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3 Disks Inside

# AMIGA<sup>TM</sup>

Software & Information

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**Ami Exchange<sup>TM</sup>**  
**MAGAZINE**  
Volume 2, Number 2

## Working Demos

**MOVIESETTER** by Gold Disk

**Dungeon Quest** by Image Tech

## Virus Killers

Don't get caught. The very latest in anti-virus utilities INCLUDED

## Disksalv

INCLUDED! The latest utility to bring disks back from the dead.

## WordHai

INCLUDED! Fully working, a dangerously addictive game.

## Amiga's 2500: Put'n on the Ritz

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The latest in  
Desktop Video  
Education  
Software  
Hardware  
Gossip & Rumors

## 6 Legged Amiga

Ready for Mars? This walking Amiga driven robot might be.

## Arexx

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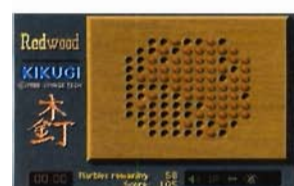


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# Contents

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Volume 2, Number 2

March/April 1989



## On Disk...

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*Remember, A.X. Magazine also comes with 3 disks full of animations, music, graphics, utilities, programs, entertainment and more. These are some of those items which you can only find on the disk portion of A.X. Magazine!*

## Graphics & Animation

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### A.X. In Space Animation

Turn up your volume, sit back and watch this animation. Then, you can load it into the Moviesetter Programdemo (included) and edit it to your taste, and at the same time, get a feel for Moviesetter.

### Hacker's Revenge Animation

CBS' poor portrayal of hackers inspired one of our favorite hackers to create this animation. Hacker's Revenge- by Leo Schwab.

### Running Demo of MovieSetter

Load a MovieSetter animation, take it apart to see how it works. Experiment with the program. The demo, however, doesn't save.

### Running Demo of Dungeon Quest

Interact with this multi-sensory, graphic adventure by Image Tech. Plenty of digitized sound included, so make sure your sound is connected.

### DON'T PLAY THIS GAME!

Okay, you've been warned. WordHai is a word game that you WON'T be able to stop playing. It's complete, and it's here for your pleasure on the A.X. disks. Program by Michael Crick

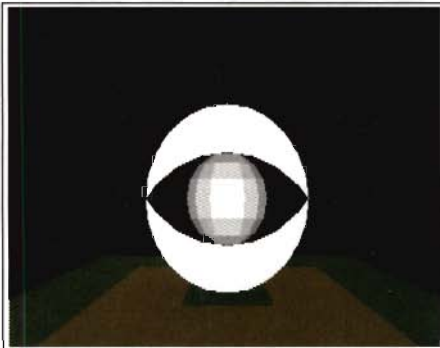
### Mix Your Colors

AmigaBASIC TOOLCHEST: Mix a color palette for use in your programs. Colors.BAS, program with sourcecode by George Trepal

### A.X. Magazine's Readers Gallery

Graphics from our readers, the way they were meant to be seen... on your Amiga! (Continued)

A.X. Magazine 1

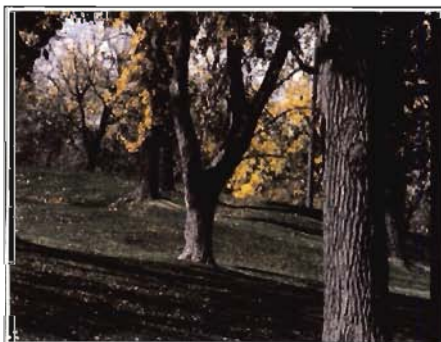






# On Paper...

*This issue's cover art was painted by Robert Dominiak on an Amiga500 with Deluxe Paint. His commercial credits include works for DungeonQuest and Sex 'n' Vixens among others. You can see more of his work in this issue's Readers Gallery and in the Dungeon Quest demo.*



## Jay's Way

Have a look here for editor's comments on what's inside. There is a lot more than you think.

## Amiga News and New Stuff

The latest scoop on what's out and what's still vapor. Article by Jay Gross

## The Gossip Fence

The Amiga mouseie's growing another button. More rumors on Commodore's Nintendo-killer. Another changing of the guard at Commodore, and some further cynical commentary on almost everything that deserves it. Total fiction by Jay Gross

## The New Amiga Powerhouse

The Amiga 2500. A 68020-based computer bears the Amiga nameplate at last. Article by Jay Gross

## News Items From The Amiga Community

### PRODUCTIVITY: Magellan Adds Arexx

Emerald Intelligence adds an Arexx port into Magellan and announces other improvements.

### BUSINESS: Book Juggling 101

A new program from Brown-Wagh adds to the vast array of Amiga accounting programs.

### DATABASE: Microfiche Application

The World of Commodore show in Toronto had an interesting application of Microfiche Filer Plus. This one used the product's Arexx port to control video equipment.

### HARDWARE: Hardware Development Tool

Prototyping a hardware product for the Amiga 2000, made easy.

### GRAPHICS: And the Winner Is...

This year's Badge Killer Demo Contest.

### VIDEO: Magni Adds S-VHS Support

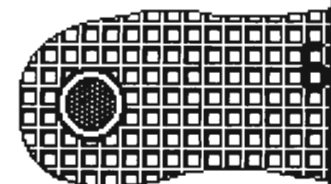
You don't get the beauty of S-VHS video equipment unless all of your video doodads supports the special Y-C connection. Magni adds it to their line of professional genlocks for the Amiga 2000.

## ScanLab Shows Off

The owl's eye view of the output from ASDG's ScanLab line of color scanners.

## Enter InterFont

Now a powerful, new way to create fonts that are no longer just text, but artwork.



# More On Disk...



## Disksalv

Just as the name says - salvages disks. After the dreaded Read/Write error gremlin gets ahold of your disk, the system suggests using DiskDoctor on it. Before you call the Doctor, call in Disksalv. It will bring disks back from the dead that the Doctor can only pronounce hopeless. This newest version supports FastFileSystem on harddisks and has many new options. It will also UNdelete a file if it's possible to do so. Disksalv is by Dave Haynie.

## Virus Killers

The latest virus killer, even kills IRQ Virus. The absolute latest in virus killers. VirusX is by Steve Tibbet.

## Easy Database Program

Keep track of names and addresses, or anything else, with this neat little database program. Mail-Tel.BAS, program by George Trepal. AmigaBASIC sourcecode included.

## Requestor Changer

Tired of those same old boring "system requester" messages. This program by Carolyn Sheppner lets you change them to suit yourself. "Software ERROR" becomes "Witchcraft Spell Dingd." Or worse.

## Directory Maker

This item makes AmigaDOS subdirectories with your choice of icons. It's like getting a little taste of 1.4 long before it's a reality.

## Dir/List Command

This one stays in memory, so no matter what disk you put in the drive, it is there. Great for one-drive owners.

## Spreadsheet

Use this template as is, or use ideas and elements from it for your own applications.

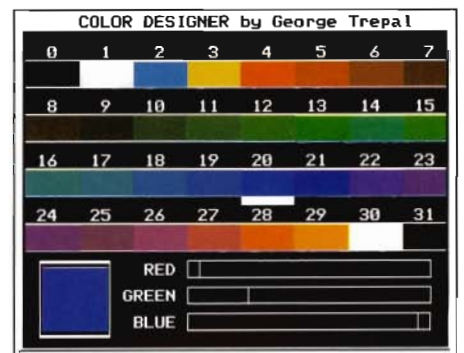
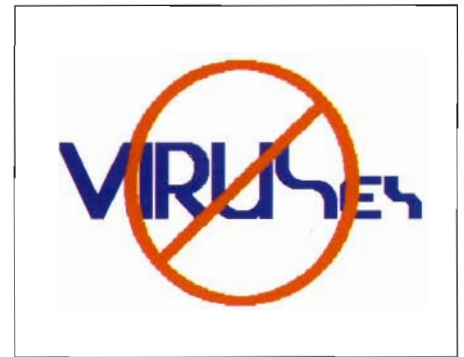
## Disk Directory Utility

AmigaBASIC TOOLCHEST: Mergeable BASIC source for gathering and sorting a disk directory. DIRS.BAS, program with sourcecode by George Trepal

*Plus more Basic programs and source code.*

## Plotting the Chaos Function

Now that Mandelbrots are old hat, here's a new math oddity, Chaos, and a plotting program. Chaos.BAS, program with sourcecode by George Trepal (Continued)







# Features & Columns



## A Command By Any Other Name

Calling a spade a tree-trunk, or anything else you like. AmigaDOS 1.3's ALIAS command. Don't look for it in the C: directory. Article by Jay Gross

## The Gossip Fence

The Amiga mousie's growing another button. More rumors on Commodore's Nintendo-killer. Another changing of the guard at Commodore, and some further cynical commentary on almost everything that deserves it. Total fiction by Jay Gross

## EDITORIAL: Arexx in Every Pot

William Hawes' Arexx has the power and promise. Not just for techies, either. Developers? Put it to use. Editorial and article by Jay Gross

## HINT: Boottime Blinking

When your Amiga boots, it's really telling you something with all that blinking. Here's what the blink codes mean.

## Shelling Out

T-Shell, hot on the heels of the new AmigaShell CLI environment. Here's another "shell" environment to tempt you. Review by Michael Hubbart

## What Makes A Great Game Great?

Some games are fun, and some are like blank disks, only not as good. A look at some of the reasons why one is hot and the other is not. Article by John Thompson

## Six-legged Amiga Robot Ready for a trip to Mars?

A robot run by an Amiga might be. This strange-looking beast is capable of walking - which is quite a trick for a robot - and clambering over irregularly shaped objects. Includes digitized images of the walker. Article by Robert Deck

## Public Domain Disk Offer For Issue 2.2

Public Domain, Shareware, and magazine goodies. All for only \$2.50!

## Artists, Get Published!

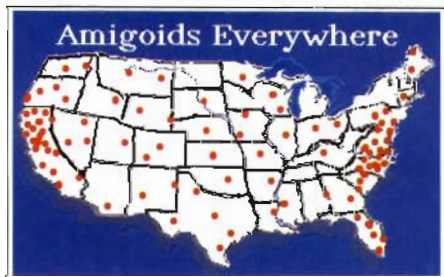
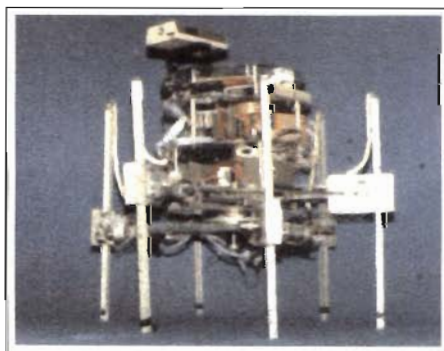
An engraved invitation to artists to submit work for use in A.X. Magazine.

