDI and my Amiga.

SYNCHRONIZING THE HARD WAY!

The only good thing that came from the "Happy Birthday" job was another contract, but that project was more challenging and interesting.

I was given a copy of a video (they would not give me the master except for the final dubbing) on a VHS cassette. The theme of the video was Autumn, and I had to compose an original score that would fit the theme and the action in the video. I was responsible only for music because the video had no other sound track.

As I don't have sophisticated synchronizing gear, I had to figure a way to do the job with the equipment I have. Follow my example if you would like to add music to your own videos or make a few bucks doing it for somebody else (so you can spend it all on new hardware for your MIDI setup!).

First I asked the client to add a countdown leader to the video, from 5 to 0. Taping a digital watch does the job nicely. I then loaded the sequencer, KCS 1.6a, in the Amiga, and in track mode I set the length of track 1 to play about 20 measures longer than that of the video (remember track 1 sets the length of the whole song). Then I set track 2 to record at 120 BPM. The sequencer's tempo is irrelevant in this case as the music will be recorded live to the sequencer and there will be many tempo changes depending on what takes place in the video. This is also why the metronome tick is muted and why it is important not to attempt to quantize any part of the track.

I put the cursor on the sequencer's play button, and I start the video. When the countdown reaches 1, I start the sequencer. You can start it at 0, but starting at 1 gives me time to go to the keyboard. The important thing is to repeat the same actions each time you restart the video as this is what synchs the video and the sequencer. Now I am ready to record track 2 as a "director track". It will consist of "mark out" signals that will occur at specific places during the video playback to remind me there is a change coming up. I have a different drum sound go off on my Roland D-10 when a certain type of action starts or when a tempo change is coming or any other type of change. I write these cues on a piece of paper to help me later on and I am now ready to record the music without the video, I will take my cues from the drum sounds.

When the director track is complete I can start recording the music starting on track 3. When all the tracks are in memory in the sequencer, I can mute track 2 (the mark out sounds) and listen to the music in synch with the video. When everything

By Alain Rheault

is to my liking, I can put the video machine in Audio Dub mode and record the music score to the video by starting the sequencer when the video countdown reaches 1 (or the same spot used to record the director track). The major drawback when using this simple method, is that you have to start the video from the top each time even if the correction you have to make is at the end of the video. This is why I use a director track so a lot of the work can be done without the video.

I used this method on a couple of projects and it worked fine. Things got a bit trickier when I was asked to do the sound track for a video on water skiing where I had to record sound effects like the sound of boats and the crowd along with the music.

What I did was to first record the sound effects from the video to an audio cassette and then use the usual process to record the music. When I was ready for the final recording to the video tape, I mixed the output of the audio cassette with the audio output of my MIDI gear. The tricky part was to start both the audio tape and the sequencer at exactly the same time and at the right moment relative to the video countdown. It has to be the same as when I recorded the director track. After a few tries I got it right and the results where quite surprising. You will understand this technique only works when the timing of sound effects is not critical like when recording background noise. No way could we use this method to dub the voice of somebody reading a couple of pages of poetry in a close up shot! You still could use it for voice but only if the person(s) speaking are far away and we can't see the lips moving, otherwise they sound like the martial arts expert in Police Academy. For background and crowd sounds a delay of even a second or two is acceptable.

After you have done a few hundred contracts you can always invest in a video machine that outputs SMPTE code and in a SMPTE to MIDI converter. With this type of equipment synchronization is very precise, with state of the art hardware you can even synch down to a frame.

I just got a Tascam MTS-30 audio synchronizer (to synch audio tape to a sequencer). I am taking it through the paces and will let you know how it comes out.

THE MAIL BOX

In the past month I received a few letters and messages on some BBSs. On IEMUG I received a message from Linda Ratushenko. She asks, "Being relatively new to MIDI, I do have Dr.T's but I'm not quite sure how I would save SYSEX to a track".

First SYSEX is recorded on a sequence, not a track. You first have to go in KCS's Set Options window and highlight the SYSEX option in the Recording section of that window. It is in the middle at the top of the screen. From there go to the Open Mode window and click on record to open the Open Mode Play/Record Screen. Then go to your synth and initiate a Sysex Dump via MIDI (check the synth's user manual on how to do this). The word SYSEX should be printed on the first line under NAME on the screen, after 5 to 10 seconds you can stop the recording by clicking the mouse. Or if you can monitor the data coming through the MIDI cable, when no more data is coming in.

Now leave this window and go back to the Open Mode edit window. The Sysex sequence should begin with a "* 247" followed by the data and ending by "* 240". This is the Sysex data and it can be saved as a standard sequence. When it is played back it will load all the information back into your Synth. It is important however that no other data is sent at the same time, Sysex is sent at full speed and will stop any other data coming in and force it to wait at the door, only when the Sysex dump is finished will the music data be allowed to go through and all the data stacked during the Sysex transmission will be sent at once making an incredible noise instead of music. To prevent this you will have to insert Delay events at the beginning of the music data sequences long enough so the Sysex track as finished before the music begins.

Paul Hurst from Montreal asks me if I have tried the Copyist by Dr T's because he says "DMCS (Deluxe Music Construction Set) prints notes much too big".

Yes I tried the Copyist and the results are quite good, but frankly I think the program could use some improvements especially in the area of the user interface. It's time musicians are left to do what they do best, music. At the price these software go for, they should be easier to use. The Amiga's graphic resolution is high enough that they could have included a way to save score sheets in IFF format so they can be retouched in a paint program. The Copyist is very good when entering notes and editing them. I printed out some of the music I wrote and other musicians could play it as it was meant to be. But when it comes to adding repeats, codas or guitar symbols for example, it is more complicated and very time consuming. I think it could be done more easily in a paint program. I am not saying the Copyist is not good, I feel it needs a few improvements, and judging from the quality of the products that come from Dr T's, I wouldn't be surprised if an upgrade were on the way.

Jean-Louis Boucher of Temiscamingue PQ needs more information about the "Fast-Clocker" program I mentioned in the last issue. Well the name actually is "Smooth-Clocker" and was written by Todor Fay who wrote Mimetic's SoundScape. This program is a module that replaces the original clock in Soundscape and corrects some timing problems. It is included on this month's AmigoTimes disk or can be found on major BBSs like Compuserve (in the MIDI section). You have to copy this program and its icon to your Soundscape disk. Instead of starting SoundScape by double clicking on its icon, you double click on the Smooth-Clocker icon instead. Jean-Louis also says he has frequent crashes with SoundScape. I had the same problem with this program, stuck notes and a lot of crashes, but they where corrected when I upgraded to version 1.4. This is the latest version and visits from the GURU are much less frequent with this version.

UNTIL NEXT TIME

Keep the feedback coming in and for all you MIDI hackers I have a question for you. I am looking for a schematic diagram of a hardware project to run lighting with MIDI signals. It doesn't have to be very complicated. It should be able to turn on or off up to six 150 watts spots individually, no fading necessary. I am dreaming of putting this type of gadget to work with my two new musicians and one Amiga band. I'm sure a project like this would make a lot of "Midiers" very happy.

In closing I would like to wish all the best to Paul Thomson of Abbotsford B.C. Canada, who just released a cassette of music done on the Amiga using SoundScape Pro MIDI Studio. He has sold around 50 copies already, nice going. ❑



AMIGOTIMES
COLUMN

TELECOMM

Y.A.F.C.:

YET ANOTHER FILE COMPRESSOR

By Harv Laser

File compressor/librarian programs are used a lot by folks who spend time on-line. While we've covered this topic in previous issues, a brief refresher is a good idea before I introduce you to the latest contender in the "compressor wars".

When you're calling a BBS or a national network, time is money. Even if the BBS you're calling is a local free telephone call for you, and you're not paying phone or network charges, *your* personal time is valuable too. If you like to download files you want to do it in the most efficient way possible.

File compression utilities were invented so that any type of program or file could be 'compressed' - made smaller to take up less room when transporting from one computer to another, usually by modem. File compressors can also combine or 'pack' many files together into one common 'archive'- this is particularly handy since this feature lets you download just *one* file and get a program, its WorkBench icon, some documentation, and maybe even the program's source code by performing just one download instead of 4 or more.

For the last few years, ARC and ZOO have been the two most popular and widely-used Amiga file compressor/librarians. Both programs are intelligently written, powerful, and although neither has an Intuition interface (they are both invoked as CLI commands with parameters) relatively easy to learn to use. On most BBSs and networks you'll find that the majority of the files available for you to download will be in either ARC or ZOO formats.

Does the Amiga need yet another file compressor? Well some folks think more compressors will confuse the situation, making it difficult for new Amiga telecomm users to deal with yet another such program. But knowledge spreads rapidly in the online community and the fact that you're interested enough in telecommunications to buy this magazine and read this column shows that you have a thirst for knowledge.

I believe that all other things being equal, if a new file compressor comes along that can make files even smaller than ARC and ZOO and yet retain their ease of use, then this is a good thing. After some online moaning and complaining, most people will see the benefits of either lower cost or less of their time spent downloading - they'll end up downloading more files since the files will be smaller - more freely distributable software will find its way into the hands of more users, and knowledge will spread.

Suppose a BBS had two copies of a new demo in its library, exactly the

same demo, but one of the files was much smaller than the other. Which one would you download? Of course, the answer is the smaller one. The smaller file will take less time to download and, if you're lacking a hard drive or a lot of RAM memory and can only download to floppy disks, the smaller file will take up less disk space.

ENTER LHARC

A brand new file compressor has just arrived - and you'll find it on this month's AmigoTimes disk: LHARC.

LHARC was originally developed in Japan by Haruyasu Yoshizaki for MS-DOS computers. As he was kind enough to release his source code for other developers to massage and manipulate, an Amiga version has been written by Paolo Zibetti in Italy. As of this writing (late September, 1989) the latest version of Amiga LHARC I could get my hands on was 0.50 and it's this version that you'll find on your disk along with Mr. Yoshizaki's original documentation for the MS-DOS version of LHARC.

By the time this magazine finds its way into your hands there will most likely be a newer version of LHARC for the Amiga available from the networks and your favorite BBSs so be on the lookout.

LHARC is invoked from the CLI in a fashion similar to both ARC and ZOO. Although LHARC will usually take LONGER to compress the same file versus ARC or ZOO (ZOO being the fastest of the three) LHARC can compress most any kind of Amiga file smaller than either of the others.

A COMPARISON - WHO WINS?

To give you an idea of the strength of the three file compressors I copied four files into my RAM: disk and tried LHARC (0.50), ARC (0.23) and ZOO (2.00) on each of the files. Different file types can be compressed by different percentages - some better, some worse. These four files represent typical types which you may find yourself up or downloading to and from BBSes and networks.

'PIC' was a HAM picture in 320x400 Interlace format, such as you might create with DigiPaint, DigiView, PhotonPaint or Sculpt 3D.

COMPRESSION RESULTS

	Bytes	Bytes /percent of compression		
		LHARC .50	ARC 0.23	ZOO2.00
PIC	96304	93603 /3%	94918 /2%	128518 /0%
TEXT	119472	68019 /44%	85746 /29%	82253 /31%
PS	80598	7418 /91%	16296 /80%	12532 /85%
GAME	27648	14526 /48%	19792 /29%	18719 /33%

'TEXT' was a plain, non-binary ASCII text file such as a notice capture from a BBS, or a document you would type using the AmigaDOS ED text editor.

'PS' was a PostScript file generated by Gold Disk's Professional Page desktop publishing software. Although PostScript is also ASCII text it has many redundant (repeated) characters especially if your saved-PostScript file contains graphics.

'GAME' was the executable portion of the public domain 'Tetrix' game.

The chart above shows each file's original size and what each of the three compressors could do to it.

On all four types of files, LHARC achieved better compression than either ARC or ZOO. Different files will get slightly better or slightly worse compression with all three programs. Don't take the percentage values shown in the chart to be 'fixed'. However in additional tests, I found LHARC beat both ARC and ZOO in head-to-head comparisons every time.

LHARC does especially well on ASCII text - note that the Professional Page-generated PostScript file was squashed down to less than 10 percent of its original size. ZOO did very poorly on the HAM Interlace picture, actually making a .ZOO file that was over 30K BIGGER than the original picture. If you use ZOO to compress your files for uploading, don't use it on this kind of file.

SIMPLE TO USE

Like ARC and ZOO, typing LHARC's name by itself at the CLI or Shell prompt will give you a short reminder of its available switches and modifiers. You folks with floppy-disk only systems will appreciate that LHARC 0.50 is only 32672 bytes long and if you copy it to your SYS:C directory (the C: directory on the disk you normally use to boot up your Amiga) it will become a command like any other, and so it'll be available for you to invoke no matter what directory or subdirectory or disk you've CD'd yourself to.

So have fun with LHARC, experiment with it, and try using it to compress some of your own programs and files. Files you see in download libraries, on BBSes and Networks, which were compressed with LHARC will have a name which ends in '.LZH' so they'll be easy to spot.

You may be wondering what has happened to the Amiga version of the highly touted 'PKZIP' file compressor by Phil Katz. The best information I could get before press time was that an Amiga developer is pounding away on the code but no release date is being advertised yet. The program may be released with a full Intuition interface and ARexx capabilities, and might be available by the time you read this. Or not. Stay tuned and we'll find out together!

NEXT TIME

A look at the ASDG Dual Serial Board, and much more. ❑



THE AMIGA IN EDUCATION...

This new column about the Amiga in the education market will give you a monthly insight on what's going on.

This month, a look at Commodore before the new management took over.

I believe it was Mark Twain who said that the music of composer Richard Wagner is better than it sounds. Let us hope this is true for the marketing efforts of Commodore on behalf of the Amiga in education.

These remarks are aimed primarily at Commodore U.S., not Commodore Canada, which has shown signs of life that are missing from its south-of-the-border twin.

Several years ago, back in the days of the little PET with its calculator-style keyboard, Commodore U.S. dominated the Stateside school market. In those halcyon times, I was an assistant superintendent of schools in Edina, Minnesota, a Minneapolis suburb.

It was easy to be a Commodore fan then. So when Edina introduced microcomputers into its classrooms for serious instructional purposes, the PET was clearly the machine of choice.

And an excellent choice it was. As a matter of fact, I have a personal anecdote that links it to the Amiga.

To demonstrate that adults, teachers in particular, need not recoil from the complexities of computers, I decided to introduce some third grade students to the art of programming.

The PET was simple to use, and the children made rapid progress. Especially one youngster, Paul Falstad. It took Paul just three weeks to move ahead of where I was in my knowledge of programming. Not that I was ever any great shakes at practicing this arcane skill, yet, for a third grader, I felt it was an amazing feat. Today, Paul is seventeen years of age and he is currently the Amiga programmer for my company!

COMMODORE AND THE SCHOOL MARKET

From my point of view as an outsider, albeit an intensely interested one, CBM seems to have a split personality. It appears to have brilliant engineers, and a not-so-brilliant group of marketing personnel.

To buttress this last observation, how could anyone in his or her right marketing mind have stood limply by and done virtually nothing to prevent a little outfit called Apple from moving in and taking control of the educational landscape with its relatively ho-hum microcomputer? But that's what happened!

Why is it that the marketing folks back at Commodore Headquarters in West Chester, Pennsylvania - who should be leading the pack when it comes to the business of developing and maintaining good relationships with dealers and software producers - why is it that these marketing 'experts' often seem to be looking the other way when someone from out in the field is trying to get their attention?

Let me give you a case in point. It is based on personal experience. So what

---

By Thorwald Esbensen

you are getting, gentle reader, is not hearsay, but facts:

Last summer, a front-page story in The New York Times got me thinking about an exciting way for the Amiga to generate some nationwide publicity in the field of education.

The school district of Chelsea, a Boston suburb, is in such terrible shape that it is, in desperation, considering a step unprecedented in American education. This would be to have a non-governmental agency, in this case Boston University, take over the entire Chelsea school system and run it for ten years! Dr. Peter Greer, the Dean of Education at Boston University, would be the person immediately in charge of this project.

Briefly, it was my thought that Commodore should state it was willing to place a few Amigas in one room within the worst elementary school in the Chelsea system. My company, MicroEd, would donate our Amiga educational software to that project. We would also agree to write additional AMIGA interactive teaching software that would be useful to the project. We would do this at no cost to the project.

In order to take "some soundings" with respect to this plan, I personally chatted with Dr. Greer on the matter. He was interested. I contacted the office of Congressman Ed Markey from the Chelsea district. The reaction there was favorable. I spoke with Dr. Bruce Robinson, the chairman of the Chelsea School Committee, and he was intrigued by the idea.

Then I spoke to Commodore; to several people at headquarters level. I followed up these talks with a more detailed explanation in writing. I couldn't get the time of day from any of them. Nothing. Not even an acknowledgement of the fact that I had submitted a proposal for consideration.

On November 5th, I finally decided to write a letter to Commodore President Max Toy about the Chelsea idea. Among other things, I was trying to make the point that Apple might also start thinking about the Chelsea Project. If that happened, I said, given the fact that it is largely 'Appleland' these days out in the schools, the educators within the Chelsea Project - not knowing at firsthand what the AMIGA can do - would no doubt choose to go with Apple, and that would be the end of that for the Amiga.

I suggested that if Commodore sat around and waited for someone from Chelsea to come to West Chester to request Amigas for placement within this nationally visible enterprise, Commodore would find itself waiting 'til hell freezes over. At best, it would take some kind of potent 'selling' job to get the project, even to consider using the Amiga, which is virtually an unknown computer to the education establishment. Apple and, to some extent, IBM, are the major players. They will continue to be so for a long time to come. The best that Commodore could hope for at this stage of the game would be to generate an opportunity to get one foot in the door so that the Amiga could show off its stunning capabilities to a nationwide audience.

And what was Max Toy's reply? Well, nothing - not even an acknowl-



Circle 231 on reader service card.

edgement that my letter had been received.

As a last resort, I decided to write to Mr. Irving Gould, Chairman of the Board of Commodore International. I recounted the same litany of events that I had previously revealed to Max Toy, and I asked for assistance.

I received a reply! And it was encouraging! I was told that Mr. Gould had received my letter and that, after reviewing it, he had sent it on to Commodore Headquarters in West Chester for a response.

I was told that I could "be assured" that I would "be hearing...shortly" from West Chester with regard to the Chelsea matter.

I waited. Nothing happened. After a month went by without a word from anyone at Commodore Headquarters, I wrote still another letter to Mr. Gould's office.

In it, I remarked that not having received a reply from West Chester was, in one sense, not surprising because it fit in with Commodore's habitual pattern of non-responsiveness throughout the years that I had dealt with the company. What was surprising, I said, was that even when the Board Chairman (Mr. Gould) specifically requested that someone at Commodore get back in touch with me as a long-time developer of educational software for Commodore computers - even then, nothing happened.

I stated that an opinion widely shared in the marketplace was that Commodore has the best equipment, but the worst customer relationships in the industry, and that the present instance was simply another confirmation of this belief.

My letter ended with this question: Should I finally give up on this matter, or would Mr. Gould's office be willing to try again to wake the sleeping giant in West Chester?

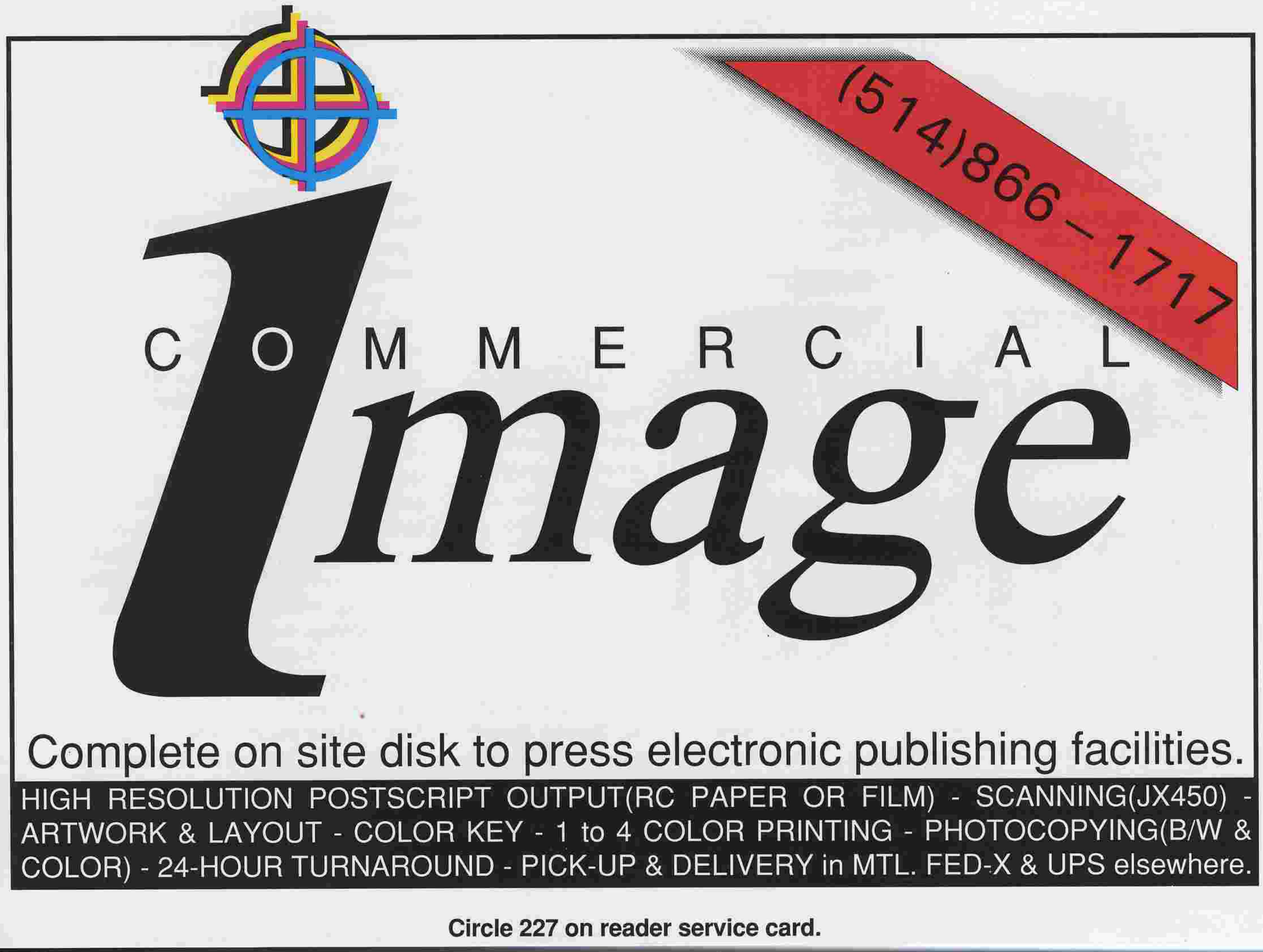
But enough of the bad news. The good news is that the Amiga is such an astonishingly wonderful computer that if those of us who love it give that machine the support it deserves, the Amiga may finally come into its own, even within that ponderous community known as the educational establishment.

NEXT TIME

Beginning with my next column, I will give you chapter and verse on actual places that are now using the Amiga as an effective teaching machine. These reports will be based on situations ranging from British Columbia to Texas, with stops in-between. Until then... ❑

ABOUT THE AUTHOR

Tory Esbensen is the President of MicroEd, an educational software company. Readers who have heard about places where the Amiga is being used for educational purposes are invited to contact Tory either by letter (P.O. Box 24750, Edina, Minnesota 55424) or by telephone (612) 929-2242.



Circle 227 on reader service card.

