# AMIGA news

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**MARCH 1992** 

## AMIGA STARS AT INFORAD

## A RADIOLOGIST AND HIS AMIGA

Now that my computer and I are back from Chicago, I want to tell you about a recent exhibit I had at the annual meeting of the Radiological Society of North America held in Chicago's McCormick Place.

This is one of largest professional meetings in the world, attracting over 51,000 people, with many non-U.S. attendees. The purpose is one of education, with a large number of lectures and courses designed to keep radiologists up to date. Much equipment is also on display--several football fields worth. In fact, is said that McCormick Place is one of the few places in the United States that can accommodate a meeting such as this.

### **INFORAD**

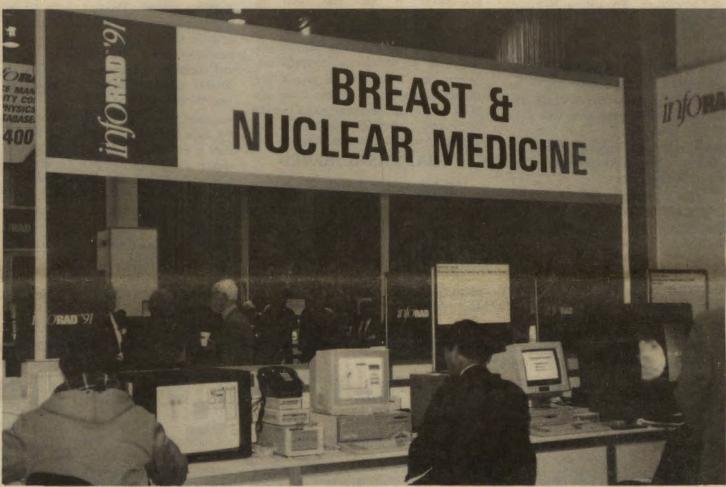
One rather new section of the meeting is devoted to the educational role of computers in Radiology. Radiologists, usually from prestigious medical centers, compete for space by submitting proposals about computer exhibits and projects they are working on. It came as a surprise to me that my own proposal "A Nuclear Medicine Teaching File -- Start to Finish" was among those selected because it involved Amiga computers, which were not among those listed as being supported at the meeting.

## WHAT IS NUCLEAR MEDICINE? - A QUICK DIGRESSION

Nuclear Medicine is a subspecialty of Radiology which itself is a subspecialty of medicine.

In radiology, a patient is exposed to some form of energy and an image is obtained. Generally speaking, the energy is external to the patient and the images that are produced give information about anatomy, e.g., about whether a bone is broken or how many kidneys a person has.

In nuclear medicine, the radiation is internal to a patient, usually given as an extremely small amount of radioactive material intravenously. While this sounds dangerous, the fact is that the



radiopharmaceuticals and the amounts that are used are rigorously controlled by the government and are only approved after careful studies have demonstrated their safety and usefulness. Hospitals and radiology departments must be licensed to use such materials and are under continued monitoring. Physicians administering these materials and interpreting the results of such tests must themselves undergo special training and licensing.

Hospitals go to great length to be able to offer the services of nuclear medicine because nuclear medicine, unlike most of radiology, gives information about function. Thus, while there are many studies in radiology that will tell you that you have a heart in addition to two normally positioned kidneys, it is nuclear medicine that can give a rather precise answer to the question as to how well your heart and your kidneys are working.

## A COMPUTER BASED TEACHING FILE SYSTEM

Given that it is desirable to have nuclear medicine procedures in a modern radiology department, it becomes imperative to have people trained to perform and interpret such studies. radiologists-in-training Traditionally spend time with an experienced nuclear radiologist learning how procedures are performed and then how to interpret the resulting images. While there are many nuclear radiology textbooks available, a computer based atlas of nuclear images would be of particular value. First, creating and maintaining such a teaching file teaches nuclear medicine because each image would have to have an accompanying text describing the important findings on the image along with some relevant questions and answers for other people reading the computer atlas. Second, in order to make such a file

or even just to add cases to a partially completed file one has to know something about computers such as how to digitize, store and use an image. Third, a computerized book need never go out of date because the next case that one adds makes a new edition.

## THE AMIGA AND THE TEACHING FILE

For me there is no question that the best and most affordable computer for graphics of any kind is the Commodore Amiga.

Nuclear images were scanned into the computer using Progressive Peripheral's FrameGrabber256. I used ASDG's Art Department Professional to convert the 256 gray scale images into the Impulse format for display with their 24 bit graphics display board, the FireCracker24. For an authoring program, I used Gold Disk's HyperBook. This is a very easy program to use.

Continued on Page 2

Continued from Page 1

In a computer based teaching file, the computer becomes a book and every screen becomes a page. On each page, I had a miniature nuclear medicine image with a series of questions related to that image. Answers could be obtained by selecting questions with the left mouse button. For more detail, images could be output to the FireCracker24. Because cases are linked together according to disease categories, the reader could study related cases rather than simply "turning the pages" of the computer book. The program even provided the option of listening to an audio CD in the background, accessed from the Xetec CD ROM drive.

### THE MEETING ITSELF

At the meeting itself, I had two Amiga 2000's and one Amiga 3000, all supplied by Commodore. The various boards and peripherals came from home, a major commitment on my part I feel.

The first Amiga 2000 had a GVP combo 33 board inside and ran the teaching file application. To it was connected my Panasonic WV1410 black and white video camera by way of my FrameGrabber256. I used this to demonstrate how xrays and nuclear scans can be captured by the computer and used for the teaching file.

The second Amiga 2000 had my old GVP 68030 accelerator, GVP hard card, and Impulse FireCracker24. The latter was connected to a Sony PVM 1342Q monitor. I also connected my Xetec CD ROM and my external Quantum drive/Teac tape drive (purchased from TTR Development) to the SCSI output. A Supra 2400 modem was attached to the serial port. I used this Amiga to play CD music in the background and show high resolution images while demonstrating the teaching file. I also used this system to demonstrate how professional bulletin boards can be used to provide images for teaching. I also had AMAX attached so that I could show the Amiga's ability to handle other computer formats.

The third Amiga was an Amiga 3000 which ran a Scala based slide show, Radiology "Computers in Education." I actually turned these Scala images into real slides using the Polaroid CI-3000 and my Amiga 3000 at home and used them for a lecture that I gave during the meeting.

For good measure, throughout the week I ran a videotape explaining how I made the nuclear medicine teaching file. This tape was professionally made by Point One Production and - you guessed it edited with the NewTek Video Toaster.

### HOW IT ALL WENT

In a word, excellently! The exhibit ran for five full days, from approximately 8:30 A.M. to 6:00 P.M. The equipment worked splendidly although HyperBook and Scala had some problem with the disk based 2.04 software on the Amiga 3000. (For HyperBook, there is a 1.01 upgrade which is supposed to take care of this problem. Scala, on the other hand, is supposed to work o.k. with the 2.04 software as long as it is ROM based. I have not had the chance to check any of

Although most of the visitors to the exhibit were other radiologists, there also substantial number who stopped technologists Technologists are the people who actually perform the studies and those who visited seemed impressed with the teaching potential of the Amiga on their more level. Many radiologists-in-training stayed considerable length of time studying the teaching cases. The exhibit was definitely a "hands on" experience and because the Amiga is so easy to use, people had no difficulty just sitting down and using the teaching file program.

There was much interest in how the images were digitized for the teaching file. This surprised me because image digitization is the first step in teleradiology which is the process of sending images obtained at one hospital to a second hospital or to a radiologist's home for an emergency interpretation. Nonetheless, I was able to give a live demonstration of the process using my black and white Panasonic video camera and FrameGrabber256. People were also impressed with the low cost of the system.

### WHAT WAS ACHIEVED

This was a major meeting of educated and sophisticated professionals. Most of the Radiologists who visited my exhibit had never seen an Amiga before. They came away impressed with the ease of use, the quality of the graphics and the affordability. Many wanted to buy my teaching application and most were disappointed that it couldn't run on the

I felt that it was very important to show the Amiga's processing power across platforms. People were very impressed with AMAX and also with Consultron's Dos-2-Dos. FrameGrabber256 came off very well, as I already mentioned. Images on the FireCracker24 got good reviews, especially those I grabbed at home with my Video Toaster.

I was also able to show the large amount of affordable hardware and software available for the Amiga.

### **FINAL THOUGHTS**

There are many of these. First and foremost, we in the Amiga community must get out and publicly show others what the Amiga can do and more importantly, what we can do with the Amiga. Showing each other what we are doing is all well and good but it will not expand the base of Amiga's being sold. And indeed this is what we must in the long run achieve. The size of the Amiga market ultimately determines the software and the hardware that can be developed profitably. Maybe we all can't show off our computer and what we do with it to 50,000 people, but we all have the opportunity to show it to our friends, neighbors, school mates, and co-workers. We have to break into the "It's either an IBM or a Mac" by saying, "There's a third choice and it's an Amiga!" Or why not just be truthful and say, "When it comes to my money, I want the best I can get. And, when it comes to computers, I choose an

Of course, marketing is Commodore's job. On the other hand, by promoting the Amiga and the use we make of it, we validate and promote ourselves. And, this validation is very important because our self respect is tied up with it. And this is true whether we use the Amiga to play games or to design aircraft--or both!

Amiga publications have a very important role to play. In addition to telling us the latest hardware and software, they need to tell us what other users are doing with the Amiga so we can get some ideas about what we can do. It is very important for them to report not only what software and hardware was used but specifically how it was used.

In short, what we do can affect the long term prospects of the Amiga.

Michael Tobin, M.D., Ph.D.

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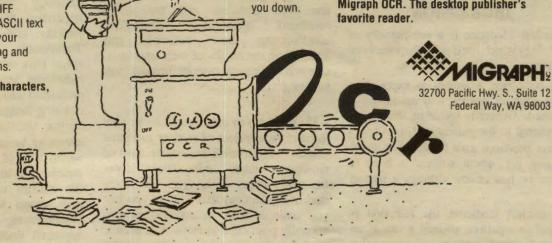
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## FONT PRIMER

Fonts, or typefaces, were pretty simple in the early days of Amiga publishing. You didn't have to worry about terms like PostScript and Compugraphic. And you never heard the 'C' word: compatibility. Bitmap fonts were part of the operating system and that was all you needed.

Then things were complicated by outline fonts. The standard Amiga bitmaps just didn't cut it when it came to quality printing, so Soft-Logik introduced outline fonts with PageStream and Gold Disk added Compugraphic fonts Professional Page.

Today, the myriad assortment of formats is more complex than ever. Gold Disk, Soft-Logik and Saxon have mixed and matched font technologies which can confuse even seasoned professionals. You cannot simply walk into a software store and buy a font package unless you understand how your desktop publisher uses fonts.

### Font Basics

Amiga bitmap system fonts are rarely used for desktop publishing because they look jagged on all types of printers. Their characters are defined as a matrix of dots. If you select a size other than those stored on disk, your desktop publisher must extrapolate from the original dots. If the characters are larger than the original size, the system must add additional dots, and if the characters are smaller, the system must remove some of the dots. In either case, the characters will look extremely jagged.

Outline fonts are typefaces which are defined as a series of points, lines and arcs. These can be scaled without a loss of resolution because the characters are algebraic expressions. The computer can resize the font outlines, and then fill the inside of the lines and arcs. Hints are encoded into some fonts to improve their appearance at small sizes and at low resolutions. Hints tell the program how to print a character when there are not enough printer dots to proportion the character strokes properly.

## **Font Formats**

PostScript Type 1 fonts are the standard created by Adobe and Apple in the eighties and are the best hinted outline fonts available for the Amiga at this time. PostScript fonts lead the font world in sheer numbers, with tens of thousands of typefaces now available. Whatever fonts you need, including most languages and symbols, are available in PostScript format. The other sort of PostScript font you might hear about is Type 3, but these are no longer widely used except for complicated special purpose fonts.

Compugraphic Intellifonts are hinted outline fonts introduced by AGFA Compugraphic and are used primarily on MS-DOS computers. They have been adopted by Commodore as the new standard for AmigaDOS 2.0. In general, Compugraphic Intellifonts are better suited for non-PostScript printers. That is, they work well with dot matrix, inkjet and Hewlett-Packard compatible printers. Unfortunately, Compugraphic fonts are not as standardized on the Amiga as PostScript fonts, so some Gold Disk fonts will not work with PageStream, and some Commodore fonts may not work with Professional Page or PageStream.

PostScript fonts will normally only work with PostScript compatible laser printers because they are encrypted and' must be decoded by a PostScript interpreter. Adobe recently released the format to their font system so some developers, such as Soft-Logik, have added the ability to print Type 1 fonts without hints to any type of printer.

Compugraphic and PostScript fonts are not the only outline fonts used on the Amiga, unfortunately. Soft-Logik has a unique format used only by its PageStream desktop publisher as does Saxon Publisher. Stylus' ProVector also uses a proprietary format. DynaCADD from ISD uses Compugraphic fonts, but in a format incompatible with the standard Intellifonts. To complicate matters even more, SoftWood has just licensed Nimbus Q font technology for its Final Copy word

You should check with each software publisher for font compatibility. The major desktop publishers all support one or more of the main formats. Gold Disk's Professional Page 2.1 Compugraphic Intellifonts as its only outline font format. Soft-Logik's PageStream 2.2 supports Compugraphic, PostScript and PageStream format fonts. Publisher Saxon 1.2 supports Compugraphic and PostScript font formats indirectly, by means of a font conversion utility. Converter programs to switch easily between formats are not yet available for the Amiga.

### More Hurdles

Now you know what type of fonts your program can use, but you are still not guaranteed that purchasing Compugraphic fonts on PC disks or PostScript 'Windows Compatible' packages will work on your Amiga.

