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THE AMIGA® NEWS MAGAZINE

NOV. 87
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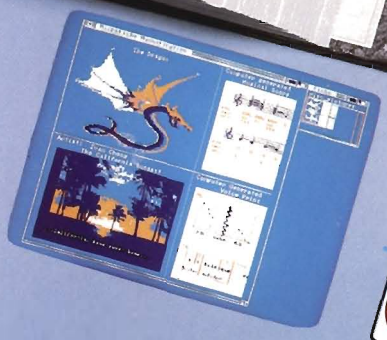

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On Point ...

Notes from editor Tom Bucklin

We hope that this issue brings the excitement of Ami-EXPO home to you. This was a major EVENT for the Amiga community and like most of the major Amiga events, this one was successful against the odds.

There was no billion dollar corporation, no million dollar advertising budget, no national organization to ensure Ami-EXPO's success. It was a dedicated group of Amiga users, a devoted throng of Amiga owners, and exhibitors who believed enough to take a chance on a new show.

Fortunately, nothing succeeds like success. Ami-Expo west will no doubt be an even greater event. The flood of recent software and hardware introductions, Commodore's new advertising program, and the continuing enthusiasm of existing Amiga owners is creating a definite BANDWAGON effect. We've recently met numerous new A 500, owners and power users who have upgraded to the A 2000. The overwhelming impression from both groups has been enthusiasm. Sure there are some complaints, but no computer (or program) is ever completely bug free. The simple fact is that there is now a family of Amiga computers. A family that is remarkably compatible, and that offers major expansion possibilities throughout the product line. The owners of the original 1000's are in large part responsible for this.

No need to rehash the software drought, the non-products, and the lack of Commodore promotions. Many personal computers have experienced similar problems. The Amiga story is different. Those first few thousand owners, and first few developers who wrote their own editors, telcomm programs, graphics and sound utilities kept the product alive.

The efforts of these unsung heroes have continued and matured. Although, there are very few large Amiga specific companies, there are many small and creative ones. Animator's Apprentice, Express Paint, Calligrapher, Forms In Flight, HugePrint, Sculpt-3D, MicroFiche Filer, and FACC are a few of the recent "individual" efforts the Sentry has reported on. The good news, is that Amiga owners recognize the breakthrough nature of these products and these firms are prospering.

While we hope that the Amiga community continues to grow by leaps and bounds, we know that individual efforts will always be needed to provide the creative spark, to take the risk and to push beyond the possible.

The Flow™ Idea Processor Helps You Survive the Information Age

The age of the computer has produced a virtual wilderness of personal complications. So much information needs to be organized. So many things need to be done. And there's only so much time to do them in. To survive you need a tool that lets you organize things the way *you* want them organized. You need Flow, the Idea Processor for the Amiga™ computer.

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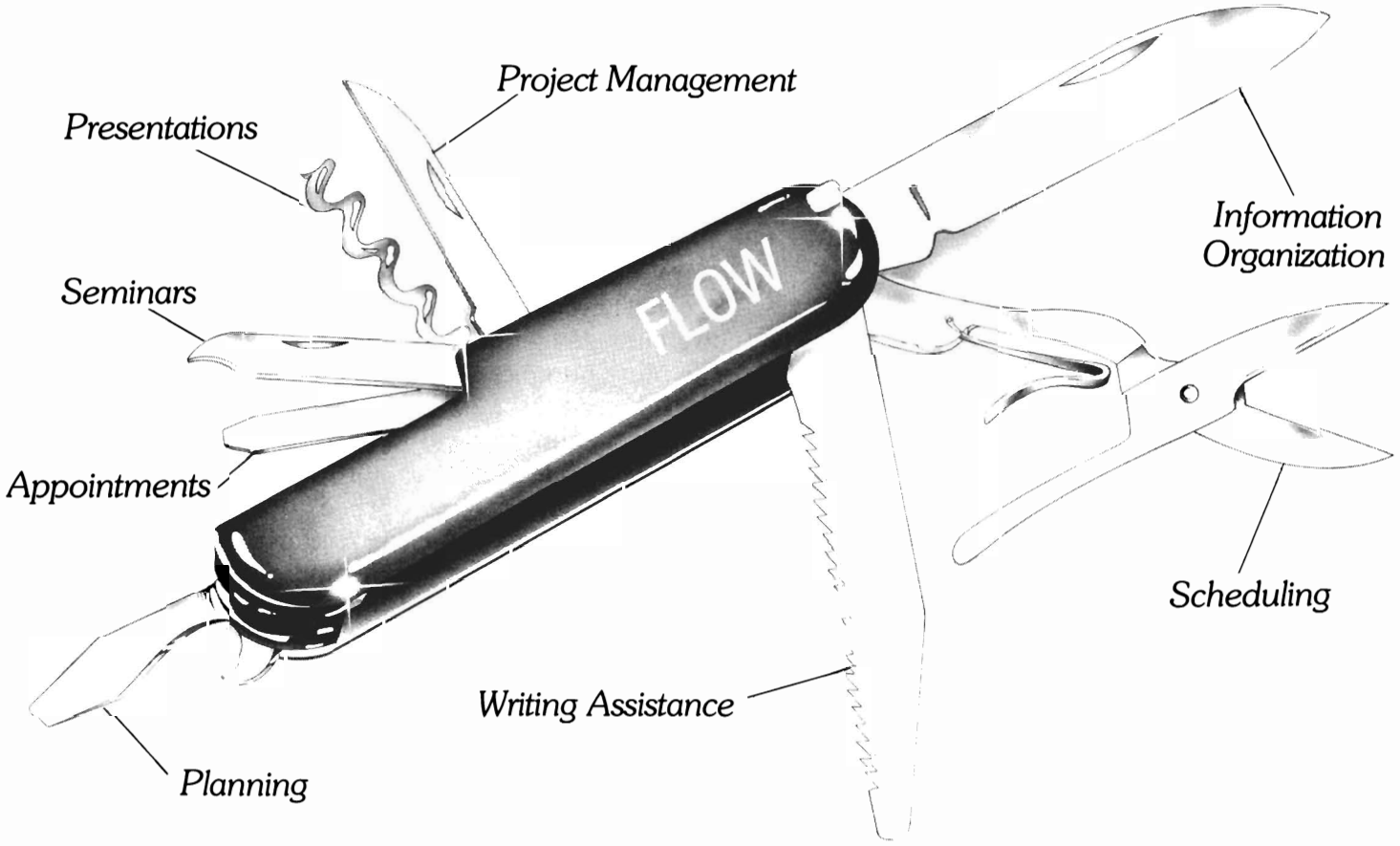

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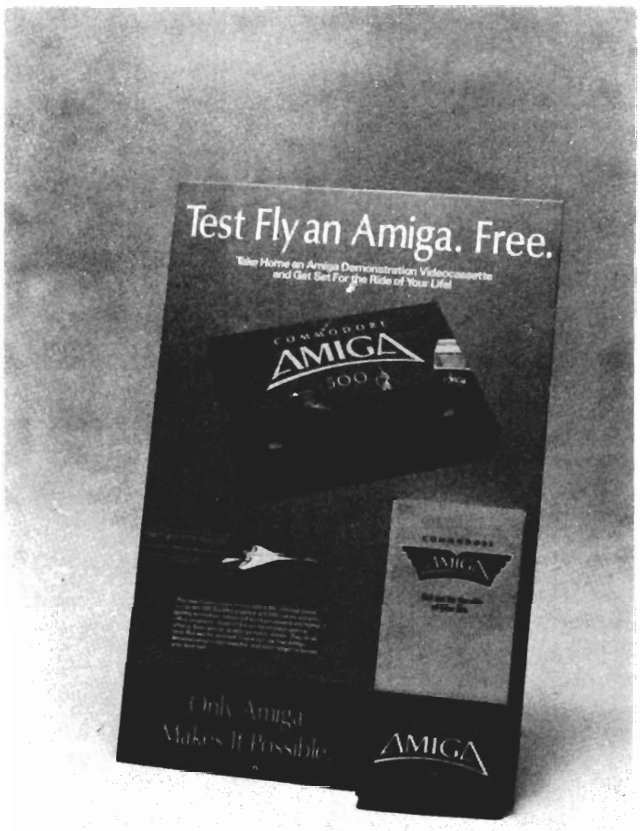
Test Flight ✈

Commodore's marketing program takes off

"I am beautiful... I am sight and sound .. . I am productive .. I am enlightening ... I am fun... I am

the Amiga 500".

So states the new 14 minute video tape that is the cornerstone of Commodore's new Amiga marketing program. This tape is available to prospective purchasers at their local Amiga dealer. (Call 1-800-AMIGA for the locations.) There you can "rent" the tape at no charge. With a credit card imprint, you can take it home to see and hear a comprehensive demo of Amiga capabilities in your own living room. Many dealers will be displaying a Test Flight poster with airline-like ticket folders as part of the promotion.



This new marketing program is a clever variation of the classic "puppy dog sale". Once you have that new, cute gadget in your home, who can resist the easy payment terms? The Video itself is stunning. It was produced by Griffin-Bacall, Commmodore's new advertising agency and MTI/ Compuscope in NYC. The heart of the show is hundreds of actual Amiga screens and sounds.

Gone are the days when Commodore hid the unique Amiga capabilities under a bushel. Test Flight boldly states that the A 500 can do all that a PC compatible can, and much MORE. A dramatic announcement during the Video introduces multitasking, and accurately states that only the Amiga offers a true multitasking operating system in a personal computer. The statement "Ultimate Home Computer" is made repeatedly. By showing (and naming) dozens of Graphic, Productivity, Music and Educational programs, the myth of a software shortage (ala Atari) is destroyed.

The video includes five chapters; Graphics, Video and Sound, Productivity, Education, and Recreation. Each one showcases software and peripherals appropriate to the topic. The chapters reinforce each another to create the impression of a potent, productive, unique personal computer. The quality of this video is outstanding, and is indicative of the improvement in Commodore's marketing attitude for the Amiga.

We expect that the current marketing effort will swell the ranks of Amiga owners and give overdue recognition to the machine.

The marketing program includes several components:

- Test Flight Video- already distributed to Amiga dealers.

- TV Commercials - These are extracts from Test Flight andbegan airing in local markets during late October.

- Print Ads - Advertisements for the 500 and 2000 will appear in local newspapers, USA today, People magazine, Newsweek, Sports Illustrated, Life, Omni, Consumer's Digest, and High Fidelity.

- Direct Mailings to 64 owners began in September and include a special offer for software packages at very attractive prices.

- User Group Promotions - all registered 64 and Amiga user groups have reportedly been offered one 500 or 2000 system at discounted prices.

- Amiga 1000 trade in program. The $1000 + A1000 = A2000 offer is real, and has been extended through November 30, 1987.

- Expanding the dealer network. Commodore is actively going after an increased dealer base for the A500 and the A2000 alike.

- Active participation in major computer shows. Amiga has already officially attended, NCGA, COMDEX, SIgGraph, Educational Computing Conference.

- Special marketing to educational institutions. (Australia has chosen to order several thousand 500's in a competitive selection which included Apple & IBM.)

This already strong program will probably see improvements in the near future. In October, Irving Gould, Chairman of Commodore International, announced the appointment of Max Toy as President of Commodore USA. Mr. Toy comes with very impressive experience. For 8 years he was with IBM in various marketing and sales positions. He left to become the Vice President of Marketing for Compaq, the most successful microcomputer company in the world. Most recently he helped ITT build a sucessful market for their PC clones, the Xtra series of personal computers. Mr. Toy has been quoted as saying that Commodore has a high degree of inovative technology, and that he plans to offer distinct products for distinct channels. Al Duncan will continue as General Manager, and Rich McIntyre will remain Vice President of Commodore USA.

Toy, Gould's most recent appointee, brings some impressive credentials to his new post

We certainly wish Mr. Toy success, and hope that Irving Gould has found the person who can provide stability and leadership to Commodore USA.

Our local user groups have already begun to see the influx of new A500 owners. This comprehensive program is long overdue. Find the time to view Test Flight, it'll make you proud to be an Amiga Owner.