## User Groups: Amigoids Everywhere

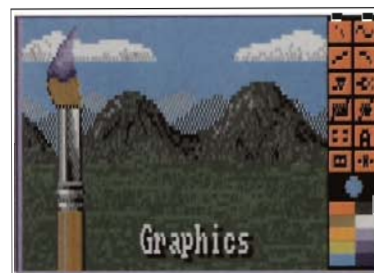
Looking for other user groups? Look here. Add yours, too.

## Telephone, Telegraph, TeleColumn

What's happening in Modemland? News, views, and gossip. Article by Chris Bailey



# Graphics



## MovieSetter A Closer Look

At last, an animation program that's not just easy, but FUN! Gold Disk's MovieSetter. Article by Chris Bailey

## The Army Tank Color Printer

"Built like a tank," only BETTER. Check out the Fujitsu color printers. Hardware review by Jay Gross

## Enter InterFont

Syndesis has shipped InterFont, for making structured fonts and text objects.

## A First Look At Professional Draw

A new structured graphics program on the Amiga that can export a page to PageMaker and Ventura.

## PICTURE: ScanLab Shows Off

The owl's eye is an example of the output of ASDG's ScanLab line of color scanners. Amiga graphics to show off are included.



## ScanLab: Scanning in 16 Million Colors

Add ScanLab to your Amiga, and scan at up to 300 dots per inch, in up to 16 Million colors. Handheld color scanner too.

## Printer of Many Colors

One more way of getting the Amiga's many colors onto a piece of paper. Hardware review by Don Henry

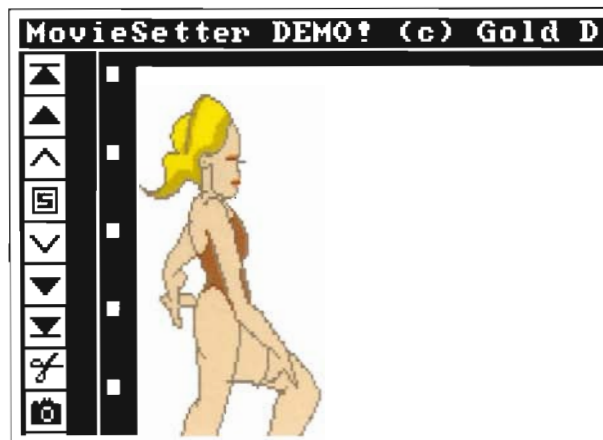
## Printing So Fine

Save those used-up ribbons, if you want to use Fine Print. Review by Chris Bailey

## And the Winner Is...

This year's Badge Killer Demo Contest Complete Winners list.

(Continued)







# Entertainment



## Two Games Square Off

Torch and Tracers, a comparison review. Article by John Thompson

### REVIEW: Zooming Around

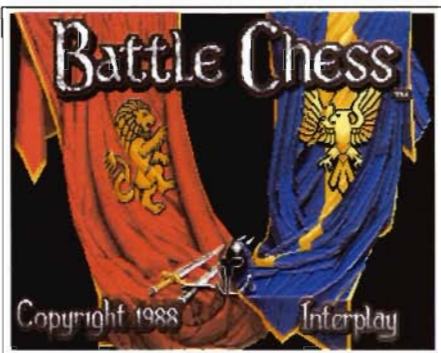
It's the plot that makes it. Honest. Another view of Zoom! Review by John Thompson

### REVIEW: MicroDouble

Checking into the nitty gritty of MicroDouble for fun. Review by John E. Ramspott

### REVIEW: PowerStyx

Game review by John E. Ramspott



### REVIEW: SpaceRacer

Game review by John E. Ramspott

### REVIEW: Enlightenment

Bored? What you need might be a little Enlightenment. Game review by Joe Wegrzynowski

### REVIEW: TV Sports Football

Stand Back, Sports Fans! It's TV Sports Football, another new Cinemaware title. Article and review by John E. Ramspott

### REVIEW: The Uninvited

Where's YOUR Invitation? The uninvited just HAPPEN to drop by for a bit of adventuring. Review by Kevin Rohrer

### REVIEW: Battle Chess

A most unusual, most exciting game of... of... chess? Exactly. Review by Kevin Rohrer

### REVIEW: DungeonMaster

Grab Your Codewheel. DungeonMaster, the long-awaited king of the regions of darkness. Review by Chris Bailey



### Cheating Dragon's Lair

Don't read this unless you're desperate. Or unless you want to cheat.

### REVIEW: Sword of Sodan

Talk About Fancy Animation! Sword of Sodan is like watching a Saturday cartoon on your Amiga. Game review by Tom Zelinski

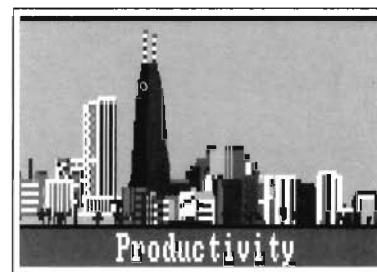
### The Just For Fun Department

Did you get ahold of the newest game fad yet? Space Slugs. Pure hilarity by John Thompson





# Productivity



## NEWS: Magellan Adds Arexx Support

More information on Magellan. Other improvements also announced.

## Bridging the Gap

Getting the Amiga's BridgeBoard to perform isn't all a bed of roses. Article by Sally Hubbard

## NEWS: Amiga Accounting 102

Brown-Wagh adds to the vast array of Amiga accounting programs.

## NEWS: Home Office Budgeting

An icon based personal finance system, for people who have their office at home.

## NEWS: Microfiche Filer Application

More information on the use of Arexx to control video applications.

## EDUCATION

### Animation for the Very Young

The Talking Animator makes animation literally "child's play." A teacher and her students give a report on the new program.

Article and review by Marty McClain

### PICTURE: The Talking Animator

Sample graphic from The Talking Animator

## NEWS: CBM Appoints Education Council

CBM's new push toward education markets starts with an Advisory Council.

## NEWS: Video Training Seminar

Banking on video as a door into education, CBM holds a class for educators.

## THE VIDEO SUBSECTION

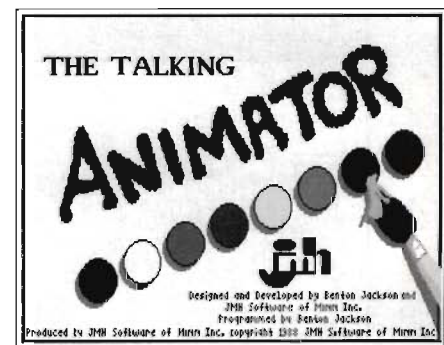
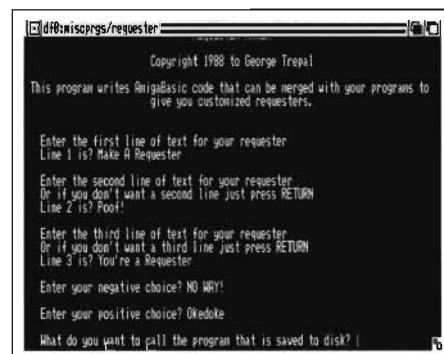
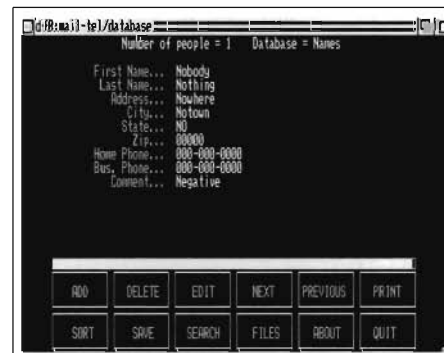
### VIDEO: Color Shifts

A simple explanation of the complicated Mired filter value system. Article by Jay Gross

### VIDEO: Video Snapshots

Video That Doesn't Move. There's probably coming a time when you can take "snapshots" in video, too. Article by Mark Power

(Continued)





# Music & MIDI

## Music Sampler Library

Here's how you can get A.X.'s music columnist's own musical works. PD and shareware disk library by Sally Hubbard

## MIDI Timing and Counting

Step timing isn't all that bad. Here's some things you need to know. Article by George Glines

## Is There A Doctor in the House?

Dr. T's Keyboard Controlled Sequencer. Fine stuff, but watch out if you need support. Article and review by George Glines

## Introduction to MIDI Music

Everybody has to start somewhere. This is MIDI for beginners. Article by George Glines

## Coping with Deluxe Music

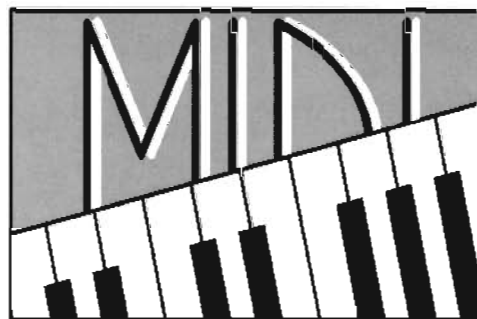
The finishing touches on the series on the how-to of Deluxe Music Construction Set. Article by Sally Hubbard

## Special Drumbats Font

If you want to score for drums, you need those funny drumbats characters. Amiga Drumbats font by Sally Hubbard

## A.X. Theme Music

The music you hear is the A.X. Theme Song. Original Sonix music composition by John Thompson



# Telecommunications

## HINT: PP2400SA Modem vs BBS-PC!

The Practical Peripherals PP2400SA modem needs help to work with BBS-PC! Article by Jay Gross

## BBS Spotlight

Taking a look at a couple of the Amiga BBS's around the country. Column by Chris Bailey

## PD DISK DIRECTORY

This issue's PD Disk has a bunch of neat stuff. Here's the complete directory. Disk edited and assembled by Chris Bailey



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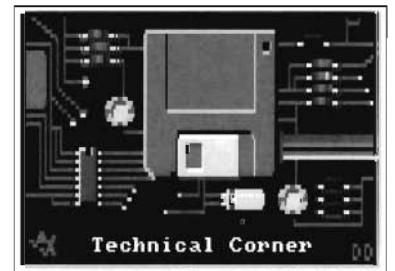
### **BBS Spotlight**

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### **PD DISK DIRECTORY**

This issue's PD Disk has a bunch of neat stuff. Here's the complete directory. Disk edited and assembled by Chris Bailey

# Technical Corner



### **A New Compiler on the Block**

M2Sprint Module-2 takes on the pack and offers TDI customers a changeover path. Article and preview by Chris Bailey

### **NEWS: Hardware Development Tool**

Prototyping a hardware product for the Amiga 2000, made easy.