PostScript fonts used to come in two flavors: Mac and PC. Macintosh format fonts are the fonts of choice for Professional Page users who own MiFont. This utility program from Mirror Image allows you to create Professional Page metric files to give you access to the world of PostScript fonts.

PC format fonts are required by PageStream and Saxon Publisher. PC format fonts use three types of font data files: PFB files (Printer Font Binary:

outline font information), AFM files (Adobe Font Metric: character widths and kerning), and ABF files (Adobe Binary Font: optional bitmap screen fonts). While these sound complicated, they're simple to use and readily available from commercial and public domain sources.

And then along came MicroSoft Windows. Instead of adhering to the existing standard, MicroSoft has introduced PFM font metric files and FON screen fonts. Because of the sheer size of MicroSoft, and its market dominance, many PC type vendors have dropped the older font format and accepted the Windows structure. If you own PageStream and see a font package marked 'ATM compatible' or 'Windows compatible', watch out! Demand to open the package and find out what type of files are provided before you lay down your money. Saxon Publisher 1.2 owners are more lucky since they can use either format with their program.

Compugraphic fonts are little easier. Although Commodore, Gold Disk and Soft-Logik have all licensed the same technology, font usage varies between vendors. A good example is the Letter Gothic font supplied with WorkBench 2.04 which is not compatible with either Professional Page or PageStream at this time. If you purchase PC format Compugraphic fonts, you will have to have access to an MS-DOS machine to convert them from AGFA's generic format to Intellifont. Compugraphic font handling will improve in 1992 as they become more widely spread in the Amiga community.

### And at the End of the Rainbow ...

There is reward for crossing the font wasteland. Once you have figured out which fonts work with your program, you will gain access to a much wider selection of typefaces. Instead of choosing a font which will merely 'do' for a document, you will be able to find the one you originally had in mind without being forced to compromise your design.

Eventually you will be able to purchase any font, plug it in and use it in your documents. That day is not yet here, but it is getting closer. Until it arrives, ensure you understand the capabilities and limitations of your desktop publisher, and get the most out of it.

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## AUDITION 4 KING OF

If you like AudioMaster, you will love Audition 4. It has almost every single feature of AudioMaster, but it is very very fast. It is the only sound sample editing software that lets you create effects and audition them before actually changing the sample.

One of the things that AudioMaster does that I do not like is that it steals all of the sound channels. I like to edit interactively with other programs, saving the sounds and loading them into my multimedia program without having to exit the sound editor. Audition 4 does not tie up the sound channels when it is not actually playing sounds, so you can multitask with other sound playing

Beside the traditional cut and paste, Audition 4 includes a full range of effects. The unique thing about them is that you can adjust them all in realtime while listening to the changes. For example, if you want to mix two different samples, you can listen to the sound and adjust the levels between the two by moving a mix knob around in the mix box. No more setting an effect, changing the sample, listening to it, deciding you don't like it, then reloading the original sample. You can either try an effect to hear it once without changing the sample in memory, or you can have looping turned on and hear the sample continuously as you adjust it. If you do a lot of sample editing, this will save you hours of time over the old method.

The effects include mixing of two samples, echo, fade, flange, lowpass, highpass, bandpass and bandbarrier filters. All of these can also be done in realtime on an incoming sample, which means you can use Audition as an audio effects generator in live presentations. You can even digitize directly into an existing sample.

You can invert a sample or highlighted region, reverse it, swap channels, and swap the buffer and the main current sample, all instantly. Other options include smooth, maximize (to boost playback level), centralize (centers the sample, correcting the DC offset), and lift (increase) treble and bass.

It supports the sound sequencing standard introduced in AudioMaster 3, so you can create very long samples by creating multiple sequenced loop points in your sample. It played sequences created in AudioMaster perfectly. It also has similar resampling features, and can create 1, 3, or 5 octave instruments in IF or Sonix format.

Audition directly supports the Perfect Sound digitizers and Sound Master, but is optimized to work with Perfect Sound 3 (made by the same company). It will work with any audio digitizer, though. The monitor function gives you an oscilloscope display of the incoming sound, letting you easily adjust the levels to avoid clipping. You can adjust the DC offsets, and sample to the channel of your choice. Sampling can be started with a mouse click, or it can wait for sound of a set volume to start.

Instead of recording to memory, you can record directly to floppy disk. These disks can only be played back by booting the computer with them, but it is still an interesting option.

One of the features I really like is the Play requester, that lets you select sounds and play them without affecting the sample you have loaded into the editor. This helps a lot when you are trying to find a sample.

by Geoffrey Williams

Another thing that is nice is that you can adjust a highlighted region by moving it from either end. With Audiomaster 3, you had to rehighlight the region to

There are a few things that are missing. You can't record sound to a hard drive (recording sounds larger than memory) and then retrieve them for editing. Sorely missed, and a much used feature in AudioMaster, is a timeline so that you can edit samples based on time.

With very few exceptions, it has everything found in AudioMaster 3 and more. The realtime editing is what truly sets it apart, though. Even on an unaccelerated machine, every effect and edit is instantaneous. You can even do realtime zooming, even while a sample is playing.

While it is called version 4 (primarily, I assume, to deal with the recent release of AudioMaster 4), this is actually an initial release. It has an excellent manual and a well-designed interface. I am very pleased with it, and until I upgrade to 16 bit sound (Sunrize has announced a 16 bit digitizer), this will be my editor of choice.

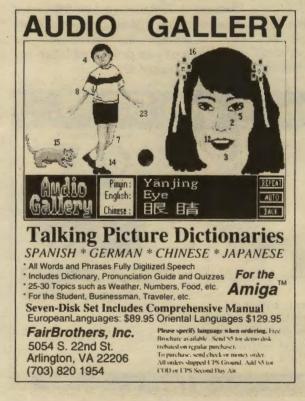
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Geoffrey Williams is a multimedia producer and head of the national Amiga Video-Graphics Guild.

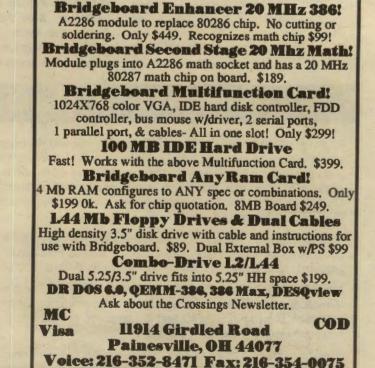
Centaur Software today announced the ongoing development of the world's first 24-but computer game, King of Karate. The game is being designed to take full advantage of the unique capabilities of the Amiga computer coupled with Centaur's new OpalVision 24-bit display hardware. The karate action game features the largest and most detailed animated characters ever utilized in an Amiga

The OpalVision hardware is being used to generate scrolling backgrounds and foregrounds using a 16.8 million color palette in pure RGB video, while the full graphics power of the Amiga is employed solely to generate animations. Because of the unique characteristics of the combination of OpalVision and Amiga hardware, the game has a degree of graphic and animation quality never before seen on the Amiga. The game is joystick-controlled, for one or two players and also includes music and sound effects. The game is being created by the same design team which completed Centaur's highly successful Fantastic Voyage project last Fall. programming is being done by Marc Hawlitzeck and graphics are by Christian Fleckenstein Laursen. The music is being composed by Bjorn A. Lynne and the project's producer is John Sievers. Fifth degree black belt karate champion Albert Cornejo is acting as a technical consultant on the project.

King of Karate will be included with every OpalVision unit and will demonstrate all of its capabilities. King of Karate and the OpalVision hardware will be shipping in May, 1992.







Hours: M-Th, 10 am-6 pm EST

## **LETTERS** TO THE **EDITOR**

Enclosed find subscription form for Amiga News. Any editor who is honest enough to print out that a subscription costs more than store price deserves to have people subscribe.

I enjoyed your November and December issues very much. The reviews were excellent. Let's have lots more! Since our last remaining Amiga dealer is going out of business, we'll have to buy our software by mail and reviews will be very important.

Have you considered a glossary for beinners. For instance - exactly what is AREXX. Is it very complicated to use? What is a 24 bit image? Are there different kinds of memory? What are they and what do they do? I'd be very interested in such information.

Keep up the good work. Isobel Kaufman

Storrs, CT

- It seems that the Amiga community as lost a lot of dealers lately, I wonder why? Could it be: The Devil?

AREXX is what us New Hampshirites call their German Shepherds. (It's actually a language and its covered in this months Pass It On)

A 24-bit image is a image with 24 bits of information available to describe the color giving approximately 16 million colors, roughly equivalent to broadcast TV display.

There are many different kinds of memory and a detailed explaination is beyond the limited space available here, but an upcoming article by Mr Hardware will explain the major types and functions. If my short-term memory allows me to remember to ask him.

- Ed



No, I do not wish to pay \$1.00 more for subscription rate, than purchasing it on the newsstand. Submit your companies name to the GURU contest for having allowed such an idea to take root.

If that is disallowed, then submit WordPerfect for their decision to back out on their promises to customers. A close runner up, but we get tired of seeing it each year, is Commodore.

Commodores marketing program produces no advertising except in selected markets, a ten watt station in New York city and perhaps another 10 watter on the west coast somewhere. I never saw any ads this year. Last year only a few were sponsored by a dealer who pulled out of the computer market all together this year. This was partially due to Commodores lack of advertising.

Yes the run time module is a mistake of historic proportions, but I'm beginning to expect this from Commodore. Who else would bring out a such a product without one. It's similar to the idea of holding annual meetings in the Bahamas. Need I

I can't top your SCUD awards, the Volcano shrouded Amiga 500 was hard to

Your newspaper format is great! Please keep it that way! It's nice to be able to sit down and read it in that format. I have enjoyed each issue, and I enjoy picking it up from my dealer. It gives me an excuse to drive out of state to get to a Commodore dealer.

Our only full service computer store handling Commodore products shut down last year. Although this new store is great, it's in Illinois. That's a half an hours drive

One more thing. The story on Nickleodeon Arcade was terrific.

**Bob Scharp** Bridgeton, MO

- Oh boy, Amiga News is an award winner! The reason behind paying a \$1 more for a subscription than newsstand is rooted in that new branch of mathematics: 'Diner Math'; the underlying concept of Dmath is that interesting phenomenon encountered when ordering \$2.99 hamburger and a 75¢ cup of coffee you wind up paying \$5.47. The real reason is the Post Office requires a 75¢ stamp affixed before they will deliver Amiga News. 12x75¢ is \$9.00 now add in the cost of the paper, an envelope, a label and labor to assemble the package and the actual cost per issue to mail, becomes \$1.16. But by applying reverse Dmath, we figured by raising the cover price to 95¢ and subscription rate to \$12.40 we break even. An interesting side branch of Dmath deals with the shared tab, where the same hamburger costs \$11.36.

Commodores marketing program is Dmath applied to a real-world simulation.

## Regarding Personal Write V3.0 a reply by Pamela Rothman

A famous remark by Samuel Johnson, regarding a dog who could walk on his hind legs, was that the amazing thing wasn't that the dog did it well, but that he could do it at all. This seems to be the attitude of John Sievers, general manager of Centaur Software, in his reply to my review of his company's word processor, Personal Write v3.0.

Even inexpensive programs should be good programs. A person decides to get into word processing, and buys a low-priced word processor as a "starter" program to see how they like it. This is a sensible line of thought, and works well for such activities as tennis or wood carving. But when someone who is new to word processing encounters a program like Personal Write, it can send them screaming into the night. That's bad, for word processing and the Amiga.

In the first paragraph of his reply Mr. Sievers asks how I would prefer to accomplish the task of loading a new document? Naturally, I would prefer to do it in one operation instead of two, as Personal Write makes me do. If I have an "overly judgmental" preference for a simple way of saving my document, I don't think it is an unreasonable one.

In his third comment he objects to my use of the word "but" when in fact I was trying to highlight a sensible and useful feature of the program; its ability to automatically go into the Mark Block mode when a block command is selected. Other word processors have dispensed with the Mark Block command entirely, but if it has to exist, then Personal Write's way of dealing with it is acceptable.

When I reported my confusion with the interface design, he pointed out that it takes time to become familiar with keyboard shortcuts. This is true, but the process is greatly facilitated by having some pattern the user can identify. I could find no such pattern in Personal Write's function key and keyboard shortcuts. In the Text menu, for instance, the Block Commands use two presses of the F2, F3, and F4 keys to Cut, Copy and Paste, but the Swap Block command uses the F2 and then the F4 key, and Sort Block command uses the F6 and then the F8 key. However, the line commands such as Delete, Copy, Insert and Duplicate use the Right Amiga Key and the keys O, P, L, and W, respectively.

When I selected different styles of text, they did not show on screen, as described on page 24 of the manual. "The text is displayed left-aligned on the screen. A symbol on the title bar gives additional information on the current paragraph alignment." I could not find the symbols on the title bar, even though the menus were telling me I had chosen an option such as centering. When I tried to underline or bold the text, it did not show onscreen. I could not find anywhere in the manual where it specifically told me it would. The menus did show which styles I had selected, as described on page 79-80, but I could not make them print on my HP LaserJet III, which has no problem with such printing when I use other word

I am glad Mr. Sievers pointed out an error. Personal Write does support headers and page numbers. I had read the entire manual prior to writing my review, but when the time came to sum up features, I couldn't remember if Personal Write supported headers, page numbers, footers, and the like. I tried to go through the manual again, and looked through the menus, but I was unable to find any reference to such features. When I read his reply, I went back to the manual again,

searching page by page, and found it under the main menu Options, under a menu item called Format Document, which brings up a requester with fourteen options on it, and there indeed was a way of creating headers and page numbers.