Ami-Expo

The Amiga takes Manhattan

Beginning on Saturday, October 10, and running through Monday the 12th at the Sheraton Centre Hotel in New York City, the Amiga community met, and came alive.

The event was the first Ami-EXPO. It was sponsored by the AMUSE users group of New York. Over 8000 patrons passed through the exhibits and/or seminars during the three days. More than 70 developers and dealers manned booths on the exhibit floor. In short, the Ami-Expo was a resounding success.

Of course, you say how could the first all Amiga exposition not succeed. I'm sure if you asked Joe Lowery, President of AMUSE you'll hear a tale of long nights and close calls. The AMUSE group initially sought Commodore's support, or at least official participation. Although Commodore was interested in having a presence at the Ami-Expo, they would not be exhibiting at the show. Unswayed by this series of events, AMUSE bravely decided to organize a series of EXPO's on their own. Hats off to AMUSE and all those who worked so hard to pull it off.

We were surprised by the number of international attendees from a variety if countries, including Canada, Great Britian, France, Italy, Israel, Germany, India, Australia, New Zeland and Mexico.

The show consisted of seminars, exhibits, and a special event. The seminars were well attended (too well most would say), and included keynote presentations by Amiga luminaries. On Saturday, Jay Miner the father of the Amiga, gave an inspirational address. Sunday found R.J. Mical explaining the present and future potential of Amiga's custom circuits. Finally, on Monday, Rich McIntyre, who heads up the dealer sales effort in the US for Commodore, showed the *Test Flight* Video and discussed Commodore's marketing plans for the Amiga family. The panel sessions ranged from hardware: "Amiga Expansion", to software : "Amiga Dos Past, Present, and Future", to applications such as desktop video and business. One session featured "Amiga Graphics; The Creme de la Creme". Our own Edward L. Fadigan demonstrated his painting techniques and showed some of his creations. (There are audio

Excited onlookers crowd the booths on the show floor

tapes of every seminar available from Audio Transcripts Ltd. Call them at 1-800-338-2111 for details.)

There was plenty of action on the Exhibit hall floor. From the opening moment streams of attendees filled the aisles. There were only a few dealers selling Amigas and peripherals. Instead, most of the exhibits were manned by software and hardware developers, with a sprinkling of User Groups and Amiga Magazines for good measure. (It was a pleasure meeting all of you. Look for the *Sentry* at Ami-Expo West in Los Angeles.)

Appropriately, sound and graphics dominated the displays. The entire spectrum of 2D and 3D animation programs were being demonstrated. A host of new music programs also made their public debuts during the expo. Crowds gathered at many exhibits, but a few deserve special mention.

They showcased Shakespeare and Gallieo in a spectacular custom construction of pastels and grids. Byte by Byte had some spectacular displays of their own. All eyes were drawn to the Kahanakas and Apple demos of Scupt 3D Ham animations (and to the lovely attendent who was showing the demos).

The crowds were noticable around the 64 emulator booths. Both GO-64! and The 64 Emulator were on display. Progressive Peripherals will soon introduce another 64 related product. *Access 64* is a serial adapter which will enable use of 64 peripherals from AmigaDos. This may be appealing to the practical 64 owners who want to use Commodore printers and 5 and 1/4 disks with their new Amigas.

Although Commodore was not exhibiting, there were many high ranking Commodore personel visiting the show. During the show's final day, Irving Gould, chairman of Commodore, toured the floor. I think Mr. Gould was quite taken with the amount of activity on the show floor.

Strong interest was also evident around the ASDG booth. The new 2000-and-1 expansion concept was introduced, and I actually held the Satellite Disk Processor (SDP) board in my hand. This ZORRO board includes a

(continued on next page)

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Save programming time and effort.
You can develop exciting file access programs quickly and easily because CBTREE provides a simple but powerful program interface to all B+tree operations. Every aspect of CBTREE is covered thoroughly in the 70 page Users Manual with complete examples. Sample programs are provided on disk.

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- Get last
- Get next
- Get less than or equal
- Get greater than or equal
- Get partial key match
- Get all keys and locations
- Insert key
- Delete key

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68020 processor, 1 meg of fast RAM, an ST506 and SCSI controller! SDP is designed to push Amiga hard disk performance to new standards.

We noticed several unexpected gems among the exhibits. Hugh's software ranch was selling HugePrint, a program which will faithfully reproduce any IFF picture in window or wall size.

Fuller Computer Systems introduced Project D, a new disk copying product. Interactive Softworks was selling two new Font sets, including one with over 100 specially designed newsletter fonts. And R&DL Productions demonstrated their LightBox software for professional cel animators.

The significance of Ami-EXPO goes beyond its success. This was the first time that a large community of Amiga developers shared the excitement of a professional, Amiga specific, show. The feelings of pride and accomplishment were contagious. In the early morning set-up hours, and in the after hour dinners, a sense of community began to grow. The enthusiam of the crowds and the sheer quantity of exhibits kept everyone charged up. The creativity and variety of products amazed even the experienced developers. By the end of the Expo, a new dynamic was at work.

The developers who participated in Ami-EXPO are now more sure of the Amiga's future. They will redouble their efforts to bring out the best for this unique computer, which is good news for everyone.

OTHER HIGHLIGHTS:

A *special event* took place on Saturday at Midnight. "Very Vivid" performed their "Mandala" interactive video. Ami-Expo attendees were invited, courtesy of Mission Graphics.

GRAPHICS:

Mission Graphics Support is a New York City group of Amiga dealers and artists who specialize in packaging systems for Artists. They sponsored the performance of Mandala by Very Vivid.

Deluxe Help for DPaint 2 - RGB Video productions has upgraded their product to an interactive tutorial which multitasks with DPaint. (See the review in this issue).

Gold Disk showed pre-release versions of *Comic Setter* and *Professional Page* . Comic Setter is a soon to be available, full color comic strip production system.

A-Squared once again showed the famous *LIVE!* Hopefully it will be on sale by the time you read this. The 1/5 second fram grabbing is impressive but I was distracted by the lack of overscan.

Forms In Flight from Micro-Magic- the latest release of this 3D animation package was presented.

MUSIC:

Dynamic Drums by New Wave Software - A new digital sampled drum track composition tool. Ten instruments are loaded into memory and played with the numeric keypad.

Texture from Magnetic Music - This well know professional music composition software is now available on the Amiga. Real time recording is the hallmark of this sequencer.

Synthia by the Other Guys - A new and sophisticated music synthesis system. (See the Review in this issue).

Music Mouse - Popular on the MacIntosh, this mouse jamming program is sure to be an AMIGA success story. (See the review in this issue).

Audio Master from Aegis Development - A new tool for creating sampled sounds instruments. It includes editing capabilities and uses expansion ram to allow for longer samples. (see review in this issue)

PRODUCTIVITY:

HaiCalc a new personal spreadsheet from HaiTex Resources was introduced. XCad is a new professional 2D CAD system which is also marketed by HaiTex.

Sedona Software introduced Release 2.0 of Money Mentor This new version is written in C for speed, and includes many enhancements. (See the review in this issue).

New Horizons showed their next release of FLOW the idea

(continued on page 10)

AVAILABLE NOW!

StarBoard2

Auto-Configuring Fast RAM
Zero Wait States
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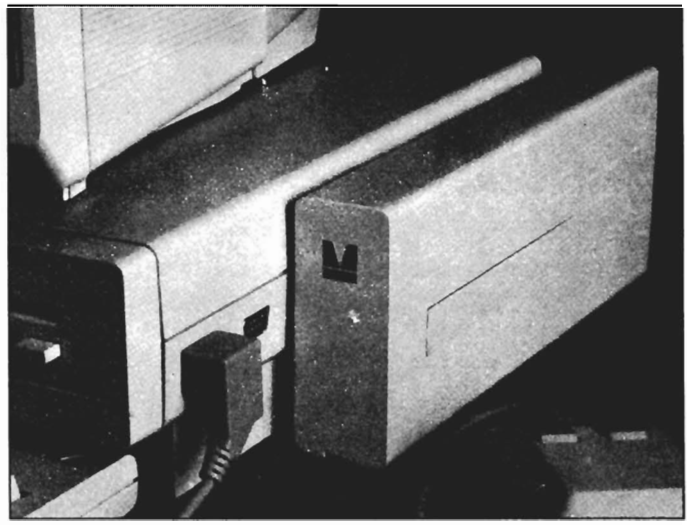

If you've owned your Amiga® for a while now, you *know* you definitely need more than 512k of memory. You probably need *at least* double that amount...but you might need as much as an additional two megabytes. We want to urge you to use **StarBoard2** as the solution to your memory expansion problem –and to some of your other Amiga-expansion needs as well!

It's small, but it's BIG–

Since most of you want to expand your Amiga's memory without having to also expand your computer table, we designed **StarBoard2** and its two optional "daughterboards" to fit into a sleek, unobtrusive Amiga-styled case that snugly fastens to your computer with two precision-machined jackscrews.

The sculpted steel case of **StarBoard2** measures only 1.6" wide by 4.3" high by 10.2" long. You can access the inside of the case by removing just two small screws on the bottom and pulling it apart. We make **StarBoard2** easy to get into so that you or your dealer can expand it by installing up to one megabyte of RAM on the standard **StarBoard2** or up to two megabytes by adding in an Upper Deck.

This card has decks!

The basic **StarBoard2** starts out as a one megabyte memory space with 0k, 512k, or one megabyte installed. If you add in an optional **Upper Deck** (which plugs onto the Main Board inside the case) you bring **StarBoard2** up to its full two megabyte potential. You can buy your **StarBoard2** with the Upper Deck (populated or unpopulated) or buy the Upper Deck later as your need for memory grows.

And you can add other functions to **StarBoard2** by plugging in its second optional deck –the Multifunction Module!

StarBoard2: functions five!

If we count Fast Memory as one function, the addition of the **MultiFunction Module** brings the total up to five!

THE CLOCK FUNCTION:

Whenever you boot your Amiga you have to tell it what time it is! Add a MultiFunction Module to your **StarBoard2** and you can hand that tedious task to the battery-backed, real-time clock/calendar. A small piece of MicroBotics software in your WorkBench Startup-Sequence reads the clock and automatically sets the time and date in your Amiga. And the battery *is* included (we designed it to use an inexpensive, standard AAA battery which will last at least two years before needing replacement).

THE FLOATING POINT FUNCTION:

If any one aspect most characterizes the Amiga it's *fast* graphics! Most graphic routines make heavy use of the Amiga Floating Point Library. Replacing this library with the one we give you with your MultiFunction Module and installing a separately purchased Motorola 68881 FPU chip in the socket provided by the Module will speed up these math operations from 5 to 40 times! And if you write your own software, you can directly address this chip for increased speed in integer arithmetic operations in addition to floating point math.

THE PARITY CHECKING FUNCTION:

If you install an additional ninth RAM chip for every eight in your **StarBoard2**, then you can enable *parity checking*. Parity checking will alert you (with a bus-error message) in the event of any data corruption in **StarBoard2**'s memory space. So what good is it to know that your data's messed up if the hardware can't fix it for you? It will warn you against saving that data to disk and possibly destroying your database or your massive spreadsheet. The more memory you have in your system the more likely it is, statistically, that random errors will occur. Parity checking gives you some protection from this threat to your data residing in Fast RAM. Note that the Amiga's "chip" RAM cannot be parity checked.

THE IMMORTAL MEMORY DISK FUNCTION (STICKY-DISK):

When you've got a lot of RAM, you can make nice big RAM-Disks and speed up your Amiga's operations a lot! But there's one bad thing about RAM-Disks: they go away when you re-boot your machine. Sticky-Disk solves that problem for you. It turns all of the memory space inside a single **StarBoard2** into a Memory Disk that will survive a warm-reboot! When your Amiga attempts to grab a **StarBoard2** in Sticky-Disk mode, a hardware signal prevents the system from acquiring the **StarBoard2** as FastRAM (and thereby erasing your files) –instead it is re-recognized as a Memory Disk and its contents are preserved intact. If you want to work rapidly with large files of data that are being constantly updated (such as when developing software) you can appreciate the Sticky-Disk!