AMIGOTIMES
REVIEW

ANIMagic

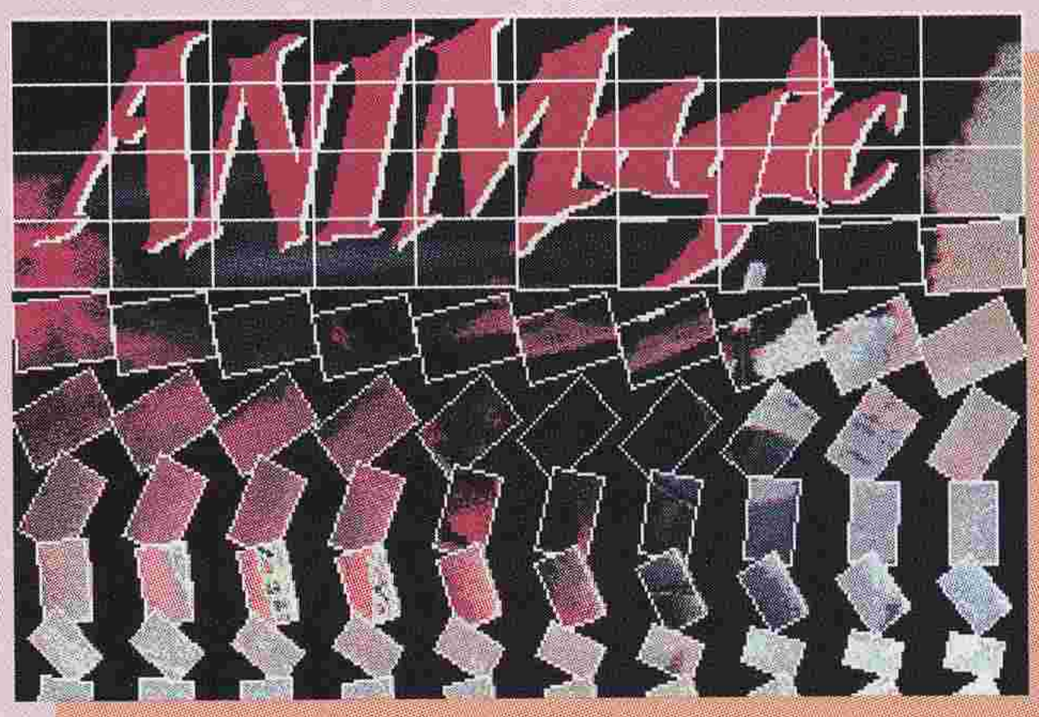
A videographic/animation product with a possibility of 23,000 effects

By R. Shamms Mortier

What makes an Amiga videographic product valuable for professional users, is usually related to ease of use and visual enjoyment also. Videographic artists and graphic designers (especially those obsessed with the Amiga's ever-widening list of software tools) absolutely must have products that are intuitive to use. In order that the product reaches its maximum penetration of the marketplace, it must be fun to play with as well. A third item that keeps a product from gathering dust is its variability. That means that there are always a few experiments left to perform with it, even after very extensive use. It must also be affordable. ANIMagic fulfills all four categories.

ANIMagic is what I call "preparation intuitive." That means that you have to work with it a bit before putting the manual away for good. Those of you who have experience with Gary Bonham's other Aegis wares ("Lights, Camera, Action!" and "VideoTitler" to name a couple of the more recent ones) are probably a step ahead of the game, as the interface design is somewhat similar to these offerings. Mr. Bonham's work is easy to recognize by the look and feel of the requesters and gadgets, which differ from all other Amiga videographic/animation products. As far as point number one, ease of use, this was demonstrated to me in a real life entanglement. I had about four hours to create some animated segments for a soon-to-be broadcast Public Service Announcement on regional TV. With a quick immersion in the manual, I was able to use ANIMagic immediately, producing a string of ANIM files that were pieced together in the editing room (a fine companion product to this, that I didn't have at the time, is "Elan Performer" from Elan Design, which could have saved time and money in the editing process).

As to it being "fun," you must first realize that videographic artists define "fun" somewhat differently than average corporate executives. "Fun" for us is drooling over instantly available alterations in the visual realm, things not achievable by any other means. Access to tools that provide these possibilities is like having a carte-blanche journey in a jewelry store, or a trip to DisneyWorld. You know a videographic designer is having "fun" if her/his tongue shows signs of radiation burn from hanging out too much in front of the monitor. ANIMagic is fun.



The FallAway effect where fragments of a picture spin into position

VARIABILITY

It is estimated that the total number of ANIM effects possible with this package is over 23,000! Many of the 23,000 effects

are variations that are similar, but they are built on unique and original foundations, and can be found on no other Amiga program. These variations center on a library of "DVE (Digital Video Effects) Maps," which are listed as follows:

Basic Expand: Expands the source pic from a point to full screen

Basic HBlind: a full 3D transform around the horizontal axis

Basic Spin1: expands pic out from the center with one revolution

Basic Spin3: three revolutions as above

Basic Split: joins the pic from two interchanged halves

Basic Squeeze: squeezes pic to right and stretches it to the left

Basic VBlind: rotation around a vertical axis

Basic Wrap: pic is displayed in four iris-like parts

Box2: places pic1 on a side of a six-sided box and rotates it to reveal source two on the next face

Box4: places Pic1 on four sides of a rotating box (this looks great!)

Confetti: pic pours onto the screen like confetti in random chunks

CornerExpand: expands Pic in from left corner

Doors10: vertical curtain pulls back to reveal Pic2 behind Pic1

Doors2: Pic1 opens like two doors to reveal Pic2 (This is one that I used in the above story)

Dribble: Pic dribbles in like paint from above

FallAway5x5: 25 fragments of a Pic spin into position

HBlind6: top to bottom rotation of vertical blinds forms the Pic

PageTurn: a TV Page-Turn

Plain: copies Pic from source to destination

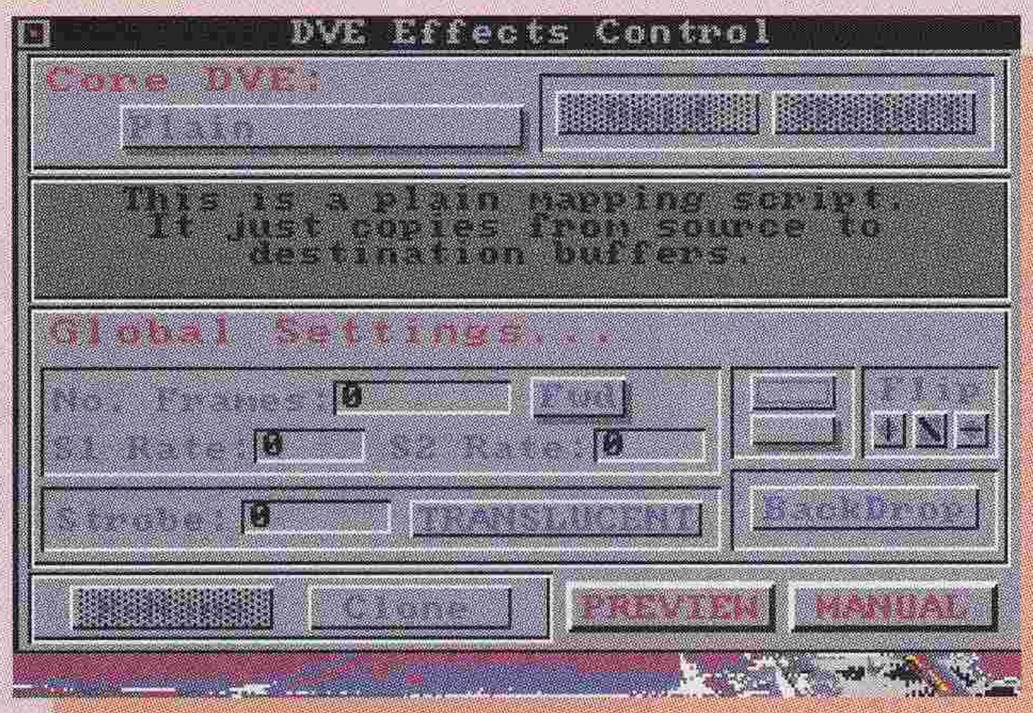
SlideIn: slides Pic in beneath view and enlarges to fill screen

Tumble: rotates Pic1 around horizontal axis, which is then replaced by Pic2

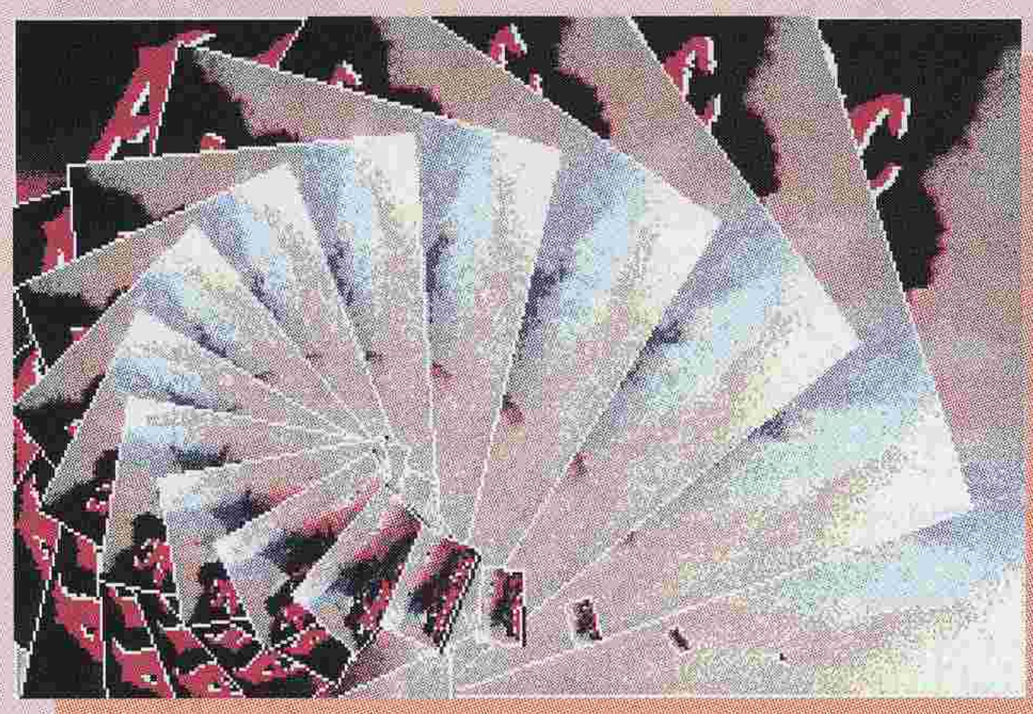
Unfold9: a nine-part foldout

VBlind6: progressive and symmetrical rotation of vertical blinds

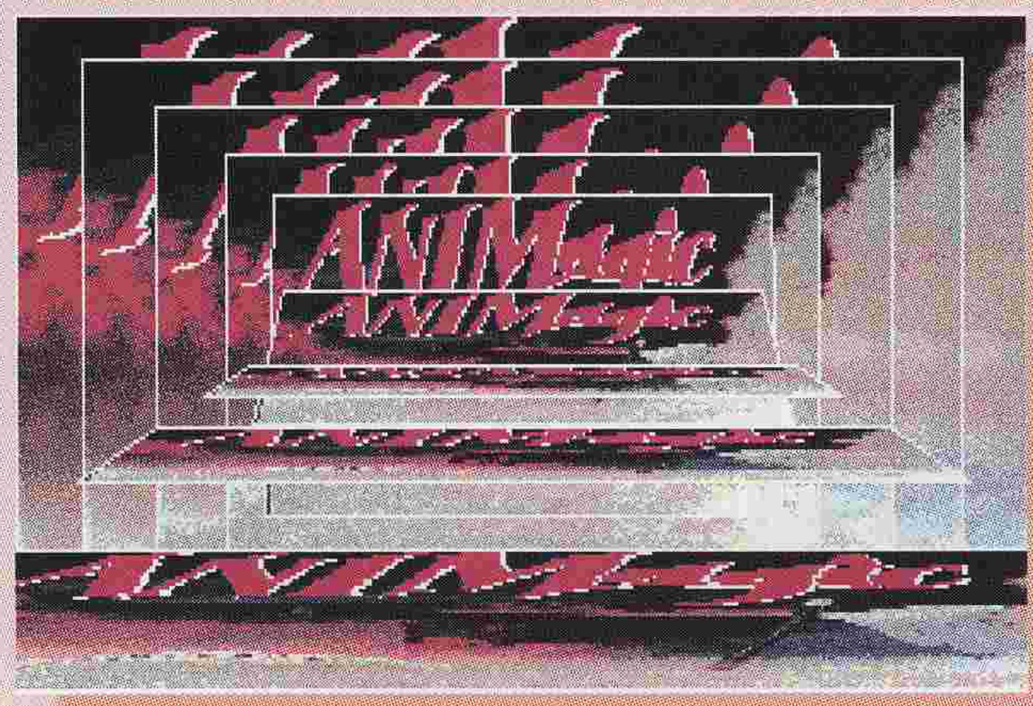
All these effects are written as ANIM files to a data disk. Once you have the ANIM file, you can alter it with any of the dozens of Amiga programs that address this standard. IFF stills can also be saved, as well as your own original library of DVE maps.



The Digital Video Effects Control requestor, which is the heart of AniMagic, because it is here that effects are chosen and applied, recombined and designed for future use



The Modified Spin effect which expands the picture out from the centre in a number of rotations



The Slide-In effect which slides the picture in beneath the view and enlarges it to fill the screen

AFFORDABILITY

First, you can't procure a tool like this at any price for any microcomputer except here. That means that it's a bargain at any cost. When compared to products that are in its price range, it comes up as much more EFX bang for the bucks. When compared to products that handle some similar EFX, the cost divided by the number of EFX possible still pushes ANIMagic way ahead of the pack. Something else that may influence affordability is that by addressing the ANIM standard (which Gary Bonham is responsible for authoring), the cost is again moderated by its possible interaction with other packages. Yes. ANIMagic is indeed affordable on all counts.

THE REQUESTERS EDIT BAY MAIN CONTROL PANEL

This is where you begin. There is a bunch of new gadgets here that don't resemble others that you may have encountered in other packages, but not to worry. If you press the help key, a question mark pops up. By placing the dot on the symbol over a gadget or button and clicking the mouse, a "help" menu explains all you needed to

Genuine Sound!

The first audio sampler that gives you the quality an *AMIGA* owner deserves. This sampler is the first to offer a true flat reproduction of the input from 5Hz to 20 KHz. (using AudioMaster II at 44KHz sampling rate.) The error is approx. +/-0.05 db on the audio spectrum graph. It offers virtually no hiss or interference. Genuine Sound is also the first sampler to have multiple mixing inputs using an audio mixing board format having one mic. input (1/4 inch jack), 2 phonos, and 1 aux. (RCA jacks). The 2 phonos can be ordered as aux inputs. Get the Genuine Sound demo from Amigo Times. Genuine Sound can sample up to 200KHz mono and 100KHz per channel in stereo which is more than enough for audio.



Prices:Mono Genuine Sound 399.95$US
Stereo Genuine Sound 499.95$US
Upgrade from mono to stereo 150.00$US

Genuine Epromer!

The first Eprom programmer for the *AMIGA*. This eprom programmer programs eproms from 16 Kbits to 1024 Kbits. The software offers Editor (with even & odd option for doubled eproms), read, blast, verify, load, & save data. A 512Kbit eprom only takes 0.2 seconds to read or verify. Blasting is done by intelligent read and blast passes assuring you that your data is secure on the eprom.

All this and more for only 300$.

We Do Mail Orders!
Visa, Mastercard, & AmEx only.

Orders:Phone - (514) 435-4442
fax - (514) 437-9982

Information: (514) 488-7372

Montreal Distributors.

Roland Paquette inc.:
85, Blainville Est Sainte-Thérèse (Quebec) J7E 1L9
(514) 435-4442

La Cie. Soft Wares Co.:
5001 Queen Mary Road, Montreal, Quebec H3W 1X4
(514) 737-5865

Maison Du Logiciel Software House:
13635 Sherbrooke E. Montreal, Quebec. H1A 1C3
(514) 498-3614



The Main Edit Bay which is where you start out in AniMagic, showing the Project menu and the Record submenu

know. Animation education at your fingertips. Every attempt has been made to design icons that are reminiscent of VCR controllers, and most are recognizable as such, performing similar functions.

One of the features that I like most is that there are always two palettes that can be toggled: one is that of your picture, and one is that of the defaulted Edit Bay. This means that you don't have to worry about losing your gadgets in a fuchsia maze, but can recall the default requester colors as needed.

Besides being able to do the expected (stepping back and forth through your ANIMation), there are other more esoteric functions. You can, for instance, always find out what frame of your source animation is being displayed, and can alter the amount of time that image will stay on-screen. The palette gadget brings up the color palette for editing. This is a normal Amiga palette with all the expected options. A cycle gadget (actually, a bicycle icon) brings up a color cycling requester, and here we enter a new world. Instead of the six standard cycling parameters, you are allowed eight, each with its own timer control. Individual ranges can be turned on and off, and the whole screen can be set to preview your choices. Back to the Main Edit Bay, specific ranges of an animation can also be operated on in any fashion, including slowing down or speeding up sections in a smooth fashion. Color palettes can also be chosen and applied to specific ranges.

There is a separate "Transparency" window that can be opened. This window has four palette ranges in which one color in each can be set to different degrees of "transparency," allowing you to see through colors in the source picture. An alternate palette menu also allows you to mix color palettes in the following ways:

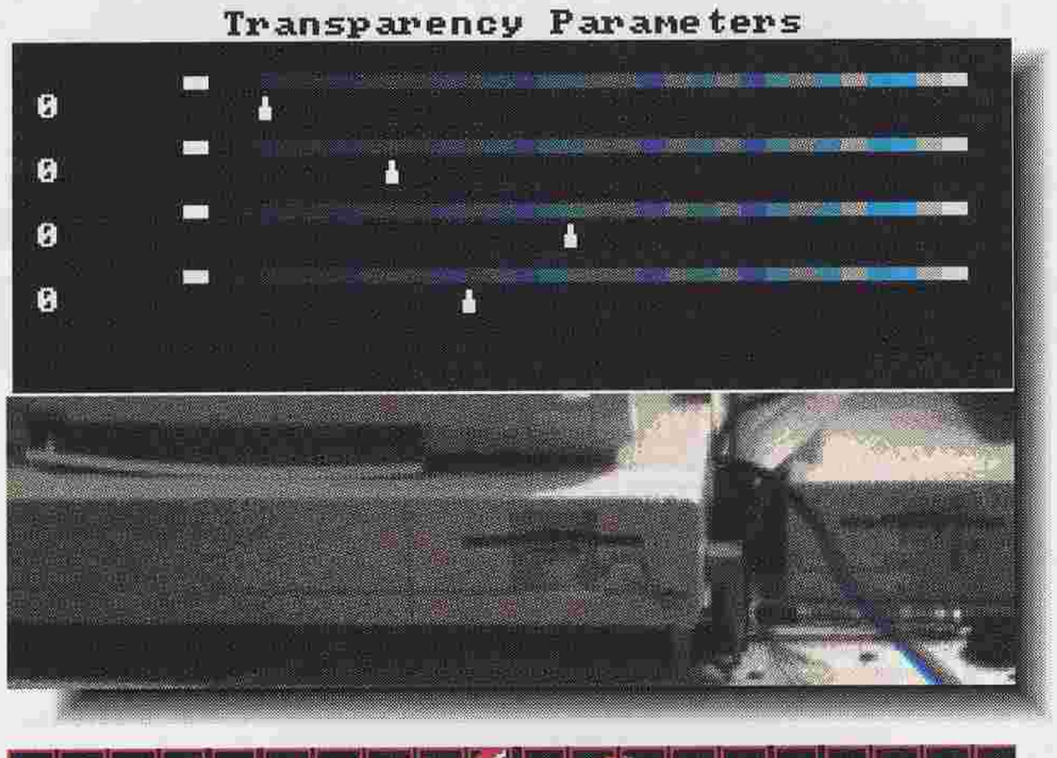
The **Source One** palette is optimized
The **Source Two** palette is optimized
The **Destination** palette is optimized
Source One and Two are mixed
Source One and the **Destination** are mixed
Source Two and the **Destination** are mixed
Sources One, Two, and the **Destination** are optimized
("**Optimization**" means that the computer chooses the best compromises between the choices).

THE DVE EFFECTS CONTROL REQUESTER

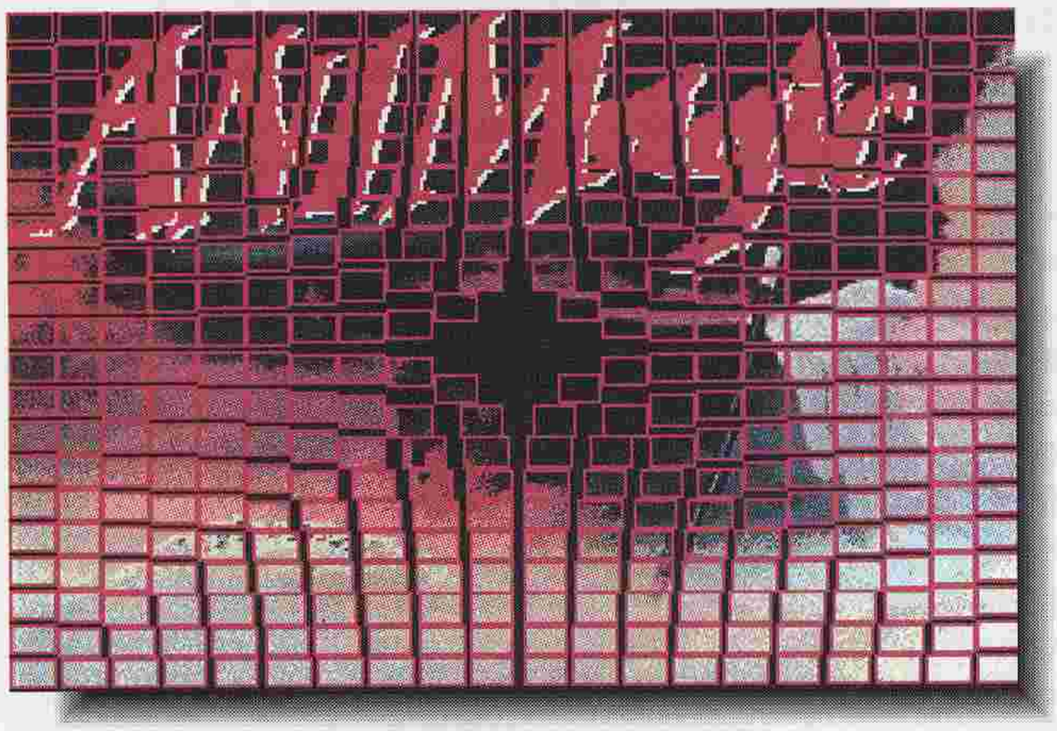
This is the heart of ANIMagic, in that it is here that effects are chosen and applied, and also recombined and designed for future use. This is also where you access two other requesters to be discussed shortly: GRID and 3D STUFF. For those of you familiar with the animation method called "tracing paper animation," there is a "Strobe EFX" button here that allows you to draw a trail of a specified number of the previous frames, creating an effect similar to the tracing paper method. Turning the "Translucent" button on heightens the effect by causing frames further back in the series to be more and more ghosted, as if layers of tracing paper were intervening between them. Because of the numbers of colors available, this works best in half-brite and HAM. You can also set an outline color here and have the elements of a picture outlined. All EFX can be flipped horizontally, vertically, and diagonally. If you've redesigned a DVE or created a new one, it can be named (or renamed) and saved to a library at this point. The DVEs can be previewed before rendered to disk.

The "Grid Control" window allows

a host of other options that further control a DVE. Here is where you control how the pieces of your picture will flow onto the screen, how the choreography will originate, and how many sections will be operated upon in a likely fashion. You can combine different effects in a multitude of ways...not infinite, but close enough. EFX can also be targeted to start small and grow, or to flow in curved paths. An "Ease Panel" allows you to set the movements for EFX per frame.



Setting the degree of transparency of one color in each of four palette ranges in the Transparency window



The Break-Up effect where the picture breaks up into hundreds of rectangular pieces

A couple of the EFXs (DVEs) are 3D simulations (the spinning boxes for instance). Here you can set the distance of the view plane, flip the image, and paint the second pic in various orientations "behind" the turning 3D, first pic. A small "Backdrop" window controls the placement and character of a backdrop screen. "Shadows" can be cast on the backdrop by the pieces of a flying and dismantled picture. Backdrops can be set to full size, medium and severe overscans, and custom sizes (for professional scrolling effects).

Even the save requester exhibits useful new approaches. You can save an ANIM so that it automatically loads when clicked and plays with SHOWANIM. Icons can be designated or not as part of the save. You can also choose which ANIM compression routine your ANIMs are to be saved in, ANIM5 (vertical compression) being the latest and best for space on the disk. "Sleep" iconizes ANIMagic and returns you to Workbench. Nothing is lost. When you are through doing another task that requires the Chip RAM accessed, just punch up ANIMagic from a small resident menu bar and you're back where you left off.