This simply points up a major problem with the Personal Write manual, which is its lack of index. I believe my sincere effort to write an accurate review was thwarted by the manual's design, which obviously is not, as Mr. Sievers states, "laid out in a cohesive fashion which makes it easy to find what you're looking for." The manual is laid out according to the Menu Items on the main menus, and then in order according to the items in each sub-menu, and so on. In order to find a command in Personal Write's manual, you first need to know where the command is on the menus. If you knew where the command was in the menus, you wouldn't be searching in the manual, would you?

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## DEVELOPING FOR THE AMIGA

by Joe Rothman

Over the years, I have seen Amiga developers come and go, but I have also seen those that grow and prosper. When I talk on the phone to the people who run these companies, sometimes I can almost predict their fate. A pattern starts to emerge which points to success or failure. The Amiga market is unique. As a long time Amiga owner, I felt that my experience might be beneficial to those who are considering developing for the Amiga market.

As I see it, there are plenty of opportunities for new product development on the Amiga. The fact that lots of companies ignore the Amiga leaves the market wide open in some areas. Before you even consider developing an Amiga product, make sure you understand one thing. The Amiga market is much smaller than the IBM clone market, but that fact is actually irrelevant. If the products you develop are unique, you will have no real competition. It's better to be a big fish in a small pond than it is to be a small fish in a big pond. Successful Amiga development depends on several

The most obvious is product quality. You can create a full featured but unreliable product for other platforms and get away with it for awhile, but you can't do that on the Amiga. Anyone who tries, finds themselves sitting on lots of dead inventory. Amiga owners are too well connected to allow inferior merchandise to be sold. Make sure you know what you are doing before you sink a fortune into a project that won't fly.

Your next consideration should be commitment. If you aren't prepared to support the Amiga as your company's main direction, save your energy and your money, you are going to fail. It's much too easy to get distracted and forget what direction you are heading in when you diversify too much. Amiga owners will

catch on, get tired of waiting for you to catch up, and stop supporting you. Hear that WordPerfect! Don't blame us, you dropped the ball two years ago.

Another important requirement for successful Amiga development is that your products must take advantage of the Amiga's unique capabilities. You can't cripple your programs so they will run on less capable computers and expect Amiga owners to buy them. We don't buy crummy ports. We know what our machines can do, even if you don't. If you haven't got a clue, just ask us, we'll tell you what we want.

Yet another thing to consider is that the Amiga is Commodore, and Commodore is the Amiga. You can't put Commodore down without hurting the Amiga. Be prepared to cooperate with Commodore and other Amiga developers to improve the Amiga community at large and create a bigger healthier market. Dirty pool doesn't work here, we all have too much to lose if the Amiga doesn't make it. Actually, there's no chance that the Amiga won't make it. It already has made it.

OK, you got me, my name isn't IVS, GVP, DKB, or ICD, but I'm trying. I don't expect miracles, I just expect progress, and progress I am getting. I'm avoiding the temptation to produce for another computer platform with a huge market for three reasons. 1) There isn't any other computer that's worth the effort it would take. 2) Huge markets have huge amounts of competition that will most likely gobble me up and spit me out before I can say Uncle. I won't even port my programs to those machines. 3) The Amiga needs business software, and I can be the one to provide it. It gives me a good feeling to run one of the companies are fulfilling Commodore's prophecy. The Amiga as a business computer. What a concept!

## COMMODORE ANNOUNCES \$500 REBATE FOR A3000 PURCHASES

Commodore Business Machines, Inc., is offering a \$500 rebate toward the purchase of an AMIGA 3000-25/50 or 3000-25/100 multimedia computer system. The offer is available for purchases made between February 1 and April 30. Buyers can either receive the rebate directly from Commodore after purchasing a qualified A3000 or apply the \$500 rebate immediately in the store toward the AMIGA purchase.

"The \$500 cash rebate gives buyers (including government and education customers) a unique opportunity to purchase a multimedia platform that excels in video-based presentations and interactive applications for kiosks or

training," said David J. Archambault, director of business markets, commodore.

"In addition, the AMIGA carries one of the most comprehensive service programs in the microcomputer industry with one year of free on-site maintenance for warranted repairs purchased through authorized Commodore dealers in the Continental U.S. So, the rebate offer teams cost effectiveness with key features for presentation, videographic, animation and training applications," Archambault said.

Manufacturer's suggested retail prices are \$4,146.00 for the A3000-25/100 and \$3,498.00 for the A3000-25/50. For information and additional details, call 1-800-66-AMIGA.

## CrossPC, The Software PC-XT Emulator

## **Bundled with an Enhanced Version of CrossDOS**

Consultron has announced that it will be shipping CrossPC with an enhanced version of CrossDOS. CrossPC is a software PC-XT emulator that runs many popular PC programs while multitasking with Amiga software. CrossDOS has been enhanced to support new disk types including 1.44 Meg high-density disks and the new 20 Meg Floptical disks. Both these products are bundled together in our product called CrossDOS version 5.0 Plus.

CrossPC features: 100% Software Emulation: CrossPC will emulate a PC-XT entirely in software. There is no additional hardware to buy. It emulates either a CGA or Monochrome video modes using the Amiga video. It uses the standard Amiga floppy drives and can access a partition set aside on an Amiga hard disk as a MS-DOS hard disk. It uses the parallel, serial and mouse ports to emulate the same devices on the PC.

Runs on any Amiga: CrossPC will run on any Amiga with 1 Meg or more of RAM using AmigaDOS 1.3 or 2.0. It also requires the MS-DOS operating system version 3.0 or higher (not supplied). If you are running on a 68020, 68030 or 68040 processor, you can run an optimized version for increased performance.

PC Hard Drive support: CrossPC allows you to create a PC hard drive by using a part of your Amiga-connected hard drive. It can also be configured to boot from this 'drive'.

Integration with CrossDOS: CrossPC is designed to integrate as closely with CrossDOS as possible. This means that you can access the same data from both CrossPC and the Amiga. This includes floppies as well as PC hard drive partitions used by CrossPC.

### CrossDOS version 5.0 enhancements:

Supports new disk types: Along with supporting 360K and 720K disk formats, CrossDOS now supports access to 1.44 Meg high-density disks using either the yet-to-be-announced Amiga high-density drive or the new floptical drives. It also supports the 20 Meg MS-DOS floptical disk format for transferring large amounts of data. CrossDOS can also be configured to work with most MS-DOS formatted hard drives in the same transparent fashion users have come to enjoy.

Improved Utilities: CrossDOS has improved support utilities. For example, format and diskcopy commands can now operate on both MS-DOS and AmigaDOS disks.

Improved Error Recovery: CrossDOS has improved error recovery techniques when encountering disk errors.

Improved User Interfaces: CrossDOS has improved its user interfaces to be more consistent with the style of AmigaDOS 2.0.

Contact Len Poma at Consultron, (313) 459-7271 for further details.

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## A [asual Observation

At last month's Consumer Electronics Show in Las Vegas, rumors continued to circulate regarding a Commodore buy out. Sony and Hewlett Packard were among those discussed. I remember mentioning several times how much I would like to

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3. GLASSES AND TAKE YOUR AMIGA FOR A 3D RIDE.

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write about such an occurrence for Amiga News, if only I could document such a

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marked "Confidential." I rushed up the elevator to my room and opened the double folded bag. Inside was a small styrofoam box. I opened the lid and found a small slip of paper inside that said:

We know you write for Amiga News and heard you speaking about Commodore buy out. For the real story, meet me in the hotel parking garage at 3 am. Regards, R.Mc.

I was hardly able to contain my excitement of yet another scoop for Amiga News. Early that morning, as I walked in the darkened garage, a figure with big feet appeared in the shadows and a voice hissed, "Come no closer!'

The voice continued,"I haven't time to waste. We're buying Commodore, lock stock and barrel and we're turning around. products are on the way, as well as a massive national advertising campaign. We're specialists at marketing".

"My Gosh," I exclaimed "who are 'we', IBM? Hewlett Packard? Sony?"

The voice whispered, "McDonalds".

"McDonalds?"

"Yes, we already have new selections, er . . computers we're trying in selected test markets."

"McDonalds?"

"You sound like a broken record. What's wrong with McDonalds?"

"Uh nothing, I guess . . ." as an image flashed through my mind of the Commodore logo on the front of my machine being replaced with the golden arches.

"Of course we're going to have to revamp the product line, to conform to our standards".

"You mean ..."

"Yep. We're going to call A3000 the McMiga".

"Big McMiga?"

"We're going to call the 2000 w/hard drive

McHDLT and the A500 will be a regular McMiga".

"McHDLT?"

"The new 'Power Up' programs will be called Happy Deals. These are our standard configurations. Of course, we can fill special orders, but customers will have to wait."

Weakly I said, "What else can I tell our readers?"

"Well, as with any corporate takeover, some people are biodegradable. Ed Mc-Muffin is coming over to head up U.S. operations. By the way, our slogan is 'Apple may have the Mac, but we have the Big Mac.'

He was quiet for a moment, then said "Well, what do you think?"

"Hmmmmm . . . I don't know. I mean, what do you guys know about promoting computers?"

"Well, what does Commodore know?"

"But you're a burger company. These are computers. What can you possibly

A white face with orange hair was suddenly visible in the dim light.

"Imagine 3 billion units sold," the face

And then I woke up ...

### Commodore Raises Prices

While computer hardware prices generally seem to be going down, Commodore has announced significant price increase on the A2000 and A2000HD computers. CBM was praised in the press for offering the A2000 and A2000HD with \$999 and \$1299 during the Christmas buying season. And because compared to the rest of the industry, Amiga 2000 prices are already too high, many industry insiders felt that these prices would remain. NOT!

In a move that generally caught everyone by surprise, Commodore announced on December 16th that the price of the A2000 (which was at \$999 for Christmas) would now be \$1937 and that the A2000HD (\$1299 at Christmas) would now be \$2090. Commodore has claimed that the price increase was to combat the third-party hard drives, or in other words to force someone to buy a 2000HD instead of 2000 and say, a GVP Series II

I suppose from Commodore's point of view, this makes sense. My guess is that they intend to ride the Video Toaster's coat tails. After all, if you want a Video Toaster, you have to buy a 2000 of some sort. However, forcing a 52 meg hard drive on a Toaster user just doesn't make any sense, especially when the new Toaster software is 35-40 meg by itself.

Retailers are attempting the 'beat the system' by purchasing 2000HD's then removing the 2091 controller and 52 meg drive and selling them separately.

## Tim on Toast

I have been accused of being increasing hard on the Toaster Guys. I assure you, it's not because they never processed the "Cool Friends of NewTek" application I sent in, nor is it because they once threatened to sue me a few years ago.

It is because their behavior seems to warrant it. Without the Amiga, there would be no Toaster, and for that matter no NewTek. I don't for one minute suggest some sort of blind hobbyist loyalty, but to pretend the machine doesn't exist seems a bit much.

HOWEVER, to be absolutely fair, I had a chance to look at the new Toaster 2.0 software, and it's absolutely incredible. Because I really don't like to make my column too technical, I'm not going to get into all the wonderful things it does, but I was suitably impressed. There are major improvements to all the modules, and even my friend who loves and hates the Amiga at the same time said it was awe-

### Distribu-WARS

The two largest distributors of Amiga products are apparently at it again.

Micro-Pace & American Software, the two largest suppliers of Amiga software and third party hardware to dealers in the country are once again in heated battle. This conflict is like the Middle East crisis, in that it goes back to the beginning of time (at least 'Amiga Time'). And because one spawned the other, they are located just a few short miles apart (which is another war story, for another time. And compete for the same Amiga dealers across the country.

On January 2nd, the first day of business in 1992, American sent a fax to the dealers dropping their prices and claiming "we will not be undersold on hardware." Rumors have surfaced that American is selling hardware just over cost to bury the competition. Other rumors counter that American is going out of business, although there appears to be no evidence of this. Heavy in Micro-Pace's arsenal is their contract with GVP. If anything interesting happens here, we'll talk more about

## When the Chips are Down

Actually the chips aren't down, they're up. On February 1st Commodore announced a major price increase on their proprietary chips. Prices in some cases are 10 times the previous price. However, if you return a bad chip, then the price is again normal. By raising the price in the manner, Commodore is apparently trying to make it difficult for someone marketing a product using Commodore chips, specifically me thinks the Newer Technology LapTop (we know CBM was quite paranoid about this one). Apple did something similar to this some time back to slow down products that used Apple ROM's to emulate the Mac's technology (such as AMAX). A bad part is that it will be nearly impossible for users to repair their own

continued on Page 8

continued from page 7

machines. Also dealers will have a hard time stocking chips. Someone on BIX suggested that anyone wanting a quantity of Commodore chips for less should just buy a \$399 A500 and gut it. I guess it's welcome to the big time for Amiga users.

Recent call to Commodore Technical Support

We'll call him Joe Technician of XYZ Computers to protect the innocent. We'll call the guy in tech support John because that's what he said his name was.

TS: Commodore Tech Support, this is John, can I help you.

Joe: Hi, this is Joe Technician from XYZ Computers. I'm having some problems getting a 2088 XT BridgeCard to work in an A2000.

TS: A what?

Joe: A 2088 XT BridgeCard in an A2000.

TS: One more time?

Joe: A 2088 XT BridgeCard in an A2000.

TS: A 2088 XT BridgeCard in an A2000?

Joe: Right!

TS: Okay. Whose is it?

Joe: Whose is what?

TS: The BridgeCard. Whose is it?

Joe: Whose is it? It belongs to Rick Smith.

TS: Whose??

Joe: Rick Smith, he's one of our customers.

TS: NO! Who makes the BridgeCard?

Joe: Well you do. Commodore. Who else?

TS: Oh. Well, at least 3-4 companies besides us make BridgeCards.