### **Draw Routines in Modula-2**

The adventure continues. Adding some neat features to the program. Article, program, and Modula-2 source by Rich Bielak

### **Source Code for Draw**

Don't type it in... the source code for the Draw program is on disk for your compiling and reading pleasure. Code sample by Rich Bielak

### **Modula II Menus Source Code**

Here is some additional source code for working with menus in Modula II. Code sample by Rich Bielak

### **Lines Source Code**

This is the source code for the subprogram Lines, part of the Draw project by Rich Bielak.

### **Help! It's a...**

Help is here for all you AmigaBASIC programmers out there. AmigaBASIC Toolchest by George Trepal

Ami Exchange's

# AMIGA

## Software & Information

*More affectionately known as A.X. Magazine*

**Clyde R. Wallace** - *Publisher*

**Jay A. Gross** - *Editor*

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**Dana M. Dominiak** - *Art Director*

**Chris Bailey** - *Telecommunications and PD Disk editor*

**Doug Smoak** - *Amiga engineering and technical consultant*

**Joe Wegrzynowsky** - *the A.X. Authors' BBS Sysop*

**Ray Radlein** - *dependable source of horrible puns*

**Dwin Craig** - *Advisor*

**Stephen Miller** - *Legal Advisor*

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### Special Thanks To

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## A.X. Magazine's PD Disk Contents for Issue 2.2

Available to A.X. Magazine readers for only \$2.50! See reader survey for details

### QRT - A real raytracing program

Ray tracing is a process in which a "world" is set up and many calculations are made to determine where things like shadows and reflections should appear. The results from commercial ray tracing programs are often stunning in their clarity and detail, and tend to show what the Amigo is really capable of doing.

Enter QRT by Steve Koren. QRT stands for Quick Ray Trace, and it is fast indeed. If you have a fairly simple scene that you want to render, the chances are good that it will not take over a couple of hours. The "glass table" cover for this issue's public domain disk was rendered with QRT on a stock Amiga in about three hours. The rendering time would have been even shorter had the scene not contained glass.

### VirusX 3.10 / KV 1.0

A new Amiga virus, the "IRQ" virus, has appeared, and it can attach itself to any executable file. This adds a whole new world of possibilities as to how you can become infected. Steve Tibbetts has once again come to the rescue with a new version of VirusX. Just type "VIRUSX" from the CLI, or run it from the icon in Workbench, and VirusX will open a small window and check memory and any disks that are inserted for 9 different strains of virii. Also included is a small program by Dan James (DJ James) called "KV" which will check a file or a set of files for the IRQ virus. For more information about what the virus does and how to keep yourself safe, please see the documents included with VirusX.

### DAD - A simple, addictive game

DAD is a nice little game by David M. Cole. The object is to shuffle a set of boxes so that a large blue box makes its way from the upper left corner to the upper right corner. The concept is so simple, you will think that you can win in minutes, but I found myself playing this one for about a half hour the first night I found it.

### Tetrix - ANOTHER Addictive game

Tetrix is a game similar to the popular commercial game known as Tetris. The object is to guide a series of falling blocks in such a way that they complete a row across the pit they are falling into. This is another game with a very simple concept that you can become addicted to in a matter of minutes.

### ClickRead 2.0 - A text file viewer

ClickRead is a small utility that will show you a text file on screen and let you scroll around in it. Control is primarily mouse oriented, for when you are in a leisurely mood to read some files. You can invoke ClickRead from Workbench or CLI. All of the text files on this disk are viewed with ClickRead when you select them with the mouse. There are also some nice extras that will allow you to search for a specific string, or "park" the window when you have a text file you wish to refer back to later.

### KickToys - for the tech oriented

Kicktoys allows you to primarily turn Kickstart into a file for disassembly or programming onto eproms.

### Snipit 1.2 - a clipper's delight

Snipit is a very useful program that allows you to cut and paste text with the mouse to and from the windows of your choice.

### Selfont 2.5

Selfont will allow you to change the system font in various ways. You can use fonts that are not the standard size (8 points) as well.

### KICK 1.0

This is a surprise display hack that I will not tell you much about for fear of spoiling the surprise. It should be of special interest to those running it on an Amiga 2000 or a 500.

**This volume of the A.X. Public Domain disk was selected, assembled, and organized by Chris Bailey.**



# Jay's Way

Jay Gross, the editor of A.X.

Magazine, touches on some of what's in this issue. There is quite a lot of information in each issue. Take a moment, and let Jay tell you about some of the things to keep your eyes open for.

**W**elcome to the new format of Ami Exchange Magazine! Let us know if you like it (or if you don't). The addition of paper sections adds another dimension to our multi-media approach to magazine publishing. Notice that the magazine STILL comes with three full, jam-packed, disks of articles, pictures, animations, music, and programs. As time goes by, we'll add additional pages to the paper sections. The disks will be used for things that disks are best for - things you can't get in a paper magazine.

There's a list of what's on disk at the start of the Table of Contents (can you DIG those graphics!), and there will probably be some more things on the disk that are not mentioned here in the paper part. The reason is that the paper sections have a much longer lead time, and the disks are a really last-minute operation. To get the best of both worlds, we're doing a little deadline juggling, so at the end of the listings in the paper sections, there's more, more, more, continued on the disks. Because of the lead time, the hottest items, the newest stuff (and the sweetest gossip!) are on the disks, and might not even be mentioned in the paper sections. Okay, getting down to the business of what's here. This time,

we've outdone ourselves. First on the list is a full working demo of Gold Disk's MovieSetter program. This is the whole program (ahem!) less the save option. You can load an animation (the A.X. logo one that opened the magazine, for example), and see how it was put together. You can even take it apart and reassemble it. But you can't save. Oh well. If you like what you see, it won't cost you much to have a real one of your own. Zing on down to your favorite Amiga software store and haggle your best deal. MovieSetter's only \$99 list.

## MovieSetter Demo

The MovieSetter demo program only "sort of" works in a 512-K Amiga, and it won't work behind the magazine user interface, no way no how. Use the ICON! However, 512-K owners can play the animations included here, to get a feel for the program's power (and read the review, too). The real MovieSetter program DOES work just fine in a 512-K computer.

## A Plot To deplete Amigoid Sleeptime

Then there is the game, WordHai, but you've no doubt already located it and got hooked on it and now have WordHai riddles floating about in your brain. Too bad. There's no known cure. WordHai, an infamous plot to deplete Amigoids' sleeptime, was cooked up by Michael Crick. He'll send you the sourcecode in C if you want it, but it's not included here.

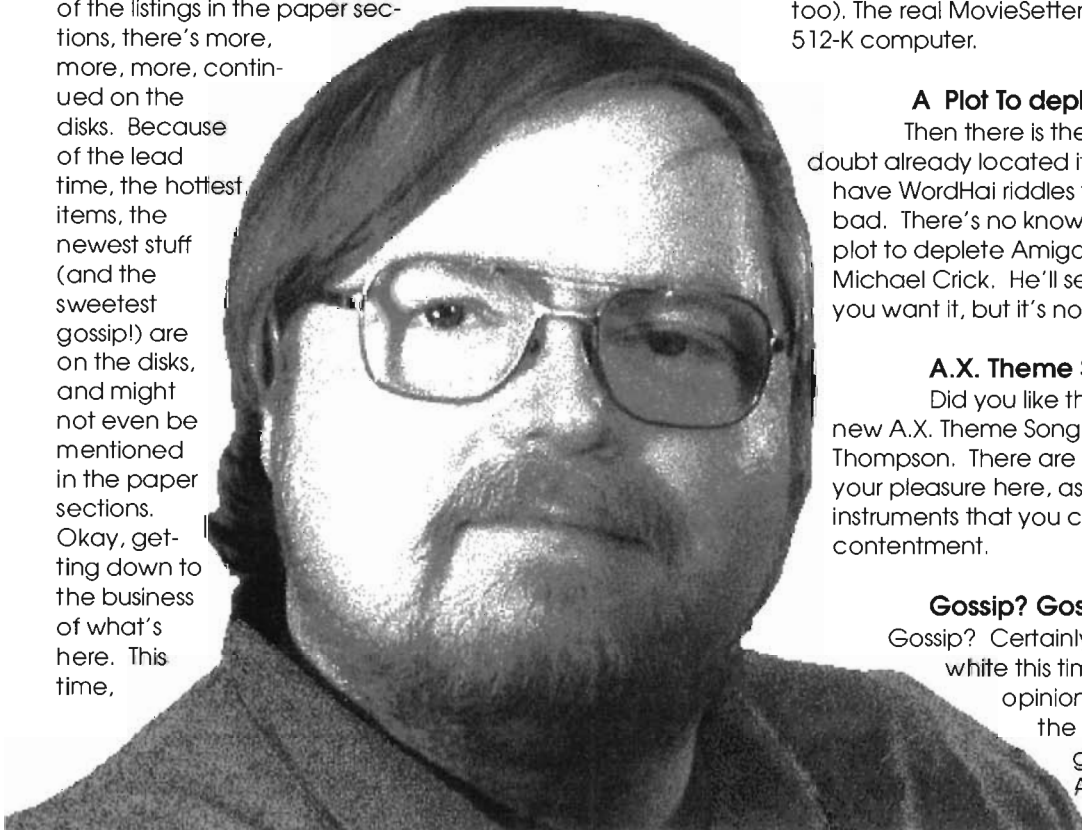
## A.X. Theme Song

Did you like the opening music? That's the new A.X. Theme Song, written in Sonix by John Thompson. There are some more musical things for your pleasure here, as well as some neat Amiga IFF instruments that you can use or abuse to your heart's contentment.

## Gossip? Gossip? Gossip?

Gossip? Certainly. Printed in glorious black and white this time. Don't worry, there's more opinionated cynicism - er, GOSSIP - on the disks, too. This issue's gossip gleanings are partly from AmiFORUM in Orlando, from the

(Continued)



# "AmigaDOS 1.3 continues to amaze and confuse people"

Continued from **Jay's Way**

effervescent Dallas phone lines, from Max Toy's personal consulting engineer, and of course from the ever reliable networks.

NEWS, too. New Amiga stuff to tempt you, new information about products, upgrades, and such. Lots of that. The hottest stuff is on the disks, though, where it's not necessary to motivate the printers to get something published.