Let's see, what can I criticize about this package to let you know that I'm a fair and observant reviewer? The manual has tutorials and an index,...no luck there. The software isn't copy protected, so that's no hassle. It addresses all the Amiga resolutions, including overscan possibilities...no gripes on that score. Oh well. I'll think of something. Meanwhile, though, I think I'll just spend a couple of more hours playing with the possibilities. ❑

(See PRODUCT INDEX on page 109 for more contact information)

28, HERMÈS
CANDIAC J5R 3R7

PRICES ARE IN CDN FUNDS

Everything in computer accessories

WORDSWORTH DISKETTES (box of 10)
3½ DS DD 14.99
3½ DS HD 29.99
5¼ DS DD 7.99
5¼ DS HD 14.99

NO NAME DISKETTES (box of 10)
3½ DS DD 12.99
5¼ DS DD 4.99

STORAGE BOXES PLASTIC
3½ - 80 ..... 14.99
5¼ - 100 ..... 14.99
5¼ - 120 ..... 15.99

STORAGE BOXES WOOD
3½ - 25 ..... 19.99
3½ - 50 ..... 22.99
3½ - 120 ..... 33.99
5¼ - 25 ..... 19.99
5¼ - 75 ..... 23.99
5¼ - 120 ..... 34.99

DATA CARTRIDGES
DC 300 ..... 29.99
DC 600 A - 60 MB 33.99
DC 2000 ..... 29.99

POWER BARS
6 OUTLETS SURGE PROTECT 14.99
6 OUTLETS SURGE EMI/RFI 18.99

FAX POWER BARS
6 OUTLETS RFI/EMI SURGE 49.99

MONITOR MOVERS 159.99

KEYBOARD DRAWERS 39.99

PRINTER STANDS UNIVERSAL 9.99

ANTI STATIC MATS 16.99

COPY HOLDERS
STARTING at 5.99

CLEANING KITS
STARTING at 5.99

TOOL KITS
11 PCES 29.99

JOYSTICKS
ATARI 10.99
IBM 29.95
AMIGA 25.95

TRUE MOUSE TX300 ..... 54.99
— MICROSOFT COMPATIBLE
— SOFTWARE
— MOUSE POCKET
TX 3000 ..... 69.99

MODEMS 2400 BAUDS 189.99
HAYES COMPATIBLE

PRINTERS
SEIKOSHA STARTING at 259.99

BEST PRICES IN COMPUTER ACCESSORIES
1-800-363-6673

ORDER DESK OPEN FROM 8:30 AM TO 5:00 PM MONDAY TO FRIDAY

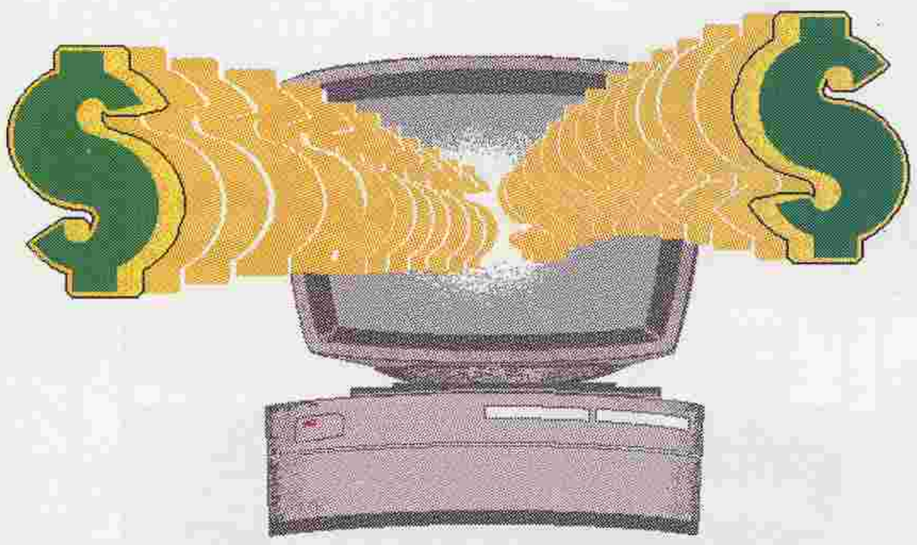
TERMS VISA / MASTERCARD / C.O.D. / CHEQUE
All items shipped by CANPAR or mail. Add $4.00 for COD order. All returned merchandise must have RMA number. Restocking charge 20%. Prices subject to change without notice.

Circle 228 on reader service card.

AMIGOTIMES
COLUMN

VIDEO PRODUCTIONS . . . FIRST STEPS

Getting a business going takes a large amount of time, effort and money...



You've had your Amiga for a little while now, you've learned to use programs like DPaint III and VideoScape fairly well, and you've come to the conclusion that you could probably generate some extra income with this wonderful machine; perhaps build an entire business around it. You've made a decision, and now it's time to prepare yourself psychologically and start taking the steps that will convert your computer skills into hard cash. All that's standing in your way is taking the time to establish the backbone of a viable business.

COMMITMENT AND A DATE

Getting a business going takes a large amount of time, effort and money. So commitment is important. You have to be *sure* of what you want to do, and you have to be willing to make a few sacrifices to get there. The first thing to begin with is setting a firm date when you will actually start your business. Consider this carefully and be prepared to commit yourself to it absolutely. This is important. If you're not ready for this type of firm commitment, you're not ready to start a business with your computer.

This does not mean that you have to set a date next week, or even next month. Ideally, your starting date will be at least three to six months in advance to give you adequate time to get organized and take care of all the little details that go into setting up a business. Be careful of choosing a date beyond six months, since that length of time leaves too many variables open to change for you to be firmly committed.

Keep in mind that establishing a business, building contacts and clients to support costs is a full-time job in itself. This doesn't even include the computer work! So, be prepared to work overtime. Try to foster the attitude of approaching computer animation as a business, and not a creative outlet, and you're halfway there already. Remember, that this attitude should in no way reflect on your integrity and principles in providing the highest quality work of which you are able.

SELECTING A NAME

A name is very important and does much to shape the world's perceptions of a company, or individual (as any boy named Clare can probably tell you). More so, a name affects a potential client's image of a business. Will your business be seen as business-like,

By Nick Poliwko

or as a self-indulgent hobby? It's all in a name.

Take time to choose an appropriate name. You'll be tempted to start business by using your own name, but it's usually wise to go a step further. "John Doe & Associates, Computer Animation" sounds much more professional and established than "John Doe, Computer Animator". If you intend to choose a different name for your business altogether, be careful not to get carried away. "Far-out Computer Animation" may express your feelings perfectly, but may make your company seem trite to potential clients.

Keep your company name simple, and try and choose a name that seems solid and permanent. Remember, you'll have to live with this name for years!

THE DEMO REEL

After you've selected a name, you can start thinking about putting together a demo reel of your work. You probably have a collection of animations that you've laboured over, but these may not be suitable for your demo reel.

You have to look at the type of client you want to attract. Do you want to do animation for industrial videos? Corporate videos? Wedding videos? Music videos? You have to make this distinction. It's wise to specialize in something first, and then broaden your horizons as you go along.

Try and view demo reels of other companies in the same field. After you've done this, make up a batch of new animations that reflect the nature of work you wish to get involved in. For example, if you want to base your business on doing animation for corporate video, you should have a demo reel that features bar-charts, graphs, flow-charts, a few logo animations and perhaps a technical animation or two.

Make sure your demo reel has a good mix of 2D and 3D animation. Remember, if a potential client doesn't see it in your demo reel, they'll assume you can't do it (even if you say you can). Keep your reel short (three to five minutes in length), and don't dwell on any particular animation for any long duration (no matter how much you like it), looking at a bar-chart with title builds for 30 seconds can be a *long* time in a demo.

As you go along and do actual work for clients, begin replacing the less exciting animations in your demo with actual paid-for animation. And, by all means, make sure that you spend the money to do a good, professional quality demo reel in a post-production house. Putting together a demo on your home VCR will make your company look amateurish.

Finally, be careful to choose appropriate music for your demo. Remember, you'll be showing this reel to a varied group of people, and while you feel that "Guns and Roses" works perfectly with your work, it may alienate the client who just bought the latest collection of "Love Songs from the 50s". Try and pick music that is light, bouncy, happy, and has some mass appeal.

GETTING OUT THERE



You've saved up a bit of cash, you've got a company name you're happy with, and you've got a professional looking demo reel in hand. Now you've got to get some business. Unless you're extremely well connected, there is no other way of getting clients than the "cold call". Get a phone book, find the companies that are likely to buy your work, and start phoning. It's usually best to start by getting the names of the right people to talk to first, and then phone back another time, asking for that particular person. *Be persistant*. You may not get through to these people in your first or second call, so make sure you keep calling every few days until you do get through.

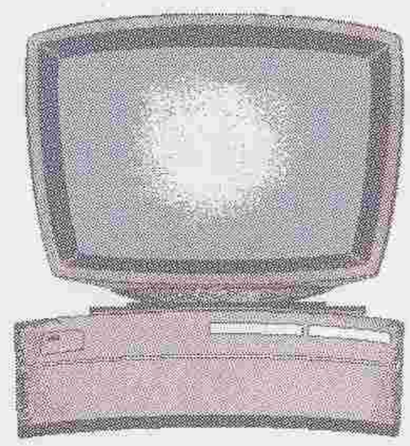
Try to develop a pleasant telephone manner, and try and describe what you do as simply as possible. In fact, it's probably a good idea to write a little script for yourself to follow; once you become comfortable with making cold calls, you can start adlibbing from your script.

Not everyone you phone will be interested, or have time to see your demo reel immediately. Don't be discouraged, this is where commitment comes in. And where there is interest, always remember to follow-up your calls with a mailing that includes a brief description of what your company offers and a business card. This "mailing kit" can be elaborated on as you progress.

CONCLUSIONS

What we've looked at are the basics of setting up a little computer animation company. These steps are probably the most important ones to follow, but don't forget about little details like business cards and stationary, an answering machine or service, and eventually registering or incorporating your company. Try and keep your company affairs separate from your personal affairs, and finally, don't take it all so seriously that you're no longer having any fun.

The Amiga is a very powerful video tool for the price. There is a lot of work out there for people that know how to get it. Buy yourself a few books on business management, marketing and sales and work hard on developing business savvy. This is very important if you want to survive and make a go of it in the business world. Animating is one thing, but business is another. You'll never know if you can hit the target if you don't take aim and pull the trigger. Good luck!



ABOUT THE AUTHOR

Nick Poliwko is President and owner of Pixelight, a company specializing in Amiga animation for industrial and broadcast video. Nick can be reached by writing to Pixelight, 13 Burnfield Ave., Toronto, Ontario, M6G 1Y4, or by phoning (416) 536-8928.





COLLECTIBLE GEMS (CGS)

Specifically set up to be a breed apart! Collectible gems are bootable PD programs that occupy one (or more) disk(s). It seemed appropriate to create a special disk set devoted to this special variety of PD program, saving you the trouble of trying to find them on BBS's and then having to spend an hour or more trying to download. Look for reviews on CGS in future AmigoTimes issues.

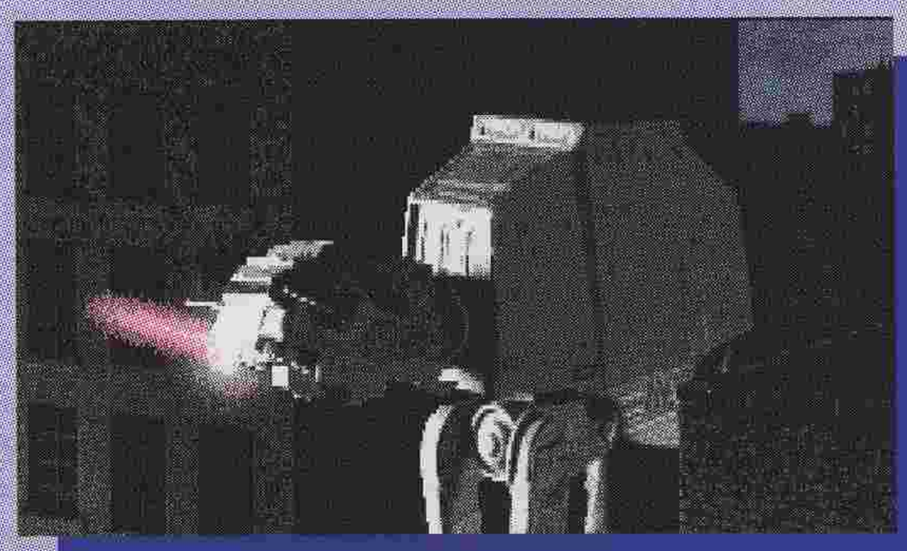
To order CGS, use the subscription form in this issue.
1 disk CGS costs $5.95
2 disk CGS costs $8.95

CGS #1 (2 disks)

WALKER DEMO I

by Imaginetics/Brian Williams

By now this animation is a classic. The animation depicts one of those "Star Wars" Walker robot/tanks lumbering across a wooden desktop in front of an Amiga 2000. Two versions are available, depending on the amount of RAM your system contains. The 2 MB version comes on two disks and the 1 MB version on 1 disk.



CGS #4 (2 disks)

WALKER DEMO II

by Imaginetics/Brian Williams

Here is the follow up to Walker Demo I. If you thought the first one was amazing, you will be stunned by this version. The opening scene captivates you, the sounds tantalize you and then you are trapped, stunned and have to see it again to believe your eyes.

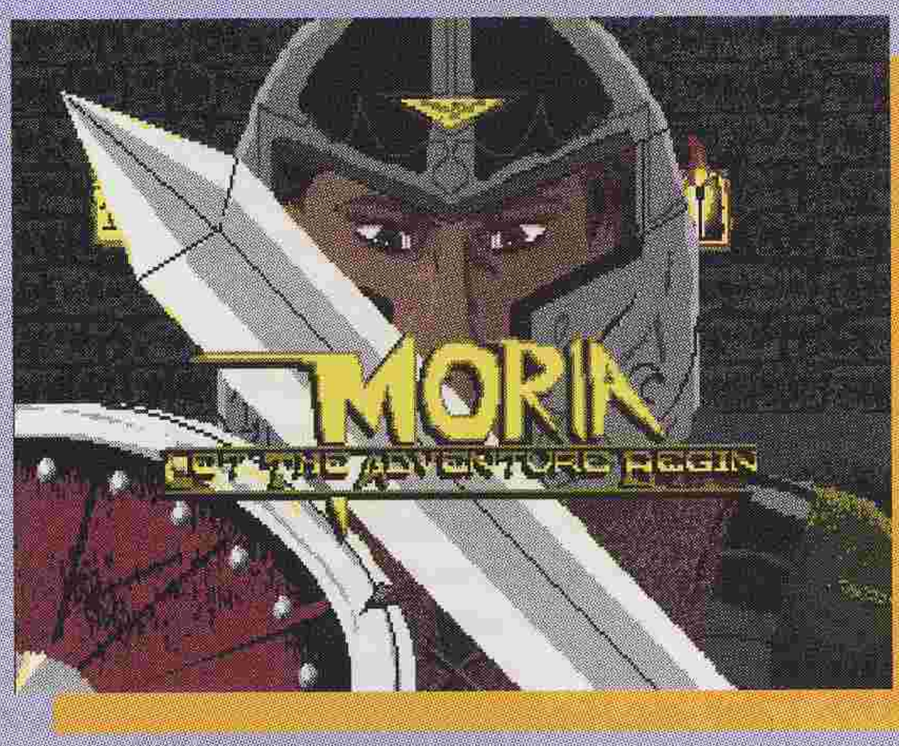
It shows you a bridge, then a rear glimpse of the Walker lumbering through the streets. A helicoper approaches, scanning the area with a spot beam, and when it spots the walker it opens fire with its gun turrets. The Walker realizes whats going on and retaliates. The outcome ... what do you think?.

CGS #2 (1 disk)

MORIA v3.0

by Richard & Brian Henderson

A game based on the idea of "Dungeons & Dragons". Its not very complicated, but it can be entertaining. You are presented with a top view of the game board and all characters appear as tiny people on the screen. The game is entirely mouse driven and easy to learn. You can buy weapons, spells and other articles. You even have the option to haggle over the price of supplies. The objective: beat to a pulp as many beings as possible. The results of your fighting are indicated by verbal representations of what actually happens.

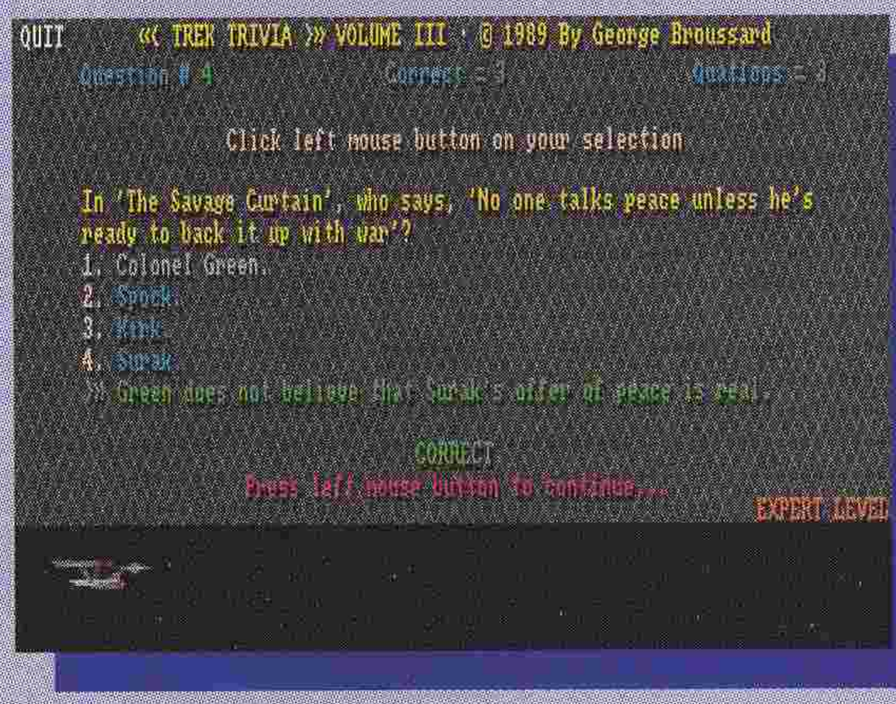


CGS #3 (1 disk)

StarTrek Trivia (vol #'s 1,2,3)

by George Broussard

If you bought issue v1.4 you probably have seen volume 1, v1.0, of this program. The title is self explanatory; trivia questions asked about the ever popular TV series. If you think you know the series inside out, or you want to learn trivia about the series, then this disk is for you. It contains volumes 1, 2, 3 of the new release, v2.0. Its been improved with sounds (from various scenes in the series) that play before each question.



AMIGABASIC CORNER

MIDI USING AmigaBASIC

This month we build a small application that can play notes on an external MIDI-capable device. Nothing too fancy, but the program introduces a new library, the graphics.library, as well as the basics of coding a mouse-driven interface and pseudo-gadgets that we will use next month to create a full featured MIDI voice editor.

MIDI is a communications protocol developed to allow microprocessor based devices to respond to external commands, as well as to link multiple 'intelligent' devices to share the same data path. Initially these devices were all musical, but now there are MIDI driven control devices such as mixers and lighting. Each of these devices can respond individually to the stream of commands that are sent to them because the commands can be addressed to separate channels, and each device can be set to respond to only one or several of these channels as well as certain command preface codes known as SYSTEM EXCLUSIVE codes. (We'll take a look at SYSTEM EXCLUSIVE parameters next time.)

The heart of MIDI is its ability to send data that describes musical events. It does this by breaking down the event into a series of codes that the receiving device can respond to. For a MIDI device to play a note it must know when to start playing the note, which note to play, how hard to play it, and when to stop. In MIDI this would be a series of numbers:

144(note on) 102(the note) 64(note velocity)
128(note off) 102(the note)

THIS MONTH'S PROGRAM

The program uses SER: to ship data out to a MIDI device. The program is mouse-driven and requires no keyboard input. The program flow is:

1) open the needed libraries and build our data arrays
2) invoke Preferences to set our MIDI parameters
3) open our window and draw our pseudo-gadgets
4) open SER: and set some MIDI values
5) wait for a mouse click:
- if it is on the quit button, END (6) the program
- if it is not on a gadget, go back and wait for another mouse click
- if it is on a gadget, go process the gadget then go back and wait for another mouse click

6). END the program: close SER:, the libraries, and the window

THE LIBRARY CALLS & PREFERENCE SETTINGS

There are several library calls used. The two from the dos.library were introduced last month, and are needed to invoke the Preference program to set the serial parameters. When Preferences is invoked the settings should be:

BAUD RATE: 31250 Buffer Size: 512
READ BITS: 8 WRITE BITS: 8
STOP BITS: 1 PARITY: NONE
HANDSHAKING: NONE

The Preferences will be invoked again when the program is quit to allow you to reset the parameters. It is assumed you are using Workbench 1.3. If not, change the ex'SYS:PREFS/Preferences' to read ex 'SYS:Preferences'. If you do not want to try the program with a MIDI device just select cancel at the Preference window.

Instead of using Execute from the dos.library, we could have directly set the preferences settings using a series of other library calls. These would have been:

AllocMem	**to reserve some memory**
GetPreference	**to get the current Preference settings**
CopyMem	**to save off those settings**
SetPreference	**to reset Preference after we POKEd our setting**
FreeMem	**to release the memory when no longer needed**

CopyMem is of course another exec.library call. GetPreference and SetPreference are two intuition.library calls. Perhaps we can get to them in a future article. If you want to try

By Larry Clark

using them now, the notated memory layout can be found in the intuition header files. (The layout was expanded for WB 1.3 so make sure you have the correct version.)

We do need to use a library call from the graphics.library. It is Move& and is very handy for both text and graphics. With Move& you can position the cursor to any pixel co-ordinate in the current window (WINDOW 8) and begin printing. It is more powerful than LOCATE. The call form is:

Move&(WINDOW(8),x%,y%)

We use it in the pseudo-gadgets routines as well as a stand-alone to position our text.

THE SER: DEVICE

To get a MIDI device to respond to the data requires we send it fast enough for the device to recognize it as valid. That speed is 31250 baud. But in AmigaBASIC the maximum baud we can open the COM with is 9600. Perhaps this is because this was the maximum setting on the initial set serial window of WB 1.1. It shouldn't be a limitation, but it is, so in order to send data at MIDI speed we must have a work-around for COM. Luckily, we do. We can open the SER: device directly and let it take its baud rate from Preferences. The form of the open serial device is:

- **OPEN "ser:" for OUTPUT as 1 LEN = 1**

The length parameter is important. If a specific length parameter is not set, then the serial buffer will default to the Preference settings, and will not write the buffer out until it is full or until the SER: device is closed. This can lead to some confusion. The code could be correct, the Preference setting's fine, and yet nothing seems to be happening. By setting the buffer to 1, each byte of MIDI data will be passed to the device as it is sent to the buffer.

READING THE MOUSE

Four lines of the program are the heart of building a mouse driven interface. Two lines are used to "spin its wheels" until the mouse has been clicked:

```
WHILE MOUSE(0)=0:WEND
WHILE MOUSE(0)<>0:WEND
```

The next two lines then read where the mouse was clicked. To simplify the programming, the window is divided into 12 pixel vertical strips and the pseudo-gadgets are placed within one of these imaginary strips. The second line then converts the y pixel co-ordinate into one of these strips:

```
x=MOUSE(1): y=MOUSE(2)
yl=INT((y+10)/12)
```

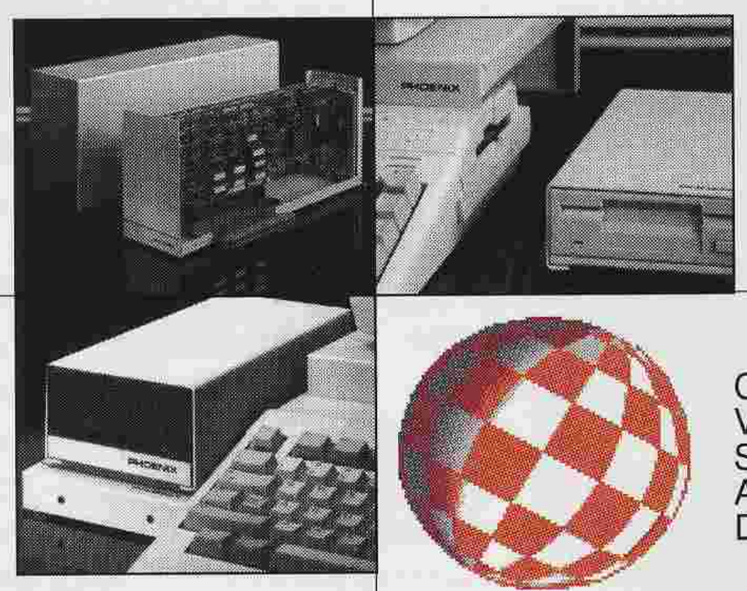
Once the strip is determined we can branch to the code for that line and refine our search to the x co-ordinate only.