Fast RAM –no waiting!

StarBoard2 is a *totally* engineered product. It is a ZERO WAIT-STATE design, auto-configuring under AmigaDOS 1.2 as Fast RAM. Since AmigaDOS 1.1 doesn't support autoconfiguration, we also give you the software to configure memory in 1.1.

Any applications software which "looks" for Fast RAM will "find" **StarBoard2.** And you'll find that your applications run more efficiently due to **StarBoard2** on the bus.

A passing bus? Indeed!

What good is an Expansion Bus if it hits a dead end, as with some memory cards? Not much, we think –that's why we carefully and compatibly passed through the bus so you could attach other devices onto your Amiga (including another **StarBoard2**, of course!).

The sum of the parts...

A really nice feature of the **StarBoard2** system is that you can buy exactly what you need now without closing off your options for future exapansion. You can even buy a 0k **StarBoard2** (with a one megabyte capacity) and populate it with your own RAM (commonly available 256k by 1 by 150ns memory chips). When you add **StarBoard2** to your Amiga you have a powerful hardware combination, superior to any single-user micro on the market. See your Authorized Amiga Dealer today and ask for **StarBoard2**

SUGGESTED RETAIL PRICING:	
StarBoard2, 0k (1 meg space):	$349
StarBoard2, 0k (2 meg space):	$395
StarBoard2, 512k (1 meg space):	$495
StarBoard2, 1 meg (1 meg space)	$595
StarBoard2, 2 megs installed:	$879
StarBoard2, 2 megs & MultiFunction:	$959
Upper Deck, 0k (1 meg space):	$ 99
MultiFunction Module:	$ 99
also available:	
Standard 256k memory card:	$129
MAS-Drive20, 20 meg harddisk:	$1495
MouseTime, mouseport clock:	$ 50

MicroBotics, Inc.
811 Alpha Drive, Suite 335, Richardson, Texas 75081 / (214) 437-5330

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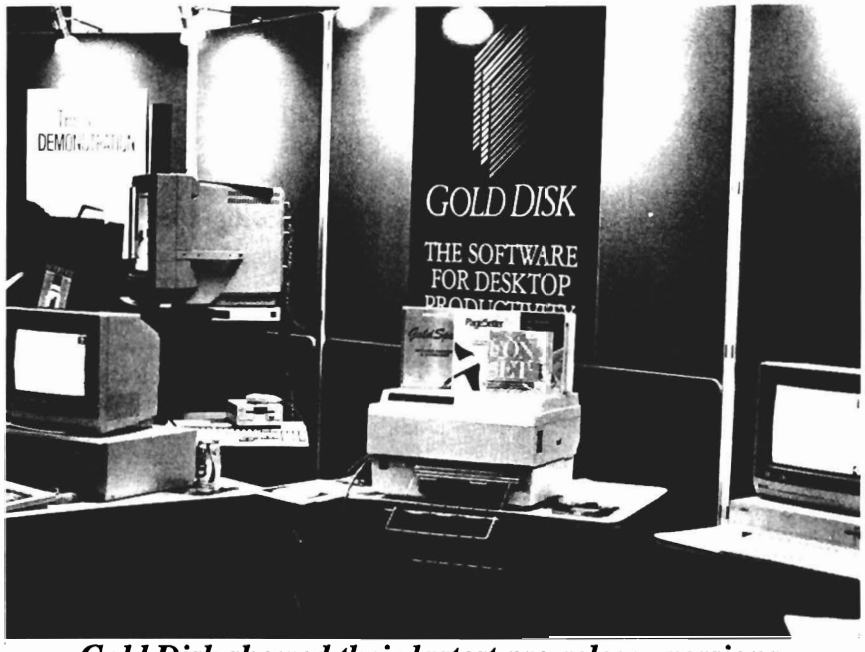
Ami-Expo (continued from page 8)

processor, and Prowrite 1.1 the color word processor.

Software Visions, producers of the innovative MicroFiche Filer, have developed a file import utility. This is a separate program which lets MFF import data from other applications. The utility knows about MFF data definitions, and will accept one field per line or multiple fields per line based on user specifications. In addition, Software Visions has updated their Fred Fish and AMICUS databases through September. The Import utility and PD databases will be distributed as PD and placed on the major networks.



Gold Disk showed their lastest pre-release versions of Professional Page and Comic Setter

HARDWARE:

Spirit Technologies were showing their new line of internal memory expansion devices for both the A1000 and the A500.

Supra Corporation showed their new 2400 baud, Hayes compatible modem.

Mimetics Inc. was showing their ImaGen genlock device and ReaSyn frame buffer for the 2000. In excess of 2 million on screen colors are possible with the Frame Buffer.

Finally Technologies announced a new zorro standard accelerator board. The *Hurricane* board includes sockets for a 68020, and a 68881 math co-processor chip.

Ameristar Technologies and ASDG Inc. announced a partnership to market Ethernet networks

Senior editor, Steve Dock had plenty of people to talk to at The Sentry's booth

for A 1000's.

The Ameristar Ethernet board and software for the A 2000 will be housed in ASDG's 2000-and-1 expansion platform.

RECREATION:

Discovery Software kept several Amigas busy with their new game, Arkanoids. (For those of you that don't know, Arkanoids is a very popular game that can be found in the video arcades. Discovery chief, Rick Ross, would like to see Arkanoids enjoy the same success as a port as did Marble Madness. Rick also told us that they are working on brain file #9 for Marauder II, and that it should be available shortly.

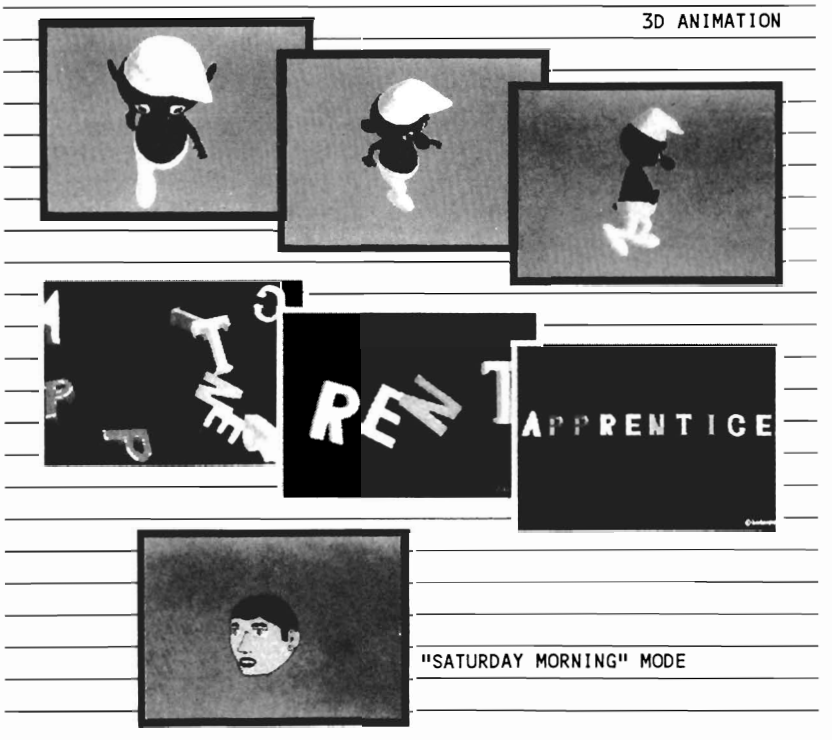
Psygnosis was showing their latest and greatest, *Terror Pods,* a new science fiction action game. The games features high quality graphics, sound, and directions in several languages

Accolade released *Test Drive,* a super realistic auto racing simulation. (see review in this issue)

PROGRAMMING:

LATTICE INTRODUCED RELEASE 4.0 OF IT'S "C" compiler. It offers support for the 68010 chip, as well as improvements in speed and size of compilation. (see review in this issue)

All in all, it was a sucessful show in many ways. One of the major sucess stories to come out of the show is the fact that this was a *user* show. It was an event that was, in a sense, "by the people, and for the people"



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Mandala

A Very Vivid performance in "The Tunnel"

My account- by Stephen Dock and Tom Bucklin

The taxi dropped us off near the Hudson River, in front of a huge industrial structure. At the corner, a crowd surged against red velvet ropes. We were conspicuous (to say the least) in our three piece suits. We soon discovered that the Tunnel was a HOT club. Fashionable hair, makeup, and clothes surrounded us. Only those who had the correct look were admitted! Fortunately, invitations to the Very Vivid performance compensated for our decidedly UNHOT looks. Once inside, we wandered through several rooms and emerged into a huge hall throbbing with 4000 dancers. Yes 4000! "The Tunnel" was once a generating station, and provides a 500 feet long dance area for its patrons.

Through the bruising sound, we searched for the Amigas. Somewhere in this mele, at 12:00 Midnight, there would be a multimedia performance by Vincent John Vincent using the Mandala software. Repeatedly, we asked Tunnel staff where the Amiga party was. Finally we found it. A very large video projection screen was set up in the middle of the dance floor. Off to one side was an Amiga, glowing with excitement. The Very Vivid staff were engaged in last minute preparations. Wires, instruments, mouse clicks, menu options, were all part of the frenzy. A little after midnight the pounding beat ceased, and a man in a three piece suit (Rich McIntyr) appeared on stage to announce: "Here it is, the moment you've all been waiting for". A roar of approval came from all 4000 mouths. (Were all those people Amiga owners ?)

The tall graceful form of Vincent John Vincent, clad in a white jump suit appeared. He stood in front of a video camera, and proceeded to move his arms. A colored shilouette appeared on the large screen and moved as Vincent did. Totally unprepared for what was to come, the crowd held its breath. A brilliant backdrop of a DaVinci's male figure appeared, with Vincent's shilouette in the center. There was also a series of colored balls (ICONS) surrounding the figure.

As Vincent moved his arms and touched the empty air, his on screen image touched a ball, and sound came forth. The balls were instruments, played through the Amiga and MIDI!. The chords of Thus Spake Zarathustra flowed over the hall. He began to dance, playing music and controlling graphics by his movements. Scene after scene appeared. A backdrop of a Mayan temple with brightly colored fruits and birds as ICONS was followed by a maze of brick walls with pots of colors arranged on the sides. The scene changes, sounds, and timing all were responding to the artistic expression of the dancer. He could as easily grab a handful of magenta to paint the sky, as play a hard
drum riff.

When the performance was over, the crowd roared for more. This experience had been a first for everyone in the hall. Sound, sight, movement, and artistic vision had been combined through Amiga technology into a new artform.
(Look for a full review of Very Vivid's Mandala in an upcoming Sentry.)

My account- by Vincent Bilotta:

When Very Vivid stepped onto a stage at the World of Commodore in Toronto in December 1986, they generated a product mystique that was mythic even by Amiga standards. Rumors, then stories, and finally a third generation videotape fueled a mill

of anticipation as these Toronto techies continued work on their creation. As AmiExpo approached, we in New York all hoped that the Amiga event would draw a demo of "interactive real time video" into our own back yards.

When I called Very Vivid! and first spoke to David Bray, VV!'s marketing director about doing a small demo at our gallery opening, he encouraged me by saying that a format like Mission Graphics Support was in line with Very Vivid!'s objectives. He said that since they would be coming to Manhattan for AmiExpo, a small "event" was certainly possible. David mentioned that a real debut was what they were looking for. I, of course, offered him any club in town. He said that *The Tunnel* was his idea of big time N.Y., and though I had never even set foot there, I offered their facilities.