## **Editorial**

This issue has another new experience for Amiga Exchange readers. Our first EDITORIAL. We take a safe and easy route for the very first one and endorse Arexx support among productivity packages.

Arexx is ... well, check out the Editorial.

AmigaDOS 1.3 continues to amaze and confuse people, so we begin with the first of umpty-zillion articles on the ins and outs of it. Don't miss the gossip about One Point FOUR, too!

As usual, there's so much stuff here that it takes too much space to just talk about it, and what good is talking about it all, when you could be enjoying it. Look through the Table of Contents listing in the paper sections, and have a gander at the disk's Main Menu. As far as the disks go, very little has changed.

## **Coverage of All the Amiga Categories**

This issue, as always, has all the categories of Amiga use covered. There's stuff for productivity types, for telecommunicators, for artists, musicians, and techies. There's things here for educators (and educatees), and video enthusiasts. And last, and by no means least, there's stuff just for fun. Check out the games section for reviews of a bunch of neat titles for the Amiga, as well as hints and tips for playing them.

For telecommunicators, Chris Bailey takes a look at some of the bulletin boards around the country that get all the raves. There's another in the Protocols series, too, this time taking Ymodem apart down to the seams.

Educators might want to check out the review of The Talking Animator by Marty McClain, whose work with Amigas in art class earned her state's "Classroom Teacher of the Year" award. Marty is also a member of Commodore's advisory board for educational markets.

MIDI music, this issue, is the domain of George Glines. Have you wished for the fancy and expensive Keyboard Controlled Sequencer by Dr. T's? Check out George's thorough review, as well as his article on MIDI timing. Also in the music section, Sally Hubbard puts the finish on her continuing tutorial on Deluxe Music

Construction Set. There's a neat "drumbeats" fonts, too, for making up nice scores for drums. The font is also Sally's creation.

Artists will find their section filled with art, and information too. For one thing, there are examples of the possibilities of a program called InterFont. InterFont is a program marketed by Syndesis to fit into their InterChange package for the Amiga. What you do is draw a font - easily accomplished by tracing a bitmapped one from your Fonts: directory - in STRUCTURED graphics. The resulting font is saved to disk, and then you can enter a string of characters in the InterFont program to get a structured object to match the file format of the Amiga's ray tracers, or Aegis' DrawPlus.

It's a lot easier to do than it is to describe.

Anyway, the title screen for this issue was done with InterFont by Stephen Pietrowicz. The font string was ray traced with Turbo Silver 3.0.

For programmers, Richard Bielak continues his Modula-II program, Draw, with some more neat tricks and tips you can use to create your own Amiga paint program. There's a VERY fast, developing demo program, along with Rich's M-II source code, so you can see how he did it.

## **If AmigaBASIC Is Your Language**

If AmigaBASIC is your language, check out George Trepal's AmigaBASIC Toolkit. This is a collection of neat things - including source - that you can merge into your programs. No need to type these in. They're on disk so you can even watch them work.

George also wrote the Mail-Tel program in AmigaBASIC. Mail-Tel is a small database program that will keep track of names and addresses and phone numbers and other useless information. You can configure it to your liking, or just use the demonstration applications provided here. Sourcecode is included, as well.

Okay, now it's funtime! DungeonQuest, Battle Chess, Enlightenment, The Uninvited, TV Sports Football, the list is a long one. Reviews by John E. Ramspott, John Thompson, Joe Wegrzynowski, Tom Zelinski, Kevin Rohrer, and Michael Hubbartt.

Look into the A.X. entertainment section for more more more. ●

J:



# MILLION AMIGAs

*That long awaited number... has it been reached... SOMEBODY tell the world!*

**T** There was a time when you could count Amiga owners on, oh, 100,000 fingers. It wasn't all that long ago, either. Then there were 200,000, and 500,000. At Comdex in the spring of 1988, Commodore was claiming there were then 600,000 Amigas in the world. Max Toy, the head Commodroid, stood up in front of the press and anybody else who'd listen, and boasted about the 600,000th Amiga.

In November, the figure went to 800,000. Well, folks, the Magic Number has been reached. Planet Earth now has a solid ONE MILLION Amiga owners.

## **It really took a long time, didn't it.**

Frankly, it took TOO long. The Amiga's so powerful, its hardware so innovative, that it should have sold a million copies a long time ago, but for the fact that it's been a deep dark secret all this time. First there was no software, then there was no advertising. There is still no advertising to speak of, but now at least there is software, and plenty of it.

Curiously, with a million Amigas under its belt, and the Amiga line accounting for fifty percent of the company's income, Commodore is sure taking their sweet time about letting the facts be known. The company's public relations firm was mute on the subject, though the financial markets got the word. Well, maybe this is supposed to be another one of Commodore's secrets. Well, psssst! Secret stuff, here. A million Amigas, got it? Don't tell anybody, the word might get out, okay?

## **Rubbish. SOMEBODY should tell the world.**

While you're telling, tell 'em about the neat stuff the Amiga does that absolutely nothing else in its price range does. Video, for a prime example. You want desktop video? Buy an Amiga and get the state-of-the-art and save y'self a few thousand smackers into the bargain. That's just one example, but it'll do for now.

With video leading the way, to some extent, slowly, ever so slowly, the Big Secret of the Amiga has leaked out. You can credit an absolutely rabid band of loyal Amiga owners for it. Also, credit a few Amiga developers for having the nerve (and the money) to advertise in places that the Amiga wasn't even heard of. Aegis, for example, was touting the Amiga to video markets before Commodore's (quote) marketing (unquote) department could spell "bundle."

The fact that there are a cool million Amigas is nice. Reassuring, even. But look for more more more. The new Amiga 2500, which is based on a Motorola 68020 microprocessor, takes the Amiga's performance to stellar new heights, and early reports are that the machine is selling quite well, without any promotion, as usual.

With luck, and if people in power at Commodore finally wake up from their three-year nap, there will be other Amiga machines and Amiga products that target this year's computer market, and the numbers of Amigas will climb toward the multiple millions at an increasing rate.

## **More and More Third-Party Support**

To keep growing, the Amiga, like a growing child, needs nourishment. That comes in the form of third-party support with hardware, as well as software.

The million mark is a significant one in third-party development. It's the level at which larger developers will begin to take a serious gander at the Amiga marketplace. This means, among other things, that the opportunity for Amiga programmers is going to increase dramatically. For us normal people, it means that there is likely to be another, welcome surge of software development for the machine.

Well, folks, there's no use in keeping the secret any more. Tell somebody. Tell everybody. In fact, somebody PLEASE tell the world. The million-and-oneth Amiga is waiting on the loading dock. ●

J:

# AMIGA

## 2500

A F I R S T L O O K

By Jay A. Gross

**R**un for your lives! The sky is falling! No, on second look, that's not sky, but airware, dropping like lead from the ozone layer. Commodore airware, and some pretty fancy stuff, as a matter of fact. There's a new Amiga on the dealers' shelves. It's the Amiga 2500. Not much of a new look to it. Looks like a 2000, which is what it is, with the addition of a harddisk drive and a very fancy CPU card - the long promised 68020 one.

Add a simple sticker that proclaims the name Commodore-Amiga 2500, and that's it for the outward appearances. The keyboard currently bears an Amiga 2000 logo sticker. Indeed, the logo styling on the machine is not even this week's fashion in the Amiga logo at CBM. Somebody musta forgot.

**Left.** The only outward difference between the Amiga 2000 and the Amiga 2500. To look at the keyboard, you really couldn't tell the difference- there isn't any.





Inside, and from all appearances on the screen, the new Amiga 2500 blazes new trails in Amiga system performance. We're talking FAST with a capital A (for Amiga, of course). The 2500 cooks along with an on-board math coprocessor and two megabytes of special 32-bit memory. That's techie talk for ZOWIE!

#### THIS IS DEFINITELY NOT A GAME COMPUTER

This is definitely not a game computer, 'cause most of the Amiga's games will run several times too fast to be useful. The exceptions are some of the vector-based ones, most notably Electronic Arts' FA/18 Interceptor. Instead of going faster, this cleverly programmed game increases its frame rate using the extra horsepower.

The result is incredibly smooth animation (improved from an already awesome level, it must be said) that absolutely nothing on the home-affordable computer market can hope to touch. Natch.

The 2500, however, is not priced for a game player's marketplace. The machine's \$4700 list price buys a SCSI harddisk controller card (the A2090A), the '020 CPU card, a total of three megabytes of expensive RAM chips, two megs of it being 32-bit addressable, and a 40-megabyte harddisk drive. Keyboard, mousie, all that other stuff, too. You're on your own for a monitor.

Oddly, the 2500's harddisk is driven as a ST-506 drive through the 2090-A. It is not a SCSI drive, even though its performance is exceedingly impressive.

Commodore isn't making much of a big deal out of the Amiga 2500, naturally. What else is new? Maybe they're afraid their marketing department would have to interrupt their three-year (so far) nap and actually do some marketing. The fact is, though, the Amiga bearing that fancy speed-up card is one awesome machine.

#### AN UPGRADE FROM A 2000?

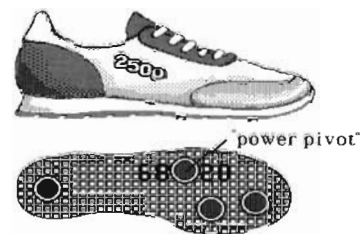
Already have a 2000? The upgrade "path" is to buy the extra doodads and slap them in your existing computer to whip up the functional equivalent of a 2500. CBM's also selling the A2620 CPU card separately for just such a feat of computer conversion. You can just add one of these boards to an Amiga 2000 and come up with a 2500 without starting over

with a new box, though you won't get the sticker that say 2500. Sigh.

The card by itself containing 2 megabytes of 32-bit memory, lists for \$1999. Substantially less than \$2000. Add another

two megabytes of 32-bit memory for another measly ol' \$800. Better stand BACK for the performance of that baby!

Memory on the A2620 is in the form of those funny sideways mounted RAM chips. It takes a potload of them to populate the board out to its full four megabytes, and they are NOT socketed.



A II?!? An X?!?

No, no- it's a **2500!**

That's  
techie talk  
for zowie!

You'll have to get somebody to laboriously hand solder the things in if you buy small memory and later want to add more. That is, unless you have mastered the art of soldering extremely expensive widgets yourself. Currently, the sideways-mounted chips are not particularly in short supply, but they are expensive. Dave Haynie, the Commodore engineer who designed the A2620, has written a program (freely distributable) which copies Kickstart from the 2000/2500's ROM chip into a chunk (256K) of that 32-bit memory. The result is ANOTHER incredible speed increase that can only be described as amazing - in the AMIGA sense of the word.