A500 A1000 MUSCLE UP! A2000

EXPANSION!

- Two 100 pin expansion slots
- With or without power supply
- Complete auto-config and pass-thru
- Runs all major A-2000 cards
- Attractive design
- Sturdy metal casing

Also GVP Accelerators



FLOPPIES!

PFD-135 external w/ 30" cable
Spring loaded dust door
Compact metal casing
Fully 1010 compatible
PFD-135i internal for A-2000
PFD-235A DUAL Ext. Drive

HARD DRIVES!

CAll FOR PRICING
Visa cards accepted
Shipping and C.O.D. charges extra
All products **1 year warranty**
Dealers inquiries welcome

PHOENIX ELECTRONICS
GREAT VALLEY PRODUCTS
C LTD
MICROBOTICS

DISTRIBUTIONS
DATACORP
P.O. BOX 7
PIERREFONDS, QUÉBEC
H9H 4K8
514-620-6318

Circle 115 on reader service card.

PSEUDO-GADGETS

It is possible to use library calls to create and process gadgets. But why use a library call when AmigaBASIC can do the job? When we were looking at dos.library calls we mentioned the DeleteFile function, but didn't use it because the AmigaBASIC KILL did the same thing.

Here we use two gadgets. One is a slider, the other a button. Both are flexible and can be used in a variety of situations. The slider would be used when a large number of variables could be selected. In the program we set a range of values for the slider and use the mouse to set the value within that range and print it out. Instead of an integer value, we could use that value as an index into a table to select a text value for printing. It will be used as such next month. The parameters passed to the slider routines are:

sx -the x co-ordinate of the start of the slider gadget
sy -the y co-ordinate of the start of the slider gadget
sl -the overall length of the slider gadget
low -the lowest value the slider can return
high -the highest value the slider can return
v% -the integer value returned
mode% -what the slider is to do with the returned value.

This month we just use mode=0 to have the integer printed out. The slider is drawn and initialized with the Drawslider subroutine. It is later selected by clicking on it with the mouse. Once selected the GetSlider and ReDrawSlider are used to first wait for the mouse to be pressed within the slider, then read the movement of the mouse while it is pressed and continually redraw the slider and set v% until the mouse is released.

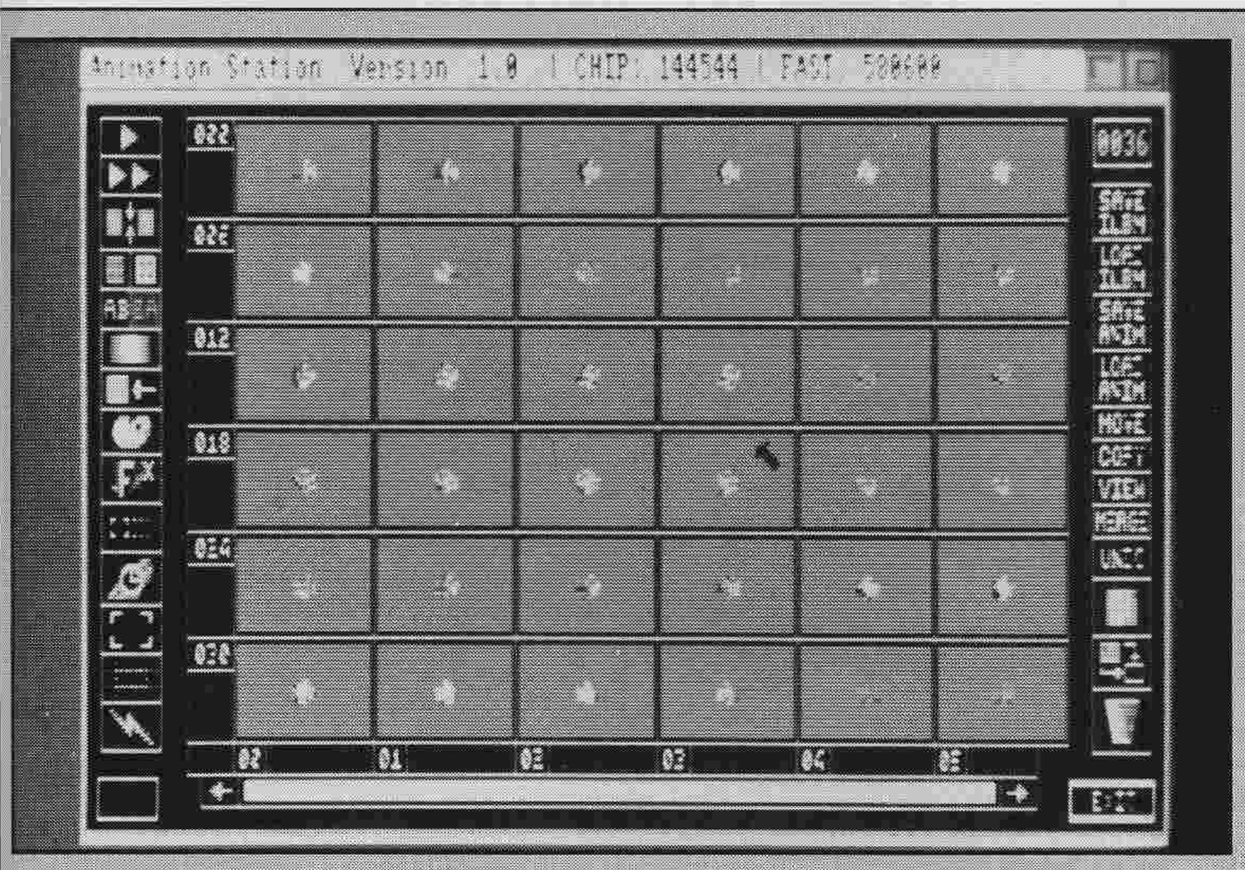
The slider routines are lengthy, but once used in a program can be used to support any number of gadgets. The button gadget has similar parameters:

bx -sets the start of the button area x co-ordinate
by -sets the start of the button area y co-ordinate
bl -sets the overall length of the button area
blw -sets the index into the area for when to select what is printed within the button. This allows us to set up one array to hold data for multiple button areas
v -initializes the button and holds the value of the currently selected button. Where we just have one button that will not change we initialize this to 0.

The Drawbutton routine takes the passed parameters, calculates the size each box should be for the overall length, and draws those buttons. The Getbut determines which button was clicked on within that button area.

A FINAL NOTE

If you try out this program with a MIDI device, make sure the voice you select to play is set to channel 16, or global. The program does not set any channel information and channel 16 is the MIDI channel that will respond to all incoming play note information for the selected voice. Also, don't forget to move the graphics.bmap into your LIBS: directory. ❑



Create Superior Animations with

Animation Station

The OpCode-5 Standard ANIM editor

Storyboard Interface gives Fast Professional Results, in Seconds

- Combine multiple animations into one animation; place one animation on top, behind, beginning or at the end of another!
- Take IFF brushes and define motion paths behind or in front of an animation.
- Merge and over/underlay IFF pictures.
- THOUSANDS of special effects are possible: motion blur, scaling, mosaic tiling, etc.
- Powerful Audio Capabilities—Add 4-voice, stereo sound to your animations!

Storyboard interface works like a word processor for cutting, pasting and manipulating animation frames!

464 Kalamath Street • Denver, CO 80204-5020 • **(303) 825-4144**

Circle 113 on reader service card.

HOSTAGE

RESCUE MISSION

By Rick Broida

Peering into the deep recesses of a deserted filing cabinet in the dark offices of Mindscape, this reviewer, code-name Scout, uncovers a folder brandishing the inviting words TOP SECRET. Though it looks conspicuously like a software manual, I pilfer it for later inspection. Beneath the folder I unearth a disk and am shocked to read what is printed across its label...

Suddenly it dawns on me that I'm holding one of the Amiga's most popular new games. Perhaps I should investigate further in order to better report to my superiors...

My flashlight beam reveals many PCs before settling on an Amiga 2000. Since I've already disabled Mindscape's alarm systems, I decide there's no danger in using their equipment for my report.

I pop the disk in and begin to explore what I have temporarily termed 'Evil Terrorism With Intent to Overthrow the World', but what Mindscape simply calls Hostage.

The disk greets me with a scene of several terrorists seizing an embassy, placing the lives of the workers inside in great peril. Seconds later, a SWAT truck screeches to a halt near the embassy. A crack assault team bursts forth and takes position around the building.

A coded message informs me that it is now my job to command the assault team in the rescue of the hostages. At stake are the lives of those captured; I must rescue them before time runs out and the terrorists take drastic action. At my disposal are six of the best men on the squad; they are the only hope for the innocent.

My rank-lieutenant, captain or commander-has been left for me to decide. I quickly discover that the higher ranks can only be attained after successful completion of the toughest mission. I grudgingly accept lieutenant status and move on to choosing my mission. Training, Target, Ultimatum, Rescue and Assault are the five indistinct options. I humbly select Training (no hostages).

Stage One of the mission is to position three marksmen- code-names Delta, Echo and Mike-in strategic locations around the embassy. A map of the area designates where each sharpshooter should be. My job becomes readily apparent: I am to run them to their posts while avoiding terrorist gunfire. To the enemy's advantage are spotlights with which they target my men. To my advantage is the team's agility. In an instant one can jump over a wall or duck into a doorway.

My first command decision is that Delta will go first. He peeks out from behind a door and darts down the street. Snipers mow him down in a flash. Hmmm. Maybe he ran when he should have ducked. Having learned at Delta's expense, I manage to get Echo and Mike into position.

A minute later I am transported into Stage Two, in which my other three assault team members come into play. Their task is to repel the side of the embassy and gain entrance by crashing through a window. Before they can do this, however, my sharpshooters must sight



every window from their respective sides of the building and pump lead into the shadows of any terrorists that might appear. The sequence is trite and dull, but I quickly learn that failing to do it will lead to fatal results for the roof team, since the terrorists will cut their ropes.

Stage Three begins with the team member that gains entrance to the building. A small floor plan displays his location and the locations of the terrorists on that floor. I find it difficult to control my man's movements, and suddenly I'm face to face with a terrorist! A quick press of the button brings his assault rifle to life, sending the mercenary to the floor in a crumpled heap. The first exciting moment of the game.

Darting through rooms and eventually to the ground floor, I easily down the remaining terrorists and escape. Since there were no hostages in this mission, the simplicity was predominant.

Many hours and twenty-odd missions later, having had no further success with Hostage, I examine the TOP SECRET folder. It is indeed the instruction manual, and it does clear up some vital facts about the game. Reading it beforehand would have helped.

Finishing a mission, whether successfully or not, generally left me underwhelmed. The only excitement was in Stage Three, and even then the game merely escaped from boredom. Hostage is indeed an original concept in gaming, but original concepts do not always make a great game. My comrades have sent reports commending Hostage, but I fear I shall have to be the first to submit a disparaging report. Hostage looks and sounds adequate, but the gameplay is slow and unexciting. US $44.95. ❑

(See PRODUCT INDEX for more contact information on page 109)

OPERATION WOLF

By Joe DiCara



Operation Wolf by Taito represents the next generation of Amiga action games. Taito's programmers have made good use of Amiga's hardware to provide a sophisticated game with better sound effects, music, graphics, animation, extended game play, and three-dimensional action. Every effort has been made to bring the sights, sounds, feel and game play of Operation Wolf, the number one world-wide arcade hit, into your home. If you are one of the thousands hooked on the coin-operated original, the Amiga version will let you down gently from your habit and save your bank account mucho quarters.

For those who may not have seen the game, the scenario is a commando-style search, destroy and rescue mission. South American rebels have kidnapped innocent people and are holding them hostage at a jungle hideout. Your mission is to find and free the hostages, while you neutralize and eliminate the enemy. This involves shooting everything that moves. The result is a non-stop, action packed, Rambo-style adventure.

There are six missions or levels wherein you, as lead commando, must overcome all types of enemy equipment and guerilla soldiers. Mixed in, to challenge your aim and keep your trigger finger (actually your mouse finger) honest, are various civilians, including the hostages. Other types of targets, some of which you'd usually try not to shoot, provide additional weapons, temporary unlimited firepower, and a bottle containing an energy restoring drink. All these available targets, with all their sound effects, gunfire and explosions, plus all the 3-D motion, challenge the game player as perhaps no other video game before.

Upon boot-up, the fast paced stereo music instantly informs you on the character of the game you've just loaded. If you have not grabbed your steel helmet and flack jacket by the time the paratrooper starts to descend, well, you just aren't paying attention. If you own an Amiga 500 or 2000 you might have noticed the power light has dimmed as the game loads, indicating that the sound filter is shut off. This improves the sound, and is an example of the designers' efforts to capitalize on the Amiga's hardware.

The artwork and animation in the introduction are so good that you might start looking for the coin slot. While the startup action is different from the original, the quality and detail are every bit as good and colorful. After a pause to load more data, the main menu and scenario screens are presented. Soon a voice and typed instructions inform you of your initial task. The first mission is the destruction of the Communications Center. You are armed with six magazines and six grenades. This first mission is all the basic training you'll ever get. You must quickly learn to identify friend and foe, and the correct weapon to use. At this level you will be confronted by armored cars, troop trucks, paratroopers, and helicopters. Running back and forth, and toward you will be three or four different types of enemy soldiers, little kids (what they're doing inside the compound I cannot figure out), chickens and vultures. While you might not be inclined to shoot those poor little chickens and the vultures, you must, especially if you hope to see the end of the game. You see, by shooting them you are rewarded with extra ammo and weapons.

Back to the action. Remember you do have an objective: the Communications Center. So as the buildings and shacks scroll by please shoot out all the windows possible. Eventually you'll shoot up the buildings and zero out all the enemy's current military strength. When that happens you are shown a still graphic showing the communications building and an exploding radar antenna, while a voice congratulates you on successfully completing the mission at hand. Now, you might be inclined to relax here, but beware! Every once in a while as you go from one mission to the next you might hear a verbal warning announcing that the enemy has spotted your position. Soon you come under attack by many of his helicopters. It's not that great a threat, but it is a nice touch that adds some randomness to the game.

Operation Wolf is very challenging, but also very frustrating. There is so much action that at first it seems you'll never make it past level one. Keep trying, soon you'll be rescuing the hostages and flying off to freedom.

The game is on two disks, and runs on any 512K Amiga using KickStart 1.2 or greater. There is a brief manual describing loading and game play. All are enclosed in a colorful package that includes a cartoon describing the thrilling action awaiting you. ❑

AMIGOTIMES
PROGRAMMING

PART 2: AMIGA DOS TUTORIAL

This time around, we'll briefly cover all the directories found on the main Workbench 1.3 disk. Don't worry, we'll cover the individual items in depth in later articles. As we covered the first eleven C directory commands last issue, this time we'll also go over the next 22 C directory commands in the same format.

Here are the directories containing files on the 1.3 Workbench disk: Devs, Fonts, Libs, L, Prefs, System, S, Utilities.

The following directories do not contain any files on the 1.3 Workbench disk: Empty, Expansion, T, Trashcan.

You may have never seen some of these directories or their files, since some of them lack a Workbench icon. Most experienced Workbench users know that most of these files are normally left alone anyway. Why have them? The Amiga needs them for operating the Workbench environment, which is disk-based instead of ROM-based. An obvious advantage to a disk-based system is the ease in upgrading to an improved version. We did go from AmigaDOS v1.0 to 1.1 to 1.2 to 1.3 - all these files can be individually modified. Any user having experienced v1.0 will be quick to point out the many improvements in later versions of AmigaDOS.

What files must you alter to customize your Amiga? The Workbench files that you can change with a text editor are: Devs/MountList; S/CLI-Startup, S/Shell-Startup, S/Startup-Sequence, S/Startup-Sequence.HD, and S/StartupII. Attention! Never alter your master copy of Workbench! Only work on the S directory startup files on a backup copy of Workbench, in case you make a catastrophic error that stops the disk from properly loading.

Anyone that has used either ASDG's VD0: or the 1.3 RAD: recoverable RAM drive, knows that the MountList needs to be changed for either VD0: or RAD: to be recognized by the Amiga's software. Additionally, the S directories dealing with Startups are changed when you wish to add programs like FastFonts (to speed up displayed text, now included with 1.3, although sold with Microsmith's TxEd+ editor), conman (for command line history/editing far superior to that compared with 1.3's history/editing), dmouse (to speed up mouse movements, mouse/screen blanking, etc., or FaccII (a floppy disk caching program from ASDG light years beyond the capabilities of the 1.3 addbuffers program) with your other software. Remember, since the Amiga multitasks, you can run more than one program at the same time! Look at your S/Startup-Sequence to see how FF (FastFonts) is added, and to see how Commodore did it. Some of these programs must be run, which returns control of the CLI back to you, while others don't. A general rule-of-thumb is, run (or Arun - the ARP version of run) any program as a background task unless the documentation specifically tells you not to (like Steve Tibbett's 3.20 VirusX program).

The ARP (short for the AmigaDOS Replacement Project) commands are assembly language replacements for the AmigaDOS BCPL commands, which are smaller in size and have fewer bugs. I use both AmigaDOS and ARP versions with the shells I normally use. There are ARP commands compatible with either AmigaDOS 1.2 or 1.3 commands (which have extra protection fields), with the 1.3 version being quite simple for even a novice to install! These ARP commands are available on many Bulletin Board Systems around the country, and are worth the time spent checking them out. If space wasn't at such a premium this issue, we would spend a lot of time talking about ARP (maybe next time?).

Since we're only skimming the Workbench directories for now, we'll jump to the 22 C directory commands, starting with Dir and ending with Join.

DIR

Usage: dir options
Options: A (or All), D (or Dirs), Files, I (or Inter)0
Example 1: dir df0:c
Example 2: dir opt a
Example 3: dir opt d
Example 4: dir opt i
Example 5: dir
Example 6: dir files

Dir is used to display the list of directory files. The first example will give a listing to the screen of all the files found in the C directory of the disk currently in drive df0:. The second example will give a listing of all files, and their respective directories, on the current disk. Example 3 will give a list of only directories found on the current device. Example 4 gives a listing of files, in the interactive mode. When in the interactive mode you can enter most AmigaDOS commands, by entering C (or com) at the question mark prompt under each file. The fifth example will give a simple directory listing for whatever files are found in the current directory - whether it is df0:, df0:c, df0:s/s1, etc.

By Mike Hubbartt

The last example is used to show only directory files, and not the subdirectories.

DISKCHANGE

Usage: diskchange drive-number
Options: none
Example 1: diskchange df1:
Example 2: diskchange df2:

This command will inform the Amiga when a new disk is inserted into a disk drive. This command must be used when you use a 5.25" disk drive! The first example informs the system that a new disk has been inserted into drive df1:. The second example informs the system that a new disk is in drive df2:.

DISKDOCTOR

Usage: diskdoctor drive-number
Options: none
Example 1: diskdoctor df1:

This command helps you salvage corrupt files from a bad floppy disk. When using diskdoctor, you will be prompted to insert the bad disk in the drive you specified when invoking diskdoctor, and it then will find and delete corrupt files from the disk; you will next need to copy the good files over to another disk, and then must reformat the bad disk before reusing it. The first example will have diskdoctor run on the disk in drive df1:.

ECHO

Usage: echo "text string"
Options: Noline, First, Len
Example 1: echo "Hello AmigoTimes"
Example 2: echo "Hiya readers!" noline
Example 3: echo "AmigoTimes" first 6
Example 4: echo "Buy AmigoTimes" len 10
Example 5: echo "Buy AmigoTimes" first 10 len 4

This command causes a specified message to be sent to the screen. Example 1 will display the message "Hello AmigoTimes" on the screen. Example 2 will display its message, but not supply a newline (carriage return) automatically. Both First and Len options allow displaying a substring of the text string, as seen in examples 3, 4, and 5. Example 3 will display Times to the screen, as first 6 means to start echoing at the 6th character of the string. Example 4 will display AmigoTimes to the screen, as it starts from the right end of the string and shows 10 characters of the entire string. Example 5 will show Time on the screen, as this example starts printing at character 10, for a length of 4 characters. This command is mainly used in script (or batch) files.

ED

Usage: ed filename
Options: FROM, SIZE
Example 1: ed from df0:s/startup-sequence
Example 2: ed df1:s/testfile
Example 3: ed textfile size 2000

This is a screen editor program used to change a text file. Ed cannot work on source files with binary code. This is unchanged from Workbench 1.2. In Example 1, Ed opens the file startup-sequence in df0:s for editing. Example 2 shows Ed opening the file called testfile, without using the FROM option. In Example 3, Ed will open the file textfile, specifying the Ed text buffer to be 2000 bytes.

EDIT

Usage: edit filename options
Options: FROM, TO, WITH, VER, OPT
Example 1: edit FROM df0:s/text
Example 2: edit df0:s/text
Example 3: edit df0:s/text VER RAM:erfile
Example 4: edit df0:s/text OPT P50W200

Similar to Ed, but is instead a sequential line editor that proceeds in a mostly forward direction (see example 4 for further information). This editor cannot create a new file, as Ed can, but only edit a pre-existing one. This is unchanged from Workbench 1.2. Example 1 opens the file called text, for line editing using the FROM option. Example 2 opens the same file as Example 1, except it doesn't use the option FROM. In Example 3, the file called text is opened, with the error messages for the file being sent to another file called erfile in the RAM disk (No option specified, and the screen receives this information). Example 4 opens the file called text for editing, setting the number of previous lines available for editing to 50 (the default is 40) and the maximum line length to 200 characters (the default is 120).

ELSE

Usage: else
Options: none
Example 1: if exists df0:c/eval
echo "this AmigaDOS 1.3 command will do simple arithmetic for you"
else
echo "are you still using AmigaDOS 1.2?"

This is a command used for conditional execution of procedures. This works in a script file along with the IF and THEN commands. It provides an option for execution if the test performed by the IF command fails. This command is unchanged from Workbench 1.2. In Example 1, if the C directory command called eval exists, then a message is displayed to the screen from the first echo, and if the eval command does not exist, another message is displayed querying the user if they are still using AmigaDOS 1.2.

ENDCLI

Usage: endcli
Options: none
Example 1: endcli

This command terminates the current CLI or 1.3 Shell, as displayed in Example 1.

ENDIF

Usage: endif
Options: none
Example 1: endif

This command, as shown in Example 1, is used to end a group of statements inside an IF conditional block, inside a script file. Do not use the full path name from the startup sequence with this command! This command is unchanged from Workbench 1.2.

ENDSKIP

Usage: endskip
Options: none
Example 1: endskip

This command in Example 1 is used to end a skip group, inside a script file.

EVAL

Usage: eval

Options: to, Lformat
Example 1: eval 3 + 5
Example 2: eval 5 * 7 to df0:math/results
Example 3: eval 5 / 7 Lformat="The result of 5/7 is %N*N"
Example 4: eval 15 - 6
Example 5: eval 15 * -2

Eval (short for evaluate) will display the results of arithmetic operations on two numbers. Eval can be used alone or in script files. The possible operations are:

+ Addition - Subtraction * Multiplication / Division & And | Or ~ Not xor Exclusive Or mod Modulus << Left Shift >> Right Shift - Negative eqv Bitwise Equivalence.

The Lformat option lets you choose a different number base than the standard base 10 of the decimal system. To specify a different number base with Lformat, use:

%C for character
%N for decimal
%X for hexidecimal
%O for octal.

You must specify the number of digits to display, when selecting either the hexidecimal or octal bases (i.e. %X4 will have 4 hexidecimal digits output).