Joe: Well, like who?

TS: Never mind that. Tell me what the problem is.

Joe goes on to explain a fairly technical problem he is having with a BridgeCard.

TS: Hmmmm, I don't know what to tell you (or you got me on that one). Is there a user group in your area?

Joe: Yes, there are two.

TS: Perhaps there's is someone in one of the user groups that can assist you.

Joe: Perhaps. Well, listen John, I really appreciate your help...

TS: Hey, no problem. That's what we are here for.

Joe: Hey John, I hope you're not biodegradable.

TS: What?

Joe: Never mind. Thanks (click)

As Rod Sterling used to say after the Twilight Zone, "No comment necessary."

(Okay, so I made the last line up, I just couldn't resist. The rest is true)

To share any interesting Amiga stories or comments, or to just complain in general about the content of this column, write to me at 949 N. Semoran Blvd., Orlando, Florida, 32807 or send me E-Mail at 407-381-2249. If you send me something I use in this column, I'll send you a dollar.

(C) Copyright 1992, Tim Perez.

## Version 2.1 of UNIX SVR4 Introduced

In response to changing market conditions, Commodore Business Machines, Inc., is making the increased performance of UNIX available to more AMIGA users.

The company introduces Version 2.1 of AMIGA UNIX System 5 Release 4 (SVR4) -- an operating system module for AMIGA 2000 and 3000 series machines. Version 2.1 allows standard access to the X Window System (TM) and Open Look (TM) for the desktop environment. In addition, it provides standard networking capabilities such as TCP/IP, NFS (TM) and RFS (TM) to handle networking across different environments.

"AMIGA UNIX is easy to use and structured for future growth," said Geoff Stilley, vice president sales, Commodore. "Version 2.1 can be installed on the same hard disk in a different partition as both AmigaDOS (TM) and MS-DOS (TM) for more extended functionality."

Version 2.1 provides several user interface shells, including Bourne Shell, C Shell, Korn Shell, Restricted Shell, Remote Shell and Job Control Shell. Also, it features a simple-to-use e-mail system, plus Emacs and vi, two screen-based text and program editors. Multiple virtual screens are available in addition to multiple windows, so each of several users can have a screen on the same machine, or a user can have separate virtual screens for different uses. "With Version 2.1, AMIGA users now have significantly increased performance," Stilley said. "It is a full implementation of UNIX SVR4 and includes additional useful features at a very competitive market price."

The Version 2.1 bundle includes manuals and documentation, a magnetic tape containing the operating system and other utilities, and boot disks for loading and installing Version 2.1. A two user license can be purchased as of February 12, 1992 for \$995, and an unlimited user license costs \$1195. More information is available through Authorized Commodore Dealers.

As part of the AMIGA UNIX Version 2.1 introduction, Commodore has announced a reduction on their AMIGA 3000UX System effective until April 30, 1992. The AMIGA 300UX CPU will include the UNIX Version 2.1 Operating System, a 200 MByte drive, nine MBytes of RAM, keyboard, 3 button mouse, the 2410 high-resolution color card, and Ethernet card (for both thick and thin Ethernet), plus the customer's choice of either a A1950 color monitor or an A3070 tape drive (SCSI) unit, for \$4998.00. Sold separately, the suggested list price of this system is \$8495.00.

"The introductory pricing is part of Commodore's goal to provide technical solutions at affordable prices for users," Stilley said. "The AMIGA 3000UX is not just another hardware clone, it provides a unique platform for this industry standard operating system."

Commodore Business Machines, based in West Chester, PA., markets a complete line of computers and peripherals for business, education government and consumer markets.

Commodore is a registered trademark of Commodore Electronics, Ltd. AMIGA, AMIGA 3000UX and AmigaDOS are trademarks of Commodore-Amiga, Inc. UNIX and UNIX SVR4 are registered trademarks of UNIX Systems Laboratories, Inc. and Open Look is a trademark of AT&T. X Window System is a trademark of the Massachusetts Institute of Technology. NFS is a registered trademark of Sun Microsystems.

## "The Phonebook at your fingertips"

CONSULTRON has announced that it will be distributing the Australian-published product Contact, version 1.2 within the North American market. Contact is a memory-resident, easy-to-use address database with many useful features. Contact takes the user one step closer to the "automated office". Contact 1.2 includes CalcKey 1.3 the 'hot-key' calculator.

"Phonebook at your fingertips": Contact provides quick and easy access to your address database by being memory-resident and callable by a configurable 'hot-key'. You can also create and access multiple 'phonebooks'.

Easy-to-Use: A simple interface allows you can create and edit address and phone information intuitively. All its other features are just as easy to use.

Screen Sharing: Contact can be called up from virtually any program and share that program's screen.

Direct Address Insertion: You can type a selected address directly into any text window. This includes text editors, wordprocessors and desktop publishing programs. There is no need to re-enter the address into your document. Just select the address, and press one button. It also supports the Amiga clipboard.

Phone Dialing: Contact can store up to two phone numbers for each address record. It can also dial either number if an autodial modem (not supplied) is attached to the serial port.

Label Printing: You can configure to print labels on either Amiga preference-supported or Postscript printers.

AREXX interface: Contact has a comprehensive AREXX interface to all its functions for advanced user integration.

CalcKey, the memory-resident calculator performs standard, scientific and programming math function.

System Requirements: Contact will run on any Amiga with 512K or more of RAM using AmigaDOS 1.3 or 2.0.

The suggested list price \$59.95 and is available from most Amiga software retailers or directly from Consultron (include \$5.05 S&H for USA and Canada or \$10.05 elsewhere). For further information contact Len Poma at (313) 459-7271.



## **Omni-Eureak Electronics** and Micro R. & D.

Micro R. & D., Inc. have developed an exclusive relationship with Omni-Eureka Electronics Corporation to provide their products to North American customers.

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In all cases, the Omni-Eureka products represent exceptional value for the Amiga user because of their high quality and low cost. These products are backed by at least two year warranties through US based Micro R.& D., Inc.

Contact your favorite dealer/distributor!

For more information contact George Graham at: Micro R. & D., 137 N. 7th, Loup City, NE 68853. Phone: (800) 527-8797.

## KARA FONTS TOASTER FONTS

Kara Computer Graphics, in Marina Del Rey, California, who create the high quality KARA FONTS line of colorfonts for the AMIGA, are now releasing two new packages of anti-aliased 16 million color fonts for the TOASTER CG. These two font packages will give TOASTER users the professional broadcast quality "look" to use for titling. KARA FONTS have always been a forerunner of quality in the AMIGA and now will do the same for the TOASTER with their fonts, which come in a wide variety of 3 dimensional looking texture treatments and type styles. Each package, containing six disks, has four different fonts in two sizes each. Every font includes the full character set of CAPS, Lower Case, numerals and special characters (plus registered, copyright, British Pounds, Degree, Cents). Includes a Hard Drive Installation program

TOASTER FONTS 1 contains four distinctive fonts in styles of shiny and metallic surfaces. Fonts included are CHROME, GOLD, GOLDextruded, and INFLATED.

TOASTER FONTS 2 consists of four textured fonts in four different type styles. Comes in textures of MARBLE, GRANITE, WOOD BRASS(brushed).

Each package has a suggested retail of \$99.95. Look for the release of these two packages this July.

For more information, contact: Kara Computer Graphics, 2554 Lincoln Boulevard, Suite 1010, Marina Del Rey, CA 90291, Phone: (213) 578-9177.

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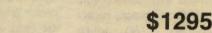


## \$1895

### FreezeFrame™ Film Recorder

The Polaroid FreezeFrame film recorder lets you capture any image from your Amiga on film, at a remarkably low price:

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- Use a 24-bit graphic adaptor like Impulse's FireCracker 24 or M.A.S.T.'s ColorBurst for incredible results
- Support for NTSC output from your Toaster or DCTV
- In NTSC mode, manipulate and preview saturation, tint, brightness and contrast taking a picture
- Includes 35mm and Polaroid AutoFilm camera back
- · Optional 35mm, cinema format, pin-registered back available for animation work



### **Phovos 300C Color Scanner**

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## STARS IN MY EDES -

by Terry Kepner

NASA has been fairly quiet, lately. No new launches of planetary probes. On the other hand, the Europeans and Japanese have sent up several missions. What about the missions launched years ago that are only now nearing their targets? Like the Solar Orbit mission that recently shot by Jupiter and, arched by its massive gravity, into an orbit that will take it directly over the Sun's polar regions.

And what about all those expended booster rockets? When will 1991VG (the upper stage of U.S. Centaur rocket launched in December 1974), which missed Earth by 450,000 km last December, return to our region? Will it ever hit Earth? Then there are the Earth-crossing asteroids we now have plotted (for example, 1991BA, January, missed by 170,000 km, or 1991 TU, October, 750,000 km).

Are you a beginning amateur astronomer? Do you find all those night-star "pocket charts" confusing. Do you want an accurate chart of the night sky, adjusted to your actual position, and time, on Earth, with real horizons so you can easily orient your telescope?

All these are a snap with Voyager, the Dynamic Sky Simulator from Carina Software. This full-featured planetarium program is fast, with a simple and easy to use user interface. Plus, it has animation!

## The Mechanics

Voyager requires a minimum of one megabyte of RAM and two floppy disk drives. Making available more memory and a hard disk drive will dramatically speed things up. Voyager does not have AmigaDOS on the distribution disk, so start the program after workbench is loaded.

The first screen you see is the Sky Chart Window. Everything is done from this one screen. On the left is the Sky Panel, on the bottom and right side are scroll bars, plus special control buttons on the bottom for easy, one-click options. These six icon buttons toggle the display of the planet control panel (appears at the top of the screen), stars (all or none, for looking just at the other sky objects), Deep Sky Objects (galaxies, clusters, and nebula), Constellation Outlines (stick figures connecting the bright stars of a constellation), and Grid Control (the type of grid is selected in the Sky Menu).

The control buttons are self-explanatory, except Planet. This puts a bar at the top of the Sky Chart Window that toggles the display of specific planets, comets, asteroids, spacecraft, Earth's (or the Moon's) shadow, locks a planet into the center of the Sky Chart Window, make the planets leave trails across the charts, and indicate the planets with their symbols instead of as colored dots.

This bar is useful for targeting the display to the features you really want to

explore, such as studying the interaction of Jupiter and Saturn from the viewpoint of the asteroid Ceres. Using the planet symbols instead of just relying on color opens the program to color-blind people (10% of the population), and allows rapid identification in the chart. This is especially useful when printing the charts on non-color printers.

The Sky Panel at the left displays the current day and time (local and universal), observational location, Sky Chart Window center (right Ascension and declination), the field of view shown in the window, and the type of chart you are examining (atlas, local horizon, celestial sphere, and full sky). In addition, the step increments for animation and zoom buttons are available here.

The zoom buttons let you increase and decrease the window field of view (how much sky you see) with a simply click. The step increments for animation start at one minute and increase up to 100 years in forty increments.

### **Getting Started**

The first thing you need to do is to tell the program where you are. This is done through the Control Menu. Rather than ask you for your latitude and longitude (right, everyone knows their latitude and longitude), just select "Set Location," point to your location on the globe displayed, and presto! You can, of course, type in the latitude and longitude, if you prefer. You can also select from Voyager's list of a hundred or so cities. If your pointing isn't that accurate, you can increase the magnification of the globe to two-times and four-times.

Other options in the Control Menu include setting Local Time, Universal Time, System Clock, Time Format (AM/PM or 24-hour), and Date Format (Mth/Day/Yr, Day/Mth/Yr, or Yr/Mth Day); getting a system status on all user settings (date, time, location, etc.); and displaying the current horizon in use (with the option to use your mouse to redraw the horizon to match your observing location).

At the very top are the mouse right-button menu selections for in-depth selections and decisions, including standard settings.

The Sky Menu lets you select Sky View (the four chart options mentioned before); toggle the Sky Panel; toggle the Planet Panel (same as Planet Control button); set Magnitude lower limits for Sky, a sliding magnitude scale in .1 increments from zero to ten, and Deep Sky, a sliding magnitude scale from six to sixteen in .1 increments; and select which Deep Sky objects to display (spiral, elliptical, and irregular galaxies; globular and open clusters; planetary, bright, and dark nebula; Quasars; and X-Ray sources). You can set Sky Rotation (forward, reverse,

and off; with increments of one, two, three, six, twelve, and twenty-four hours); Precession for the years 2000AD, 1975 AD, 1950 AD, 1900 AD, or today; choose standard or custom horizon types (transparent so you can see the parts of constellations below the horizon, or opaque); pick grid types (equatorial, altazimuth, or solar system). Even the pointer has options: absolute or relative, equatorial or altazimuth readouts on the Sky Panel. The sky color has six options, from black to blue to black stars on a white sky. The final menu under Sky displays the legends for all planets, stars, and deep sky objects.

Speaking of the pointer, the information on every star in the databank is available just by pointing at it and clicking. Each star's constellation name, common name (if there is one), magnitude, position in sky, stellar type, distance, and special comments appear in answer to the click. Deep Sky Object also have a data box on their attributes.

The Field Menu focuses on what appears in the center of the Sky Chart Window. Almost everything is available: constellation, asterism, planet, one of the sixteen brightest stars, on an object you identify (deep sky or otherwise), by coordinate position, zenith, horizon, Nadir, current selection (in case you wandered away with the scroll buttons), last selection, last field, and antipode. A very thorough menu. This menu lets you specify the size of the field of view in the Sky Chart Window).