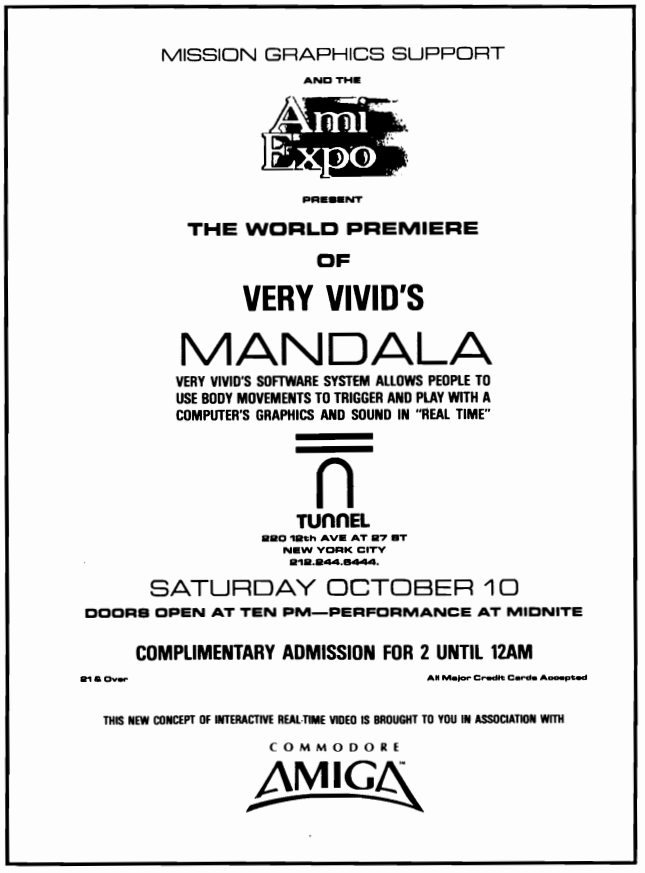
The easy part was convincing The Tunnel. I gave them a copy of a Very VividVideoDemo!!! You don't have to be an Amiga owner to realize that there's stuff being done around this machine that ain't been seen before. The unique possibilities coupled with celebrity draw was attractive enough for Tunnel management to offer a party for four thousand with amenities. All we had to provide was Lodging, band equipment and video. Armed with a budget of $150.00 and a pure heart, I felt confident that all was well.

It was Thursday evening October 8 when I realized that our budget was all there was. David Bray had flown into New York. We held up in a room with four telephones and solicited donations. The Carlton Arms was honored to host five Canadian musicians.

We sent anyone of our friends who happened to walk in, out to rent band equipment, and thanked them for covering the rental. The Dorsai Embassy provided RGB video projectors and two days of hardware hacking to get them running.
(The Dorsai Embassy is a not for profit organization dedicated to the growth and development of individual computing and computer communication. They operate out of Soho, and provided some of the critical equipment, such as an RGB Video projector, and expertise required to make the final time check and complete the set up.)

By 8:00 pm Saturday, we were only 12 midi cables short of a good time. I quickly dispatched several guests attending our Gallery Opening and wished them Godspeed.

Arriving at The Tunnel, we found a crowd of several thousand clamoring to gain entrance. (Does Commodore realize the popularity of this machine)? After suitably identifying myself, the Tunnel Management even let us in! I found a space on the edge of the stage and waited. Richard McIntyre (Vice President of Commodore) introduced the Group and 4000 jaws dropped. Even jaded New Yorkers realized they were witnessing something very new. This computer display took up a whole stage. I was distracted only by the sight of Commodore executives dancing and shouting.



Supra's 2400

Supra's new compact 2400 baud modem is short on price and long on features

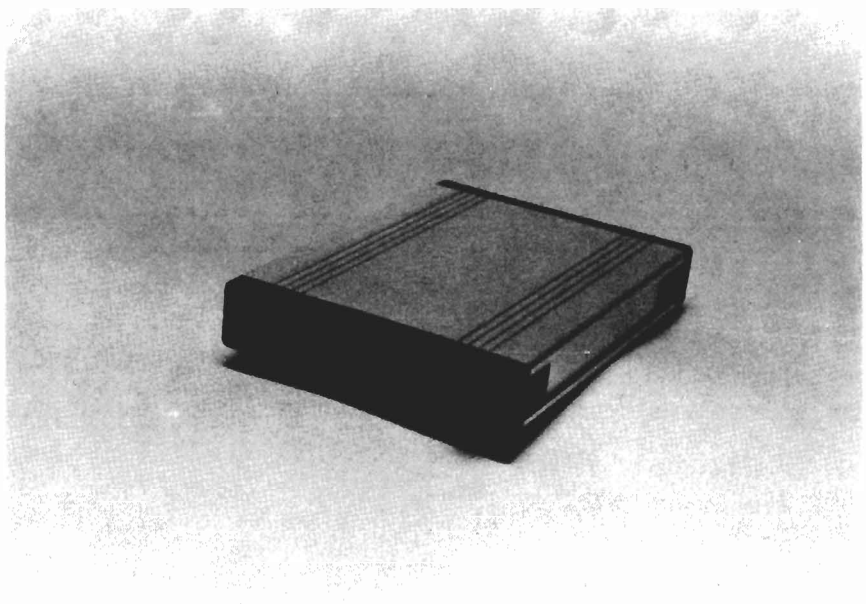
by Reve' Valenz

There was a time when traveling along the telco lines at 1200 baud seemed like moving at the speed of sound, but like most things today, we all find ourselves with a desire (or a need) to increase our productivity. Certainly, the use of a 2400 baud modem would be a valuable asset to this endeavor. However, most people have shyed away from 2400's due mostly to their relatively high cost.

Supra Corporation, famous for their line of hard drives, has introduced their "Supra modem 2400" This compact unit measures only 6" by 4" by 1 1/2" high. A fully Hayes compatible command set is incorporated giving you instant support with most of the major telecommunications programs on the full variety of computers.

But the best news about this new product is the price. The Supra 2400 lists for just $179.95. The performance and price make this unit one of the best values out there for 2400 baud telecommunications.

Unlike many other modems, the Supra unit uses a front panel power switch. If you've ever had to grope for that miniature toggle switch in the rear of other modems, you'll really appreciate this feature. The switch is a "push on/push off" type. It seems to provide better protection against accidental contact than would a front mounted toggle type.



A full compliment of status lights are built into the front panel, including HS, AA, CD, OH, RD, SD, TR, and MR.

The power is supplied via a plug in the wall outlet, and the unit seems to run quite cool considering the density of the circuit board.

Any well performing 2400 baud modem deserves credit, but the Modem 2400 provides sophistication at a price comparable to a 1200 unit.

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CAUTION – This conversion service can only process 1541/1571 disks which are formatted in the standard 35-track 256-byte sector format. Disks which are copy-protected, marked with a copyright notice, or formatted with non-standard formats cannot be converted to Amiga format.

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Test Drive

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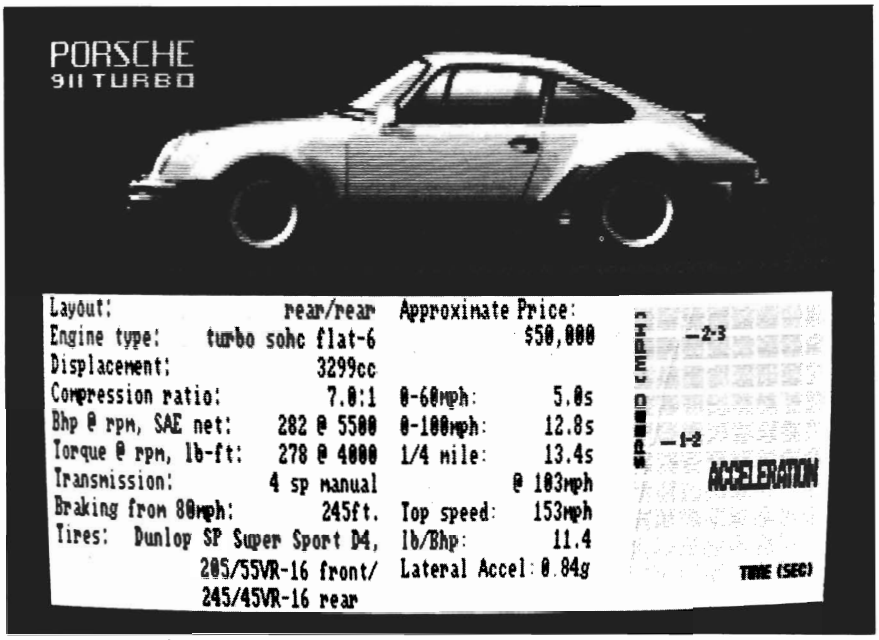


Detailed performance specifications are available on each car

by Don & John Di Giovanni

If your lifelong dream is to drive one of the most exciting and expensive sports cars in the world, look no further, TEST DRIVE is here. Which one will you pick; the sleek looking Lamborghini Countach, the 153 m.p.h. Porsche 911 Turbo, the $120,000 Ferrari Testorossa, or the Candy-Apple red Corvette? Maybe you'll choose to fly in a Lotus Turbo Esprit!

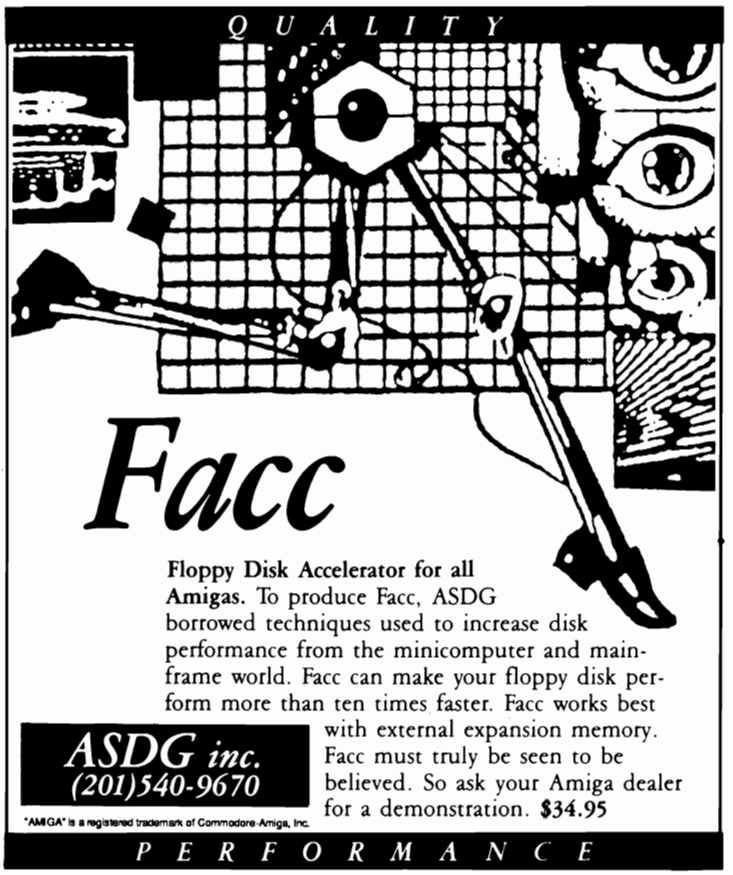
With authentic sound and life-like animation, Test Drive puts you behind the wheel of the car of your choice. Can't decide which car to drive? No problem. Included with each car is a real "spec chart" showing everything from transmission type to tires to top speed in the quarter mile. This "Road & Track" authenticity has been programmed into the game with real handling, braking, and steering that, at times, make you feel like you are really driving.