There are a number of non-Commodore 68020 speedup boards on the Amiga market. You can

easily tell which ones are not made by Commodore by the fact the ones CBM doesn't make have been out much longer, and are being ADVERTISED. Several of the third-party boards offer 32-bit memory expandability, and some even permit using the Motorola 68030 chip, instead of the '020. There is, frankly, only marginal difference in the performance between '020 and '030, but there are DRAMATIC benefits to going from the Amiga's normal 68000 to 68020, especially if the changeover also includes a math chip (68881 or 68882) and 32-bit memory.

So far, only the Commodore unit also includes the Motorola 68551 Memory Management Unit chip. That chip will be a necessity for running the Amiga windowed Unix

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## **(Amiga 2500: A First Look continued)**

implementation. However, the Amiga rumor mills have a thing or two to say on that score. Consider, for example, that the '030 contains a subset of the '551 within its sandy real estate. Third party '030 board(s) capable of running the vaporous Amiga Unix. Real Soon Now. Nuff said.

### **COMPATIBILITY PROBLEMS?**

Naturally, there are a few pieces of software that don't behave well under the 68020 CPU, but not very many. Most games, for example, work too fast to be useful - a problem that wouldn't occur if the games were following the developers' rules stringently, which few of them do.

A few games won't work at all under the 68020. Falcon, for example. Comes up looking like a black cat in a coal cellar at midnight. The small incompatibility problems are no problem at all, though, even before the manufacturers update their products to work (or work better) with the '020. The solution is in the 2500's bootup sequence.

When the A2500 boots, if you bother to hold down both of the Amiga mousebuttons, the computer will stop short on a yellow screen offering the opportunity to choose among three, count 'em three, boot choices. Only two of them work. The first is regular 68000 mode, disabling the 68020 card. The second is speed demon 68020, and the third is Amiga Unix. The third one doesn't work yet. For one thing, the Amiga Unix software is still vapor and likely to continue in that state for a while.

Just as there are few things that don't work, there are a few that are optimized for the '020 machine. ComicSetter, by Gold Disk, for example. Vectors flit and fly about the screen like lightning, and the program truly snaps and pops its complex structured graphics and bitmaps onto the screen. Of course, that three megs of memory could prove right handy too. ●

J:

# The A.X. Magazine Three Disk Set

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1. At the Workbench prompt, boot with A.X. Magazine disk # 1.
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3. From here, everything is point and click. Or, just hit the HELP key anytime for a quick reference. Printing to paper is also available!

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### THE DISK PORTION OF A.X. MAGAZINE

*The user interface which drives the disk portion of this magazine is state-of-the-art in every way. The entire interface is written in 100 percent Assembly language to be quick and smooth.*

*As you read the articles, you are not just looking at text. We have integrated graphics and illustrations right into the text, and the entire thing smooth scrolls. Then we added sound and music on top of it all, to add to the multi-sensory experience. In addition to the articles, there are some useful Amiga system utilities, as well as other executable programs that can be run directly from the user interface.*

*Beginners will be happy to know that the interface is designed to be extremely simple to use. Just point and click. Yet, it is designed to also be quick and efficient for more advanced users. Single-drive owners will delight in the fact that you don't have to constantly swap disks to use the magazine. In the Table of Contents, articles are marked as to which disk they're on. So you will know in advance if you must change disks. And even then, you will only have to change disks once to read an article, show a picture, run a program or whatever.*

*The disk portion of A.X. Magazine is organized in the same way as the table of contents of this issue. For instance, everything shown in the FEATURES/COLUMNS section, can be found in that section on disk. The only difference is that there is more on the disk portion than is listed in the paper table of contents.*



# WHAT'S NEW IN THE AMIGA MARKETPLACE

The  
newest  
hottest  
items.

**New stuff for the Amiga** - that's a TALL order these days, but here goes. The newest, hottest items aren't always the best, of course, but they have the advantage of being new - temporarily. These items are not in order of importance or preference of any kind. Frankly, they're in the order in which the big pile of notes happened to be at press time.

Gold Disk continues to treat the Amiga as a serious computer, putting out products that don't even vaguely address the Amiga's ability to play games. So far this year - not even counting the tail-end of '88 - the company has shipped (yes, SHIPPED) MovieSetter and Professional Draw, for making animations (the former) and for making drawings (the latter). The company's other serious products, though, are in the grips of the Real Soon Now gremlin, but they include an implementation of a Canon black and white scanner on the Amiga (around \$1100 in the U.S.), and that staple of Amiga softwares the 3-D rendering program (Design 3-D).

Precision Software has updated SuperBase Professional for the Amiga again, this time to version 3.0. The updated product adds, among other things, a handy Arexx port so that the program can be controlled by (or control) other applications, or even consulted from remote via the program's support of serial communications. At this writing, there is no runtime package available. The program's technical support is being channeled through American PeopleLink, and the company makes a modem and software available to owners of the product for a reasonable fee.

Owners of Superbase versions other than 3.0, and owners of Superbase products lower than the

"Professional" designation can obtain updates from Precision for approximately the difference between the list prices of the versions and products. Earliest Superbase products were sold by Progressive Peripherals, not Precision Software which wrote the program. Good luck getting any support for those.

Abacus is now shipping their "Professional DataRetrieve," a spruced-up port of DataRetrieve from the Atari ST side of things. Not having seen the product up close, the first impression has to come from the box. It's a HUGE package, rivaled only by Lattice's C 5.0 for sheer weightiness on the software shelves.

Magni, the people who make some of the fanciest of the Amiga genlock cards, have now added Y-C connector support to their 4000-series product for the Amiga 2000. The funny connector is what you have to have if you get the full S-VHS quality out of your S-VHS video equipment. The S-VHS stuff works fine through the normal NTSC connections, but it provides its best signal only through the special Y-C ones. That applies to anything in the system, by the way, not just genlocks. A pure S-VHS system would even include Y-C-compatible monitors.

Antic, a company previously found guilty of some nasty Amiga-bashing, has jumped into the Amiga market with considerable energy and an apparently deep pocket. In addition to announcing - and promoting in a very classy manner - an Amiga-specific magazine, the company already has several software products on the shelves, including some neat object disks for use in the Amiga raytracing and rendering programs. The objects can be moved readily from one format to another with one of the object format translators. The several packages in the bunch are all very nicely packaged and contain - from the literature supplied - lots of nice objects. A big problem with any of the

# Latest for the

# TIME OUT FOR A LITTLE FUN

rendering programs is creating objects to render, and you can't render anything till there are objects (and light sources!). Complex objects are difficult and time-consuming to create, too, but once created they can be resized, distorted, twisted and manipulated with relative ease.

Antic Software's "3D Design Disks" are all \$34.95 each. The titles are Architecture, Human, Future, and Microbot. Antic is also selling Zoetrope, an animation package. Zoetrope does some amazing things with Amiga bitmaps, but it doesn't know about overscan, a necessity for video applications.

Impulse has jumped into the data disk business too, with Fonts-1, Objects-1, and Schramm Designer data disks for use with Turbo Silver 3.0. Another in the batch is the Markoya Organic Disk, but it's important to note that the objects are organic, not the disk. The Impulse ones are \$30 each. Again, the objects can be moved to any other object-oriented Amiga program with one of the format translator programs, but maybe you oughta not tell Impulse you know that.

Incognito Software continues to estimate Real Soon Now on Opticks, their raytracing program, as well as on Atredes 1.1, their BBS program. When shipped, Atredes will have an Arexx port, a very handy way to give (or deny) complete control of a host or slave system from a remote log-in. Remote terminals, of course, can be virtually any computer which is capable of modem telecommunications. That means you could call up your home-bound Amiga from the Clone in your office and have the Amiga execute programs (through Arexx), sending and program output to files for later retrieval, or back to you through the modem. The possibilities are endless.

Peeking  
out from  
under  
cover...

**Nag. Nag. Nag.** This one's from Gramma Software "For Your Own Good." It's Nag Plus 3.0, a scheduling helpmate that bugs you no-end if you forget something. The program can do its harping with the Amiga narrator, or it can play any IFF sampled sound. Get it? "Any" sound. Of course, since the program comes with such choice sounds as Peter Lorre berating in the inimitable Lorre style, there is little need for any other sounds.

More on this boring productivity stuff after a bit, but time out for now for a little fun.

Eagle Tree Software, makers of Butcher 2.0, is selling a thing called "Distant Armies, A Playing History of Chess." That's what it is, too. All the various permutations of chess over the centuries, done up in spashy Amiga graphics and playable if you wish. It's like getting a whole collection of antique chess sets on an Amiga disk. This one lists for \$44.95.

There's Battle Chess too. Awesome. Nuff said.

Incognito again. Peeking out from under cover are some Amiga games that do something unusual for Amiga games. Multitask, Targis, for example. The game's graphics are, frankly, less-than-gorgeous. However, it's really fun to use the game's screen designer to make your own screens, and the graphics are then exactly to your taste, as well as the playing factors of the game. Targis is a move-the-character-up-the-ladder sort of game. You pick up prizes along the way, and there are things chasing you, as usual. With the screen designer, you can put ladders where you wish, you can put prizes of your choosing wherever you want - as in all over the place. Alas, the design screen insists that you have at least one bad guy. Oh well.

Another of Incognito's titles is a game of mammoth proportions called "Kingdoms of England." Doug Brooks - he's incognito, but he works there, we think - says Kingdoms of England is "what Defender of the Crown ought to have been." The game permits two players to have a go at each other. There are several different game-play scenarios that comprise the package.

**Continued on the disk portion of  
A.X. Magazine**

# Amiga

# NEWS ITEMS

## Interesting News From The Amiga Community

### 1988 Killer Demo Contest

On October 20, 1988, the Bay Area Amiga Developers GroupE (BADGE) held a contest to select the best Amiga demo of the year. The contest is sponsored in the hope of promoting greater interest in the Amiga and thus greater sales. The primary result of the contest is for there to be disks for the dealers to use in the showing of the Amiga computer line.

This year there were two categories under which people could enter, Tool-Based (meaning that they require another, possibly commercial, program in order to run), and Custom-Programmed.

The prize categories were Best Overall, Best Use of Graphics, Best Use of Sound, and Funniest, as well as second and third place.