The Display Menu is mostly concerned with objects and how they appear. It starts with Messier objects (deep sky objects mentioned in the Messier Catalog, a smaller number than appears when the Deep Sky control button at the bottom of the display is hit), variable stars, binary stars, zodiac stick figures, more detailed classical drawings of selected constellations, constellation boundaries, and Earth's precession path. Then there are the coordinate labels (horizon, meridian, ecliptic, celestial, equator, galactic equator) reference marks (zenith, celestial poles, ecliptic poles, galactic poles, and galactic center), and sky labels (planets, bright stars, constellations, Messier objects, and stars identified by their brightness in each constellation with Greek letters). Finally, there are Jupiter's moons, comet tails, and meteor showers.

These last three fall into the category of cosmetics. The meteor showers are simply streaks that randomly shoot across the screen, to simulate the occasional night-time meteor. Similarly, the comet tail adds a tail to any comets that are displayed, just as you would see in the night sky. Jupiter's moons will show on the display only at the highest magnification, so it makes for faster screen calculation to simply ignore them unless you specifically want to see them. But it's a great feature for when you want to observe the moons and want some idea of what to expect.

The Options Menu contains the special features that take you beyond simply looking at the night sky. You can view the sky from the sun, moon, mercury, Venus,

Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, a comet, an asteroid, a spacecraft and a point anywhere in the local region of the solar system. For this last one, you must specify the heliocentric longitude (where in a circle around the sun you want to be positioned), the distance from the sun, and the distance from ecliptic. These three number define a point in the massive globe that is our planetary family. Finally, you can return to Earth.

You can also choose to observe from a comet (the sixteen most well known), from one of sixteen major asteroids (Pallas, Vesta, etc.), from five spacecraft (Voyagers I, II, Giotto, Galileo, Ulysses), or plot your own orbit.

Next is a Day/Night map of Earth. This is a whole Earth flat map, with a transparent shadow superimposed to show where it is night. The companion to this is the Moon map, as it appears in a 20-power, 40-power, and 80-power telescope. All the major craters are identified with rough outlines, and you can point and click with your mouse to get the name, latitude, longitude, and diameter of any of them. To make it easier to use with a telescope, you can flip the map vertically and horizontally to match what you really see with your telescope. As a bonus, the Apollo landing sites are also available for display.

For planet observers, there are four options of interest. For students of Jupiter, the Galilean Moons (the moons first observed by Galileo and easiest to see with a low-power telescope) are available as an eleven-day chart, with a separate colored line for each of the four moons. The Planet Gallery Menu gives you an animated display of nine planets, at magnifications of 200, 500, 1,000, 2,000, and 5,000 times, using images from the images disk for spectacular graphics moving in real time. To help you locate the planets in the night sky, there is a submenu that lists each planet's coordinates, rise time, transit time, setting time, and constellation in which you will find it. Different dates and equatorial, ecliptic, and heliocentric coordinates are available. Lastly, you can select any combination of planets, plus the sun and Earth's shadow, for their closest approach to each other. Degrees separation and the dates you want to consider are user selectable.

The last option in this menu is a display of the "solar neighborhood," a graphical (x, y, and z) graph showing the sixty stars closest to our sun. Like every other display, you can point at a star and get its description (name, distance, magnitude, etc.). You can rotate the display in any direction to see what things look like from any vantage point. You can also turn on the trail function. This makes each star leave a trail as you rotate the display, making it easier to visualize the relative positions of the stars.

The final menu, and the first on the screen, is the File menu. It has the controls for saving and loading special settings and times, and saving or printing screens.

Continued on page 11

## 32 BIT MEMORY EXPANSION FOR THE AMIGA 2500/030

DKB Software announced the DKB 2732 32Bit Memory expansion board for the Amiga A2500/030 with the A2630 accelerator card. The DKB 2632 provides a way for Amiga A2500/030 owners to upgrade their 32Bit memory beyond 4Megabytes.

The DKB 2632 comes with Four or Eight megabytes of Ram on board and is expendable to ONE HUNDRED TWELVE MEGABYTES! The DKB 2632 installs onto the A2630 card. The DKB 2632 is user expandable in 1, 2, 4, 8, 16, or 32 Megabyte increments using State-Of-The-Art JEDEC standard 32Bit wide SIMM Modules. This allows the board to have only four SIMM sockets but be able to use more than one type of SIMM module at the same time. For example the board could have one 4Megabyte module, one 8Megabyte module, one 16 Megabyte module and one 32Megabyte module installed at the same time totalling 60Megabytes of 32Bit Fast Ram. All memory on the DKB 2632

is placed in 32Bit address space so that a user could have up to 116Meg of Fast Ram and still use the ATBridgeboard. The memory on the DKB 2632 -actually allows the A2630 accelerator to operate faster by way of special design.

The DKB 2632 was designed for the Amiga A2500/030 or A2630 accelerator card owner that currently has a powerful system but is limited by the amount of 32Bit Ram that can be installed. Anyone that is using this Amiga system for Video Graphics, Animation, Rendering, Publishing, or Audio Digitizing will benefit from the ability to install additional 32Bit Fast Ram.

The DKB 2632 is compatible with 1.2, 1.3, 2.0, versions of the Amiga Operating System.

The DKB 2632 is compatible with the Video Toaster, DC-TV, HAM-E, genlocks, framebuffers and most other hardware for the Amiga 2000. The DKB 2632 has a suggested retail price of \$699.95 with 4Meg of 32Bit Ram installed.

Continued from page 10

## STARS IN MY EVES - VOVAGER!

## Summary

Voyager does have limitations. You only can add one comet, one satellite, one asteroid, and one other orbit to the database. This makes it impossible to cumulatively add Earth-crossing asteroids, or tracking the new space launches from NASA and other agencies. It does not support Anims, pictures, AREXX, or PAL.

Balancing these is that Voyager is fast (much faster at redrawing the screen than its competitor Distant Suns) and does have animations for planet watching.

It also has a good manual, explaining all the features in the program, with a solid index that actually directs to where you can find the information you need. It isn't so large that it is overpowering, yet it is large enough for even a novice at astronomy to understand what is happening. Any terms I have used in this review that you might not understand are explained in the manual.

The indices in the manual list the major cities, constellations, asterisms, Greek alphabet, the thirty-four brightest stars, and the Messier Catalog, as used by the program. There is also a bibliography for further readings if you are interested.

Product Specifications:

Voyager, the Dynamic Sky Simulator -- \$124.95

Requires 1MB of RAM, two disk drives, AmigaDOS 1.3 or 2.0, and NTSC monitor.

Voyager Extensions:

Data Disk 1 -- \$30.00 -- includes stars from magnitude 6.5 to 7.5 (additional 17,000) and more deep sky objects (additional 3,000). Requires 1.5MB of RAM.

Data Disk 2 -- \$30.00 -- includes stars from magnitude 7.6 to 8.5 (additional 62,000). Requires Data Disk 1, 2MB of RAM and a hard disk drive. A 68020/030 machine is recommended.

Data Disk 3 -- \$40.00 -- includes stars from magnitude 8.6 to 9.5 (additional 155,000). Requires Data Disks 1 and 2, 2MB of RAM, and a hard disk drive. A 68020/030 machine is recommended.

Image Set 1 -- \$15.00 -- IFF planetary images from NASA space missions.

Image Set 2 -- \$15.00 -- IFF images of clusters and nebula in the Milk Way.

Image Set 1 -- \$15.00 -- IFF images of galaxies and other interesting objects.

Special pricing available for multiple image and data disk sets.

Carina Software 830 Williams Street San Leandro, CA 94577 (510) 352-7332

## Toaster Art ala Lightwave by Cornell Green

Little more than a year ago, the Video Toaster was released, revolutionizing both the computer and video markets. Since its inception it has fulfilled, as has no other product, the video capabilities of the Amiga. Results which once required a tremendous investment of time and money are now possible in minutes with this extremely user-friendly system.

One of the highlights of the Toaster is Lightwave, its animation module. Unlike other aspects of the Toaster, Lightwave requires a turbo-charged computer, stand-along frame controller and a professional edit deck to exploit its full capacity. In addition, mastering animation requires more time and training than most users are willing to invest. Thus they deprive themselves of some of the excellent uses of this powerful yet accessible tool, uses which require no system enhancements.

Animation via computer is created just as hand-drawn animation, by running a series of still drawings one after the other rapidly enough to fool the eye and create the illusion of motion. Whereas the above mentioned added equipment is required to properly record the computer created stills, it is Lightwave's graphics capability which is overlooked by Toaster users not interested in, or skilled with animation. Most users will utilize ToasterPaint or a similar 2D paintbox to generate stills, but Lightwave offers the ability to create dazzling stills for video use.

Intro, title graphics, logos and more can jump off the screen, giving productions tremendous impact and visual appeal. With minimal effort and a few hours study, the Toaster can render three dimensional stills in perfect detail, down to shadows, reflections (vers. 2.0) and foreshadowing. Utilizing bump/texture mapping, textures can be "wrapped" onto the surfaces of objects, creating effects not easily obtained in paintbox. Using and positioning one or several lights, graphics produced in Lightwave can offer striking realism and depth simply beyond the range of most 2D programmers.

Numerous objects are provided with Lightwave for the creation of "frames", as individual stills are referred to in Lightwave parlance. For a greater selection of images, objects can be built to spec using Lightwave's modeler, or by purchasing an object library (such as Bisclips, 3D objects for the videographer) containing ready-made objects for a variety of purposes. There aren't many 3D object libraries on the market as of this writing, but as demand and usage increases, one expects the market to meet the need.

The process of creating a "frame" is fairly simple. First load the object or objects into the layout screen of Lightwave. Then position the object(s) and lights while viewing your composition through the "camera view". Define your surface parameters from within the surface requester, set your

rendering quality (image resolution) and Render! If the fact, you may find playing around within Lightwave so fascinating that you'll lose yourself for hours just fiddling with it.

With a little practice you'll find you can create just about anything, even if you can't draw a straight line. Given the ability to define each object's shape, texture, transparency and luminance with ease, as well as the color, type and number of lights, the possibilities are virtually endless. Your stills will resemble expensive, custom graphics,s and will offer striking, agree. 3D graphics - they're just for animation.

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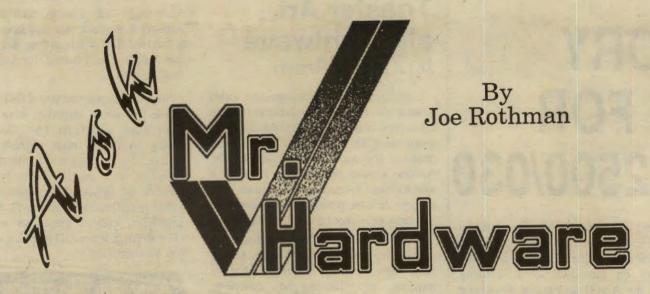
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All those dots. A lot of people are confused about all the three letter file extensions that are tacked onto the ends of filenames on BBSs and on-line services. This column will attempt to explain what they are all about and how to get at the files within those archives.

There are five basic types of archives circulating on Amiga bulletin boards. They have three character file extensions like .ARC, .LHA, .LZH, .ZIP, and .ZOO. There are others out there too, like .DMS .EXE, .LHW, .PAK, .RUN, and .WRP, but they are not as popular, so you won't run across them as often. With more than eleven different file archive utilities to learn, is it any wonder that people feel threatened by the prospect of sorting all this out, and coming up with a way of dealing with all of it?

Your first step in dealing with these archivers is to find the ones you need to use on files with various file extensions. The following chart should help a great deal.

Ext.	Un-Archive With	Created With .
ARC	ARC	ARC
.DMS	DMS or DMSWIN	DMS or DMSWIN
EXE.	RUN (filename)	DMS, DMSWIN or LHSFX
	LZ or LHA	LZ or LHA
.LHW	LHWARP	LHWARP
LZH	LHARC, LZ, LHA	
	or LHARCA	LHARC, LZ, LHA OF LHARCA
PAK	RUN (filename)	
	OF PACK-IT	PAK or PACK-IT
RUN	RUN (filename)	LHASFX
	ZIP of PKAZIP	UNZIP of PKAZIP
.200	200	200
	WARP	WARP

Files ending in .EXE, .PAK, or .RUN usually don't need any outside program to un-archive them. They are designed to un-archive automatically when you RUN them. There are two exceptions to this rule. Files ending in .EXE are sometimes just plain old executable files. You run them, and they just run and do something. Files ending in .PAK sometimes need a program called PACK-IT to un-archive them before use.

If you try to RUN a file from the Shell and you get the message "file is not an object module", you are probably dealing with a file that needs to be processed in some way before using. Rather than attempt to describe all the situations that may cause this message to appear, my suggestion is to ask the Sysop of the poard you got the file from how to deal with it.

Once you have determined which file archival utility you need and you have

downloaded it from a BBS or on-line service, you will need to prepare it for use. This is where people often get confused. In a great many cases, the utility you need will require another utility to un-archive it and make it usable. Sometimes you will need several utilities to get yourself set up for un-arcing one file.

Amiga file archivers aren't really as mysterious as you may think. If you have any, but you don't quite know how to use them, there is a simple way to find out how they work and what they are capable of doing. The same general rules apply to ARC, LHA, LHARC, LZ, ZIP/UNZIP, and ZOO. They all use the same basic set of commands to extract from, create, or add to an archive. If you know how to use one of them, you know how to use them all. Just substitute another filename for the word ARC in the steps below and everything should work fine. Most of the procedures listed below also apply to the archive programs called DMS, LHWARP, PACK-IT, WARP, LHASFX, and LHSFX but their commands differ somewhat, so they will be explained later.

Assuming that you have been successful at obtaining and un-archiving the command you need, it is now time to determine what it can do. Use the following steps to do so.