Example 1 will display the answer 8 as shown below:

2>eval 3 + 5
8.

Example 2 will send the answer 35 (5 x 7 = 35) to the file results, in directory df0:math. Lformat also allows a string to be printed, along with the results, as is done in Example 3. The *N at the end of the string within the pair of double-quotes, provides a newline (carriage return). Example 4 will display the answer 9 (15 - 6 = 9), and Example 5 will produce the answer -30.

EXECUTE

Usage: execute file
Options: none
Example 1: execute df0:batchfile1

Example 1 calls for execution of the file found on the disk in drive df0: called batchfile1.

FAILAT

Usage: failat values
Options: values such as 5, 10, 20, etc
Example 1: failat 10

This command is unchanged from Workbench 1.2. This command set the failure condition value for a script file. Example 1 causes the script file to abort if an error code greater than or equal to 10 is received from the system.

FAULT

Usage: fault error-number
Options: all error numbers
Example 1: fault 105

This command is unchanged from Workbench 1.2. This command will display the error message for a specified error number. Example 1 will produce the following response from the system: Fault 105: task table full.

FF

Usage: ff options
Options: -O, -N, font
Example 1: ff -O
Example 2: ff -N
Example 3: ff font

FF is the commercial program called FastFonts, from Charlie Heath of Microsmiths, and it speeds up text display to an acceptable level in text editors. The -O option shown in Example 1 will turn on fast fonts, while the -N option in Example 2 will turn it off. Example 3 demonstrates how to substitute a new plain 8 by 8 font, using ff.

FILENOTE

Usage: filenote FILE filename COMMENT comment-string
Options: none
Example 1: filenote FILE df0:Amigotext COMMENT "text file dealing with AmigoTimes articles on productivity software"

Example 1 shows how to attach a comment string to a file called Amigotext, on the disk in df0:. This text is only displayed when using the List command on files in a directory.

GETENV

Usage: getenv variable-name
Options: none
Example 1: getenv tut

This command will fetch the value for the environmental variable that is set with the Setenv command. This variable is currently stored in the ENV subdirectory in RAM. Example 1 will return the value currently stored in RAM:ENV/tut.

ICONX

Usage: iconx
Options: none

This command lets you create and use script files (AmigaDOS commands normally run only from the CLI) from Workbench. The procedure to follow is: a) create an ASCII script file with a text editor; b) attach a project icon to the file; c) while in the Workbench window, click once on the icon, and then hold the right mouse button down, and select the Workbench Info menu item, and change the default tool to c:iconx, then click on the save gadget; d) now double click on the new icon to run the script file.

IF

Usage: if options
Options: NOT WARN ERROR FAIL EQ GT GE VAL EXISTS
Example 1: if not
Example 2: if warn
Example 3: if error
Example 4: if fail
Example 5: if eq
Example 6: if gt
Example 7: if ge
Example 8: if val
Example 9: if exists

IF is a command that allows conditional selection of options within a script file. All IF does is let you have more than one choice in a script file. The first example checks for a negative condition, if a tested value does not equal 3 (if not 3) or if df0:test does not exist (if not df0:test), then do something. Examples 2, 3, and 4 all deal with testing the returning values for the previous operation: for warn, the value of the returning code is >= 5; for error, the value of the return code is >= 10; and for fail, the value of the return code is >= 20. In Examples 5, 6, and 7, string comparison testing is either EQual (eq), Greater Than (gt), or Greater than or Equal to (ge). For Example 8, a comparison for testing can be based on numeric values, instead of string comparisons as in Ex-

Figure 1:

```
Mounted Disks:
Unit  Size Used  Free  Full Errs  Status      Name
df0: 837K 1722   36   97%   0  Read/Write  wshelldisk
ram:194K  408     0  100%   0  Read/Write

Volumes available:
RAM Disk [Mounted]
wshelldisk [Mounted]
```

amples 5 - 7. For Example 9, you are checking to see if something exists (if exists df0:c/eval tests for the existence of a file called eval).

INFO

Usage: info
Options: device numbers
Example 1: info
Example 2: info df0:
Example 3: info df1:

Info provides disk/volume information concerning the size, blocks used, blocks free, percent free, errors, Read/Write status, and names for any disks in your disk drives (and also for the RAM drive). Info also provides a list of available volumes mounted and unmounted. The format of information is shown in Figure 1. The 0 Free and 100% Full for the RAM Disk is not an error. The RAM Disk is always full, as it expands to accommodate whatever you load into it! Example 1 above will give this information for a system with a single disk drive. Example 2 will obtain the information for only device df0:, and Example 3 will obtain the specific information for device df1:.

INSTALL

Usage: install drive-number
Options: Noboot Check
Example 1: install df1:
Example 2: install df1: Noboot
Example 3: install df0: Check

Install changes the boot block of a disk in a specified drive. Example 1 makes the disk in drive df1: a bootable DOS disk. Example 2 makes the disk in drive df1: a DOS disk, but NOT bootable. In Example 3, the disk in drive df0: will be checked to verify if its boot block is standard.

JOIN

Usage: join file-1 file-2 options final-file
Options: AS TO
Example 1: join file1 file2 as file3
Example 2: join file1 file2 file3

This command joins together files, with a maximum of 15 separate files. Example 1 joins the files named file1 and file2 together, and the new file is named file3. The AS and TO options are the same thing, and may be used interchangeably. Example 2 does the same as Example 1, except the optional word AS is not absolutely needed for it to work.

NEXT TIME

22 more C directory commands, and deal more with editing a Workbench script file. ❑



Progressive Peripherals & Software, Inc. Presents

FrameGrabber

256

Real Time 256 Gray Scale
16.7 Million Color Static Digitizer

- Captures images in 256 gray scales in real-time from any NTSC source, in 1/30th of second.
- Includes color wheel for digitizing static images in 16.7 million colors with a black & white video camera.
- Border, DateStamp, Mirror, and MultiExposure modes. Exclusive 50X Digital Oversampling for "better-than-live" images.
- Quickly and easily Zoom, Reduce, and Stretch images to any scale or size. Advanced image processing techniques are used to create scaled antialiased images without "jaggies."
- Visual Image Delta system detects, quantifies, and displays any difference between two images. Adjustable threshold, three types of output, using either a master image or running comparison.
- Supports a wide range of image file formats, including IFF, ANIM, DV21, IFF24, RAW, IMG8, and RGB.
- Four RCA input jacks allow use with RGB color camera output for digitizing static images in 16.7 million colors, or four separate programmable B&W inputs.
- Supports all Amiga display resolutions, up to 1008X1023. Full 8-bit monochrome (256 grayscales) and 24-bit (16 million color) image processing system.
- Powerful Pseudo Color control system for colorizing your Black and White images. Enhance image details using color or create special effects instantly. An unlimited number of color tables can be saved and reused at any time.
- Full printer support for the Amiga 1.3 printer drivers. You can print full screens or selected areas, with zoom, reduce, and stretch, in black and white or in 4096 colors.

464 Kalamath St, Denver, Co 80204-5020 • (303) 825-4144

Circle 113 on reader service card.

AMIGOTIMES PROGRAMMING

An Introduction To

MODULA-2

Part Five: Pointer Variables

In this installment of our series on programming in Modula-2, we'll wrap up our discussion of modularity, and begin discussing POINTER variables, dynamic memory allocation, and lists. As discussed in the previous installment, there are three types of Modula-2 MODULEs:

- DEFINITION MODULEs, which contain type definitions, global variable declarations, and the description of PROCEDURE code.

- IMPLEMENTATION MODULEs, which contain the actual code for the PROCEDUREs that were declared in the corresponding DEFINITION MODULE. DEFINITION MODULEs and IMPLEMENTATION MODULEs always come in matched pairs. IMPLEMENTATION MODULEs may also contain some initialization code that is executed at the beginning of any program that imports routines from that IMPLEMENTATION MODULE.

- MODULEs, which contain the main program logic that defines the execution of a program. Each completed program has only one main MODULE.

When a DEFINITION MODULE (for example, BlockIO.DEF) is compiled, it creates a symbol file (BlockIO.SBM). That symbol file is checked whenever any other MODULE imports a routine that was declared in the DEFINITION MODULE. The compiler checks the code in the calling MODULE to be sure the call to the imported routine is correct; it checks the name of the PROCEDURE, number and type of parameters, and expected result field types.

This compile-time checking has two big advantages. First, it assures the programmer that he/she has not made simple errors when calling procedures, usually in the types of the parameters. Most other languages do not check the parameter list during the compile phase. Errors caused by incompatible types in a call to an external routine often cause a program crash and the associated Guru Meditation.

Second, it allows routines to be defined during the program design phase, and then 'called' by other parts of the program, even before the actual code for the routines has been developed. This feature lets the programmer "walk through" the code, looking for omissions or inconsistencies. The program can be more accurately designed and specified, before lots of code has been written.

Note that although a MODULE can 'call' a code that has not yet been written, that code will not link, and will not be executable. The syntax is checked at compile time, but that does not mean that you can actually use the program. All imported routines must be completely written before the program will successfully link.

Breaking up programs into several MODULEs has other advantages, especially when it comes to debugging the program. Simpler functions can be defined, coded, and tested before the more complex functions are complete. Because the simple functions, upon which the complex functions rely, are fully debugged, the programmer can concentrate on the logic of the complex functions without having to worry about whether or not the simple functions really work.

Finally, modular program structure allows for the easy reuse of routines. This is especially important when creating long or complex routines. Once the routine is completed and debugged, it can be used in any number of programs.

MEMORY ALLOCATION

In the last few issues, we've touched on most of the features of the Modula-2 language. One feature that was used, but not explained, involved the allocation of memory. Now that we've covered enough of the basics of the language, we can discuss allocation of memory in more detail.

In most computers, the Amiga included, memory can be thought of as a list of sequential cells. Each cell holds one byte of data, and can be accessed by its unique address.

Different variable types take up different amounts of storage:

By Jim Shields

- A BOOLEAN or CHAR variable takes up one byte of storage. Some SET variables and enumeration type variables also take up one byte of storage.

- Some SET variables, subrange variables, BITSET, CARDINAL, and INTEGER variables take up two bytes of storage.

-Other SET variables, pointers (to both variables and PROCEDUREs), LONGCARD, LONGINT, PROC, and REAL variables take up four bytes of memory.

- ARRAY variables use an amount of memory equal to the number of elements multiplied by the size of the base element type, rounded up to an even number of bytes.

- RECORD variables use an amount of memory equal to the sum of the individual fields, rounded up to an even number of bytes.

When you declare a variable in a MODULE, the compiler automatically sets up code to allocate the correct amount of memory for that variable.

ADDRESS VARIABLES

Sometimes it is useful to know the address in memory of a particular variable. For example, in the previous installment of this series, the example program used the following routine:

```
PROCEDURE BlockWrite(VAR F : File; A : ADDRESS;
Len :
          CARDINAL; VAR BytesWritten : CARDINAL);
VAR
      Adr : ADDRESS;
      Count : CARDINAL;
      FileError : BOOLEAN;

    BEGIN
    Adr := A;
    Count := 0;
    FileError := FALSE;
    WHILE (Count < Len) AND (NOT FileError) DO
        WriteChar(F, CHAR(Adr^));
        IF F.res = done THEN
            INC(Count);
            INC(Adr)
        ELSE      FileError := TRUE
            END;
        END; (* WHILE *)
        BytesWritten := Count
    END BlockWrite;
```

This routine writes the contents of a variable to disk. Note that it doesn't care what kind of variable it is working with, all the routine needs is the memory address and the size, in bytes, of the variable.

The routine BlockWrite uses a variable of type ADDRESS to specify the memory address of the variable that is to be written to the disk file. Variables of type ADDRESS are used whenever the routine either doesn't know or doesn't care what kind of variable is being passed in or out. There aren't many times that a programmer would need to use an ADDRESS variable, unless the code was for low-level operations (like BlockWrite).

The variable type ADDRESS is not part of the standard definition of Modula-2. In the Benchmark implementation, the definition for the variable type ADDRESS is contained in the pseudo-module SYSTEM. SYSTEM contains the definitions for machine dependent entities, including the ADDRESS variable type, the function ADR, which returns, in a variable of type ADDRESS, the address of a given variable. It also includes the function TSIZE, which returns the size (in bytes) of a variable type.

POINTER VARIABLES

While the definition of the ADDRESS variable type is not part of the standard definition of language, Modula-2 does contain a mechanism for defining variables that contain addresses: POINTER variables. The syntax of a pointer definition is:

```
TYPE
    <pointer type> = POINTER TO <type>
```

or

```
VAR
    <pointervar> : POINTER TO <type>
```

Where <type> is any valid type, including user-defined types, such as RECORDs.

Basically, a POINTER variable contains the address of that variable in memory. This is an important concept that is sometimes difficult to grasp. A POINTER does not contain a value that is particularly useful; it only contains the address of ("points to") an entity that does have a useful value.

To reference the entity that is pointed to by a POINTER variable, you must place a circumflex (sometimes called a caret) after the pointer variable. Thus, if we had the P, defined as a POINTER TO INTEGER, then P^ would refer to the INTEGER variable that P points to.

A common use of POINTER variables is in the creation of lists. Lists are made up of one or more elements, sometimes referred to as 'nodes'. Each element contains two portions: a data portion and a linkage portion. The data portion contains the actual data that is to be manipulated, and the linkage portion contains POINTERs that allow the individual elements in a list to be arranged in relation to one another.

Sometimes, when we want to keep track of several values of the same type, an ARRAY will be used. But if you run out of elements in the ARRAY, you're out of luck. Conversely, if you have far more elements in the ARRAY than are needed, you're wasting memory.

Lists solve both these problems. Each element in a list is allocated separately, whenever it is needed, and is then linked into the list. As long as there is enough memory, you will never run out of elements in the list (like you will in an ARRAY). A list also conserves memory, because it uses only as much memory as is needed to hold the data (with just a little overhead for the link pointers).

Lists are declared in terms of the elements that comprise

them. When declaring a list element in a MODULE, a RECORD format is usually used. This month's example program, ListDemo.MOD, demonstrates some of the things that can be done with a simple linked list. ListDemo.MOD contains the following definitions:

```
TYPE

    NameList : POINTER TO ListNode;

    ListNode = RECORD
        Name : ARRAY[0..35] OF CHAR;
        NextName: NameList;
    END;
```

A ListNode RECORD contains two fields: Name (the data portion of a list element) and NextName (the linkage portion). NextName will either point to the next element in the list, or will be NIL. A NIL pointer has no data record to point to, it points to nothing. When an element's link pointer is NIL, that element is the last element in the list.

In the demonstration program, we also have a variable, MasterList, which is of type NameList. This variable points to the beginning of the list. If MasterList is NIL, the list is empty.

It is important to note that declaring a pointer variable does not automatically allocate space for whatever that variable is supposed to point to. You must explicitly allocate memory for the data record that is to be pointed to by your new variable. In ListDemo.MOD, the routine NewElement does this. You pass in an uninitialized pointer variable and, if there's enough memory, the routine allocates a block of memory and points your pointer to that block.

Sharp-eyed readers will notice that I used the ALLOCATE routine from the module Heap, rather than the standard module Storage. Memory allocated by routines in Heap is kept track of, and is released at the end of the program by a simple call to the routine FreeHeap. This is a cheap way of making sure that any memory that the program allocated will be released.

Aside from the allocation routine, ListDemo.MOD demonstrates two common list operations: element addition and list traversal. The routine AddElement adds a new element to the list, and the routine PrintList traverses (travels down) the list, printing the contents of the Name field of each element. Because of the way AddElement adds the elements, the list is always in alphabetical order.

As with most of the demonstration programs presented here, ListDemo.MOD is intended to give you a place to start. Study the routines, especially NewElement and AddElement. Try to trace through the logic on your own. Linked lists are tricky things to grasp at first, and will require some studying to master. Once you think you understand what is contained in ListDemo, try adding the functions FindElement and DeleteElement.

If you have any questions or comments, you can send mail in care of AmigoTimes, or via E-Mail. ❑

People/Link: RATKING
CompuServe: 72777,3265



Circle 197 on reader service card.

The Amiga Advertising Campaign

(continued from page 13)

out there buying it. The Amiga is as professional as any professional unit on the market. The fact that you can put this together in your house for a couple of grand, get yourself a printer...with all the right software, it's unbelievable, there is no other computer out there that can give you this. It is really unbelievable that something like this has been so quiet for so long.

AT: We Amiga owners have wondered that a long time.

EE: It's like a Sleeping Giant and it's going to explode. I think this Christmas you guys will know. I think that if by January there's not a big awareness about it or people don't know about it then we didn't pull this off, but I think that we will and it will be very big. I think the TV alone is going to be unbelievable! Print is great, it's so strong. I was just looking at the pictures this morning, I'm putting all the ads together now, and they're going to be so strong. The stories are so great, you can't not get into them. We are going to be running them in 'Time', we're trying to get into 'Life' and I think we are also trying to get into 'Newsweek', so we're not playing around.

AT: I had an opportunity to see some of the pictures that Brad Guice was doing for the campaign. What was it about his particular style that you felt was right for the Amiga campaign?

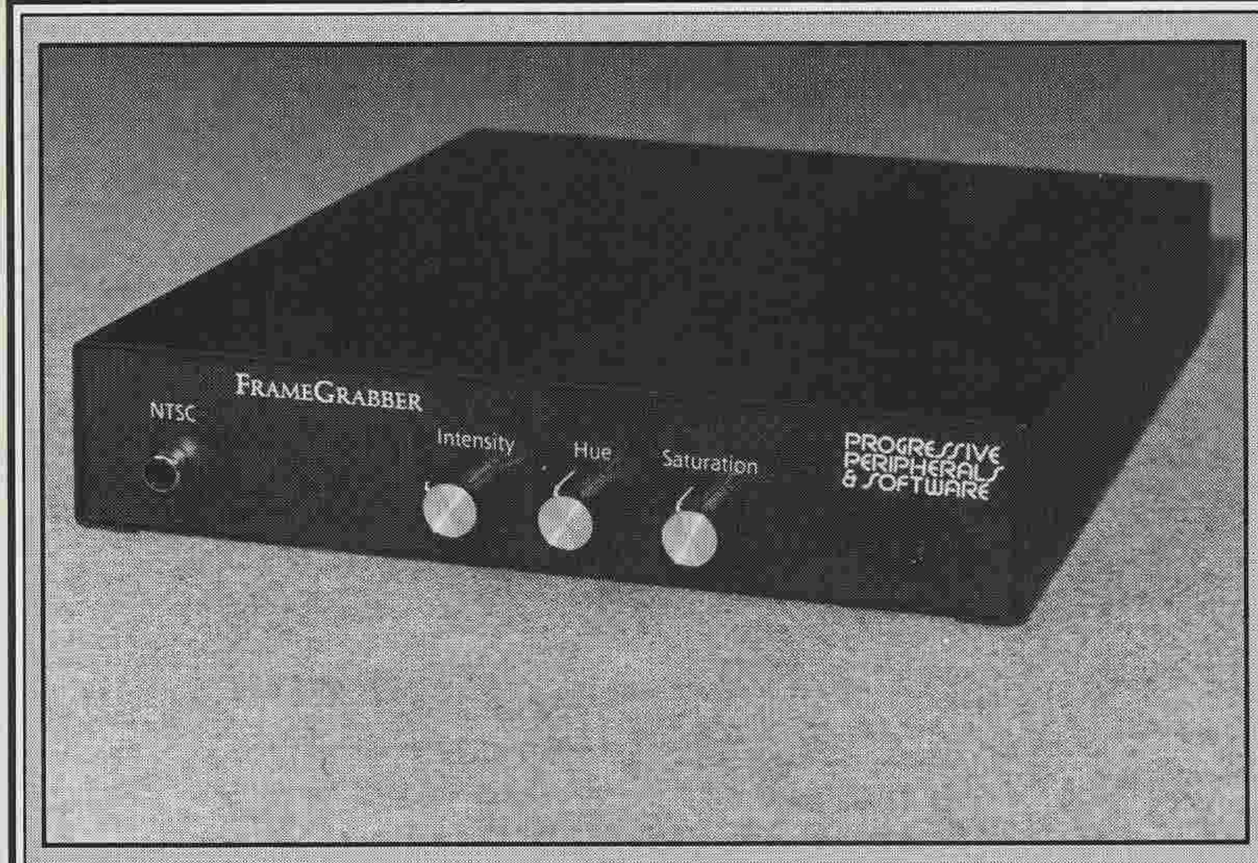
Amiga Amiga Amiga Amiga

EE: Brad is great! The first couple of days I was a little nervous because he's a real California type of guy, very artsy, very laid back, where I'm the complete opposite. I'm very intense and I'm very hyper. So I was trying to speed him up and trying to get him to do his thing, and he was just trying to hang back and do his thing at his own level. After about four or five days we got it together and got it in sync. His still life background is great. He had done a lot of still life, table top shooting. Then he decided to go off and do portraiture. He took that graphic beautiful still life lighting sense and brought it to portraiture and maybe put a little twist to it by sort of jiggling the camera a little bit and giving a little motion in.

Everything has energy, everyone of these shots has energy. When you look at these shots you can't not want to get into the stories or just get into the visuals. They have so much impact. They're graphic. They're beautiful color wise. They're beautiful pictures of people and they're very human. We just took regular people, they're not models. We just told their story in the shot which is just unbelievable.

AT: Then this is a print campaign in which you are actually using Amiga users?

EE: These are all real Amiga users that we found through looking and doing research.



Progressive Peripherals & Software, Inc. Presents

The Choice for REAL-TIME digitizing on the Amiga

FrameGrabber

REAL-TIME, Color, Video Digitizer for all Amiga's

- Captures live, 4,096 color (HAM) images in 1/30th of a second!
- Supports all Amiga Color Modes, including 64 HalfBrite.
- Includes unique, image control software for many special effects: Time-Lapse animation, Multiple exposures, IFF Brush Save, dithering, etc.
- LIVE software video switch for adjusting and previewing your shots *before* digitizing.
- External control knobs for adjusting Hue, Intensity and Color Saturation of images.
- Supports screen resolutions ranging from 320X200 to 640X400, including overscan.

"New 2.0 Software Option Available"

464 Kalamath Street • Denver, CO 80204-5020 • **(303) 825-4144**

Circle 113 on reader service card.

We didn't use any models and we gave it this new sort of twist and new look and they're all portraits of the people with what they do and what their screens are of. I think once you get a sense of it, I think it is going to be big and I've got a feeling you're going to be seeing, after we break this campaign, there are going to be a lot of knockoffs and a lot of people trying to copy this.

AT: In searching for the professional and home users of the Amiga, did you come across any unusual applications that you never really expected to see the Amiga being used for?

EE: Yes, there were a couple. One was an archaeologist on one of the biggest digs in Europe; he put all his information in the Amiga. And up at Mt. Palimar in California, they use it to bring in all their information on the giant telescope. Because they can't decipher it, they put it through the Amiga. Another one is B.B.King. B.B.King is a great, great guy and he loves the computer and he does all his songs right on the computer.

AT: He uses the on board Amiga voices and plays along with them?

EE: Yeah! And the funny thing was, he only knew about the basic, the very basic one music program that's out of print already so we got him a new one and he was ecstatic. The fact people will know there is better software coming out all the time is very important.

AT: In touring your facility I notice quite a few Amigas about, can you tell me about those?

EE: There's a room, a war room we call it, we have Amigas in there. We have about 7 of them set up. One is set up for digitizing, one is set up for animation, etc. It's to cover every area. Anytime anyone needs any information, we have one guy (Jeff Berg) on staff all the time. He shows us what we need to know, he shows me how to work it so I can go home and play...it's great!

AT: The new slogan "The Computer for the Creative Mind", what have you seen about the Amiga that best exemplifies that to you?

EE: Everything! The whole computer, it's perfect, it's right on. That line is dead on the money. There is no other line that can say exactly what this computer is. Whatever you come up with in your mind, whether you come up with some sort of new math, or whether you come up with a new style of painting or a new style of video. Whatever you can come up with creatively can be done on this computer. All you have to do is apply it.

AT: What do you feel the future of the Amiga looks like from an advertising point of view?