The scoring was accomplished by first creating score sheets for everyone who attended that night's meeting using AmigaTeX from Tom Rokicki and Radical Eye Software. Then each demo was run, one by one, and individuals scored each demo on Use of Graphics, Use of Sound, Amiga specifics (does "Only Amiga make it possible?"), and Nift (how impressed were you). There were 100 points possible with the addition of 30 technical points that each demo was supposed to live up to (returning memory, not Guru'ing ...). Then information on the sheets was typed into a Maxi-Plan spreadsheet and the results tabulated.

This year, the Best Overall prize (an Amiga 2000, donated by Commodore-West Chester) goes to Brad Schenck for his Director Animation named Charon.

*Other winning categories include:*

**Best Custom Demo** -- Tank by Vince Lee;

**Funniest** -- "Not Being Again" by Dr. Gandalf;

**Best Sound** -- "Charon" by Brad Schenck;

**Best Graphics** -- Tychoid by John M. Olsen.

Two disks containing with the top three demos are available from BADGE for \$5.00 by sending your request to:

**Badge Killer Demo Contest**  
c/o Randy Spencer  
P.O. Box 4542  
Berkeley CA 94704

### A Prototyping Board for the A2000

If you're a hardware developer and you want to develop for the Amiga 2000, you might be interested in the NES AM-200A Amiga 2000 Prototyping Board. This new product from a company called NES, Inc., offers a ready-made board already configured for the A2000's Zorro-II connectors.

The board comes ready to plug into the Amiga 2000's "Bridge" slots, having the Amiga 100-connector buss, plus the MS-DOS buss, as well as the AT-style 16-connector extension of that side. Of course, you don't have to use the parts of it you don't need.

*The AM-200A offers the following features:*

- Designed for 300, 600, and 900 mil chips
- Both Zorro-II and AT-style card edge connections with gold plated fingers
- Zorro-II connector is connected into the ground grid.
- 200 centered power and ground grid holes for decoupling caps
- Power and ground architecture
- Two 13 x 13 pin grid arrays
- Hole patters for "D" pin connectors
- 2 rows on .100 centers for parallel connectors
- Solder masks on both sides

The company says the prototyping board can be plugged into any Zorro-II or AT-style slot "without fear of contacting or damaging any components on the Amiga 2000 mother board where no Zorro-II or IBM-AT connectors are provided."

The board sells for \$49.95, plus shipping, direct from the company. You can reach **NES, Inc., at 503-246-9311. The address is 6805 S W 8th Av., Portland, OR 97219.** And happy hardware hacking!

### A Video Cataloguer for the Amiga

The folks who bring you Microfiche Filer and MicroFiche Filer Plus database programs unveiled a new video application for the Amiga at the World of Commodore show in Toronto. The application displays scenes on the Amiga monitor, based on user selection from a **Microfiche Filer** Plus database run externally by Arexx scripts.

A single keystroke is all that's required to get the video scenes to show on the Amiga monitor. The system, which demonstrates the use of **Microfiche Filer** Plus's **ARExx** interface, uses information in the database to control (through **ARExx**) a videodisk player. *(Continued)*



# *Good things to come...*

*Image Tech is a fresh new company bent on producing the highest quality software for the Amiga. Image Tech was created by combining the best Amiga graphic artists along with some of the most talented programmers available. With a wealth of talent, and high standards for product quality is born one of the fastest growing companies you will ever see. So if you are a programmer, or graphic artist, we would like to hear from you.*

# ...More News Items

---

## *Of Debits, Credits, Fonts and Designer Databases.*

Software Visions says the video scene cataloguer is "the first step in a video editing system." The equipment required includes an Amiga (of course!), **Microfiche Filer** Plus database management program, **ARexx** software interface (supported, but not provided in the Microfiche package), Interactive Microsystems MediaPhile infrared controller, a videodisk player and a genlock.

Ron Currier, of Pawtucket Software, put the application together. It took "less than an hour" to write the several ARexx macros that make the system work.

**Microfiche Filer Plus**, the "programmable" version of Microfiche Filer, lists for \$179. The one without the "plus" in its name is \$99. The "Plus" version of the program uses **ARexx** to achieve its programmability, which also offers the ability of transferring control to any other application which supports the **ARexx** interface.

### Of Debits and Credits

As far as the Amiga goes, business accounting software has been very slow in showing up. Of course, most of us don't really care - the home accounting programs are pretty good, and plentiful, too. Still, even if General Motors doesn't do its bookkeeping on Amigas, it WOULD be nice for people who operate small businesses to add that little chore (task?) to the Amiga's other duties around the shop, office, or whatever.

The few titles that are available include **B.E.S.T Accounting** and **The Accountant by KFS**. The market, though, is in for a little more competition, this time from Brown-Wagh. The company is threatening to ship a product called "**EasyLedgers**," which is the first increment of what might (if there's enough buyers) become a full-fledged small business accounting system.

Steve Wagh, of (where else!) Brown-Wagh says **EasyLedgers** "is for those of us running small businesses who must do accounting, but know little about it and don't even like it!"

The product is designed specifically for the Amiga, taking advantage of color, mouse, gadgets, and such. The initial package will offer Accounts Receivable (billing), Accounts Payable (purchases), Inventory (stock), and General Ledger (financial statements). Steve says the program requires no special numbering system and no special codes. That ought to keep the accountants in the world paranoid for awhile.

At this writing, **EasyLedgers** is already in the Beta testing stage, and Brown-Wagh expects to begin shipping in February. Notice the initial product doesn't include a payroll module. Maybe later if demand

justifies, says Steve.

Unfortunately, although payroll accounting software is extremely difficult to develop, it's among the most urgent needs of small businesses which have even a few employees. Even for just a ten-person payroll the amount of reporting to state and federal authorities can be enormous, and with fifty states, there are just about fifty ways of computing the state part of the payroll taxes and reports, all of which makes payroll accounting a complex undertaking from the programming point of view.

### Need More Fonts?

Although there are many sources of fonts in the world, such as this magazine, and the public domain an, New Horizons is offering two new packages of fonts. They are designed for use with their ProWrite word processing program. The packages also include a utility to move the fonts onto whatever disks you use most. Volume I is called Professional Fonts, and they are primarily designed for correspondence, newsletters and reports. The second volume is called Decorative Fonts. These are your more unusual fonts, with equally unusual names such as Bone, Broadway and Tombstone. For more information, you can reach **New Horizons at (512) 328-6650**.

### Designer Databases

Software Visions, the makers of the Microfiche Filer database series has recently introduced its **Designer Database Series**. This series is a collection of pre-made databases and macros. The first two disks are the **Home I** and **Business I** disks. The **Home I** disk contains your standard videotape, audio recording, stamp, recipe catalogues, a home budget, a personal inventory and more. The **Business I** disk contains a daily calendar, mail merge, expense report, general ledger and a invoicing/inventory application and with many of these using custom macros. The **Home I** is priced at \$39, and the **Business I** is \$59. Soon to follow are Video Graphics, Sound I, Home II and Business II. You can call **Software Visions at 1-800-527-7014** and ask for free information on all these products

**Many, many more of these  
News Items  
can be found in the disk portion of  
Ami Exchange Magazine!**

**"Commodore stocks hit a vast new high, more than doubling..."**



## *The* **GOSSIP FENCE**

By Jay Gross

**F**irst the good news. All the news is egregiously rosy from Commodore lately. The company's stock hit vast new high points, more than doubling the level at which it was selling for most of 1988. The millionth Amiga was sold and sort-of announced. The company made money for the current quarter, as well as for the fiscal year. Things look rosy indeed. Even better, Commodore didn't buy any failing department stores for more than they're worth, but it's awfully tacky to point that out, so forget it, okay?

**On the Amiga front**, which still seems to be considerably diverse from the Commodore front, things are rosy, too. Did you notice all the new software? Game city, of course, as always, but some of them are truly AWESOME, and that's in the AMIGA sense of the word! Battle Chess comes to mind.

**Electronic Arts** is sitting on Deluxe Paint III. Some folks have them, including Jim Sachs, who proudly showed it off to people who attended his Amiga art class at AmiForum in Orlando. According to the press information department at EA, the product is due to ship (you guessed it) "Real Soon Now." It adds animation facilities to Deluxe Paint's toolbox, to make creation of the multiple, similar frames very easy.

**Jim's working on an Amiga game.** That's not news, but it's confirmed, now. The game will go to immense lengths to compress tons of his exquisite artworks onto disk for use by the program - and the rumor is that the programmer is Jim himself. According to the gossip fence, R. J. Mical has produced a rather unusual file format for the game's 3.5" disks that permits it to load almost instantly and to contain much more information than the Amiga normally allows.

**With a new president at Commodore**, Max Toy remains chief executive officer, and Jack Tramiel still controls the advertising staff. CBM has steadfastly stated "We will buy no ads before it's time," and Jack tells 'em, apparently, when it's time. Canadian markets are experiencing a thrill in this realm. CBM is doing some advertising in the Canadian desktop publishing press. Of course, Commodore in Canada is a different company from CBM USA.

**According to CBM** official spokespersons (whose names are not secret, but irrelevant), CBM USA is waiting for all the parts of the puzzles to be in place before promoting the Amiga into any market. Moreover, the USA's advertising crew has the benighted notion that "promotion" means bundling a bunch of mediocrity together and waiting for the long-lost "mass market" to re-materialize.

If somebody asks what's so nice about the Amiga, it takes about two hours to zip through an abbreviated list. However, if the question is what's WRONG with the Amiga, the answer is simple. Commodore.

**Well, back to the good news.** Ahhhh, a million Amigas. That's the level developers have been whining about for the last three-plus years. Okay, so now there are a million rabid Amiga owners out there, instead of the piddly few hundred thousand of a few months ago. Let's see some DEVELOPMENT, then! Let's see some serious products that use the Amiga's power to the fullest, and how about some built-in support of the 68020 chip and the math chips. There are plenty of third-party makers of speed-up boards for all of the Amigas (including A1000's), so it's reasonable to support a math chip now. Oh yes, and don't forget the Arexx ports, please.

**Okay, here's a juicy tidbit** on the third-party speed-up board front. Great Valley



# *Trying to pin down the incessant rumors about the Amiga 3000...*

Products, maker of a line of harddisk controllers, hardcards, and memory boards for the Amiga 2000, is expected to announce, maybe even show, a speedup card for the Amiga 2000 before the daffodils bloom in New York. The card's a 68030-based one, complete with the usual doodads that make those cards so attractive. The big news is that Great Valley is planning their product to be compatible with the Amiga Unix software (if it ever ships). No other 68020 cards on the market, except the Amiga one, would run the Amiga Unix.