- 1) Open a shell to its full size.
- 2) CD to the directory where your archival program is, or copy the command into the C: directory on your system disk. Floppy disk users can delete Edit from the C: directory to make some room. You will probably never use Edit anyway. If you need more room on your WorkBench disk, you can also delete all the programs in the Utilities directory from a copy of your WorkBench disk. Never work with your original, always copy the original WorkBench disk first, then reboot on the copy, rename it, and modify it.
- 3) Type the command name at the shell prompt and press the [Return] key.

ARC [Return]

You can hold down the right mouse button, if necessary, to pause the scrolling so you can read the documentation.

4) If you own a printer and you would like a printed hard copy of all the arguments available for a particular command, enter the following command at the Shell or CLI prompt.

ARC > PRT: [Return]

Case doesn't matter for these commands, but spacing does.

Some of the commands will require additional arguments to get the self documenting feature to work. Zoo is a good example.

ZOO h [Return] - will give you the full ZOO docs.

ZOO > PRT: h [Return] - sends ZOO docs to your printer.

Sometimes a -h or the word help will be required for the self documenting feature to work, but the basic argument structure is the same for all the commands I have come across with the exception of PKAZIP. For some reason, the creators of that utility insist on being different. In trying to make using PKAZIP easier, they have only succeeded in adding to the confusion. For this reason PKAZIP is not very popular. LHARCA is similar in operation to PKAZIP, but it is easier to use.

5) Now that you have the docs in front of you, it is not instantly apparent how the commands are executed. Well, there isn't really any big deal there either. Just use the Amiga Dos CD command to CD to the directory that you want to either ARC from or un-arc to. Now use the command ARC (argument) Filename.

Examples: If you were CD'ed to a disk in DF1: and you had an ARC file on DF1: called TEST.ARC you would view its contents with:

ARC v TEST [Return]
un-Arc it with;
ARC x TEST [Return]
and add to it with;
ARC a Test filename [Return].

In the last example, you would substitute the name of the actual file for the word 'filename' in my example. You could also use wildcards such as \* or possibly #? to cause all files in the current directory to be added to a new or existing archive called Test.ARC. It is not necessary to type the ARC extension when using these commands because it will be added by the archive utility automatically.

There are three archivers on the Amiga which are capable of turning an entire disk into a compressed disk file which is suitable for transmission via standard telephone lines. They are called DMS, WARP and LHWARP.

To turn an entire disk in DF0: into a disk file in RAM:, enter the following command.

### WARP READ 0 79 RAM: Filename

To Turn a .WRP file in RAM: into a complete, sometimes bootable disk, enter one of the following commands.

WARP Write RAM: Filename

-01

UNWARP RAM: Filename

UNWARP is much faster a UNWARPing files than WARP is.

DMS and LHWARP behave similarly to WARP but they are even better at compressing disks into smaller archives. They are all self documenting by using the same commands noted above in the instructions for ARC.

LHASFX and LHSFX simply turn a .LHA or a .LZH archive into a self extracting archive. Use the following command to do so.

LHASFX archive

O

LHSFX archive

Substitute the actual archive filename for the word archive in the above example. A .RUN or .EXE version of that archive will be created in the same directory as the original archive.

One of the least popular file archivers is PAK. There is no command for the C: directory for .PAK files because the unPAKer is built right into the PAKed file. If you have a file labeled FILENAME.PAK, all you have to do is CD to the directory it is in and enter the following command.

## FILENAME.PAK [Return]

Executing the PAKed program will extract whatever files are in the archive and place them in the current directory, that is, if there is enough room on the disk.

If the preceding command doesn't un-PAK a .PAK file, you probably have a different, very rare type of file which requires a program called PACK-IT to get it un-PAKed. PACK-IT comes with its own documentation so I won't go its operation here.

I hope this article helps you to understand how to use the various Amiga file archivers. There is a wealth of Amiga public domain and shareware software out there, and it's not as difficult to get at it as some people might think.

If you want to avoid the hassle of looking for the various archivers mentioned in this column, you can send \$5 to Mr. Hardware, P.O. Box 148, C.I., N.Y. 11722. I'll send you a special disk with all of them, including their documentation. See you on A.M.U.G. BBS 516-234-6046.

## Two Megabytes of Chip Ram for the Amiga A

Software announced MegAChip 2000/500 Graphics Memory board for the Amiga 500. The MegAChip 2000/500 provides a way fro Amiga A500 owners to upgrade to the new Super Fat Agnus that is used in the Amiga A3000 to allow the Amiga to access two megabytes of chip Ram.

The MegAChip 2000/500 comes with one megabyte of Ram on board and a socket for the Super Agnus chip. The MegACip 2000/500 installs in the Agnus socket on the motherboard. Once installed MegAChip 2000/500 autoconfigure using the one Megabyte of ram already in the A500 as a Two Megabyte contiguous block of Chip Ram without the use of any special software. The A500 must have an expansion board that will work as the second 512K of Chip Ram (A501 or a clone) installed to work with the MegAChip 2000/500.

The MegAChip 2000/500 was designed for the serious Amiga user. Anyone that is using their Amiga for Video Graphics, Animation, Rendering, Publishing, or Audio Digitizing. All software programs for any type of graphics work should benefit from the availability of two megabytes of Chip Ram allowing the user to expand their productivity.

The MegAChip 2000/500 is compatible with all versions of the Amiga Operating System and is especially beneficial when used with version 2.0 because of the availability of using maximum overscan and virtual screen sizes.

The MegAChip 2000/500 is compatible DC-TV, HAM-E, genlocks.

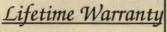
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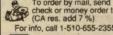
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## PASS IT ON AREXX Utilities

One of the most significant additions to Workbench 2.0 was the inclusion of the AREXX language. Commodore decided to add it as a replacement to Basic, which shipped with previous versions of the operating system. AREXX adds powerful capabilities that are just beginning to be fully tapped. Even if you do not have Workbench 2.0, AREXX's developer, William Hawes, originally created it as a separate product and it is still available from your local Amiga dealer.

AREXX allows you to write scripts, much as you can do with AmigaDOS using the commands in the c: directory, but it can do much more. One of the most important features of AREXX is interprocess communications, where your script can send and receive messages to any program that has an AREXX port. Most new software has an AREXX port, and you can create simple scripts that can completely control that software. Two programs running simultaneously, if they have AREXX ports, can control each other. With a program such as CANDO, you can create graphic interfaces that can act as a controller to any AREXX compatible program. This is very powerful stuff, and new and exciting AREXX applications are constantly being developed, many of which do not require you to do any scripting at all, but work automatically.

With the release of Workbench 2.0, there has been a lot of activity going or with AREXX, and many programmers are writing shareware and public domair utilities. This month, we'll take a look a some of the most interesting.

In order for AREXX to work, you have to install the REXXSYSLIB library in your libs: directory. A number of people have written libraries that add additional capability to AREXX. One of the most is W.G.J. Langeveld REXARPLIB library. Originally intended to provide AREXX users with access to some of the capabilities of the ARP library (see the November instalment of PASS IT ON), it has gone far beyond that and now lets AREXX users create scripts with intuition interfaces. Besides giving you access to the ARP library file requester, it has over fifty other functions. There is combination string/boolean requester, support for environmental variables, a message window, and a wildcard expander. Of most significance are the interface routines to Intuition. You can open screens and windows, add boolean and string gadgets, create menus, draw lines, areas and circles, and make gadgets, menus, and windows send AREXX messages to wherever you want. This means that you can create AREXX

scripts that work more like an actual program, without having to be a real programmer.

Francois Rouaix's RXGEN library lets you call any function of almost any amiga library from an AREXX program. For example, all of the neat new functions built-in to the new Workbench 2.0 library can be accessed. Some of the examples Francois includes in his distribution are AREXX scripts to flash the screen, bring the Workbench screen to the front, and add an APPMenu item under 2.0.

Wouldn't it be neat if you could have one Amiga controlling another? Say, for example, you were running AmigaVision on one Amiga and you wanted to synchronize it with another copy of AmigaVision on another Amiga. Now this is possible, by having AREXX commands sent through the serial port to a running program on another computer. What makes this possible is Joseph M. Stivaletta's REXXSERDEV library. The 2.0 version even supports multiple serial devices. This is significant, as multi-projector shows are all the rage in corporate presentations. It is now possible create multi-projector synchronized through AREXX and an AREXX compatible multimedia program, using three Amigas, three video projectors, and a very wide screen.

Earlier I mentioned the use of CANDO as a way to create a user-friendly frontend to AREXX scripts. There is another way to do this if you have Martin Warnett's PowerPlatform. This is similar to many directory utilities but it is completely configurable under AREXX. Directory utilities typically have one or more windows that let you scroll through a list of files, and a lot of buttons to let you do things such as delete and copy them. With PowerPlatform, you name the buttons and place them where you want, and when clicked on they can run any AmigaDOS command, CLI program, WorkBench program or ARexx EXEC.

You can also create a complete set of menus in the menu bar, with seven headings each with numerous menu items, and they support keyboard shortcuts. Menu options can be created that bring up an entirely new set of buttons, so you could have a screenful of buttons to control DigiPaint, a screen full of buttons to control ADPro, and so on, and those buttons can do anything including running complicated AREXX scripts that act on the files you select from the directory window. You can also make a button that replaces the current set of buttons with a new set. The possibilities are endless.

One of the early demos put out for the Amiga was a little program called SpeechToy, which let you play with the

Amiga voice capabilities. Originally written by Dave Lucas, it has been updated by Rob Peck to include an AREXX port. MFF\_Speechtoy is a sample script that lets Microfiche Filer use Speechtoy to speak selected fields in the database. Besides being a quick and easy way to play with AREXX (since you get audible feedback) Speechtoy also lets you add a voice to any AREXX compatible program.

The best way to learn AREXX is to study example scripts, and there are a lot of them out there. They do everything from controlling your favorite programs to being complete programs by themselves. Here are a few of the more interesting ones:

Startrek.rexx- This is a complete text based Startrek game with an onscreen display of the active sector. You run it and type help to get instructions. Your mission is then to save the galaxy.

Imp2DCTV.rexx- Dan McCoy wrote this early version of what later became ADAM as an AREXX script. Its useful to see how he does it without using CANDO. It waits for Imagine to render a frame to ram:, converts the frame to DCTV format, and deletes the original frame

ADPro2DCTV.rexx- A similar idea to the above, Brad Schenck wrote it to work with Art Department Professional to save out the current 24 bit buffer as IFF 24, convert it to DCTV format and delete the temporary file.

ADPro Macros-This series of AREXX macros for Art Department Professional credited only to J. P. is very helpful in showing how to create macros for ADPro. There are macros to cycle through the load and save options, the dither modes and screen formats, a macro to use the Apply Map operator, select specific load settings, and an execute and display macro.

View.rexx- This is a small AREXX program that uses Willy Langeveld's rexxarplib.library and iff.library to display most IFF ILBM files. If you want some excellent examples of how to effectively use libraries, this is a good one to study.

Archie.rexx- This is a hard drive backup utility. It copies all files and subdirectories that don't have the archive bit set from the source you select to the destination of your choice. If these directories don't exist, Archie will try to create them on the fly, preserving the original structure. After the file has been copied, it's archive bit will be set. A companion script also by Christian Balzer, Equal.rexx will scan all files and subdirectories from a given device and compare them to the files at the destination device. The files on the destination drive that can't be found in the source drive will be deleted, including subdirectories.

RXInfo.rexx- This script by D.F. Duck provides info on your current ARexx version number, libraries loaded, clips, and open files. It also gives some info on your Amiga, CPU, MPU, video mode, and AC line frequency, and the system ports list.

Logon,rexx- Along with Logoff,rexx and the installation script, Rene' LeBlanc has created a nifty system which creates a log record for any number of users, one at a time. The log file shows computer usage, logon events per date, elapsed time until logoff, and the accumulated amount of time over a number of sessions for each person.

There are also quite a few general AREXX utilities. Owners of SuperGen genlocks will greatly appreciate Bob Dickow's AREXX genlock interface. With it you can send the genlock all of the commands available, so that any AREXX compatible program can control the genlock to do fades, switch sources, and do just about everything you can do with the external controls.

Don Nafis created NAZCRON to emulate the Unix Cron command. NazCron reads a list from an ASCII text file and executes the instructions at the times you specify. You can have programs run at a certain time, trigger AREXX events, or do anything you can do from the CLI. While it can work without AREXX, when AREXX is installed it gives you complete access to almost all AREXX functions.

Paul Kienitz wrote FRX as a replacement to the RX command usually used to launch AREXX programs. The difference is that it parses its command line into separate arguments before sending it to rexx, and gives them to the rexx program separately by calling it as a function instead of as a command. It can even parse arguments according to a template.

I appreciate all of the mail I've been getting. Apparently a lot of people are reading Amiga News. One reader inquired about utilities that could display a hires pointer under Workbench 2.0 so that it would look as slick as the new interface. Since the pointer is a hardware sprite, I don't know how this could be done, but I'm always amazed at the creativity of Amiga programmers. If anyone has seen anything like this (and I agree that a pointer in a higher resolution would look better), please drop me a line at the address below. By the way, if you are a programmer and you've created something neat recently, please send me a copy. In return, I'll mail you out a disk of the latest utilities I have.

Another reader wondered why, when he copied some programs from public domain disks to his hard drive, they would no longer work properly. Even more frequently, clicking on the instructions would no longer work, even though it worked fine on the original disk. These are two separate problems, but easy to solve.