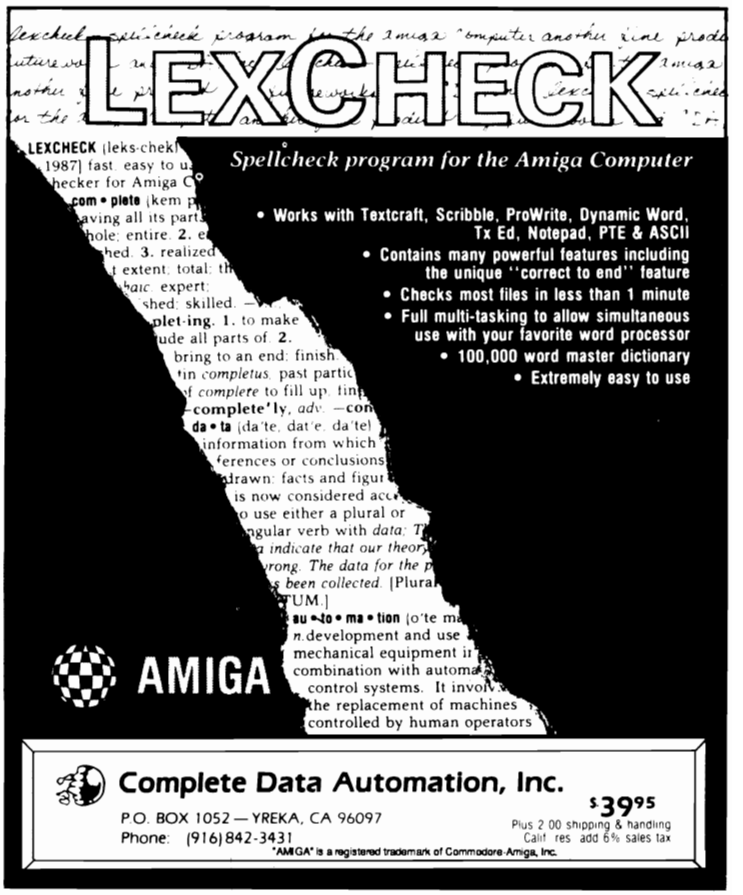
Once you select the speed demon of your choice, you will see an excellent color picture of the car, the door will open, a smiling driver will wave, and the car will speed off to the sound of squeeling tires. The high quality of the graphics and sound in this sequence continues throughout the game.

When the disk stops spinning, you'll find yourself behind a very realistic dashboard, looking out the windshield. Of course, the dashboards match the car you select. The instruments faithfully report speed and RPM as you drive. You must monitor the tachometer and shift in time or you'll blow your expensive engine. (The Corvette seems a little handicapped by its low revving engine.)

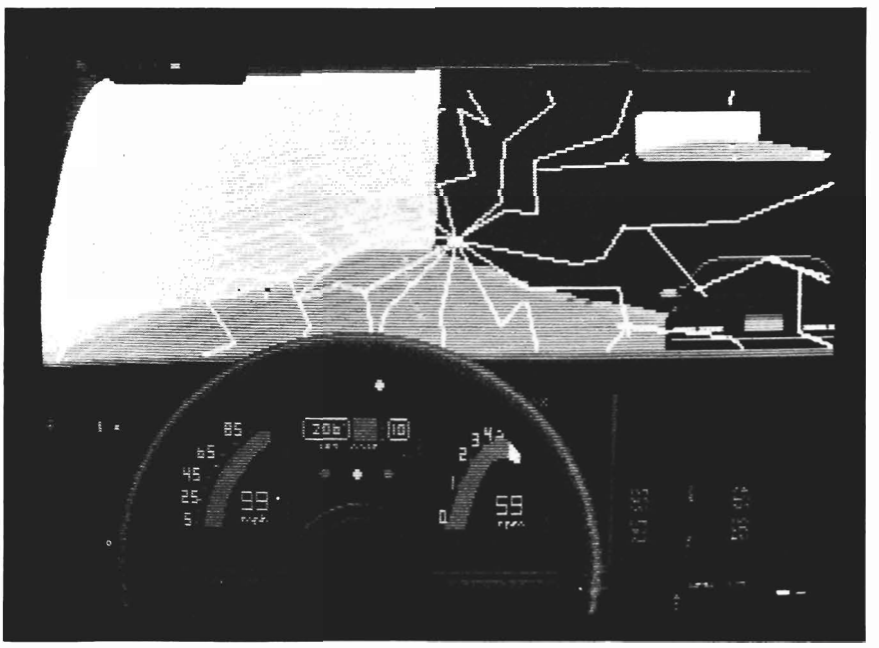
Be prepared to spend some time mastering the controls of Test Drive. The joystick serves as your steering wheel, gearshift, accelerator, and brake!

Press the fire button, and a very realistic gearshift will appear in the lower right corner. In order to use the gearshift properly, push the letter "o" (for option) This will configure the gearshift so that your joystick will simulate the same shift pattern. Move the joystick in the familiar H pattern to shift gears. Now release the fire button and the shift lever disappears. Push





Just like in real life, tailgating has it's price



the stick up to accelerate and watch the scenery fly by. Pulling down will activate your brakes.

Accolade has included a bright blue dot on the steering wheel, which moves as you push the joystick left and right. This dot shows how far right or left you have turned the wheel. Be careful, the steering of each car varies, so you must feel your way around the curves for a while. Don't forget to downshift going around curves, or you'll loose control and fall over the edge. (of a mountain, that is!)

You begin Test Drive on the side of a mountain, with potholes, waterslicks, and poky

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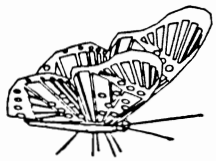

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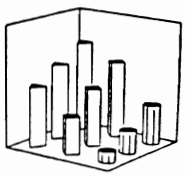

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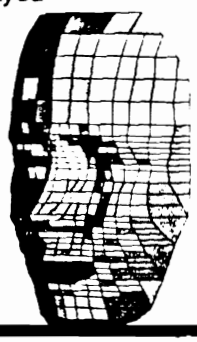

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Test Drive *(continued from previous page)*

sightseers to slow you down. Don't let them stand in your way however, because you have to get to the first destination in the time allowed. If you master the mountain, your next challenge will be a winding country road. Low on Gas? No problem, a refill waits at each destination's gas station. Here you will also get a report on how fast and how much time your trip took.

Press the button, then you're off to the next destination. To add to the realism, you must get there without being pulled over by the fuzz. Fortunately, you always have your radar detector attached to your sun visor. Pay attention to the beeping sounds and flashing lights. The detector will alert you of radar traps in time to slow down. If you ignore it, you'll soon be looking in your rearview mirror and seeing "smokie" on your tail. No problem, just shift from second...to third...to fourth...leaving the fuzz in the dust.

Amiga game developers have given us adventure games, great graphic adventures, lots of sports games, and even a few super arcade style games. Unfortunately, it's been a long wait for an automobile game. Whatever the reasons, the wait is over and Accolade has taken the pole position. TEST DRIVE is so real you can practically smell the leather and attimes you find yourself going back in your seat. At a retail price of $44.95 Test Drive is far less than the price of a Ferrari Testarossa.

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MOVIE!

Secrets of Sculpt 3D

by Edward L. Fadigan

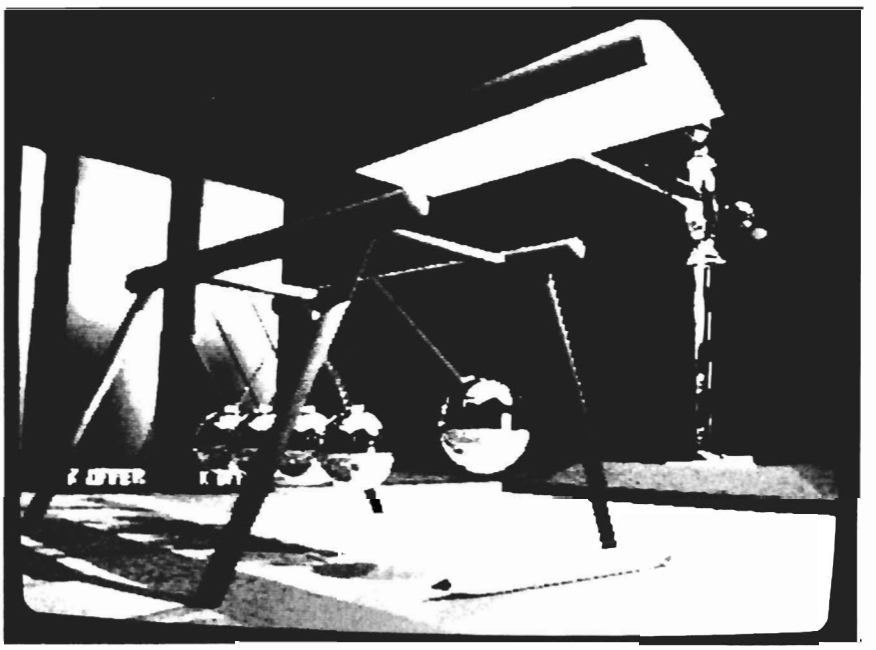
Illuminated in the glow of an antique table lamp, the silver orbs moved in tireless precision. They were five chrome spheres, hung in a row, perfectly demonstrating Newtonian Physics.

Nearly everyone's seen those little kinetic toys, where you set several metal balls hanging on strings swinging against each other. When one is dropped to hit the others, the ball at the other end swings up and back to illustrate the action/reaction relationship. The toy is cute and educational, and now it can be seen flawlessly depicted on an Amiga screen.

At AmiEXPO, I had a chance to stroll by the Byte by Byte booth and gawk with the rest of the crowd at the demo they were running. It was a very detailed animation of the scene described above in interlaced HAM mode. You could clearly see the reflection of the other balls, the brass lamp, and even the pencil laying nearby on the table, mirrored on the chrome surface of the swinging spheres. Shadows moved miraculously in perfect unison with the motion of the balls. I immediately asked a person at the booth how the demo was created. She told me that it was made with "Sculpt 3-D" and "Movie!", both written by Eric Graham and distributed by Byte by Byte. Needless to say, I hastily executed a WalletDump, and was soon at home working with both of these programs.

Sculpt 3-D was reviewed by The Sentry in September, and is now in version 1.01. With Sculpt 3-D you can create three dimensional objects which can be turned into incredibly real looking HAM pictures. Sculpt 3-D uses a process called "Ray-tracing" that follows the paths of light rays from a source, and creates an image based on the color and placement of the rays that are directed at the viewer. One of the early criticisms of Sculpt 3-D was that it allowed no movement of the images it made. Because three dimensional modeling and ray-tracing lends itself create detailed realities, many craved the ability to set their Sculpt 3-D objects into motion.

The Kahnankas animation



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Movie! *(continued from previous page)*

Now there is Movie!, which can be used with Sculpt 3-D to make those ray-traced wonders come alive. Movie! is a PD animation program created by Eric Graham to be used with Sculpt 3-D so that you can produce animations like "The Juggler", an early demo with which you are probably familiar. To use Movie!, you have to first create a sequence of HAM images that differ in ways that simulate motion when displayed on the screen one after the other. Sculpt 3-D is exceptionally well suited for this task.

If you have Sculpt 3-D, use it to create a scene. Then render the scene in 6 bit-plane mode, Full Screen. When it is done, select the DOWN window and hit CONTROL-D, the undocumented "Magic Button". You will then get a requestor asking you for the "Magic Number". Enter the number 123 into the box and hit Return. This will enable two extra sub-menus in the Mode Menu. These are Color-Lock and Exposure-Lock. (Byte by Byte included these in anticipation of the need for them in animation routines, but did not document them in order to avoid complicating the menus of those of you who do not need the animation ability of Movie!) When these items are toggled on, Sculpt 3-D will keep the same 16 colors as the base colors of any HAM images created after that no matter what the exposure. This is important when using Sculpt in conjunction with Movie! to avoid the flickering of some of the pixels noticeable in "The Juggler".

Then after saving the image as a HAM file, you can move and/or rotate that object. Save that image, and move it few pixels more. Since Ray-tracing in HAM mode can take a bit of time, I advise creating a sequence of scenes first, then loading and saving them as HAM files using the Batch Mode. (To use Movie! effectively, you must be familiar with the CLI and able to create and execute batch files.) When you're done, you should have a group of HAM images that when played sequentially, will create the illusion of motion.

The double buffering is responsible for the smooth animation

If you have DigiPaint, you could create your HAM images with it, or use one of the traditional IFF paint programs to make several IFF files that simulate motion similar to the methods used in traditional cel-animation. Make sure you convert these to HAM mode before trying to use them with version 1.00 of Movie!.

The files that make up the Movie! program are:

VILBM Will view an IFF, HAM or text file.

DILBM Calculates the difference between two image files and then creates a "Delta" file.

PILBM Packs several "Delta" files into a single animation file.

MOVIE! Plays back the animation file.