It isn't hard to have two pieces of airware compatible with each other, is it?

**Spaking of Unix**, the word from 'way up in the Commodore pecking order is that the compay is having second thoughts about shipping it in the U.S. It's still in "betatest" right now, and the beta testers are universally raving about it. Meanwhile, much of the computer press is casting friendly looks at Unix to solve the operating system confusion problem on the corporate desktop. It's time to SHIP the thing, but CBM's got the willies about it.

The problem, according to the "unnamed, highly placed source," is that Amiga dealers are not all trained to cope with Unix, much less market it, even though there are a few Amiga dealers who could easily handle Amiga Unix, and who have been clammering to get the thing in their stores. Dealer training efforts which were to have materialized by the end of 1988 fizzled somewhere along the line, and the only training done was in the "graphics workstation" promotion, which was a joke, and not a very funny one.

Another problem is that the Amiga still needs some more hardware improvement to be useful as a Unix workstation. The serial port, for example, is normally limited to One and Only One, a problem which should have been addressed a LONG time ago but it now waiting

for AmigaDOS 1.4 (supposedly). Naturally, while CBM has been sitting on their thumbs, the Amiga third-party developers have been hard at work. At least three companies have Amiga multi-serial adapters (or modems) in the works, though they're not likely to be compatible either with each other or with absolutely every piece of software that's available.

ASDG, makers of the fancy Scanlab, 16-million-color scanners, showed a WORKING version of their multi-serial system at AmiForum in Orlando. Yes, indeed, it did work, literally ROLLING those Xmodem blocks across two simultaneous terminals at 19,200 bits per second.

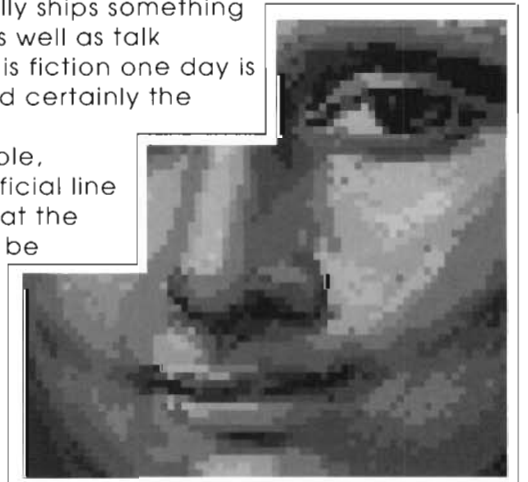
Still, in spite of Uncle Jack's loyal followers among Commodore's hirearchy, word is getting around. For example, word has filtered down to a certain hospital in Edmonton, Alberta. It was Amiga 2000's for all aboard... including an opportunity for employees to get in on the group purchase.

## **Now the juicy part. The Amiga >2500**

(That's "greater than" in more ways than one). Trying to pin down these incessant rumors about the Amiga 3000, which may or may not exist, is a challenge to the gossip-gatherer's art. It's also a waste of time, but it's the thrill of pursuit that keeps one going. The most reliable information on the thing, even if every syllable were true and correct, is subject to change at Commodore's slightest whim fifty-leven times between now and the year 8520, when Commodore finally ships something you can touch as well as talk about. So, what is fiction one day is fact the next, and certainly the reverse, too.

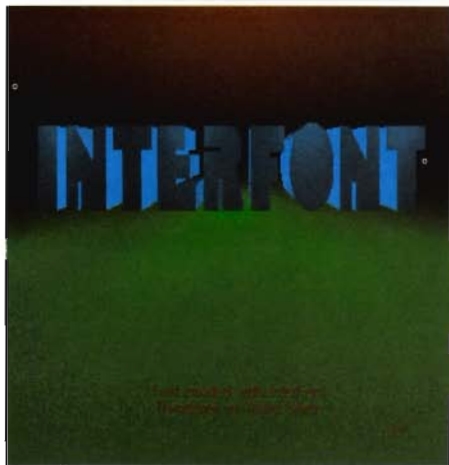
For example, Commodore's official line for a year was that the A2500 would not be marketed as

(Continued on disk)



# Enter Interfont

*T*hese images were produced by Interfont from Synthesis and rendered with Turbo Silver 3.0 from Impulse, Inc. (a ray tracing product).



*The Designer* lets you trace an Amiga bitmapped font to make a set of structured drawings.

The debate between bitmaps and structured graphics rarely extends to Amiga fonts. To get structured fonts, you pretty much have to print to PostScript or plotters. Not any more.

Synthesis has shipped a software product that allows you to design your own structured fonts.

InterFont, which is part of Synthesis' InterChange package, is much easier to work than it is to write about, but here goes. First off, the package comprises two main parts, InterFont Designer and InterFont module. The Designer is a program that runs by itself. The module requires InterChange (which comes with the product, if you don't already have it) to be running.

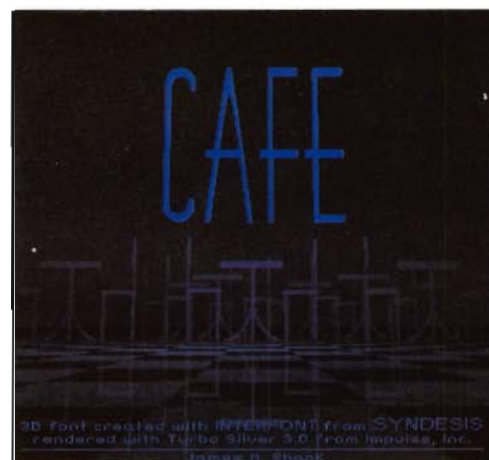
The Designer lets you just "trace" an Amiga bitmapped font (any font, but the larger ones are easier to do) to make a set of structured drawings which the program saves in its own format for later use by the InterFont module. Tracing is a bit time-consuming, since there are a LOT of characters in a full Amiga font - but it's not at all difficult. You can also work from scratch, if you prefer, and just "create" a font. The things you create don't really have to be letters, either.

After you draw your font, InterFont module can make up objects built on the font. These objects can be in any file format for which you have an InterChange conversion module - the program comes with Sculpt-3D, VideoScape, and Aegis DrawPlus modules. The DrawPlus

module is particularly useful, because its objects can be readily imported to Gold Disk's Professional Page and scaled, sized, squished, or whatever you like, then printed to PostScript at the PostScript device's resolution. Translation: NO jaggies! You could have a character as tall as the page, even though Professional Page's normal limit is 120 points (one and two-thirds inches).

You can also export the objects to ray tracing programs for some really thrilling results (see the pictures for proof). ●

j:



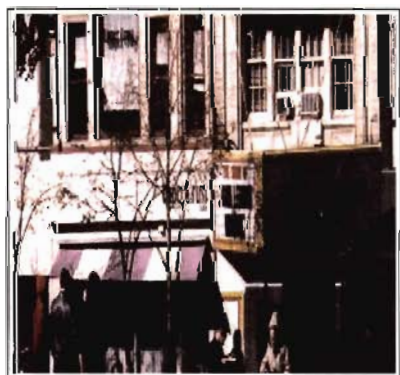




# SCANLAB



**Above.** This and the above images were scanned by Sharp's JX-300 color scanner in 16 Million colors and ASDG's interface and software on the Amiga. It was then reduced to 4096 (HAM) for editing by the Amiga. This image was reduced 20% then cropped to fit in this box.



**Above.** This image was also scanned by Sharp's JX-300 scanner. ASDG's interface and software. It was then converted into 4096 colors (HAM), reduced to exactly 50% of its original size, and color separated with Professional Page.

There is digitizing, and there is scanning, and the two are about the same in everything but the results. The main difference is that digitizers use cameras, and scanners usually don't. The result is a picture in "digitized" form that can contain far higher resolution than a normal video camera is capable of delivering - higher than the computer screen is capable of, too.

So? Good question. Scanners are useful for getting printed images into the computer for manipulation by (for example) desktop publishing software. You scan an image into the computer, and then print it to a laserprinter, and the result is a picture that looks almost exactly like the one you started with. Except that you get to do computer-bound manipulation on it in the process. You can add text, additional graphics, and depending on the image and the software, make changes in the image to suit yourself.

For color, the scanning process is best if there is a large palette. The best work you get out of DigiView - or any of the other Amiga digitizers - is usually when you use a palette of all of the Amiga's 4096 colors. For what is called "true" color, though, 4096 colors is not always enough. How does 16 MILLION colors sound? No, the Amiga can't display an image with that many colors (yet), but programs that whip up color separation data for printing processes don't have to display an image to do their thing.

ASDG is marketing a software and hardware interface to Sharp's line of color scanners that brings professional-level color scanning to the Amiga-equipped desktop. The company calls this stuff "Scanlab." Accompanying this article are some pictures - reproductions on paper, and a 4096-color picture on disk - from the ScanLab line. The results, as you can see, are awesome, and all of the accompanying reproductions are from the 4096-color pictures, not 16-million color ones, because of deadline limitations. The larger palette pictures would be even better, and of higher resolution, too.

ScanLab scanning ain't cheap. Professional ScanLab, which comprises a hardware board and ASDG's software, lists for \$995, including all necessary cables. Add the Sharp scanner of your choosing. The larger Sharp scanners are in the several thousand dollar category, and even so are on allocation from the manufacturer on account of very high demand (Mac-II and MS-DOS applications support the same scanner). Sharp's JX-300 is a letter-size, flat-bed scanner, priced at \$5000 and the JX-450 is ledger-sized. The larger one lists for \$7000.

Later this year, for us down-home poor folks, Sharp is planning to market a JX-100 scanner, a stationary hand-held model that will honor the same software as the more expensive models. The small one scans an area approximately four by six inches and will list for around \$1000.

Maximum resolution on the larger scanners is 300 dots per inch. The little one does 200 dots per inch. ASDG's software permits adjusting the resolution independently both vertically and horizontally under software control from only thirty dots per inch up to the maximum available.

J:



**Above.** This picture was originally scanned from a photograph with the JX-100 hand held scanner at 200 DPI. It was then reduced to increase resolution. None of these images were color corrected by A.X. Magazine.



# In the previous issue of A.X. Magazine...



After you learn how Amigas are educating children like yours... you just might find  
a few things for your own edification.

**World of Commodore: The Show Report** The USA's first World of Commodore had a mix 'n match flavor to it, but mostly Amiga. Not bad for a first show. Article by Jay Gross.