Many programs have additional files that they require in order to run, and these files may not have an icon, so when you drag the program icon to your hard drive, these files get left behind. If you are using Workbench 2.0, you can display icons for all of these "hidden" files by choosing Show All Files from the Window pull-down menus. You can then drag these additional file icons just as you did the

Continued on page 15

## Vistapro 2.0 Adds Trees, Roads, Buildings, Sunsets, and Higher Resolution Capability

Vistapro 2.0 takes virtual reality landscape simulation another giant step forward on the Amiga. Vistapro 2.0 allows the importation of more data into each picture frame, greatly increasing the possible resolution of the final rendering. Oak, pine, palm, cactus, and sagebrush can be added to any scene in varying mixes and densities. Large and small buildings can be added to scenes along with roads and sunsets. The final effect of all these new functions is to produce a picture of unsurpassed realism and life.

Vistapro adds direct support for DCTV, Firecracker, HAM-E, and ARREX. The price of Vistapro has been reduced from \$149.95 to \$99.95 and the package contains coupons

for the purchase of Makepath (the advanced animation utility) and Terraform (the landscape editor). Makepath and Terraform originally sold for \$39.95 each. With coupon, they are now offered at \$25.00 each.

Vistapro 2.0 now contains a simple direct animation utility with the basic program. This utility will produce an animation from the camera to the target. Wireframe preview mode is another new feature of Vistapro which allows a quick view of a scene. User definable foreground and background are supported in Vistapro 2.0. For instance, a foreground examples might be a particularly nice cloud photo or an astronomically correct night sky rendered by Distant Suns. 4.0.

Let Arthur C. Clarke, author of 2001: a Space Odyssey and a big fan of Vistapro describe his "close encounter" with Mars. The following excerpt from Clarke's fax to Stanley Kubrick is used with Arthur C. Clarke's permission:

"I've been generating 'artificial reality' images (color and 3-D!) based on a fantastic program called Vistapro. (Virtual Reality Labs). But for the sake of our old friendship I'd better warn you - if you get it into your computer you'll never do any more work! I'm getting a later version installed this weekend (I hope) which produces images of almost photographic quality ... so I can explore all the interesting places on Mars! They can also be animated to show the kind of fly-by you may have seen on TV recently from JPL for Venus. But that's only half the fun. I can then modify the landscapes by putting in rivers, lakes, stars, trees, haze, vegetation in almost every conceivable way - so I'm busy 'greening' Mars! I'm so excited by this that I may fly out Vistapro's co-developer to speed things up and teach me the program's bells and

Subsequently, Arthur C. Clarke did have the developer flown to his home in Sri Lanka -- a once in a lifetime experience for Vistapro's programmer!

View, section E, page 1, of the Los Angeles Times dated Friday, January 24, 1992 contains an article titled "Out of This World" in which Arthur C. Clarke discusses his use of Vistapro 2.0 to terraform Mars. Dozens of Vistapro 2.0 renderings will be included in a chapter of the book he is currently writing entitled The Snows of Mt.Olympus: A Garden on Mars. Here is an excerpt from the Times Article:

"Surging with '60's - style passion now, he charges on: 'I'll show you a little bit of this, and it'll blow your mind. In fact, it's a program developed in (San Luis Obispo) California by Virtual Reality Laboratories, which they sent me, and I realized, 'My God, there's a book here."

Clarke then dazzles his visitors with a fistful of color prints of Mr. Olympus, at about 90,000 feet, three times the height of Mt. Everest ('There it is, we've planted some crops on it'; 'There's a view from the summit when we've planted some pine trees';'And here it is, 1,000 years hence, when we've put an ocean around it').

'You see, what this program does,' Clarke continues, almost shaking with excitement...'

Vistapro 2.0 is published under exclusive worldwide license by Virtual Reality Laboratories, Inc. List price is \$99.95. A 3 meg Amiga is required to run Vistapro 2.0, and an accelerator is

strongly recommended. Higher resolution output is possible for those having more than 3 megs of RAM, Vistapro 2.0 outputs in 24 bit color for those using the Toaster, Colorburst, or Harlequin boards.

## COMPANY BACKGROUND AND OTHER PRODUCTS

Virtual Reality Laboratories, Inc. is a California corporation founded in 1989 with the guiding principles that education and entertainment are not mutually exclusive, and that virtual reality should be brought to personal computing as soon as practical.

Virtual Reality Laboratories also publishes Vistapro for the PC, Distant Suns 4.0 for the Amiga, and Distant Suns Windows for the PC.

## Pacific Islands Team Yankee II

The much awaited sequel to Team Yankee is now here. Pacific Islands put you in the year 1995 and in control of an American tank platoon whose mission is to reclaim Yama Yama have been invaded by disaffected Soviet communists backed by North Korea, severing one of your most secret and vital communications links.

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### Continued from page 14

can tell this by looking at the default tool in the information requester), copy the text reader to your Workbench c: directory, then modify the text icons's default tool. If the file reader is called PPMore, for example, change the default tool to c:ppmore, and it will then look for the reader in your c: directory.

As usual, if you would rather not hunt down all of the utilities mentioned this month (and they are all generally available on bulletin boards and disk collections), send \$5.00 to: Geoffrey Williams, AREXX Disk Offer, 1833 Verdugo Vista Drive, Glendale, CA 91208. The AREXX disk includes everything mentioned this month (well, not the commercial programs), including over 40 AREXX scripts to study.

main program. Under Workbench 1.3, you should have a directory utility (which is also very useful under 2.0). This lets you

manipulate and move files around very easily. Directory Master and Opus are very good commercial versions, and SID is one of the best shareware versions.

Text files are a different problem. If you select Information from the pull-down menus (or info under 1.3), you will get information on a selected icon. In the case of a text file, such as the instructions on how to use a program, you can see what its default tool is. This is the tool that actually displays the text for you. The text reader used under both versions of Workbench is More, but many PD disk compilers prefer using the much better text readers available in the public domain, so they put these on their disks. If you move the text file to your hard drive without including the text reader, it will no longer be able to find it and you won't be able to read the file from an icon. If a special file reader is on the disk (and you



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## Converting Your Spouse by Pamela Rothman

No, I'm not going to tell you how to convert your spouse into an Amiga peripheral. I'm going to discuss converting your spouse into a fellow Amiga enthusiast, which will have many more benefits in the long run.

To convert anyone to anything, one must first deal with the false beliefs that have kept the potential convert from seeing the light.

False Belief #1: I don't know anything about it.

Well, they might not know anything about it. The false part is their thinking that would prevent their operating a

That's the beauty of the Amiga, of course. You don't have to know anything to click on an icon. I drive a car without knowing much about them, and the same principle applies to computers. The Amiga's point and click interface makes it easy for beginners to start accomplishing things in no time.

When things get a little more complicated, that's where you come in. You know a lot, don't you? You'd be glad to help. Isn't that what significant others

False Belief #2: I don't want to know anything about it.

This springs from a misconception about what computers are for. Most people's jobs give them the idea that computers are delicate hulks that demand a lot of data and attention and have a zero fun content.

But the same car that takes you to work can take you to an amusement park. It's all in what you point it at. The Amiga is an extremely versatile tool that can do almost anything you want it to. No matter what your spouse's interests, chances are the Amiga can be used to expand on them or organize them.

False Belief #3: There's no point to it since you're always using it anyway.

Here is where you can point out that if you spend time computing together, you will be combining computer time and together time into quality time. If it turns out they like it, you'll give them this one and buy another for yourself. What a sacrifice you're willing to make! Doesn't that show you really love them more than the Amiga? (Or at least as much.)

The next step is to have them actually try something. Or at least look at something. It's likely the closest look they got at the Amiga was when you were pulling it out of the box and they haven't come near it since. To them it's "that thing" you are spending all your time with, doing arcane and indecipherable things.

Don't make the mistake of asking them to look at something that they can't instantly understand. Drawing their attention to the screen where you have successfully decompressed a file has little allure. The nice way you've set up your hard drive means nothing to the uninitiated.

The Amiga has much more personality than other computers. Let them see and hear for themselves. Have the Amiga talk. Have it say nice things about your spouse. There's something irresistible about anything that says nice things about you.

A good first look can be a game; never underestimate the appeal of games. Tetris has wrought wonders, turning former computerphobes into bleary eyed computer maniacs within minutes. Does he like Risk? Get him the computer version. Is she nuts for Gin Rummy? Have her play the Amiga.

Games you can play together are especially good. Even games that seem single player can become team efforts if they are complex enough. Sim City, Populous, Empire, and other games that emphasize strategy over eye-hand coordination are good choices. Don't bring them into a game cold if you haven't played it before. It is frustrating and boring for a person to sit around while you flip through the manual. It's much better for you to teach them what you know.

Remember the early days of your courtship, and apply the same principles. You didn't come over and say, "Look, I'm presentable and have a good job and I'll try not to be boring." It may be true, but it doesn't get you dates. You get dates when you are fascinating and intriguing and fun to be with.

You aren't getting the Amiga dates if you call your spouse over and say, "Look, honey, I got you a spreadsheet so you can enter all our household expenses." What you want to say is, "You're so good at art, I bet you could do better than this. Want me to show you Deluxe Paint?" Or, "Remember when you said you'd like to hear 'Flight of the Bumblebee' slowed down for a change? I've got a program here we could try."

Another thing that might be preventing them from enjoying the Amiga is the common belief that their ignorance might make it blow up, and then there's heck to pay. Relieve their anxiety by explaining the extreme unlikelihood of anything they type or click on hurting the computer. Go over the few precautions needed, and try to set their mind at ease.

They might say something like, "But I have no reason to try the Amiga, I don't have anything I need to do on a computer." In an extreme case, that's true; people once got along without them, but they make so many tasks so much easier.

If your spouse needs something written, be it a proposal for work or that short story they always wanted to try, show them the wonders of word processing. If they belong to any organizations that need a newsletter, or they want to send a personalized card, show them desktop

Art of all kinds is enhanced by the computer. There are programs for two dimensional drawing or three dimensional modeling, and either kind can be animated. If she does needlepoint, show her how she can create her own designs and get them printed. If he does woodworking, is there a design or planning aspect he could do on the computer?

Music is marvelous on the Amiga. Even if they don't already have a MIDI keyboard, there are plenty of programs that let them experiment.

But whatever you show them, don't just say, "Here's desktop publishing, make that newsletter." Get involved with their projects as well as yours. That learning curve can seem pretty steep, so let them know they're not alone. Try to have your own understanding of the programs before you show it to them, so if they have questions you can answer them. If they poke their head in the den and ask you what you're doing, imagine their surprise when you reply, "Seeing if you can use this program. I thought it would work out great for..."

Don't expect them to be like you. If they were like you, they'd already be in the den, elbowing you aside so they could play Lemmings. They're different, they need special care and extra time. But it doesn't mean they can't grow to love computing.

If, in spite of your sincere best efforts, they still want nothing to do with the Amiga, try to be philosophical. You're spending your time in a constructive manner, and there's lots worse things you could be doing with your time.

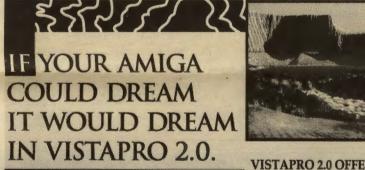
After all, wouldn't they rather you were home computing?

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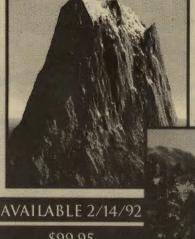
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## HARDWARE

REQUIREMENTS

3 megs RAM required Accelerator strongly

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< \$ 5 17 2 2 2 2 5 5

## **Canadian Broadcasting Center To Feature Amiga Computers In Touchscreen Building Directory**

The Canadian Broadcasting Corporation (CBC), Canada's publicly owned national radio and TV network, has contracted with St. Clair Interactive Communications, of Toronto and New York, New York, to create, configure and install a building directory for the new Canadian Broadcasting Center, using a network of 40 AMIGA 3000 computers.

The new broadcasting center, scheduled to open in July, will be equipped with an AMIGA-based interactive touchscreen building directory that locates any individual, department or project team, and provides animated directions.

The AMIGA computers will be mounted in attractive, wheelchair-accessible kiosks throughout the facility. First-time users need only touch a screen in response to video or audio cues (in English or French) to begin a self-guided tour of the directory. Experienced users may bypass interim steps with "wildcard" entries that immediately call up specified information.

Donna Bevelander, senior project planner, said the CBC desired a sophisticated electronic building directory because of plans for the building's size, the network's large and constantly changing workforce, a steady flow of guests and vendors, and the CBC's commitment to a bilingual workplace.

"The Canadian Broadcasting Center will encompass 1.7 million square feet on 14 floors, covering a total of three and one half acres," Bevelander said. "We are consolidating offices, production and broadcasting facilities that are now in 28 locations around Toronto. The building approximately house employees."

"Had a traditional building directory been erected, employees and visitors would get off one of the 23 elevators and

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in two languages and little arrows that didn't tell you anything." Bevelander said. "With the St. Clair building directory in place, employees and visitors will get off the elevator and find a friendly touchscreen that asks if you prefer your information in English or French."

St. Clair interactive is a designer, developer and producer of custom interactive multimedia solutions for corporate and public sector clients.

H. Douglas Peter, president of St. Clair, said they chose the AMIGA computer for the CBC application because it offers flexibility, multitasking and unmatched multimedia capabilities.

"We will need to integrate and frequently update information the system draws from various databases. The databases include the PCs they use to process telephone directory information and the VAX they use to process architectural information. The AMIGA 3000 is flexible enough to do that," Peter

"We also have to maintain a 99.9 percent service level, meaning the system has to be accessible to users virtually all the time," Peter said. "With the AMIGA's multitasking capabilities, we can achieve that by running the programs that update information, monitor system performance and analyze user preferences in the background, without interrupting users."

"St. Clair also was sold on the AMIGA's multimedia capability. Its built-in multimedia tools allow us to mix text, graphics, animation and audio to create an unusually good level of communication between the user and the information," Peter said.