The steps to creating an animation are not complex. First you must use DILBM to create "Delta" files. These Delta files represent the information needed to change one image into another. Because a Delta file only stores the difference between files, and does not contain the data which is unchanged from one file to the next, it is in most cases much smaller than the size of the entire next file. Consequently, animations made with Movie! are MUCH smaller than the sum total of the HAM files that they represent. For instance, the animation in the silver ball demo, (called "Kahnankas") was created using 16 interlaced HAM images. The total size of all these files put together would normally be about 1.6 megabytes. Yet when the animation is created with Movie!, the total size of the finished file is only 152K! So you can see that using Delta files is a MUCH more conservative method of running animations from RAM.

Movie! works by double buffering the images it uses to make the

animations. For this reason, you have to calculate the difference between every OTHER image in your animation. For instance, if you wanted to display your files like this:

pic1,pic2,pic3,pic4,pic5,pic6...
You would need to calculate the difference between pic1 and pic2,

then the difference between pic1 and pic3, then the difference between pic2 and pic4, and so on. This would be done in a batch file that looks like this:

```
STACK 16000
DILBM pic1 pic2 Delta0
DILBM pic1 pic3 Delta1
DILBM pic2 pic4 Delta2
DILBM pic3 pic5 Delta3
DILBM pic4 pic6 Delta4
....
```

(Be sure to set your stack)

The first line of this batch file would call on DILBM to calculate the difference between pic1 and pic2, then create a file called Delta0 to store the information. Then it would make a similar file for the difference between pic1 and pic3, called Delta1. This process continues until a Delta file is created for every pair of corresponding images. When the animation is played, here's what happens:

The first image is displayed on the screen. This is NOT a delta file, but is instead the HAM image that is called pic1 in the example. This is the only HAM image that will be in your finished animation, and is used to get the animation started. Once pic1 is displayed, the program looks at Delta0 to see how to change the screen to resemble pic2, and then it does so. Now the double buffering starts. WHILE the screen is being changed from pic1 to pic2, the program is looking at Delta1 to see how to change the screen to resemble pic3, and then it does so. The program is essentially doing two things at once. Changing the screen to resemble an image, and also looking at the next Delta file to see what the following image should look like. This sequence of events continues until the animation ends, or is told to loop back and repeat.

This double buffering is responsible for the smooth animation that is possible with Movie! It is also the reason you must calculate the difference between every OTHER file when creating your Deltas. Once all your Deltas are created, you must make a text file that contains the information that PILBM needs to make the finished animation. PILBM will need to know what you want your finished animation to be called. It will also need the name of the initial HAM file. (In the example, this was pic1. The program must have access to this file when the animation is being packed. The other image files are no longer needed (pic2, pic3, pic4...). Pic1 and the Deltas contain all the image information needed for the animation to be packed.) Next you must supply a list of all the Deltas that will be used and the sequence in which you want them displayed. Once you are finished, go to the CLI and type: PILBM file.name. The PILBM program will then take the Delta files, the original HAM image (pic1), and the controlling text file, and pack them into a single animation file that can be run with Movie!

According to the documentation (which totalled a very skimpy four pages), Movie! will work with both IFF or HAM images in either regular or overscan mode. I did NOT find this to be the case. When I used IFF 32 color images from DPaintII, I could create the Delta files and was able to pack them all right. But when I tried to run the animation, I found myself face to face with the Guru. When I tried using 16 color IFF images from either DPaintII or Sculpt 3-D, DILBM would display a very informative text on the specs of the image (size, mode, colors in the palette), and then would write a useless Delta file with a size of 0K. It was then that I settled on using HAM images from either Sculpt 3-D or DigiPaint, and Movie! worked great. Be warned that when a Movie! animation is running, the disk drive light stays on. Movie! is not reading the images from the disk. This is a bug.

I hope that someone will provide fixes for these problems, as I was really counting on using Movie! for several projects that I had in mind. It is a very promising PD animator that could be used to create the most impressive animations to be seen on

(continued on page 26)

The 64 Emulator

ReadySoft's new product hits the streets

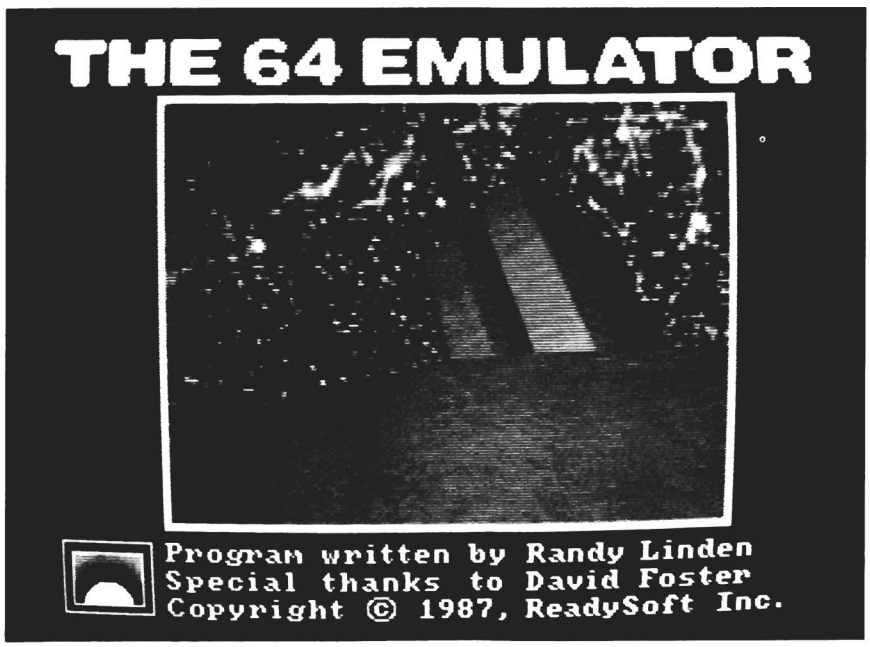
by Reve' Valenz

ReadySoft, Inc. has introduced "The 64 Emulator". This sofware based product is designed to allow you to load and run software for the C64 on your Amiga.

Recently, another company has released a hardware/software combination 64 emulator. ReadySoft stated that they stayed away from the hardware avenue so as to keep cost down. At just $39.00 for the basic product, this seems to be so. However, realistically, you should expect to spend $60.00 plus shipping. That's because there is an optional parallel port adapter cable that you can purchase through ReadySoft. This cable is necessary if you want to use your C64 disk drives or printers. Since most people have a fair amount of that kind of equipment laying around, it would be nice to put some of it into service. It is important to tell them what kind of model Amiga you will be using it on, as there are different adapter cables for the differents Amiga models.

The 64 Emulator resides on a single 3 1/2" copy protected disk. The disk is autoboot, so just insert it into df0:.

If you intend to use C-64 peripherals, make sure to plug everything in beforehand.



After the title screen, you receive a screen based on the old familiar blue on blue 64 screen. You may immediately chose to use the resident basic 2.0, or access your disk drives.

In order to use drives, you need to go into the memory resident configuration editor. The editor is invoked by using the keystroke cobination Control/ Help. It has many different options, including device number, assignments, drive emulations, and so on..

One of the unusual features of this menu is the ability to switch between a monochrome and color display. The authors state that by using the monochrome on some graphic intensive programs, you can increase the speed of a program.

To be sure, there are a number of programs that will not run in an emulator enviroment. Many of the C64 programs use fastload routines which speak directly to the chips in the disk drive. Programs using these various fast load methods may get hung up as they try to communicate with the drive.

Also, copy protection on disks could raise certain incompatabilities as well.

I tested the emulator with a va-

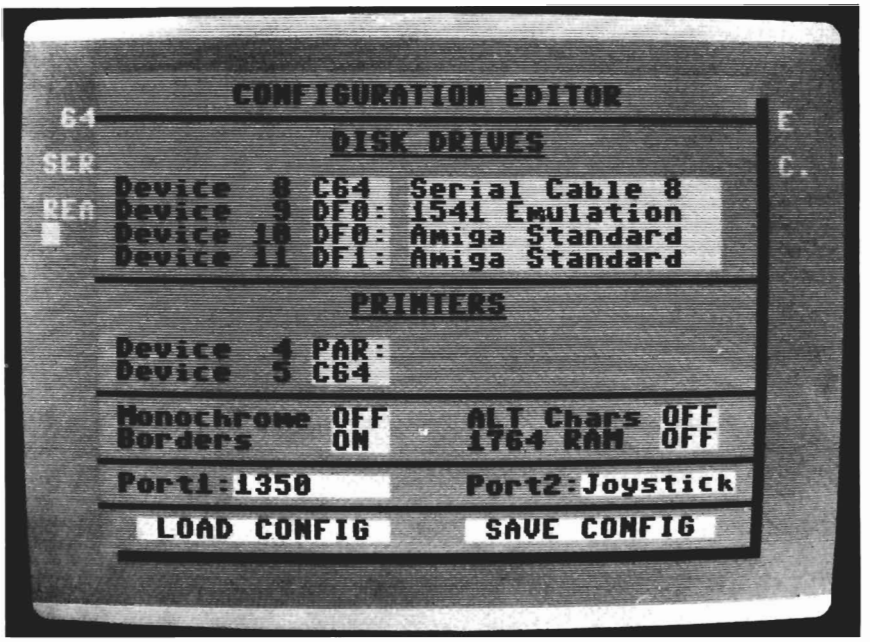
riety of software packages, and mostly everything I tried loaded. However, the execution times for certain graphic intensive programs were, in some cases, 5 times slower. Turning on the monochrome mode did help to some extent.

By and large, the productivity software fared the best; and in some cases, there was no detectable difference in run time than on a 64.

If you need a C64 emulator for your Amiga, it would probably be advantagious to bring your software into the dealer to try before you buy.

The 64 Emulator $39.95
P.O.Box 1222
Lewistown, NY 14092
1-(416)-731-4175

A pop up menu , with a large variety of configuration options, is unique to The 64 Emulator



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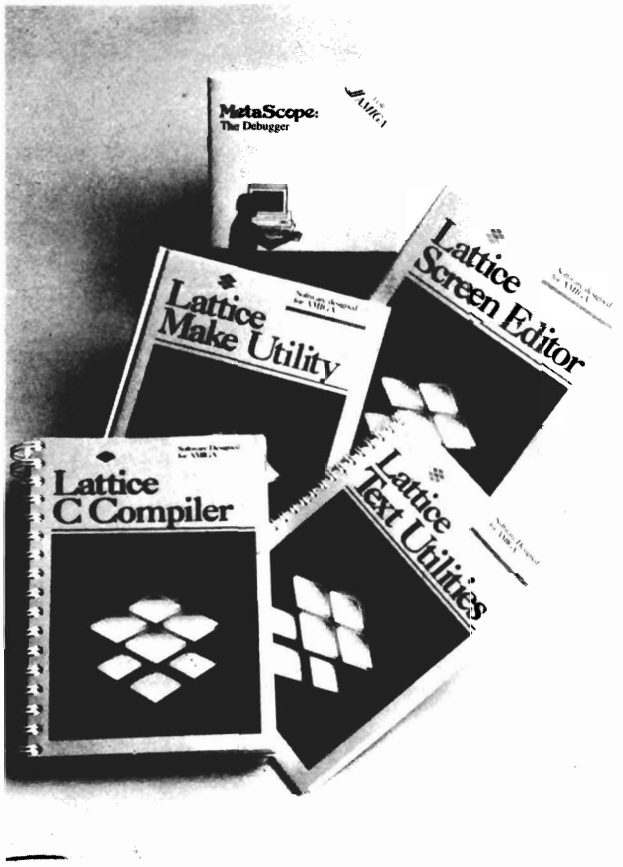
Lattice C 4.0

New release of the Lattice C Compiler offers improved speed and 68010 support

by George Rapp

In the beginning was Lattice with the first C compiler for the Amiga which was supplied with the developers kit. Since then, Manx's Aztec C has gained in popularity, and may now be the more "accepted" of the two. This new release from Lattice may change all that. The best way of describing this release is *professional*. The package consists of four disks and an extensive manual.