EE: That's tough to call, but I'm going to make a prediction. I think this thing is going to blow everything else out of the water. You're going to see a major push on this. Many kids are going to get the 500. I think the 500 is going to be a big thing with the kids at school, we're going to try and get it into the educational system. With the backing of the new management (at Commodore) with the Apple background, they know how to do it. I think the Amiga is going to be a very hot computer! I don't think it's going to be a failure because our software is just unbelievable, the graphics are phenomenal. Take a look at Falcon, the F-18 or the game Dragon's Lair.

AT: I want to thank you Ed, again, for taking the time to talk to us and sharing with us this new exciting direction for the Amiga.

EE: You're very welcome.

TELEVISION COMMERCIALS

The feeling of excitement in Ed's voice left me in a sort of Amiga high for the rest of that day! That feeling of excitement was carried over into the next day when Ms. Purdy called and told me that Peter Friedman had agreed to be interviewed. Quickly as I could, I dialed that magic number to that mysterious place called LucasFilms.

AT: How did LucasFilms first get involved with the Amiga commercials?

PF: It was an interesting story, I believe the agency contacted Matthew Robbins directly. Matthew is the director of the project, the commercial director. They were interested in Matthew directing the spots because they had seen "Batteries not Included", which is one of the films that he had done. They like his combination of live action and special effects. They had a conversation with him initially and Matthew and I had some conversations about him working with us, but he was going to go off and do a movie before he worked with us. As it turns out, the movie, for many reasons, got postponed and he contacted us and said "Gee I'd love to work with you guys, through you guys". He has done a lot of work at LucasFilm and it fell into place after that. He's really chomping at the bit and very anxious to get going on this one.

AT: Can you tell me a little bit about the TV commercial, the concept behind it and what market you're targeting?

PF: They're all fun commercials, they're all a little different. The celebrity spot involves a group of celebrities they're going to get, not necessarily as spokesmen, but just to show that the computer covers a whole cross section of people. It's about a little kid called Stevie, he's not a teenager, he's more like a tween I guess about 13 or 14 years old, in that area. He's a computer whiz and all others are the different types in society: Tip O'Neill the senator, a couple of astronauts, a rock group, Tommy Lasorta. Stevie is in touch with all these people and through the magic of the computer and the stuff that he programs these people can't live without him. In other words, Tommy Lasorta checks with Stevie to find out what play to use at a certain time, Tip O'Neill in terms of what laws to pass and the astronauts in terms of the trajectory of this and that. Everything is done in good fun of course, but the concept here is that they're skewing the computer towards a younger market, (which I think is very smart) the school age kids, yet show how the computer has engulfed everyone's life and all different forms of business. It's a lot different than the Apple strategies and certainly different than the IBM strategies, but the market they're going after is a much younger market. In a cute spot that we are doing also, which is Stevie in another situation, we start off and you see an MTV kind of awards ceremony and we cut and we're inside and a couple of young teenage girls are watching the awards. Then we cut back to the awards on the television and all of a sudden it changes a little bit and you see that they announce "The Grand Winner of the MTV Musician of the Year is" and they cut to, and it's their neighbor which happens to be little Stevie, he's dressed up

and they've simulated this whole scene. Then the girls say "Wait a minute isn't that your neighbor?" "Yea, I can't believe that he's the Musician of the Year"! They're going on and on about how wonderful and cute he is, until one of the girls in the group gets a little suspicious and she follows the television cord out the window and it turns out that there's a cord dangling across from one house to the other. The guys next door have set up their own little camera, and the graphics, all the graphics that are done on the computer, are the MTV graphics. They'll have the Musician of the Year, all that stuff is simulated next door. Showing you that you can use this with a camera and you can do graphics. The girls find out it's him and the whole thing is spoiled. It's really cute, it's a very fresh approach to selling this computer.

AT: As an Amiga owner I have always been impressed by the graphics, the animation and the sound capabilities that it has. In the commercials can we expect to see the actual Amiga graphics in action?

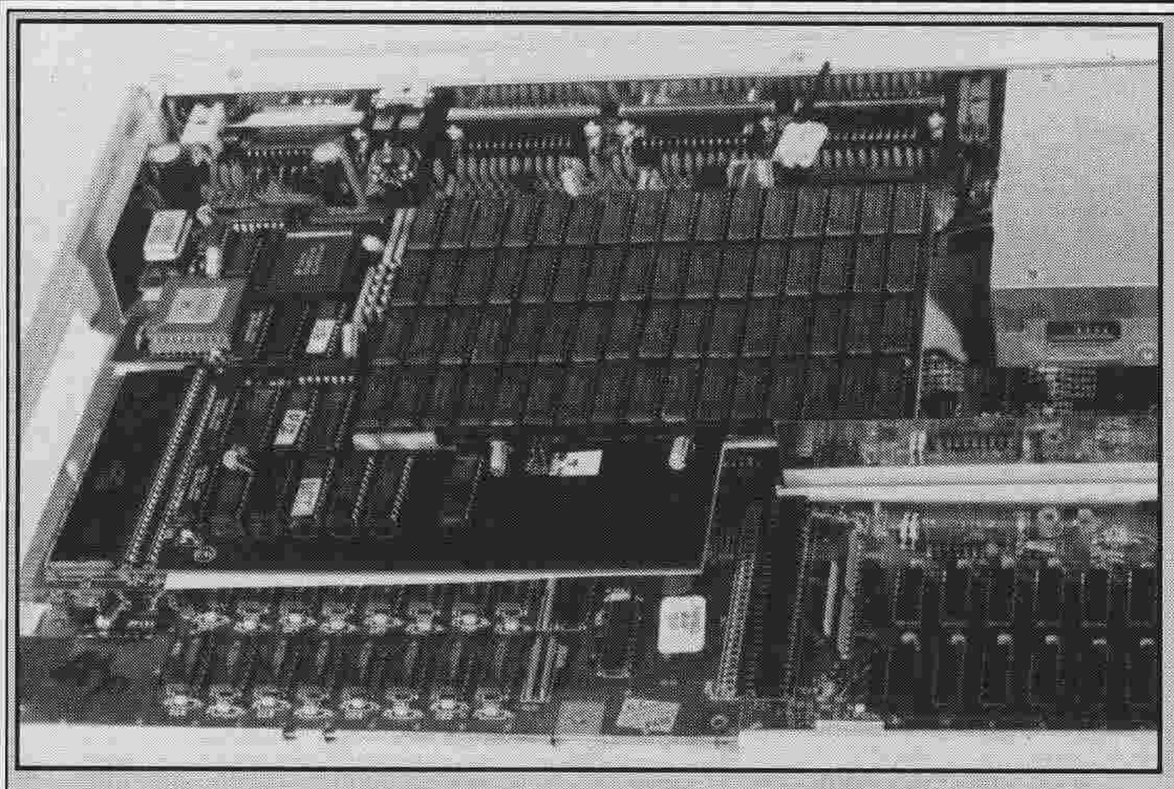
PF: Absolutely, I'll give you an example. In the celebrity commercial there are five applications where we actually see the screens and we see some incredible graphics. One will relate to each of the celebrities, in other words maybe the Pointer Sisters will have all kinds of dancing notes on the screen, for Tommy Lasorta there may be all kinds of strategies, you know the diamond and statistics. It will be readable that this computer has a tremendous range of visuals that no other computer can give you.

AT: Besides the Amiga's graphics and animation capabilities, what other applications will they showcase in the commercials?

PF: They're not really trying to hit any specific areas, it's a corporate campaign and it's an image campaign. Which means they're giving you an overall picture of the things the computer can do without being ultra specific. I think what they're trying to introduce to the country is that this is a young person's computer, it's very hip, it's for the kids and yet it encompasses everybody's life and you don't have to be an Albert Einstein to use it. Which is the stodgy IBM attitude. Instead it's very hip, very today and very easy to use. These are really just to get people feeling good about the computer and to go to the computer store and ask for demonstrations. Once you get in there then you get into the specifics. Very much like selling the image of a car, you're not going to sell a car and all the things that make it run in a commercial. But you can sell an image and try to romance the image and get the people excited about it.

AT: As a video professional, what are your impressions of the Amiga in the video market?

PF: I think it's wide open! I'm not 100 percent familiar with the product, I have one here and I've fooled around with it a little bit. I think the ease of use for one is very important. A lot of people are afraid of computers, a lot of people are computer illiterate and this is the kind of piece of equipment you can easily adapt to. It doesn't scare you the way an IBM would. It's far superior in terms of use to the Apple products without getting into the Mac and spending $3000. In terms of the price range for these units, and the applications that they can do, I think they're fun. That's the



Progressive Peripherals & Software, Inc. Presents

A 9 MEG A-500!!!
The EXP-8000+

Ram Expansion for the Amiga 500
Adds up to 8 megabytes of RAM to the Amiga 500

- Expandable to 2, 4 or 8 megabytes
- Optional user-adjustable 68881 12.5 or 25 MHz math co-processor
- Auto configures
- Fits inside the Amiga 500
- Uses inexpensive 1Meg X 1 DRAMs
- Optional 68010 processor
- Revolutionary patent pending design
- Easy, clean installation
- EXP-512 or A-501 compatible
- Available unpopulated

464 Kalamath Street • Denver, Colorado 80204-5020 • **(303) 825-4144**

Circle 113 on reader service card.

one thing they're selling that none of the other computers are selling and that it's fun to work on them. This is not a toy, this is a computer and it has incredible capabilities, but yet it's fun. That's really one of the main messages behind the commercial. This kid, little Stevie, is very bright and is not a computer nerd. This is a regular kid and he's very hip and he actually has fun on his computer. It's not meant to be stodgy, it's not meant to do just stock reports and things like that. I think the agency is right on target in terms of the strategies for this thing. I think the future of the Amiga is incredible because if the message comes across and people see that you can have fun with this thing, I think, especially at Christmas time, people are going to go out and buy it. It's priced right, it's in a good range, and it has a lot of features to it that the Apple doesn't even come close to.

AT: What Amiga do you have at home?

PF: I have the 500, I guess the bottom of the line one, which I like. I haven't explored all its potential. I have an IBM at the office, I have a little laptop that I use and also for the kids here we bought an Apple 2C a couple of years ago. But this is very new, I just brought this home a couple of days ago so we're all just very anxious to see what we can do. I have spoken to Matthew Robbins and seen the other one in action. It's very interesting what this thing can do. One of my concerns is, they need to follow up if the campaign is successful. If people get excited about it, they should follow up with some more information about the incredible range that this thing has and all the different applications that you can do with it. They're going to show that visually, but these aren't hard sell commercials in any way, shape or form. As an introductory campaign I think it's terrific the client is doing that. The worst thing you can do is turn everybody off to it. If they came on right now and spent a lot of money and just tried to bang you over the head, that these are the functions of the computer, you would turn everybody off and no one would listen. I think they're going about it the right way.

AT: Now that Commodore has changed their management, and they brought in some people that used to work with Apple, do you think they are capable, now, to keep a momentum going in this campaign?

PF: I think so. I feel like they are starting all new again, they're starting from scratch even though that's not true. They have a very good product and I think they're going about marketing it the right way. I think that they can compete, I actually do, if they put enough money into the media. They have been very nice, very good to work with, very open to new ideas. It takes a certain type of client to buy this type of strategy in the first place. Someone who is willing to listen to good creative ideas and go with it! Very few clients today are open to that, a lot of them are just Hard Sell, stand up and just smash the product until people get the message. They're going about it a whole different way and I think they are in a very competitive market, they know that, but yet they're listening to the agency and the agency is right on with their strategies. I think they can do it, to be honest with you, I really think they can create a momentum. Again this is going to be a fun campaign, they are going to do a lot of publicity behind it. It's nice having celebrities, and the people that they have chosen are not over-exploited people, by any way shape or means. I think Barry Vetere has been very careful in picking the right people as the fun spokesmen in this commercial. They could have gone and got guys that you have seen all the time, the Smothers, the Cosbys; people that are very recognizable and a lot safer. But they didn't do that, they're going for a fresh approach. I think the whole idea of using LucasFilm, which is a new company commercially and using Matthew Robbins who is a feature director, who can bring a whole different perspective to these spots and has a whole different outlook which I think is very clever. The chemistry feels really right, everybody seems open, the agency seems open, the client (Commodore) seems open to new ideas. We're having fun with it, and I can honestly say we don't have fun on every job, it's one of the rare times we are having a good time!

AT: The new slogan for the Amiga "The Computer for the Creative Mind" do you think this expression embodies this whole campaign?

PF: I think so. When you say the word creative, everybody says in their own way, "I'm creative!" and everybody is creative in their own way. If you can identify, which is what they're trying to do, cut across all the economic groups which is what they're doing. This is not geared toward the wealthy, this is a Middle America product, it's not overly expensive. I think what they're trying to say is that anyone in this country can identify themselves as being creative and very subtley saying that this is a youth product, and it's hip! They're not coming out and banging you over the head. They're not being offensive to Middle America, it's contemporary. I think they are very smart to do that, there is nobody else doing it in their market place, nobody! IBM is for the certain type of person, the Apple is geared toward school work but again it's very serious, very straight, very clean. This is fun, and people are going to enjoy working with this thing. It's not a chore. I think that they are right on with that. You have to be creative, you should be creative and this thing will bring out the creativity in you. I think with the graphics, even someone like myself, who has no creativity whatsoever can still have fun with this thing in their own way.

AT: You mentioned before that they are going to put publicity behind the television commercials. What in particular are they going to do?

Amiga Amiga Amiga Amiga

PF: I can tell you what they were talking about doing and would like to do. They have been talking to some of the trade people, ala the Backstage, The Millimeter and people who promote what we do in terms of the commercial production. They were talking about the possibility of some kind of black tie affair to kick the campaign off, getting the dealers involved. We have a PR department here at LucasFilms, we met last week and talked about some things. We're trying to get some publicity for the shoot, maybe like PM Magazine, Entertainment Tonight to do the making of a little film for the dealers about the making of the commercials. Because this is a lot of fun, these are going to be fun spots. Of course there are going to be bloopers, there will always be out takes, funny things that will happen. We are working with people, kids and dogs and all kinds of things can happen that are funny that you don't expect to happen. They'll probably use those in promotional things. They're really trying to accomplish this, you know this is not just another commercial.

AT: In other words they are treating this like a new movie, an opening or a media event.

PF: Absolutely! This really is an event, and

it's fun! It really is fun, it should be a media event, it's a new product basically. They're putting a new product back on the market and I think they are very smart. The agency and client are good marketing people and they are going to try and just capitalize on that, why not! Nobody's doing it right now. If you look around, the marketplace is so dead for excitement and products and I think they realize that.

AT: So you think the Amiga's time has finally come?

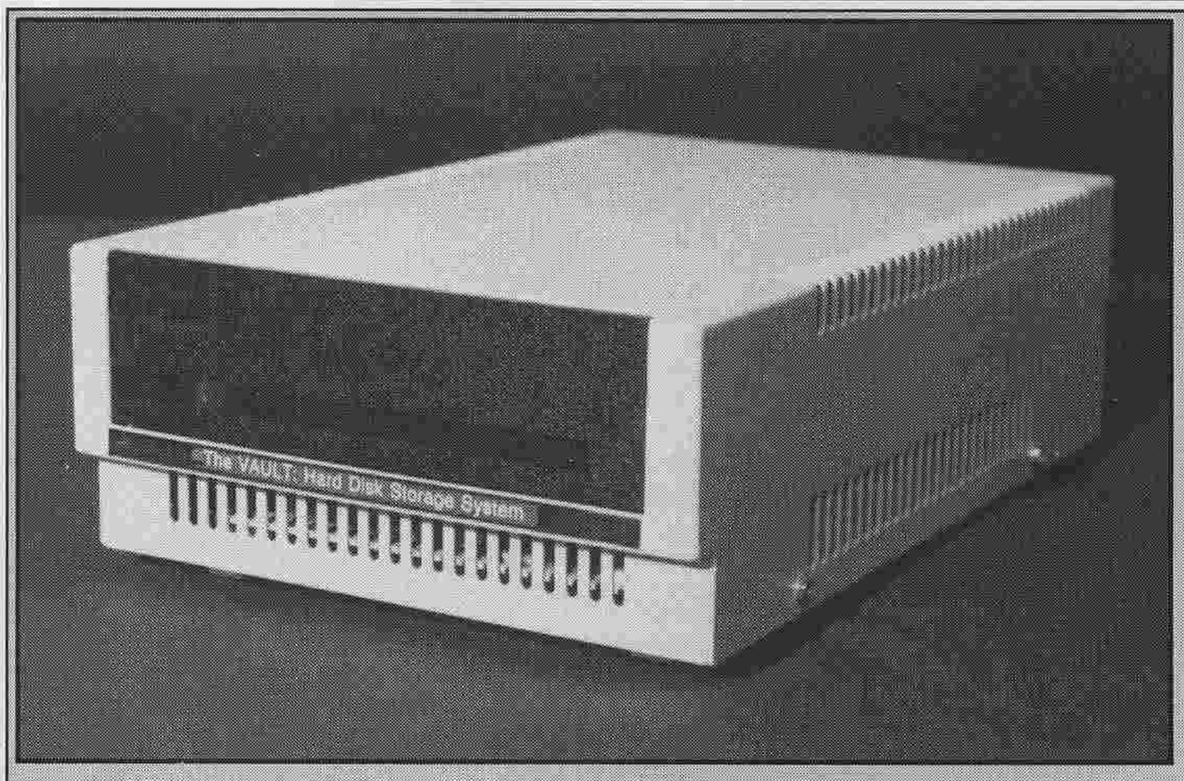
PF: I think so. It's been very well thought out. You never know what the reaction is going to be from the public. The economics, and the timing of course have a lot to do with it. Do the people have disposable income and want to spend $500 to $1500 on a computer. Nobody has the answers to that. All you can do is go out there and show them that this thing is a lot of fun to work with and get people to want to buy it. I think they are going to do that, I think they are going to accomplish it. We're really excited about it, just in the stages right now. They were casting today, they were looking at tapes of possible Stevies out there, they were looking at some parents. It's a lot of fun, it's really important, what does this kid look like. The preparations behind this shoot, who knows, this kid may become a celebrity. They may take him on tour across the country for the computer shows and the family may become famous. The celebrities will be tied in, maybe Tip O'Neill will go out and do some speeches. I think those are the things they are thinking about, let's make this family or this kid at least some kind of a hero. That's exciting and again nobody is doing it that way.

AT: It really sounds like an exciting campaign!

PF: It is, it's fun! It's a fun campaign. When Apple did that 1984 spot and ran it once, it was a big media event. They ran it at the SuperBowl, they spent a million dollars on the spot. Did it sell computers? I don't know if it sold computers, but it really raised the awareness of the product and people were hungry to see "what are they going to do to top this". I think that the agency is very smart, they are getting a lot more value for their money and they are going to be able to run these a lot longer. But they also have the possibilities of doing Pool outs, which is continuing stories and the situations can be unlimited. If this thing works and the family becomes hot or Stevie catches on you may see him in many many more different situations and applications of the computer. I think that's what Barry Vetere had in mind deep down inside when they came up with these things. Let's get something that will have an equity to it, that we can hold on to rather than a one shot deal.

AT: Even though the commercials are still pretty much in production, and we have people like LucasFilm, Barry Vetere and Matthew Robbins involved in this, we are already looking at the Amiga Commercial the sequel.

PF: I think that certainly has been discussed, certainly when you're doing films today the sequel is written into most people's contracts. Most people understand, let's write it and leave the ending loose and open, if it works we'd love to come back and do it again. I think that Barry Vetere and his people have thought about the possibilities and left that very much intact. Matthew Robbins is very familiar with that



Progressive Peripherals & Software, Inc. Presents

The VAULT

External Hard Drives for the Amiga 500 and 1000

Outstanding Quality/Inexpensively Priced!

- Available in sizes from 20 to 120 Megabytes
- The only hard drive available that can be connected to either an A-500 or A-1000
- Built-in HD controller saves desk space and allows easier placement
- Packaged with a wide array of utility software allowing customization of The VAULT
- Compatible with all software that supports hard drives
- Full one year warranty on hard drive
- Powerful internal 110/220 volt power supply
- All drives thoroughly tested
- The VAULT comes complete with Workbench 1.3 and FFS
- Includes the popular CLImate software programs for easy file management

464 Kalamath Street • Denver, Colorado 80204-5020 • **(303) 825-4144**

Circle 113 on reader service card.

process and certainly LucasFilms with its sequels understands that problem. We're all up for it, of course. The first one is very important, we have to be right on with it. What's happening though, that I think is wonderful, I know Barry Vetere is coming out and the agency folks are coming out and we're going to start shooting the end of next week and into the following week, what's happening is that everyone is really excited, it's finally happening! We talked about this for two months, from the bidding stages, to the awarding stages, to finding locations, to happiness, to frustrations. But it's all coming together now, and everyone's really excited, people are working 20 hours a day behind the scenes and you don't see anybody complaining. Nobody's moaning and groaning, they're really into it. We're all excited about the agency getting out there so we can finally get to meet each other face to face. What's really been funny about this whole thing is that Matthew Robbins lives in San Francisco, we're shooting this in L.A., I'm based in N.Y. but I'm out in both, the clients are certainly based in N.Y. They've had about 20-25 conference calls with three or four offices hooked up together going through each thing and talking about it. Barry Vetere has never sat down and met Matthew Robbins! And yet they feel that they have known each other for a hundred years. They have spent at least 50 hours on the phone already, just talking about nuances. The type of house and the dog and the this and the that. It's going to be funny, it's like the mail order bride who finally shows up at the door. We're just so excited that we are finally going to get to meet all these people because we've just had phone conversations up 'till now.

AT: It seems that there is quite a camaraderie going on?

PF: That's the nice thing about it. As I said before, the agency is very open, and they work hard, and they listen to ideas and yet they bring a lot to the table. Most of the jobs you do today you either work with an agency that is so overbearing, they don't listen to the director or they don't know what they are doing and rely totally on the director. I'm sure there will be things that will happen on the shoot and certain things will go wrong, but the most important thing is that everybody is going into this thing with a real positive attitude and they're excited. As long as we don't lose that momentum then it will carry over and be evident on the film, you'll see the production values and the good ideas. I think they have a good idea to start with, most commercials today don't have a good idea and they throw a lot of money out trying to gloss over the fact that they don't have a good idea. But these people are starting out on the right foot. We're happy.

CONCLUSION

After all was said and done, I was left with the feeling that we were on the threshold of something big. The feeling that the management at Commodore finally realize the Amiga's potential, if it was presented properly, for substantial sale profits. But there was an underlying message of foreboding. That this is it! The big shot! That this campaign will determine the future of the Amiga. By the time you read this, the campaign should be in its beginning stages. You will be able to tell if what these people are trying to do, is what is coming across. Will this be a new beginning for the Amiga or... ❑

More than just a Hard Disk Backup Utility

ExpressCopy

Rapidly copies directories and files to floppy disk

FAST Copies directories and files from Hard Disk to Floppy Disk at up to 1 MegaByte per minute. Can format, verify, AND fill a new floppy disk with files in less time than it takes AmigaDOS to format a new disk!

SAFE Other Hard Disk Backup Programs this fast create NON standard disks that can only be used by their program. NOT ExpressCopy! ExpressCopy creates STD DOS disks that look just as if you had done a copy from your Hard Disk to floppy. If your Hard Disk failed, the backup disks can be used NORMALLY from both the CLI and Workbench! This gives you a SAFE and EASY way to accesss important files you backed up.

Select files by their DateStamp, pattern matching, Archive Bit, and by source directory. Exclude files from being copied by filename pattern matching. All file attributes (DateStamp, Protection Bits, and FileComment) are retained. Options for setting the Archive bit for incremental backups, verifying the data written to floppy disk, and estimating the number of disks needed for the backup. Up to 4 copies of the backup disks can be created at a time, or disks can be pre-loaded in up to 4 disk drives. New disks are automatcially formatted and verified. Easy recovery if a bad diskette is found. Parameters to be used for backups can be saved in configuration files. Either Normal or Fast File compatible disks can be written. Specifically designed for effective multi-tasking.
Backup restoration can be done using any file copy program, a Directory Utility, or ExpressCopy's Restore program.
Can be used from both the CLI and Workbench and has no copy protection.
Fully documented with a 65 page manual which includes a 25 page section with help and ideas on how you can better organize and manage your Hard Disk.