**AmiEXPO Los Angeles: More New Stuff** More new Amiga stuff from the AmiEXPO's all-Amiga show in Los Angeles. News, and maybe just a teensy bit of gossip. Article by Jay Gross.

**First Look: AmigaDOS 1.3!** Here's a quick first look at AmigaDOS 1.3. What's in it and what isn't. Tips, complaints, and (groan) insect sightings. Article by Jay Gross.

**BEGINNERS CORNER: SuperBench** How do you get a 1.3 WorkBench onto an existing program disk. On this disk is a CLI script that will do it! Alas, use from CLI only. Script by Jay Gross.

**BEGINNERS CORNER: 1.2 to 1.3** Here are the basics of what the SuperBench script does to convert 1.2 WorkBenches to 1.3. Please read this before using SuperBench.

**NEWS: A Portable Amiga** Shown at AmiEXPO in Los Angeles... Development of a portable Amiga is NOT being done at Commodore, but IS being done! Article by Jay Gross.

**NEWS: MacEmulator For The Amiga** ReadySoft's MAX, a hardware/software emulator for the MacIntosh, was shown at World of Commodore in Philadelphia. Article by Jay Gross.

**PostScript By Remote Control** This issue's covers were typeset on an Amiga, and printed on typesetting equipment 25 miles away. Here's how it was done. Article by Jay Gross.

**Virus Report: VIP Review** Save those boot blocks before a virus has a chance to have at them, and catalog viruses you have encountered: VIP. Review by Chris Bailey.

**Coping With Deluxe Music** Sally Hubbard continues her popular series for users of Deluxe Music Construction Set. This time, a few secrets about instrumentation.

**REVIEW: MIDI Magic** Circum Design's new MIDI Magic program offers an easy user interface and rock-solid timing, even while multitasking. Review by John Ramspott.

**Musicians' Address Book** A listing of selected addresses and telephone numbers of interest to musicians, MIDI musicians, and computer music nuts.

**REVIEW:** excellence!, Scribble!, ProWrite2.0, WordPerfect, Textcraft+, and Kindwords.

**UNIX - Amiga File Transfers** Here is the Amiga documentation file included with SZ and RZ. There's a nice section on transferring UNIX and Amiga files back and forth, too.

**NEWS: Multiple AMIGA Serial Ports** COM > (greater than) One! The Amiga's software serial device is in for a rewrite, to enable multiple serial ports. Article by Jay Gross.

**REVIEW: ComicSetter** Zap! Biff! Pow! Gold Disk brings you (Whoosh!) ComicSetter, for making your own color (or B&W) comic books on the Amiga. Review by Chris Bailey.

**Deluxe PhotoLab Tutorial** The stuff you can do with Deluxe PhotoLab! Here's how to get started." Article and tutorial. Review/Tutorial by Chuck Joslin and Scot Harris

**Amigas In Business: The Sequel** The sequel to the articles on the Amiga as a business machine. The Video business is taking the Amiga very seriously. Article by Jay Gross.

**Desktop Video: The Cost Factor** You can spend a bundle on setting up for desktop video, or you can spend a mere pittance. Here's what to expect. Article by Jay Gross.

**Diamond HAM Paint DEMO - ICON** This is a fully functional, working demo of Diamond, Impulse's HAM paint program. It will load only RGBN files, and it won't save. USE ICON!

**PROGRAM: Doug's Color Commander Demo** This is a fully working demo version of Doug's Color Commander from Seven Seas Software. What a palette tool! See the DOCS file...

**KIKUGI DEMO: About the working demo.** KIKUGI is a new game by Image Tech. The demo is interactive and lets you actually sample the game. Also included is an exclusive offer through A.X.

**REVIEW: WShell** William Hawes, he sells C shells by the score. Well, WShell isn't really a "C shell," but it is a shell environment. Review by John Ramspott

**REVIEW: AREXX** AREXX is Bill Hawes' implementation of the REXX programming language on the Amiga. Here's what it can do for you. Review by John Ramspott.

**Drawing Routines In Modula-II** Here are some tips and tricks on some basic drawing and painting routines in Benchmark Modula II. Introductory article by Richie Biclak.

**UnSpace - a CLI Utility** Doug Smoak shares C sourcecode and tips on recursion in C. UnSpace gets rid of spaces in file and directory names (Ahhhhhh!). For CLI use only.

**Speaking of C...** Some more C code to warm your winter evenings. This is an article about the program, Spooler. Article and program by Barry Burton.

**NEWS: Cheap Harddisks, Chapter 199** First thing you want after you learn to do the Floppy Disk Shuffle is a harddisk drive. Spirit has a neat idea on that. Article by Jay Gross.

**HyperText: References** If you want more information about HyperText - and there is lots more to know - here's where to look. Compiled by Everitt Mickey.

**Just For Fun** Oh, what a proper student wouldn't give for an Amiga on which to do science projects. This one worked all too well. Humor by Everitt Mickey.

**Using ARP library and Workbench 1.3** Some say there are problems, some say there aren't. Well here it is... sometimes there is... and sometimes there isn't.

## And the list goes on...

A complete list is available on disk #1 of this issue.

or call  
**1-800-2-THE-MAG**

# A.X. Magazine's Reader Gallery

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*Images from the Commodore Fan Club of Japan*

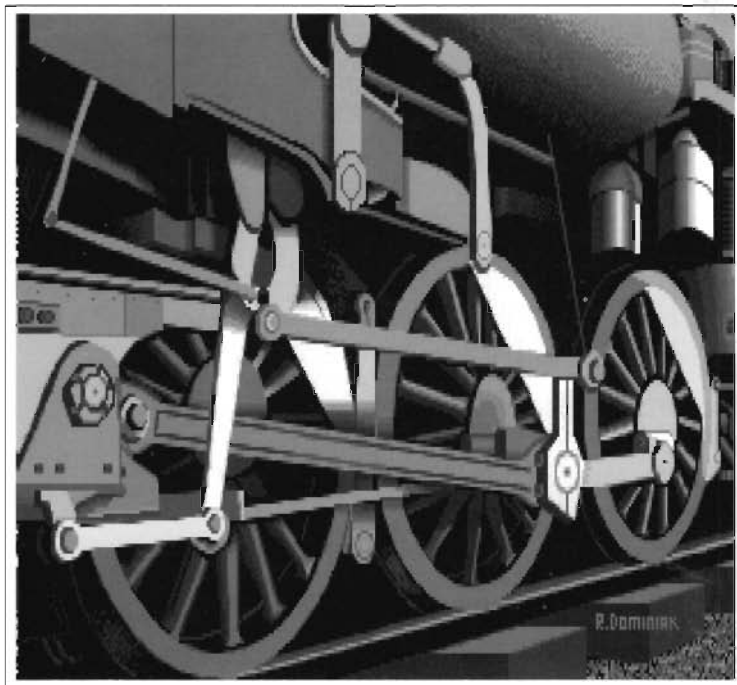
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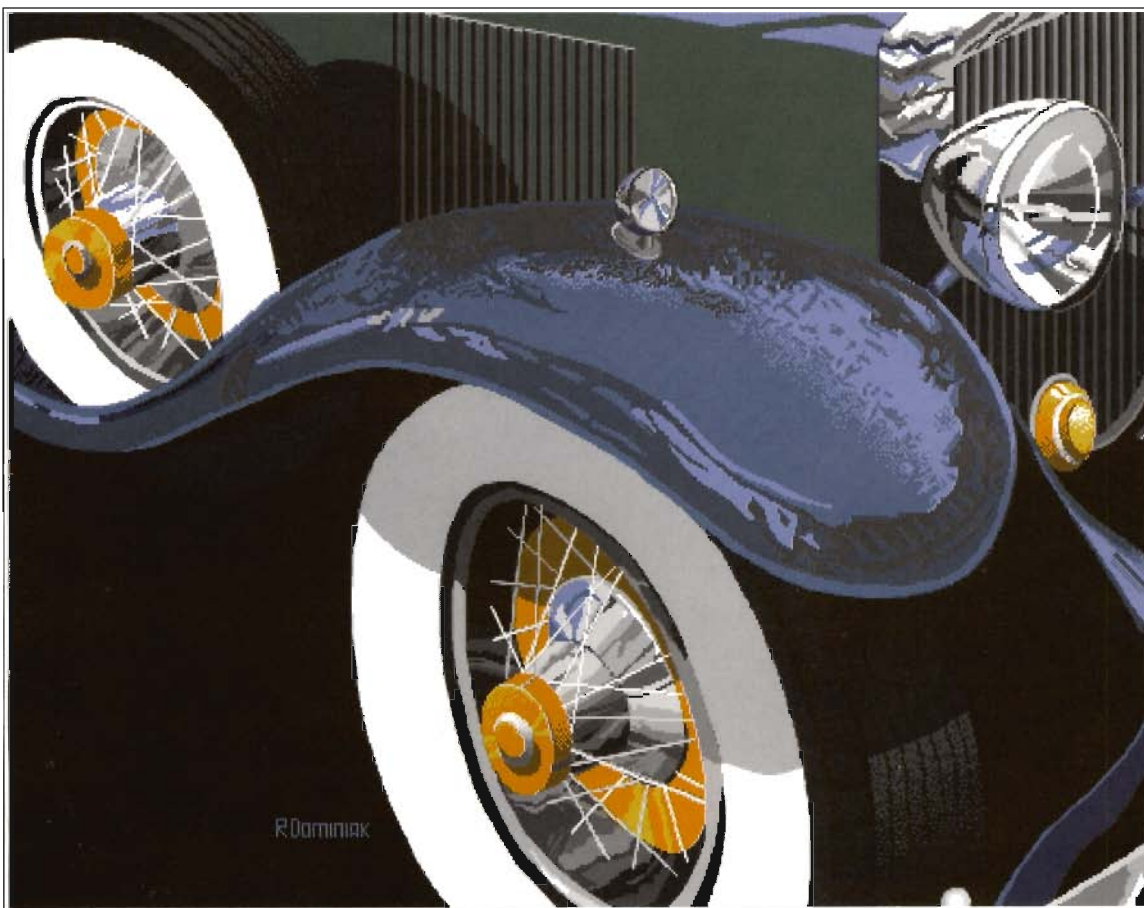
*Forego by Pat  
Rizzo of Glendale,  
CA. This image was  
drawn in Photon  
Paint.*



# Robert Dominiak



*Robert Dominiak had just started drawing on the Amiga when he completed these pictures. His 30 years of experience as an artist, seems to show through in his work. These pictures were painted with Deluxe Paint II, and an Amiga 500. He also painted the cover of this issue.*





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