To evaluate a C compiler, we most commonly look at the size of the compiled and linked code, and its execution speed. This is really only part of what we need in a compiler. A good package will have clear, readable manuals, examples of code and compilation steps, and a large library of useful C and assembly routines. Lattice 4.0 offers all of these features, and to a refined degree. Specifically, the manual is one of the most complete and comprehensive that I have seen. It is about 450 pages, divided into nine sections, and eight appendices covering just about any area imaginable. The software boots on a 512K, two drive system, and handles all necessary assignments. The Section one describes modifications to the startup sequence for extra ram and hard disk systems. Sections two and three describe using the compiler in the environment of the Amiga. Sections four and eight discuss the differences of this version of the C compiler with those of the previous versions, and the "standards" of ANSI, and Kernigahan and Ritchie. Section five goes into detail of the programming environment, while section six discusses the use of the linker, BLink. My personal favorite is section seven, which lists the error messages. These are clear and readable and easy to find. In my C programming this is the most used section. The last section of the manual just lists the compiler options. As for the compiler itself, I was pleasantly surprised by the improvement in the capabilities of the 4.0 version over the 3.10 release. In my few samples that I tried, I finished with code 25 percent smaller than the 3.10 release and the compilation was faster. The execution was also faster, but the increase in speed was not as great as the decrease in size averaging (about 10 percent faster in execution). Much of the improvement in speed and size is due to the replacement of Alink with Blink. These improvements, however, come at the expense of compatability. You must relink previous



(continued on page 26)

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Lattice (continued from page 24)

Lattice modules if you wish to use them with your new Lattice 4.0 routines.

Lattice has taken an unusual route in that they have optimized their compiler to use the functions that the 68010 runs faster. Lattice suggests having expanded memory of an additional two megabytes for running their compiler,and I strongly agree with this. There is a great deal of writing and reading of temporary files that would put heavy demands on the floppy drives, and even hard drives. I would also suggest finding a better text editor than ED, since in developing C applications, there are often many revisions. A question that many will be asking is which is better, Manx or the Lattice? Unfortunately, there is no easy answer to that question. For the moment, Lattice produces faster, tighter, code than the 3.4 release of Manx. For a while now, Manx and Lattice have been leap frogging each other for speed and features. Manx has not been idle and is now readying version 3.6 for release. They also took a different approach in supporting the 68881 fast floating point processor. At this point, the only clear winner is the buyer. The competition has produced two very fine compilers and promises even better things for the future. At present, I would favor the Lattice compiler for developing software for the market place, and I also like the 68010 support. The Manx is slightly lower in cost, and has 68881 support. I have no trouble in recommending the Lattice 4.0 C compiler for someone buying a compiler for the first time. The manual does an excellent job of explaining the use of the compiler, and includes a bibliography with even more sources of information. There are also a generous number of "include" files, and a choice of standard or compressed headers that can be read faster by the compiler. For people who already have 3.03 or 3.10 and are wondering about upgrading, I would recommend that they do. The faster compile times, and the faster, tighter, code make this a worth while upgrade. Even with all the effort and polish that Lattice has put into this release, I can think of a few more items that I would like to see. The manual could use a larger section for the first time C programmer, and maybe highlight some texts that help to teach C in the bibliography. I would also like to see the 68881 supported directly, and not just accessible through the AmigaDOS libraries. These are small things, and do not really detract from an excellent package. I can not wait to see what Lattice will show us next.

Lattice C compiler 4.0
Compiler $200.00
Dev. system $375.00

Lattice, Incorporated
2500 S. Highland Ave.
Lombard, Ill. 60148

1-(312)-916-1600

Movie! (continued from page 21)

ANYhome computer. A really nice feature of Movie! is the price. Since it is Public Domain, it can be obtained from most local BBS's for the price of a phone call. If you don't have access to a BBS, contact your local Users Group. They should be able to help you obtain these files.

I talked with Scott Peterson and Marcus Brooks from Byte by Byte about the very exciting plans they have for a commercial version of Movie called "Animator 3-D". It will be a companion program to Sculpt-3D that will animate Sculpt 3-D's objects on an interactive basis, rather than the script and image based method of Movie!.

The work of Byte by Byte and others represent some very sophisticated product development. Just a few years ago when everything was very gung ho for the C64, the developers for that machine were concentrating largely on games, that being the safest bet for sales. Now with the Amiga, developers are spending thousands of dollars and thousands of man hours to create advanced animation programs. What other personal computer could you say that about? ●

Project-D

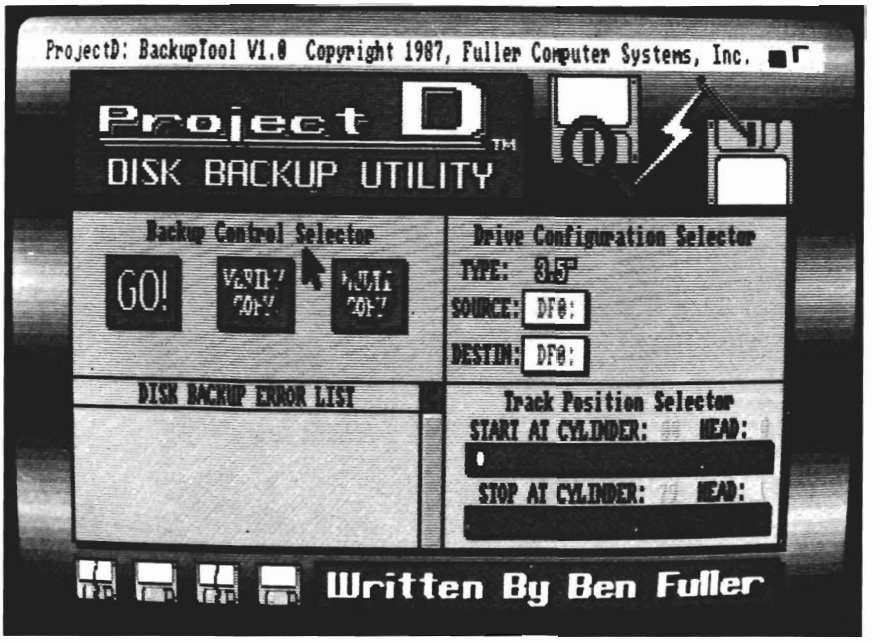
The next generation of Amiga disk utilities

by Ernie J. Tapman

Project D is a powerful and versatile disk utility system designed to take full advantage of the Amiga's multitasking operating system, while keeping a simple, elegant, user interface. Version 1.0 includes the *Backup* and the *Omni* tools.

From the very first moment I booted Project D, I was taken by surprise. Double-clicking the Project D icon brings you into its own little desktop environment called "Supervisor", the heart of the Project D system software. This environment, much like the Amiga's Workbench, supports tools, and mini-tools and presents an elegant look with its brilliant display of the blue palette across the Supervisor's drop cloth. The tools are selected by double-clicking the left Amiga's mouse pointer on the corresponding icon. By holding the right mouse button down, the mini-tools can be activated using the drop-down menu system. The Supervisor's menu consists of: Get tool info, clean up screen, save environment and exit supervisor; which are very similar to Workbench's mini-tools. After your Supervisor screen is set for your preference, it is time to select a tool. You can chose from either The Backup or The Omni-Tool.

The Omni-Tool is a special format copier for duplicating MS-DOS/PC-DOS, ATARI ST, CP/M and XENIX formatted disks. This copier is unique in that no other Amiga copier can duplicate as many formats as listed above. With talk of different computer emulators for the Amiga in the near future, this program will prove to be very useful in backing-up your important software on whichever format. Owners of Amiga Sidecars or an Amiga 2000 (equipped with the A2080 bridgecard) will find this tool useful for backing-up MS-DOS formatted disks. Not only will the Omni-Tool save you money on buying separate copiers, but it will simplify your archival backup process. The Omni-Copier is completely driven by menus, gadgets and requesters which facilitates easy use. The Omni-Tool menu allows the user to select which format is to be duplicated. The menu also has a memory tool which will display the Amiga's free memory count and update it constantly as memory is lost or gained. The Omni-Gadgets allow selection of a single or double-



(continued on next page)

Project D *(continued from previous page)*

sided format, and the use of multicopy, which allows you to make multiple copies of a disk without re-reading the source disk each time. When using this feature, two megabytes of expansion ram are required for an 80 cylinder, double-sided disk copy. This is an excellent feature, but probably won't get much use from the average user because of memory limitations. (The Multi-Copy option cannot be selected if there is insufficient expansion ram available). The next gadget to be set is the drive configuration selector. It will display which drive contains the source disk, and which drive(s) contains the destination. The last and most important gadget is simply labeled "GO", which is used to start the Omni-Copy process. Before the process begins, the disk insertion requester will prompt you to insert source and destination disk(s). After you insert the disks, select the gadget marked "OK". If you make a mistake or do not want a backup, select the gadget marked "CANCEL" and you will return to the option selection mode.

Another requester feature is the exchange source/destination requester (when one drive is being used for both reading and writing). The MultiCopy insertion requester will appear after you have read the source disk, and after each multicopy. You will be asked to insert destination disks in the drives which you selected as destination drives. During the backup process, the right-half of the screen contains a cylinder display which shows the copy's R/W progress, and a status box which displays the current copy status. The actual backup time is very fast. Finally, a remove disk requester will appear after completion of all copies, and another "OK" and "Cancel" requester will follow. Selection of either "OK" or "Cancel" will return you to the option selection mode. I proceeded to backup a few recent Atari ST titles which I had at hand. I was successful in backing-up all of them using the Omni-Copier in the Atari ST mode. I have confidence in author Dave Devenport, who is also the creator of Quicknibble, a fine

(continued on page 34)

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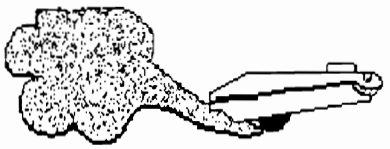

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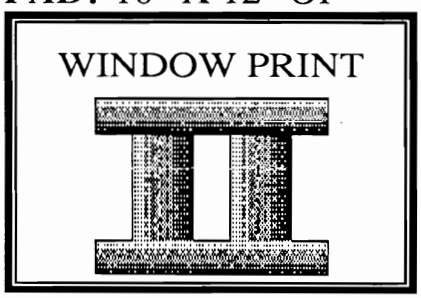

FACC II

Improved performance and new user interface from ASDG

by Steve Dock

True to their word, ASDG has been providing FACC II free of charge to all owners of the original FACC. The newest version of FACC includes several extensive manuals on the disk as well as two different interfaces to FACC II. Of course, performance improvements have increased the effectiveness of FACC II over FACC by 50%. For those of you who missed the Sentry review of FACC in August, a brief recap follows.

Floppy ACCelerator is an intelligent cache for the AmigaDos "Trackdisk.device". In plain language, FACC uses part of system RAM to store the files, and data which have been loaded from your floppy disks. Then when any program calls for floppy data, FACC checks its buffers and responds to the call if the data is still in RAM. Since RAM is much faster than floppy, and there is much repetitious use of data in a typical session, FACC speeds up the effective performance of Floppy drives by 300% or more.

FACC II includes many enhancements and structural changes. The actual cache controller, FACC II, is now separate from the user interface. Once started, FACC II tucks itself away into the operating system and is not seen by the user. Perry Kivilowitz has incorporated more knowledge of the disk structure into this version of FACC. The cache algorithms are now smarter, and can be adjusted through the user interface.

The new user interface is called Facction. You may start FACC and FACCTION from either CLI or Workbench. (Facction will present a warning if FACC is not already running, and politely terminate itself). The top left gadget still acts as the shrink/expand button. There are still buttons for increasing and decreasing the number of buffers, as well as a table of hits for monitoring effectiveness. In addition you will find gadgets for purging buffers by drive, responding to low-memory situations, freezing the cache, and controlling the priority of cache operations. The eighteen page User's Guide is well written, and explains all.