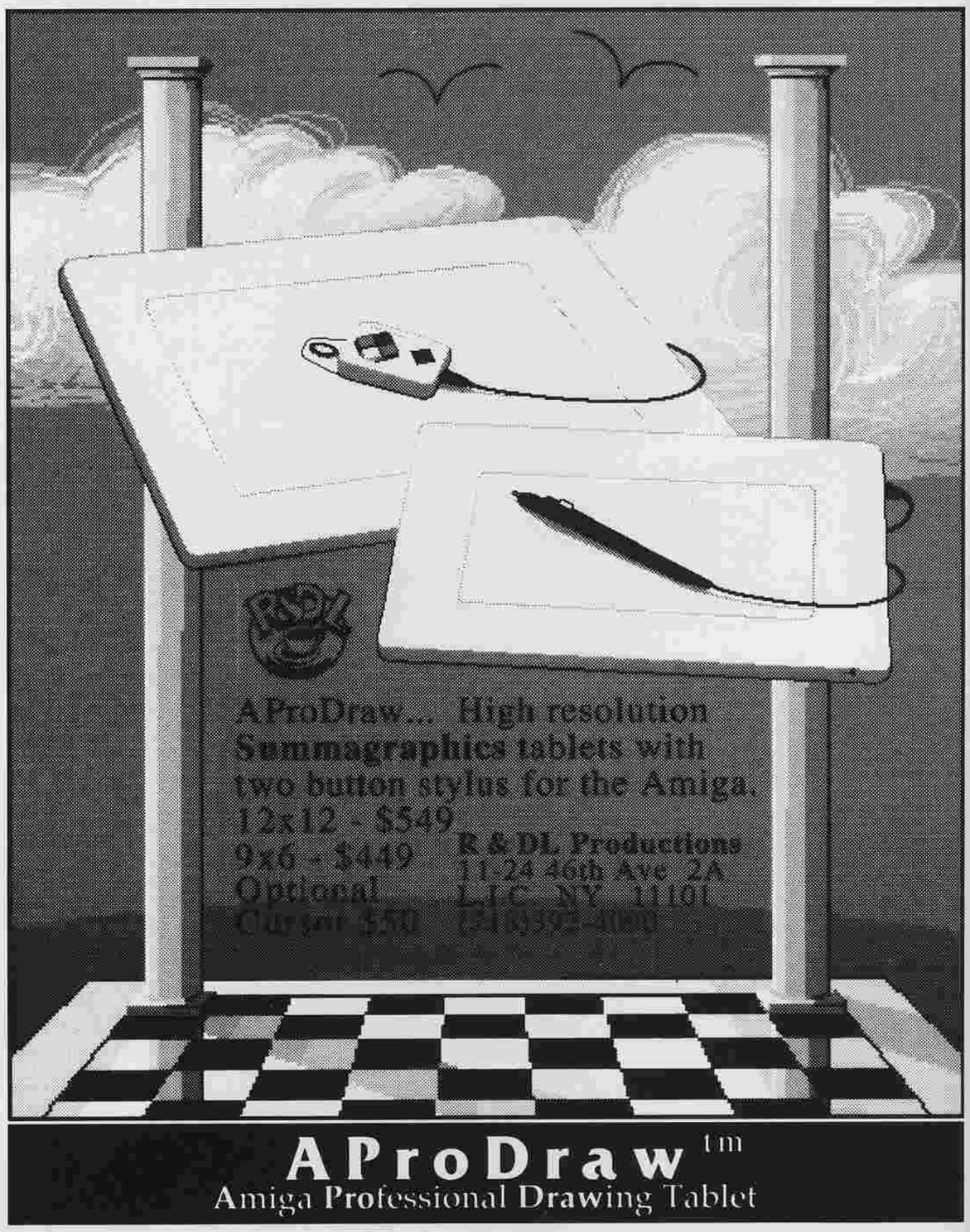
All these features and speed for ONLY:

$44.95 US

Express-Way Software, Inc.
PO Box 10290
Columbia, MO 65205-4005
(314) 474-2984

Requires an Amiga with at least 512k ram and Version 1.2 or higher of AmigaDOS
Amiga, AmigaDOS, and Workbench are trademarks of Commodore-Amiga, Inc.

Circle 174 on reader service card.



Circle 275 on reader service card.

Product Index

READER SERVICE NUMBER

248 **3D OPTIONS VERSION 2.0**
Rainbows Edge Productions
4412 4th Avenue
Suite 2
Brooklyn, NY 11220
(718)439-0299

A

102 **ANIMAGIC**
Aegis Development
2115 Pico Blvd.
Santa Monica, CA 90405
(213) 392-9972

245 **ARCHIPELAGOS**
Britannica Software
345 Fourth St.
San Francisco, CA 94107
(415) 546-1866

B

163 **(THE) BLUE ANGELS**
Accolade
550 South Winchester Blvd., Suite 200
San Jose, CA 95128
(408) 985-1700

C

251 **C.L.A.S.**
MicroEd, Inc.
P.O. Box 24750
Edina, MN 55424
(612) 929-2242

179 **COMMISSIONER'S DISK**
Electronic Arts
1820 Gateway Drive
San Mateo, CA 94404
(415) 571-7171

244 **CORDLESS MOUSE**
Practical Solutions
1135 N. Jones Blvd
Tucson, AZ 85716
(602) 322-6100

234 **CROSSDOS**
Consul Tron
11280 Parkview
Plymouth, MI 48170
(313) 459-7271

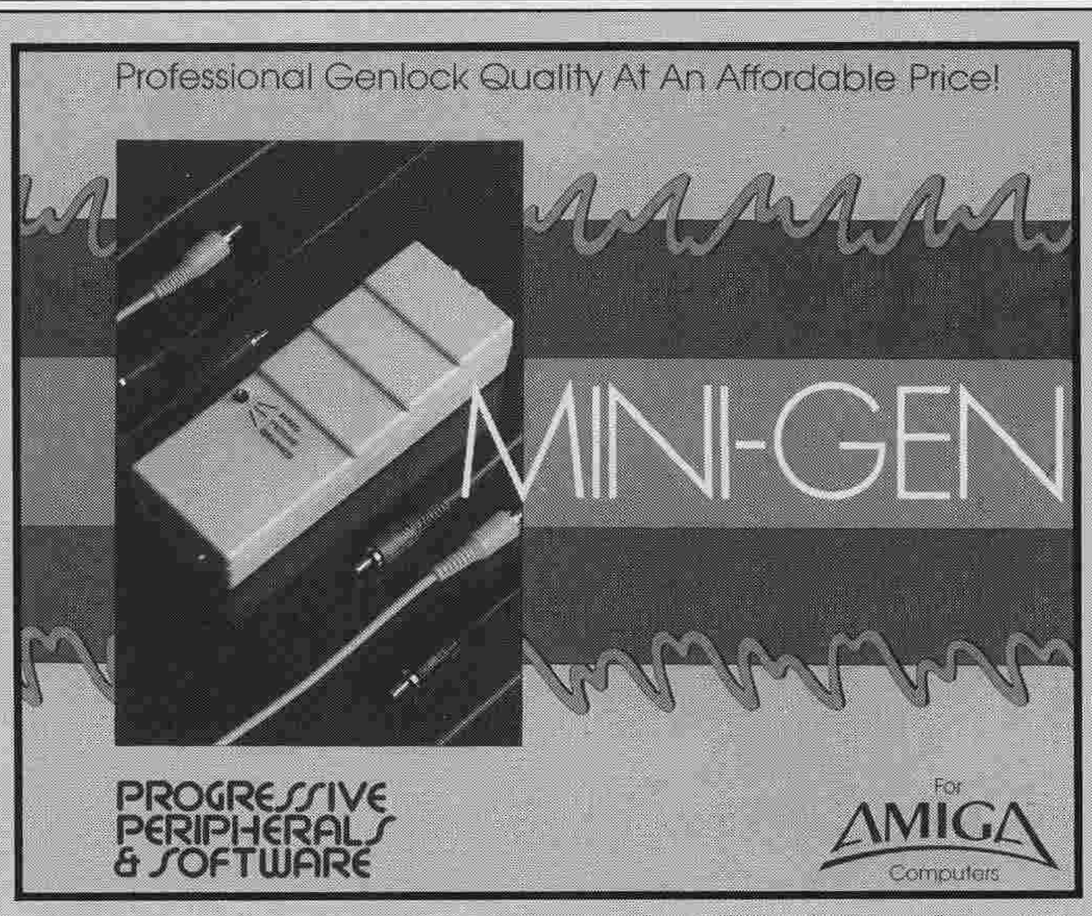
D

252 **DINOSAURS ARE FOREVER**
Polarware Software
1055 Paramount Pky., Suite A
Batavia IL 60510
(312) 232-1984

F

250 **F40 PURSUIT SIMULATOR**
Titus Software Corporation
20432 Corisco Street
Chatsworth, CA 91311
(818) 709-3692

153 **FALCON MISSION DISK, OPERATION: COUNTERSTRIKE**
Spectrum HoloByte
2061 Challenger Drive
Alameda, CA 94501
(415) 522-3584



Progressive Peripherals & Software, Inc. Presents

*mini*GEN

A Professional Quality Genlock

Without the Price!

- Works with all Amiga personal computers.
- Designed to meet RS-170A standards for broadcast quality.
- Video quality matches genlocks costing hundreds of dollars more.
- Composite video-in and video-out RCA connectors.
- Easy and fast installation.
- Rocker switch allows control of 3 different video modes:
  1. Amiga only (including color background)
  2. Video only.
  3. Mixed (both graphics and text for overlaying the video)
- Works on all Amiga's: A500, 1000 or 2000.

464 Kalamath Street • Denver, Colorado 80204-5020 • **(303) 825-4144**

Circle 113 on reader service card.

READER SERVICE NUMBER

152 **FIENDISH FREDDY'S BIG TOP O'FUN**
Mindscape Inc.
3444 Dundee Road
Northbrook, IL 60062
(312) 480-7667

238 **FIRST LETTERS AND WORDS**
and
FIRST SHAPES
First Byte
3100 South Harbour Blvd.
Santa Anna, CA 92704
(714) 432-1740

110 **FLICKERFIXER GENLOCK COMPATIBILITY OPTION**
Microway Inc.
P.O. Box 79, Kingston
MA 02364
(508) 746 7341

G

232 **GURU'S GUIDE MEDITATION #1**
Sassenrath Research
Ukiah, CA 95482
(707) 462-4878

H

152 **HOSTAGE**
Mindscape Inc.
3444 Dundee Road
Northbrook, IL 60062
(312) 480-7667

I

253 **I.C.E.**
King Publishing
921 32nd Street
Sioux City, IA 51104
(712) 252-4604

206 **INTERFONT**
Syndesis
N9353 Benson Road
Brooklyn, WI 53521
(608) 455-1422

K

238 **KIDTALK**
First Byte
3100 South Harbour Blvd.
Santa Anna, CA 92704
(714) 432-1740

L

247 **LABEL ONCE**
Multicomp, Inc.
1730 North 1st Street
P.O. Box 2761
Abilene, TX 79604
(915) 676-0844

M

246 **M 1.1**
Intelligent Computer Music Systems, Inc.
116 North Lake Avenue
Albany, NY 12206
(518) 434-4110

226 **MAC 2 DOS**
Central Coast Software
424 Vista Avenue
Golden, CO 80401
(303) 526-1030

236 **MEDIAPHILE DESKTOP VIDEO PRODUCTION SYSTEM**
Interactive MicroSystems, Inc.
80 Merrimack Street, P.O. Box 1446
Haverhill, MA 01831
(508) 372-0400

Latest Arrivals

3D Pool
Action Service
African Raiders
Afterburner
Airborn Ranger
Animation Titler
Archipelagos
Baal
Bad Dudes
Batman
Beyond Dark
Blood Wych
Castle
Board Master
Colossus Chess X
Commisioner's Disk
D.D Horse Racing
Denaris
Digi Paint 3.0
Digi Works 3D
Dominator
Dunlap Utilities
Elan Performer
Elan Performer
Elite
Emmanuelle
Exelon
Falcon Mission Disk
Fire Brigade
Forgotten Worlds
Galdragon's Domain
Gauntlet II
Gemini Wing
Grand Prix Circuit
Grand Slam
Monster
Indiana Jones
Adventure
Indiana Jones The Last Crusade
Jack Nicklaus Golf
Jinks
Joe Blade
Kingdoms of Engla
Magi
Music X
Netherworld
Night Dawn
Omega
Operation Neptune
Opticks
Paladin
Paper Boy
PenPal
Phobia
Pixel Script
Planet of Lust
Populous
PowerDrome
Project Neptune
Purple Saturn Day
Qix
nbo III
d Heat
Lightning
op
ning Man
low of the Beast
Side Arms
Sim City
Sleeping Gods II
SoundTrax #1 & 2
SpiderMan Vs Dr. Doom
Sports Time BasketBall
Star Command
Super Hang On
Super Scramble
Superman
Sword Twilight
Talespin
Tank Attack
Taroi Master
Talespin
Tragen
Teenage Queen
The Kristal
Times of Lores
Turbo
UltraCard
Viva
World Snooker
World Snooker
Pool
Xcad Pro
And many more...

We Have Over 400 Amiga Titles In Stock Come'n Try Them!

*** SPECIALS ***

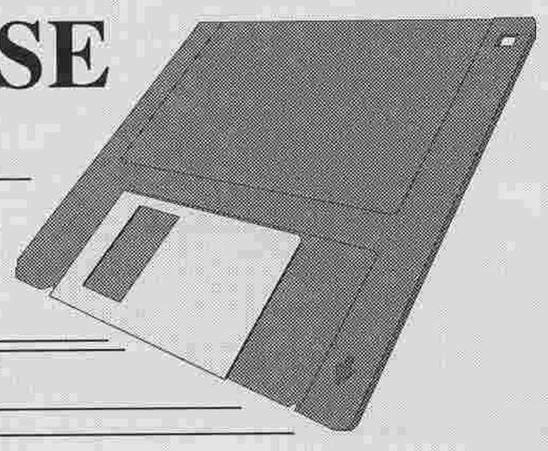
* Meiji 3.5" ext. 880K	$229.95
* Turbo Silver	$175.00
* Epyx Joystick	$ 22.95
* 10 Bulk 3.5" diskettes DS-DD	$ 10.00
* Gunship	$ 44.95

SERVICES

* Laser Printing (Postscript)
* Digitizing
* NEW! Color Printing
* Color Slides
* House Calls (For repairs)
* And Many More....

MAISON DU LOGICIEL SOFTWAREHOUSE

The AMIGA SPECIALIST



* Authorized COMMODORE AMIGA dealer
* Authorized Service Centre
* Authorized Educational Dealer
* 5% off reg. price on telephone orders
* We accept VISA,MASTER,AMEX,COD
* No surcharge on credit cards.

CALL NOW
(514) 498-3614
13635 Sherbrooke E., Montreal, Quebec,H1A 1C3

READER SERVICE NUMBER

223 **MY PAINT**
Centaur Software, Inc.
14040 Tahiti Way, Suite 528
Marina Del Rey, CA 90202
(213) 821-5995

N

235 **NERIKI IMAGE MASTER**
Telmak
P.O. Box 54
Plainview, N.Y. 11803
(516) 433-5518

O

277 **OMNI-GEN 701 & 702**
Omicron Video
21822 Lassen St.
Chatsworth, CA
91311-3680
(818) 700-0742

254 **OPERATION WOLF**
Taito Software, Inc.
267 West Esplanade
North Vancouver, B.C.
Canada V7M 1A5
(605) 984-3344

P

123 **PEN PAL**
Brown-Wagh
16795 Lark Avenue
Los Gatos, CA 95030
(408) 395-5602

205 **PERFECT SOUND 3.0**
SunRize Industries
P.O. Box 1453
College Station, TX 77841
(409) 846-1311

139 **PROWRITE**
New Horizons
P.O. Box 43167
Austin, TX 78745
(512) 328-6650

S

255 **SIM CITY**
Broderbund Software
P.O. Box 12947
San Rafael, CA
94913-2947
(415) 492-3200

271 **STARSHIPS 2050**
Polar Arts Software
14145 Janna Way
Sylmar, CA 91342 (818) 362-8565

U

243 **ULTRACARD**
Intuitive Technologies
2700 Garden Rd., Suite 6
Monterey, CA 93940
(408) 646-9147

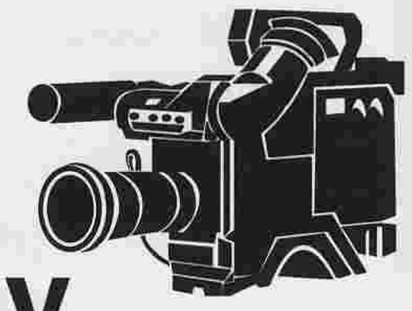
V

249 **VIDGEN**
Microft Software, Ltd.
P.O. Box 1072
Exton, PA 19341, (215) 363-2832

W

278 **WRISTREST**
Metaphor, The Hypermedia Group Inc.
91 Bond Street North
Hamilton, Ontario
Canada L8S 3W4
(416) 574-3272

Dawson Institute of Photography



AMIGA & VIDEO WORKSHOPS
For novices, advanced amateurs and professionals

REGISTRATION
In person: **September 26 & 27**
12:00 - 19:00

By phone (with Visa or Mastercard):
September 26 to 29
13:00 - 19:00

The Amiga:
We offer a variety of courses on the following subjects: Introduction to the Amiga, Desktop video, Paint programs, 2D & 3D Animation and 3D modeling.

Video:
The video courses range from Home Video to Video Production, Video Editing, Digital Video Effects, Wedding Videography, the Video Director and Video Art.

Call for free brochure: (514) 866-6588

DAWSON COLLEGE

Dawson Institute of Photography
460 St. Catherine St. W., Suite 700
Montreal, Quebec H3B 1A7

Circle 229 on reader service card.

LASER
ENER-CHARGE

Certified experts in refurbishing of laser printer and photocopier cartridges.

WHERE QUALITY & SERVICE IS OF UPMOST **IMPORTANCE!**

- WE SHIP ANYWHERE IN CANADA AND THE U.S.
- 100% GUARANTEED .
- EACH CARTRIDGE COMPLETELY OVERHAULED.
- 20% MORE PRINTS.
- WITH SPECIAL DRUM RE-CONDITIONING FOR PROLONGED CARTRIDGE LIFE.

$79.95
CANADIAN DOLLARS
TRANSPORT INCLUDED

TÉL.: (514) 449-3559 • FAX: (514) 641-4934
1093 DE BELLEME, BOUCHERVILLE, Qc, CANADA J4B 5Z4

Circle 230 on reader service card.

COMING NEXT ISSUE.....

HARDWARE SPECIAL

Our Amiga Product Guide will list all the hardware available for the Amiga. There will also be several features and reviews focusing on hardware.

Even a machine with the high standards of the Amiga needs improvement. Writer Phil Osborn examines the need for the 'next' step: Optical Storage Technology.

We'll wrap up our look at "The Future of Education" and "Educational Desktop Video".

Our Arexx tutorial begins next issue, as does our new printer review column, Test Page. We will also also have coverage of DTP, video, applications, MIDI, games, and much more.

ADVERTISERS INDEX

Reader Service	ADVERTISER	Page Number
228	Access Comm.	87
170	AlohaFonts	67
103	AmiExpo	31
*	AmigoTimes	42
182	ASDG	27
*	Azimut	44
223	Centaur Software	14,15
226	Central Coast Software	37
227	Compu_Art	83
105	Creative Computers	32,33
115	Datacorp Distributions	92
229	Dawson College	111
158	Digitek Software	25
168	Elan Design	7
174	ExpressWay	108
276	Gainstar	23
129	Gold Disk	CII
222	GVP	11
231	Imtronics	82
161	Innerprise	65,CIII
230	Laser Enercharge	111
197	MicroIllusions	18,59,61,102
274	Micro-Systems Software	19
110	Microway	2
101	Mindware International	CIV
104	NewTek	1
114	Photocomp rb	47
107	Precision Approach	49
113	Progressive Peripherals & Software	93,99,103, 105,107,109
275	R & DL Productions	108
*	Roland Paquette	86
7	Sama Software	63
*	SoftwareHouse	110
*	T.G.Hamilton Wholesale	10

*** Those advertisers marked by an asterix would prefer to be contacted directly.**

READER SERVICE CARD

FREE INFORMATION

TO INCREASE AMIGA PRODUCTIVITY

THREE EASY STEPS

1. Fill in your name and address and complete the survey questions.
2. Circle the numbers on the card that correspond to the ads more articles that you'd like more information about.
3. The literature will be mailed to you directly from the developer.

OR YOU CAN EVEN FAX IN YOUR REQUESTS

Our FAX number is (514) 638-6528

OR LEAVE YOUR MESSAGES ON ONE OF THESE BBS's

PLink, GEnie, BIX;
Our ID for all three of these BBS's is
AMIGOTIMES

---

1. What type of machine do you own?
- ○ Amiga 500
- ○ Amiga 1000
- ○ IBM PC
- ○ Other _____
- ○ Amiga 2000
- ○ Amiga 2500
- ○ Macintosh

2. Where do you use your Amiga?
- ○ At Work
- ○ At School
- ○ At Home for business
- ○ At home for recreation

3. Which do you plan to purchase within the next 6 months?
- ○ Printer
- ○ Second disk drive
- ○ Hard disk drive
- ○ Modem
- ○ Expansion Memory
- ○ Sidecar
- ○ Genlock or Digitizer
- ○ Musical Equipment
- ○ Accelerator Board
- ○ Other _____

4. Where do you purchase your Computer Products?
- ○ Dealer
- ○ Mail Order
- ○ Direct from Manufacturer
- ○ Department Store
- ○ Other _____

5. From which of these categories do you plan to purchase software?
- ○ Financial
- ○ Desktop Publishing
- ○ Desktop Video
- ○ Programming Tools
- ○ Entertainment
- ○ Music
- ○ Education
- ○ Word Processing
- ○ Communications
- ○ Painting
- ○ Database
- ○ Spreadsheet
- ○ Productivity
- ○ Other _____

6. What age group do you fall into?
- ○ Below 18
- ○ 18 - 25
- ○ 26 - 35
- ○ 36 - 45
- ○ 46 and above

7. What is your annual income in dollars?
- ○ Under 10,000
- ○ 11,000.- 20,000
- ○ 21,000 - 30,000
- ○ 31,000 - 40,000
- ○ 41,000 - 50,000
- ○ 51,000+

8. How much do you intend to spend on Software within the next six months in dollars?
- ○ Under 100
- ○ 101 - 499
- ○ 500 - 999
- ○ 1,000+

9. How many people read your copy of AmigoTimes? _____

CIRCLE FOR FREE INFORMATION

1	21	41	61	81	101	121	141	161	181	201	221	241	261	281
2	22	42	62	82	102	122	142	162	182	202	222	242	262	282
3	23	43	63	83	103	123	143	163	183	203	223	243	263	283
4	24	44	64	84	104	124	144	164	184	204	224	244	264	284
5	25	45	65	85	105	125	145	165	185	205	225	245	265	285
6	26	46	66	86	106	126	146	166	186	206	226	246	266	286
7	27	47	67	87	107	127	147	167	187	207	227	247	267	287
8	28	48	68	88	108	128	148	168	188	208	228	248	268	288
9	29	49	69	89	109	129	149	169	189	209	229	249	269	289
10	30	50	70	90	110	130	150	170	190	210	230	250	270	290
11	31	51	71	91	111	131	151	171	191	211	231	251	271	291
12	32	52	72	92	112	132	152	172	192	212	232	252	272	292
13	33	53	73	93	113	133	153	173	193	213	233	253	273	293
14	34	54	74	94	114	134	154	174	194	214	234	254	274	294
15	35	55	75	95	115	135	155	175	195	215	235	255	275	295
16	36	56	76	96	116	136	156	176	196	216	236	256	276	296
17	37	57	77	97	117	137	157	177	197	217	237	257	277	297
18	38	58	78	98	118	138	158	178	198	218	238	258	278	298
19	39	59	79	99	119	139	159	179	199	219	239	259	279	299
20	40	60	80	100	120	140	160	180	200	220	240	260	280	300

Name **PLEASE PRINT IN BLOCK LETTERS**

Company Phone

Address City

State/Province Postal Code/Zip Country

☐ Please send me a one-year subscription to AmigoTimes without the disk for US $29.97 (CDN $34.95). I'll save 37% off the newsstand price of US $47.40