In addition to the 40 AMIGA 3000s located in kiosks, hardware for the CBC installation will include an AMIGA 3000 Master Station and an Ethernet AmigaLAN. Software for the installation is comprised of AmigaVision (TM) authoring language; ProSound audio editor; DCTV and DeLuxe Paint for graphics; and AutoCad/DynaCad and

dBase/SuperBase interfaces. The software also will include St. Clair's Control Panel (SM), a network manager for AmigaLAN and dial-up networks. Control Panel reports on the status of each machine on the network, including hardware diagnostics; releases content updates automatically, on the date of the operator's choice; record, analyzes and reports user selection patterns; and uploads and reports direct marketing information.

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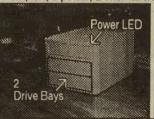
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## Who's At Fault?

## by Joe Rothman

I have been an a proud Amiga owner since December 15th 1985. I have been running an Amiga only Bulletin Board since March 10th 1986, and I now make my living entirely from my 100% Amiga dealership and software development company. I have written Amiga related magazine articles since February 1987. I even appeared in the 1989 Commodore dealer demo tape along with my wife Pam, who was also featured in the 1989 Amiga print ad campaign. I'm telling you all of this so that you will know who is talking to you now.

During my time as an an Amiga owner, BBS operator, Amiga dealer, and journalist, I have heard many complaints about Commodore and their alleged inability to market the Amiga. I've heard complaints from Amiga users, Sysops, other dealers, writers, and magazine editors. Everyone says the same thing. "It's all Commodore's fault." Well I'm here to tell you that I don't agree. It's not Commodore's fault.

First let's examine what Commodore is up against in the U.S. computer market. As you probably know, the Amiga contains several custom chips that are not available to other computer makers, while the IBM clones you see everywhere are made of common, off the shelf parts. Those junk parts computers lack the animation and sound capabilities of the Amiga, among other things.

Clearly, the Amiga is superior by design, so why doesn't the U.S. market go out and buy Amigas instead of clones? The biggest reason is as follows. There are literally dozens of clone makers out there, and they are all saying the same thing. IBM compatible! The American public is bombarded by the words IBM compatible! Everywhere we go, we see those words. With so many companies telling us we need IBM compatibility, is it any wonder that the average American walks into a computer store with these words on their lips? "Is it IBM compatible?"

Just try to explain to them that IBM compatibility isn't important. Then try to tell them that you can get IBM compatibility built into an Amiga computer for an small extra charge. Most of them won't understand why they should buy an Amiga over an IBM clone and they probably completely miss the point of the Amiga's duality. Commodore can spend billions of dollars on advertising, and it wouldn't amount to a hill of beans compared to the trillions being spent every year by IBM and the clone makers.

Problem number two lies in feature to feature comparisons between the two computer platforms. Lets compare an Amiga 2000HD to a typical clone system. Let's use Commodore's recent sale price of \$1299 for the comparison. The price of the clone is only \$1195. It's got about \$500 worth of parts, but to an unsuspecting public it sounds better already.

Next let's compare the speed of the 68000 CPU verses the 386SX CPU. The 68000 runs at 7.16 MHz, but the 386SX runs at 20 MHz. Again it sounds like the 386SX wins, but the fine print says it's switchable to 8 MHz. Could that be because it won't always run at 20 MHz? Even running at 20 MHz the 386SX has only one processor doing all the work of the Amiga's four custom chips. Try to explain that one to John and Jane Public.

Now let's compare hard drives. Here the Amiga is clearly the winner. The 386SX comes with a 42 Meg IDE drive while the Amiga comes with 50 Meg SCSI drive. Floppy drives turn the tables again with the clone's 1.2 meg floppy beating the Amigas 880K drive. The clone comes with an amber screen monitor (the salesman says, "you can add color later"), and the Amiga doesn't come with any monitor for that price. The Amiga wins again when you look at the available RAM with 1 Meg verses 512K, and again when you consider its sound capabilities.

The clone salesman will be all too quick to point out that sound has very little use on a clone and that it can be added later.

The Amiga salesman takes his final shot by telling John and Jane Public about multi-tasking, but they were already so scared of the complexity of computing that they actually panic at the thought of several programs running at once. So John Public and his wife Jane buy the clone because they are afraid of computers and they are afraid to be different. They choose the most popular computer type over the Amiga because they figure there must be a good reason for the popularity of IBM clones, even if they can't see a good reason for it.

Three months and several hundred dollars later, John Public has finally gotten his clone into usable shape by adding the necessary options. He is very proud of his accomplishment because it was anything but easy. He feels like a computer expert because his machine hasn't turned into a fiery inferno on his desk. He talks his brother into buying a computer, and guess what his brother ends up buying? You guessed it, an IBM clone.

You don't have to be a genius to see my point. People buy computers for the wrong reasons. That's why they don't buy Amigas. Amiga owners are people who have dared to be different. They have looked into IBM clones and Macintoshes and decided that the Amiga was better. We should all be very proud of our choice and of ourselves for making that choice. We should also be proud of Commodore for having the guts to buck the establishment, and come out with the Amiga. Commodore gave us a chance to avoid those boring computers. We're all in this together. We should be helping Commodore, not criticizing them.

This brings me to problem number three. To illustrate this problem, I would like you to go stand in front of a mirror and look at yourself. You may be looking at the biggest problem of them all. Are you shocked that I would say such a thing? You certainly don't feel like you deserve my criticism. The key word in my phrase is "may." You are the only one who can decide whether or not you are a problem for the Amiga. I can only give you my opinion and ask you to be honest with yourself. If you would really like the Amiga to succeed, read on.

Many of us wear two hats. We are Amiga lovers at home and clone users at the office. Making a living is an unavoidable necessity. I'm not suggesting that you quit your job, but many of the people who are in that position have become complacent. Deep down, you know the Amiga is better, but you keep your opinion to yourself. If this describes your attitude at work, point your finger at yourself and say Guilty!

Some of us love the Amiga, but we love money even more. We sit at a desk waiting for an unsuspecting fool to walk into a Macintosh or IBM computer store, and we proceed to sell them one of those machines. I'll be so bold here as say that there is no excuse for someone who would do such a thing. I don't buy the excuse that it wasn't your idea to sell other computers instead of the Amiga. Guilty!

Some of us get very upset at the relatively small number of software titles available for the Amiga so we go out and buy a bridgeboard or a clone, and proceed to increase sales in the wrong camp by buying IBM titles. Is it any wonder that Amiga developers are so scarce? Every IBM title sold to an Amiga owner makes the Amiga a little weaker in the marketplace. Guilty!

Some of us just complain about everything. "Commodore can't market the Amiga.", "There isn't enough software available.", "Amiga hardware is too expensive.", "The Amiga 2000 is too big", "The Amiga 3000 is too small." Every time someone who doesn't understand the positive capabilities of the Amiga overhears one of us complaining, it produces another "No Sale!" for the Amiga. Guilty!

Some of us are perfectly satisfied with the availability of Amiga titles, but we obtain them by pirating software instead of buying it. Guilty! Guilty! Guilty!

The Amiga got where it is today because of its greatest resource, Amiga users. We are the only line of defense against the onslaught of IBM clones. We are the only ones who can overcome the objections of our peers, and show them a better computer. Let's not lose sight of that. Let's not give up until we win. The rewards will be expanded capabilities and lower prices for all of us. No one ever said it would be easy to change the world. Hang in there!

## **Push\*Button Publishing**

Push\*Button Publishing publish The Amiga Multimedia Workbook, by Jay Gross. This book explains and defines the tools, techniques, tricks and tips of multimedia production on the Amiga, along with extensive information about related subjects like desktop video and multimedia in general. Topics covered include planning, preparation, and production of a variety of multimedia applications, as well as sound mixing, animation, porting resources from non-Amigas, laser lightshows, CD-Rom applications, interactive kiosks, and the

skills involved in doing all of this.

Multimedia is a computer buzzword, lately, and the Amiga computers have had this seemingly "new" capability since their introduction six years ago. The software and hardware add-ons that now exist make the Amigas' multimedia a highly professional, here-and-now alternative to other, more expensive computer platforms which are still talking about multimedia at some future time. The Amigas' include extensive support, for example, of desktop video, and boast an excellent graphics orientation with the

new, extensively enhanced AmigaDOS operating system. The Amigas also offer a variety of mature, professional software applications including a number of authoring systems that make the computers ideal for educational, interactive, and other multimedia applications.

The book's author, Jay Gross, a well known author, editor, and reviewer in the Amiga market is the editor-in-chief of the new AmiGadget magazine, The Journal of Amiga Creativity, now in its third bimonthly issue, and has written extensively fro many other Amiga publications in the United States and abroad. He is the author of The Amiga

Desktop Video Workbook, published December 1990 by MicroSearch, Inc., and now in its second printing.

Push\*Button Publishing is a start-up publisher with a number of other titles for the Amiga market in the works.

The Amiga Multimedia Workbook: ISBN 1-879211-07-6, 200 pages, soft cover, indexed with Glossary of Terms and Appendix Tutorials Section. Suggested List Price: \$34.95.

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## FLY THE BEST FIGHTER AIRCRAFT IN THE WORLD WITH MIG-29 FULCRUM

UK based DoMark have released MiG-29 Fulcrum, the company's first release under an exclusive North American distribution agreement with Accolade. In what may very well be one of the last games of the Soviet Union as we know it today. MiG-29 Fulcrum is a first of its kind combat simulation featuring the Soviet Union's premier flying machine. MiG-29 Fulcrum turns the player's keyboard or joystick into a comprehensive cockpit with actual instruments and avionics. Computer pilots will learn the finer points of flying this world renowned aircraft and embark on six dangerous and exciting missions based on real-life scenarios. MiG-29 Fulcrum carries a suggested retail price of \$49.95.

MiG-29 has been designed by Simis, a former British Aerospace flight simulator design team, who has created a thrilling simulation combining unprecedented detail for one of the most realistic flight simulations of its kind. Among the details are ergonomically optimized controls and an accurate modeling of high g-effects on pilots, including simulated blackouts. John Farley, a test pilot who holds the distinction of being the first European to have flown the MiG-29, has acclaimed DoMark's MiG-29 Fulcrum as "the most realistic high 'g' flight simulator for the home computer.

Caryn Mical, Director of U.S. Operations for DoMark added, "In MiG-29 Fulcrum, computer pilots are presented with a lot of data and a lot of options which are important for realism, but in some simulations, can be overwhelming. The designers of MiG-29 have taken this into account and developed a Heads Up Display which has

been critically acclaimed for the simple and easily understood manner in which it presents complex data."

In MiG-29 computer pilots become a member of the elite MiG-29 Squadron. Your objective-to be ranked number one above your squad mates. While you can begin with any one of the progressively more complex missions contained in the simulation, the ideal path is to start with a training mission where you are taught to use the Mig-29 to its fullest.

Learn to use your weapons, dogfight, attack ground targets, sink ships and destroy hangar. According to Mical, "Since each mission requires a different skill set, pilots must use the training mission to learn as much as possible, because there aren't any second chances in the remaining missions."

Each of the remaining solo missions take pilots to a different location. You'll fly to the arctic for a rare chance to photograph a stranded ICBM submarine if you can fend off the Harriers which defend it. You'll dogfight with Shenyang fighters over The Great Wall in a mission code named Yellow Dragon," and in "White Pegasus" you'll defend yourself against S A Ms and anti-aircraft guns while you attack oil refineries and oil rigs in the Middle East. In an air-to-ground mission you'll defend the country's railroad system against terrorists. And in the final mission, code-named "Desert Strike," all of your skills will be taxed as you engage in combat in the desert of the Mid-East and attempt to destroy a potentially deadly nuclear power plant.

To carry out these missions, the MiG-29 is equipped with a comprehensive weapons system that includes cannons, S-240 unguided rockets for use in ground attacks, AA-8 "Aphid" dogfighting missiles, heat seeking air-to-air missiles, and AS-7 "Kerry" air-to-ground heat seeking missiles. The simulation features a unique helmet mounted sighting system that displays current weapon status and "missile" lock, freeing the pilot from having to physically point at the target to lock it up. Extra defense against enemy aircraft includes flares to decoy heat seeking enemy missiles and chaff to confuse radar guided missiles.

Mig-29 Fulcrum features four different viewing options for a unique perspective on the action: From outside the aircraft or from the missile you have just fired; from the enemy's perspective, or from the tower where you can fly the MiG-29 like a radio controlled aircraft.

Finally, the simulation comes with a detailed manual describing all of the functions available with the aircraft and recommendations on how best to use them for maximum effectiveness. Included in the package is a Quick Reference Chart and a 4-color poster containing a detailed cross section of the actual Mig-29.

DoMark, headquartered in London, England, is a premier European publisher of entertainment software for personal computers. The company has been in business for seven years. Products from DoMark are distributed exclusively in North America by Accolade, and its U.S. headquarters are located in San Jose, California.

## Bridgeboard Enhancer

ATOP is pleased to announce the 80386 20 MHz Bridgeboard Enhancer, a very small module that replaces the 80286 CPU chip in the Amiga A2286 AT Bridgeboard. No cutting or soldering and requiring only 15 minutes to install, the kit is completely reversible (why would you ever want to reverse it). The completed board uses no additional slots! It will work with an 80287 math chip and provides a Norton processor speed of about 20.7! The Enhancer has been available since Nov. 91, and has proven it's power and quality over several months of in-field testing.

Related Bridgeboard products from ATOP will soon include a 20Mhz math chip accelerator with math chip. Also coming soon is a Multifunction card that will provide all of the following in a single slot: 1024 X 768 VGA graphics, an IDE hard drive controller, floppy drive controller, mouse port AND 3-button mouse, 2 serial ports, and a parallel port (any of the functions can be disabled)!

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