☐ Bill me later ☐ Check enclosed

1. What type of machine do you own?
- ○ Amiga 500
- ○ Amiga 1000
- ○ IBM PC
- ○ Other _____
- ○ Amiga 2000
- ○ Amiga 2500
- ○ Macintosh

2. Where do you use your Amiga?
- ○ At Work
- ○ At School
- ○ At Home for business
- ○ At home for recreation

3. Which do you plan to purchase within the next 6 months?
- ○ Printer
- ○ Second disk drive
- ○ Hard disk drive
- ○ Modem
- ○ Expansion Memory
- ○ Sidecar
- ○ Genlock or Digitizer
- ○ Musical Equipment
- ○ Accelerator Board
- ○ Other _____

4. Where do you purchase your Computer Products?
- ○ Dealer
- ○ Mail Order
- ○ Direct from Manufacturer
- ○ Department Store
- ○ Other _____

5. From which of these categories do you plan to purchase software?
- ○ Financial
- ○ Desktop Publishing
- ○ Desktop Video
- ○ Programming Tools
- ○ Entertainment
- ○ Music
- ○ Education
- ○ Word Processing
- ○ Communications
- ○ Painting
- ○ Database
- ○ Spreadsheet
- ○ Productivity
- ○ Other _____

6. What age group do you fall into?
- ○ Below 19
- ○ 18 - 25
- ○ 26 - 35
- ○ 36 - 45
- ○ 46 and above

7. What is your annual income in dollars?
- ○ Under 10,000
- ○ 11,000.- 20,000
- ○ 21,000 - 30,000
- ○ 31,000 - 40,000
- ○ 41,000 - 50,000
- ○ 51,000+

8. How much do you intend to spend on Software within the next six months in dollars?
- ○ Under 100
- ○ 101 - 499
- ○ 500 - 999
- ○ 1,000+

9. How many people read your copy of AmigoTimes? _____

CIRCLE FOR FREE INFORMATION

1	21	41	61	81	101	121	141	161	181	201	221	241	261	281
2	22	42	62	82	102	122	142	162	182	202	222	242	262	282
3	23	43	63	83	103	123	143	163	183	203	223	243	263	283
4	24	44	64	84	104	124	144	164	184	204	224	244	264	284
5	25	45	65	85	105	125	145	165	185	205	225	245	265	285
6	26	46	66	86	106	126	146	166	186	206	226	246	266	286
7	27	47	67	87	107	127	147	167	187	207	227	247	267	287
8	28	48	68	88	108	128	148	168	188	208	228	248	268	288
9	29	49	69	89	109	129	149	169	189	209	229	249	269	289
10	30	50	70	90	110	130	150	170	190	210	230	250	270	290
11	31	51	71	91	111	131	151	171	191	211	231	251	271	291
12	32	52	72	92	112	132	152	172	192	212	232	252	272	292
13	33	53	73	93	113	133	153	173	193	213	233	253	273	293
14	34	54	74	94	114	134	154	174	194	214	234	254	274	294
15	35	55	75	95	115	135	155	175	195	215	235	255	275	295
16	36	56	76	96	116	136	156	176	196	216	236	256	276	296
17	37	57	77	97	117	137	157	177	197	217	237	257	277	297
18	38	58	78	98	118	138	158	178	198	218	238	258	278	298
19	39	59	79	99	119	139	159	179	199	219	239	259	279	299
20	40	60	80	100	120	140	160	180	200	220	240	260	280	300

Name **PLEASE PRINT IN BLOCK LETTERS**

Company Phone

Address City

State/Province Postal Code/Zip Country

☐ Please send me a one-year subscription to AmigoTimes without the disk for US $29.97 (CDN $34.95). I'll save 37% off the newsstand price of US $47.40

☐ Bill me later ☐ Check enclosed

HOW TO STAY ON TOP OF WHAT'S IN THE AMIGA MARKET

USE THIS CARD TO OBTAIN FREE INFORMATION ABOUT AMIGA PRODUCTS AND SERVICES IN THIS ISSUE

(SEE OTHER SIDE)

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS PERMIT #26 CHAMPLAIN, NY

POSTAGE WILL BE PAID BY ADDRESSEE

AmigaTimes
P.O. Box 1158
Champlain, NY 12919-9962

Business Reply Mail

No postage stamp necessary if mailed in Canada.

Canada Post Postes Canada 06

AmigaTimes
5124 St. Laurent, Suite 100
Ville Ste. Catherine
Quebec, J0L 1E0
CANADA

SUBSCRIBE TO...

AmigoTimes
News and Information Resource for the Commodore Amiga

NOW AVAILABLE WITHOUT DISK

☐ Yes! **BEGIN** my subscription to AmigoTimes

	U.S.A. ($US)	Canada ($CDN)	Foreign Air Mail ($US)
12 Issues no disk	☐ ***29.97***	☐ ***34.95***	☐ ***49.95***
6 Issues with disk	☐ 39.95	☐ 49.95	☐ 64.95
12 Issues with disk	☐ 72.00	☐ 87.00	☐ 118.00
24 Issues with disk	☐ 131.00	☐ 158.00	☐ 223.00
☐ Please send disk for Issue(s) : Each disk at US $5.00 (CDN $5.45)			

TO:

Mr./Mrs./Ms. **PLEASE PRINT IN BLOCK LETTERS**

Company

Address City

State/Province Postal Code/Zip Country

Please allow 30 to 60 days for all deliveries

V1.9

Begin my subscription with issue _____

☐ Yes, Please include ***Designer Disk Set***
☐ Animations
☐ Utilities
Each 3 disk set at:
US $12.95 (CDN $14.95)
☐ Collectible Gems
1 Disk CGS costs $5.95 US
2 Disk CGS costs $8.95 US
#1 Walker Demo (2 disks)
#2 Moria V3.0 (1 disk)
#3 Star Trek Trivia (1 disk)
#4 Walker Demo II (2 disks)
No.(s) _____

Enclose Check or Money Order Payable to:

AmigoTimes
5124 St. Laurent, Suite 100
Ville Ste. Catherine
Quebec, J0L 1E0,
CANADA
tel. (514) 638-6303

AmigoTimes Back Issues

☐ AT 1.2 Amiga Productivity
☐ AT 1.3 The Electronic Canvas
☐ AT 1.4 Entertainment Software
☐ AT 1.5 Desktop Video
☐ AT 1.6 Amiga Music
☐ AT 1.7 Business
☐ AT 1.8 Desktop Publishing
US $10.95 EACH
(CDN $11.95 EACH)
- Mags sold with Disk

READER SURVEY:

1. What type of machine do you own?
○ Amiga 500 ○ Amiga 2000
○ Amiga 1000 ○ Amiga 2500
○ IBM PC ○ Macintosh
○ Other _____

2. Where do you use your Amiga?
○ At Work ○ At Home for business
○ At School ○ At home for recreation

3. What peripherals do you own?
○ Printer ○ Sidecar
○ Laser Printer ○ Genlock
○ Second disk drive ○ Musical Equipment
○ Hard disk drive ○ Accelerator Board
○ Modem ○ Other _____
○ Expansion Memory

4. Which do you plan to purchase within the next 6 months?
○ Printer ○ Sidecar
○ Laser Printer ○ Genlock
○ Second disk drive ○ Musical Equipment
○ Hard disk drive ○ Accelerator Board
○ Modem ○ Other _____
○ Expansion Memory

5. What are your interests?
○ CAD ○ Graphics
○ Music ○ Games
○ Desktop Publishing ○ Animations
○ Desktop Video ○ Other _____

6. Which other computer magazines do you read?
○ Amazing Computing ○ Byte
○ Amiga Sentry ○ Compute!
○ Amiga Transactor ○ Robo City News
○ AmigaWorld ○ Info
○ Antic's Amiga Plus ○ Other _____

7. What topics would you like to see in future issues?
○ More Programming ○ Hardware Projects
○ More Reviews ○ More Columns
○ More Features ○ Other _____
○ Applications for the Amiga

8. What are your favorite parts of AmigoTimes?
○ Tricks 'n Tips ○ Programming
○ The Amiga Monitor ○ Reviews and Features
○ Art Gallery ○ Video Production
○ Telecom ○ DTP Column
○ Midi ○ WOMAN by WOMAN

9. How would you rate this issue:

Magazine	Disk
○ Terrible	○ Terrible
○ Poor	○ Poor
○ Fair	○ Fair
○ Good	○ Good
○ Very Good	○ Very Good
○ Excellent	○ Excellent

10. Where do you purchase your Computer Products?
○ Dealer ○ Department Store
○ Mail Order ○ Other _____
○ Direct from Manufacturer

11. From which of these categories do you plan to purchase software?
○ Financial ○ Word Processing
○ Desktop Publishing ○ Communications
○ Desktop Video ○ Painting
○ Programming Tools ○ Database
○ Entertainment ○ Spreadsheet
○ Music ○ Productivity
○ Education ○ Other _____

12. Do you log onto any of the following BBS's?
○ Plink ○ BIX
○ Compuserve ○ Local
○ GEnie ○ Other _____

13. What age group do you fall into?
○ Below 18
○ 18 - 25 ○ 36 - 45
○ 26 - 35 ○ 46 and above

14. What is your sex?
○ Female
○ Male

15. What is your annual income in dollars?
○ Under 10,000
○ 11,000.- 20,000
○ 21,000 - 30,000
○ 31,000 - 40,000
○ 41,000 - 50,000
○ 51,000+

16. How much do you intend to spend on Software within the next six months in dollars?
○ Under 100
○ 101 - 499
○ 500 - 999
○ 1,000+

17. How much do you intend to spend on Hardware within the next six months in dollars?
○ Under 100
○ 101 - 499
○ 500 - 999
○ 1,000+

18. How many people read your copy of AmigoTimes? _____

Card Valid Until January 1, 1990

PUBLIC DOMAIN LIBRARY

CAM Club Amiga Montreal

Indicate your order in the spaces provided below with the appropriate disk number.
***Note:** The following disk numbers are double(2) disk sets; 84, 86, 101, 106, 107, 123, 126, 129, 143, 146, 151, 155, 163, 168, 170, 176, 178, 183, 185, 189, 193, 213, 214, 217, 224, 226, 228, 237, 246, 250, 252, 253, 254, 259, 261, 263, 264, 265, 268, 271, 275, 282, 285

Please send me:
☐ ____ Single disk(s) at US $5.95 (CDN $6.95)
☐ ____ Double disk sets at US $7.95 (CDN $8.95)
☐ ____ Ten (10) disks or more at US $4.95 (CDN $5.50) each
☐ ____ Catalog Disk(s) at US $2.95 (CDN $3.50)

Disks number from 1 to 288
For all orders add 10% of total cost for shipping and handling.

_____ _____ _____ _____ _____
_____ _____ _____ _____ _____
_____ _____ _____ _____ _____
_____ _____ _____ _____ _____

The available disks vary in content, from Utilities to Slideshows; Animations, Communications utilities, Music, Games, Tutorials, and Fonts. To aid you in your selections, a Catalog Disk is available.

N.B. Disk numbers that are presently unavailable are:
2,3,4,7,11,17,18,23,28,32,33,36,49,50,60,73,74,85,90,95,100,145,160,166,170, 172,176,179,182,186,193,206,207,209,212,213,216,217,220,222,224,225,227, 229,237,238.

READER SERVICE CARD

FREE INFORMATION

Circle the numbers on the card that correspond to the ads or articles you'd like more information about. The literature will be mailed directly to you from the Developer.

CIRCLE FOR FREE INFORMATION

1	21	41	61	81	101	121	141	161	181	201	221	241	261	281
2	22	42	62	82	102	122	142	162	182	202	222	242	262	282
3	23	43	63	83	103	123	143	163	183	203	223	243	263	283
4	24	44	64	84	104	124	144	164	184	204	224	244	264	284
5	25	45	65	85	105	125	145	165	185	205	225	245	265	285
6	26	46	66	86	106	126	146	166	186	206	226	246	266	286
7	27	47	67	87	107	127	147	167	187	207	227	247	267	287
8	28	48	68	88	108	128	148	168	188	208	228	248	268	288
9	29	49	69	89	109	129	149	169	189	209	229	249	269	289
10	30	50	70	90	110	130	150	170	190	210	230	250	270	290
11	31	51	71	91	111	131	151	171	191	211	231	251	271	291
12	32	52	72	92	112	132	152	172	192	212	232	252	272	292
13	33	53	73	93	113	133	153	173	193	213	233	253	273	293
14	34	54	74	94	114	134	154	174	194	214	234	254	274	294
15	35	55	75	95	115	135	155	175	195	215	235	255	275	295
16	36	56	76	96	116	136	156	176	196	216	236	256	276	296
17	37	57	77	97	117	137	157	177	197	217	237	257	277	297
18	38	58	78	98	118	138	158	178	198	218	238	258	278	298
19	39	59	79	99	119	139	159	179	199	219	239	259	279	299
20	40	60	80	100	120	140	160	180	200	220	240	260	280	300

CUT ALONG DOTTED LINES WITH CORRECT REPLY CARD ON OUTSIDE - Seal with Tape or staple

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS PERMIT #26 CHAMPLAIN, NY

POSTAGE WILL BE PAID BY ADDRESSEE

AmigoTimes
P.O. Box 1158
Champlain, NY 12919-9962

△ Fold Carefully Along Dotted Line. This side facing out for **USA** postage △

▽ Fold Carefully Along Dotted Line. This side facing out for **CANADIAN** postage ▽

Business Reply Mail

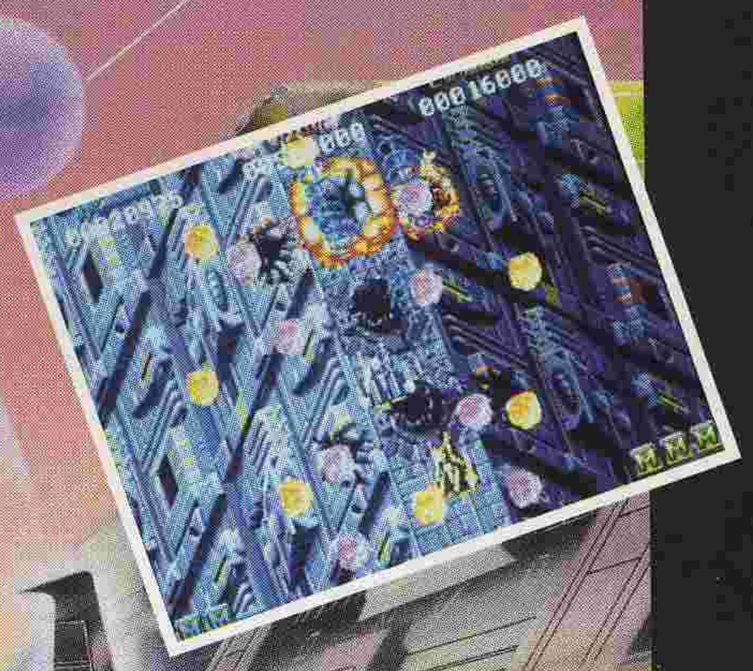
No postage stamp necessary
if mailed in Canada.

Canada Post Postes Canada 06

AmigoTimes
5124 St. Laurent, Suite 100
Ville Ste. Catherine
Quebec, J0L 1E0
CANADA

BATTLE SQUADRON

THE DESTRUCTION OF THE BARRAX EMPIRE!



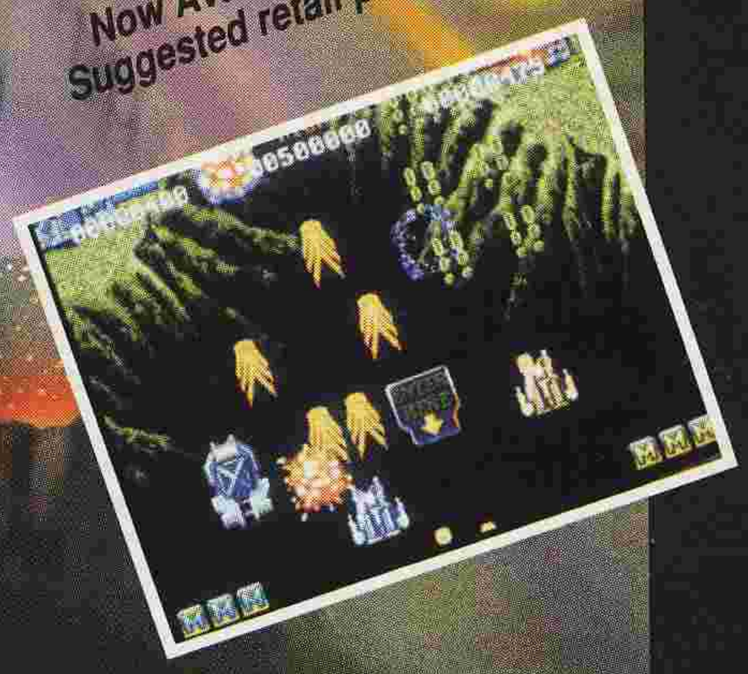


Whirling Barrax ships dart out from the dark spiral caves and attack from the right. You bank hard left, launching "smart" bombs. Look out! One of those darn "chameleons" is dead ahead — they're tough to spot and even tougher to stop!

Avenge the Barrax Empire's deadly attack on earth in **BATTLE SQUADRON**. You'll be fighting on their turf, but you carry the most devastating arsenal in the universe. And if you're the best combat pilot, you just might succeed!

- Spectacular digitized sound — hear every explosion and collision.
- Single or two-player action with vertical and horizontal scrolling.
- More than 30 continuous minutes of sparkling background graphics.
- The toughest arcade challenge in any galaxy!

Now Available for Amiga !
Suggested retail price: $39.95!



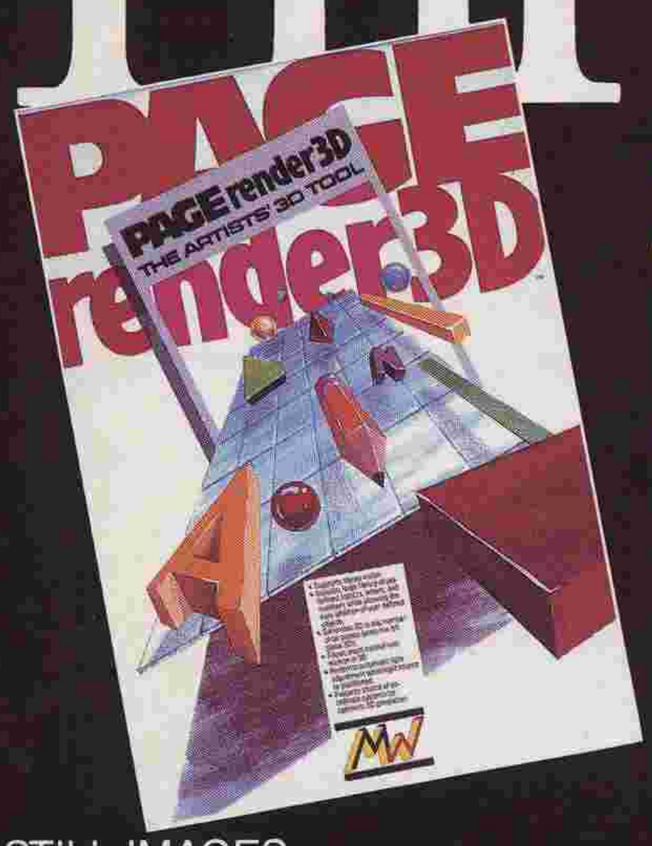
INNERPRISE
Software, Inc.

128 Cockeysville Rd • Hunt Valley, MD 21030 • (301) 785-2266

Can't find Battle Squadron? Call for MC/VISA orders or send check money order (U.S. $) for $39.95 plus $2.50 shipping and handling.
Battle Squadron is a trademark of InnerPrise Software, Inc. Amiga is a trademark of Commodore-Amiga, Inc.

Circle 161 on reader service card.

Three Views?



Get the whole picture in one view, naturally, the way it was meant to be.

PAGE render3D

A True 3D WYSIWYG* system.

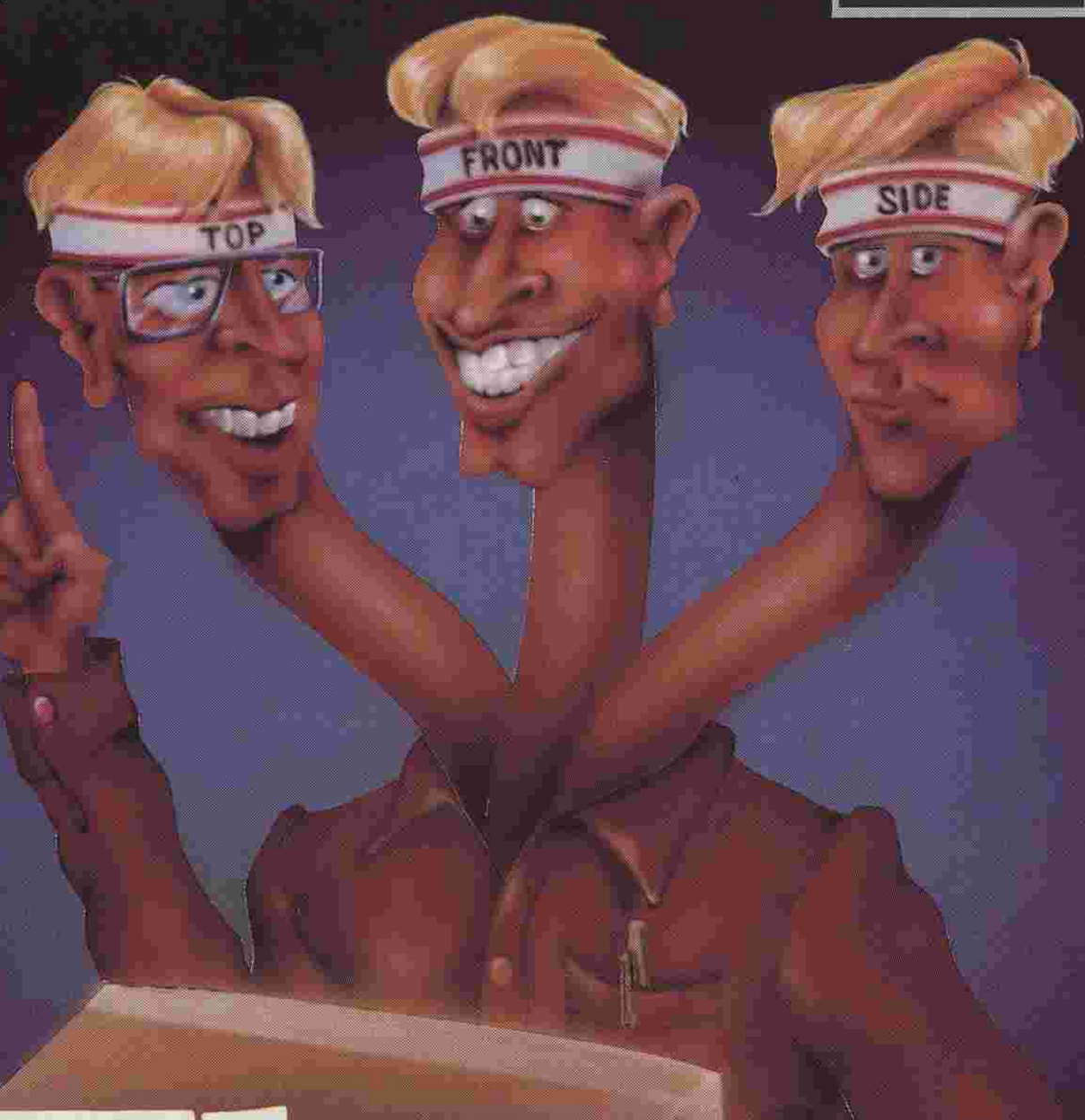
State of the art 3D with AREXX, Anim, Unlimited Image Size, Programmable Scripting, Intuitive gadget-and-icon interface, choice of co-ordinate systems, unique object structuring tools, stereo vision, support for Post Script 3D illustration with Page Script 3D, and lots more.

Another innovation from Mindware International, creators of *Page Flipper Plus F/X*, the most powerful cel animation tool on the Amiga..

Mindware International
110 Dunlop Street West, Box 22158,
Barrie, Ontario, Canada
L4M 5R3

STILL IMAGES





ANIMATION



or Three-D!

Amiga is a trademark of Commodore Business Machines, Inc. Page Render 3D is a registered trademark of Mindware International.

* What You See Is What You Get