Another major improvement is FACCTION's control from the CLI. Every Facc function can be set using command line options. These too are well documented in the User's Guide. For example if you type the command:

```
Facction -n 512
```

Facction will increase (or decrease) the number of buffers allocated to FACC to 512. This will take place without presenting the Facction Window.

A second user interface called Satisfacction has also been included on the disk. This one operates almost identically to the original FACC for those who don't want to learn Facction. Perry has also included a detailed programmer's manual explaining how to write applications which communicate with FACC II. The manual makes it very clear that FACC II is not to be included in commercial products, but authors are encouraged to check for the presence of FACC from within their programs. Of course C programmers who have purchased FACC can freely use its facilities in their own efforts.

Unfortunately, ASDG has had to include another plea to Software Pirates on the FACC II disk. The performance/price ratio of FACC is so favorable, that anyone who needs improved floppy disk performance (and who doesn't) should purchase FACC.

FACC II $34.95
ASDG INC.
280 River Road
Piscataway, NJ. 08854
1-(201)-540-9670

HUGEPRINT

For the BIG picture!

by Gary L. Gehman

There are no two ways about it: Some of the best programs are written out of need; not according to someone's idea of what will sell. A case in point is HUGEPrint, from Hugh's Software Ranch. HUGEPrint is the work of Hugh Crawford, a photographer and artist working in New York's lower east side. Hugh likes big pictures -enormous pictures -- the kind of pictures that required him to custom build five-foot long developing trays for his darkroom. So when Hugh got himself an Amiga, it was not surprising that he would find the Workbench program, "GraphicDump" a little less than satisfying. So he began a project that took a little over a year to complete. Hugh taught himself BASIC; and when he found that he still couldn't access the Amiga ROM routines he needed, he taught himself C. And three days before the Ami-Expo in New York, he hammered the last kinks out of his program. HUGEPrint debuted at the Ami-Expo to an immediately enthusiastic audience.

HUGEPrint is an incredibly simple, almost sublime, printer utility. It works through Preferences, flawlessly interfacing with any printer for which there is an Amiga printer driver. It handles any Amiga Screen or Brush image, and works equally well in lo; medium; or hi resolution; it even faithfully reproduces HAM images! It also runs happily in the background, freeing your Amiga to do wordprocessing, telecommunicate, or even prepare another painting. As for output... HUGEPrint produces anything up to 13 by 8.5 feet! This limitation (a depth of 8.5 feet or 570 lines on a printer page) is an imposition of AmigaDOS' printer.device and not built into Hugh's program. If Commodore ever fixes the printer.device, HUGEPrint's scale will be theoretically limitless. You must first boot up with your own Workbench disk, since HUGEPrint will go looking for your printer and use your own preferences settings. The program documentation instructs users to modify the Preferences settings to maximize the printing area on the printer's page. Once these new settings are saved, you can close preferences and open the HUGEPrint disk. HUGE-Print is icon driven; its larger-than-usual icon is a miniature representation of HUGEPrint's title screen. Simply double-click on the icon, and you're off into the world of mural printing. Although it is not documented, HUGEPrint will run from the CLI interface as well, and can be set off in batch mode to print numbers of images. Once inside the program, HUGEPrint is entirely menu/mouse operated. The file menu contains selections to import IFF pictures from disk, to commence printing, and to exit the program when done. As can happen when playing with hi-res or HAM images on a 512k machine, sometimes there won't be enough memory for the Amiga to load important screen items, like the file requester. In this case, there is an "unjam" menu selection that can be invoked to remedy the situation. The second

HUGEprint produces anything up to 13 by 8.5 feet!

menu category allows you to determine the maximum dimensions for your printout. Since HUGEPrint divides the screen into vertical strips that correspond to the width of your printer's carriage, and then prints out all the screen information for that strip continuously, top-to-bottom, the printout's scale is determined by deciding how many strips wide you want your image to be. The menu selections allow you to specify up to 16 strips wide! Anyone who's done some graphics printing knows how long it can take to dump just a single screen to some printers, so another menu entry allows you to specify which strips you want to print. Of course, you can select ALL, which will print out every strip in succession, all at once. But if you've chosen 16 strips wide, you can expect to wait almost a full day for the result. So you can also specify printing any one of the strips individually, allowing you to match your printing activities to your other daily routines. A note about printers: HUGEPrint presupposes a continuous feed of paper, either roll paper as with some ink-jets, or form-feed computer paper. (For dot-matrix printers that will accept it, roll paper from the IBM Copier II works quite well.) It will work with single sheet feeders, but there will be a corresponding limitation of the maximum size you can expect. Additionally, Hugh does not recommend using printers like the Okimate 20 for printing murals. Though the results are attractive, the cost in ribbons alone would prohibit most people from using the program more than once. HUGEPrint also has algorithms that will convert the Amiga's tall screen pixels into perfectly square aspect-ratio pixels; thereby allowing you to get true screen-to-printer results.

Ami-Expo attendees were stunned by the color resolution of Hugh's HAM abstracts, printed out five strips wide. At such sizes, the Amiga's dithering routines are able to produce hundreds of shades of color. This reviewer has found another exciting application. I can get printed resolution that resembles photographically screened images (the kind used in newspaper and magazine printing). Because it works on a much larger canvas, HUGEPrint provides for a vastly greater dot-density than I have been able to get in the past. And if I take these images, and subsequently photo- or xero- reduce them, I can produce halftone pictures. Other Amiga owners are using HUGEPrint for textile design; one Californian uses it to make stencils for van decorations. Some people even suggested "Amiga-ized" wallpaper. And, combined with a product like Calligrapher, that allows for the creation of very large 16 color fonts, HUGEPrint may spark a resurgence in Billboard and Sign art! This is not the end of the line for HUGEPrint. Hugh expects to enhance the program in the very near future. Among added features will be:

* The ability to overlap the edges of successive strips.
* Overscan image support. Support for SuperBitmap images (those images larger than a single Amiga screen).
* The ability to specify printout size in inches.

Purchasers of the present product will be upgraded free as soon as the new version becomes available. But perhaps the best news of all is HUGEPrint's price. At $48.00, HUGEPrint is a modest investment for those interested in a new printing toy; and an absolute steal for anyone who, like Hugh Crawford, needs BIG pictures.

Hugeprint provides for a vastly greater dot density than I have been able to get in the past

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Audiomaster

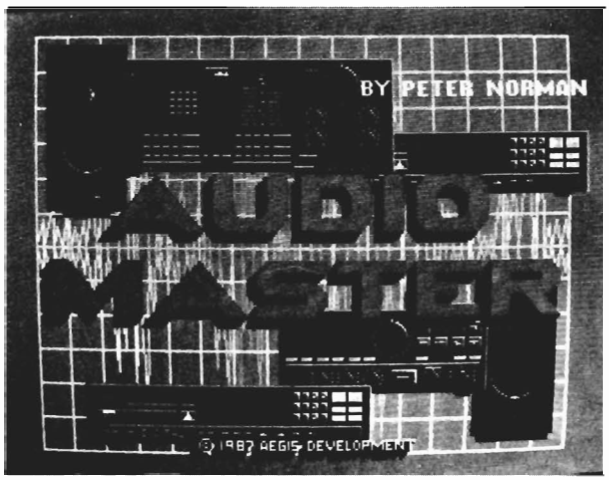
Create your own customized instruments

by Carl Bennett

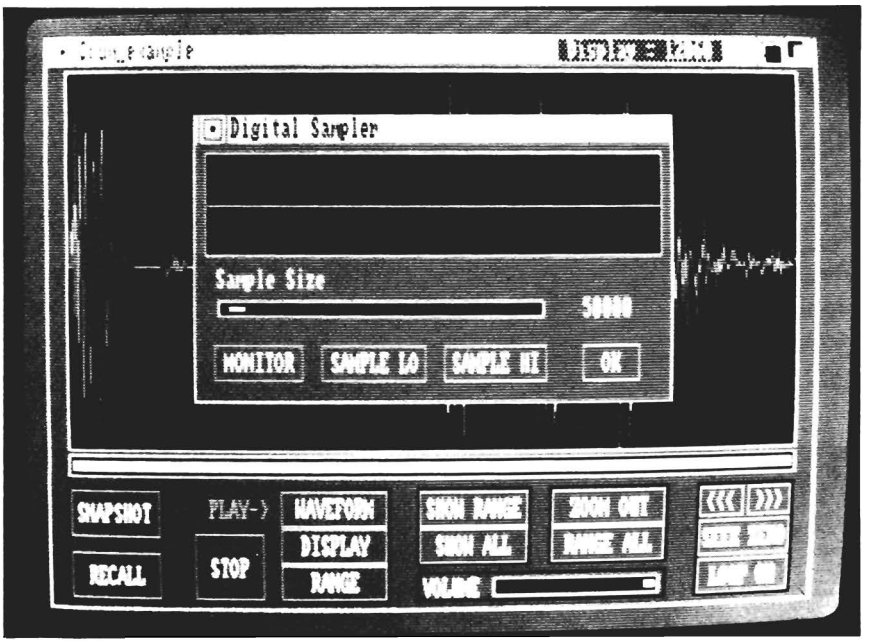
We've all enjoyed Amiga digital sound samples, from the Boing! sound, through to famous excerpts from StarTrek and Casablanca. And much of the pleasure in Amiga music comes from the realistic quality of digitally sampled instruments. In fact, many Amiga owners have purchased sound sampling hardware in order to create sounds of their own. Audio Master is a digital sound editor. More than that, it is a *supurb* digital sound editor.

AudioMaster (AM) is marketed by Aegis Development, and was written by Peter Norman. The user interface is simple, direct, and makes use of all standard Amiga conventions. Double click on an ICON to start, right button for menus, etc. You can use AM with a 512K system and Workbench 1.2. Unlike other Amiga sound editors, you can take advantage of expansion RAM to work on samples much larger than CHIP ram. This is just one of AudioMaster's unique features. Others include the ability to sample from any sampler which connects to the joystick or parallel ports, and a host of real-time editing functions.

Lets say you want to create a new Sonix, or DCMS instrument based on the beeping sound in the "Warp factor" sample. First, load the sample to the screen buffer. (You can also load a sound sample to the copy buffer for use in mixing waveforms.) The sound can be in IFF, Sonix or raw sampled form. Once loaded, the waveform will be displayed on the main screen window. Below the main window is a control panel with gadgets. If you click on the WaveForm gadget, the entire sound will play. If you click on the Display gadget, in addition to hearing the sound, a sliding line will indicate where in the sample the sound is coming from. This will let us find the beginning and ending of the Beep sound. Click on the RANGE gadget, then click and drag with the left mouse button to highlight the desired area of the waveform. We will want to click on play RANGE to be sure of our selection.



There is a control gadget to turn on and off the LOOP ON/LOOP OFF function for continuos looping of your sample. Set Loop On, and slide the two red Repeat Marker lines to coincide with our range. (You will be asked to choose the number of octaves and instrument type when you first move a Repeat Marker.) Now click on play Waveform. Our sound will now play continuously while we fine tune it. The tuning takes place in the Special Effects menu. Here you will find options to add echo; reverse a range; mix waveforms; change volume (attack and delay); tune the pitch, and octave, use a low pass filter, and even resample the sound. All of these editing tools act on the sound currently being played. The pitch, octave and fine tuning sliders have instantaneous effect. Most of the others require a few seconds to recompute the waveform. You even have a freehand edit option which lets you literally shape a sound with your



A powerful digital sampler program has been included

mouse.

The AM manual is informative, readable, and well produced. Black & While illustrations help where needed. The introductory section is a tutorial on The Sound Wave, where waveforms, harmonics, and digital sampling are explained. Excellent appendices discuss preparing a Sampling Studio, and tips for waveforms and music programs. The section

(continued on page 48)

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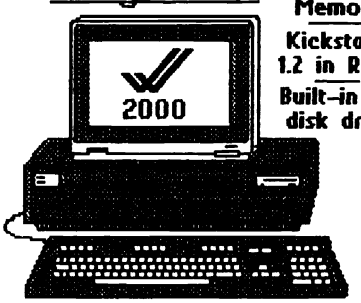

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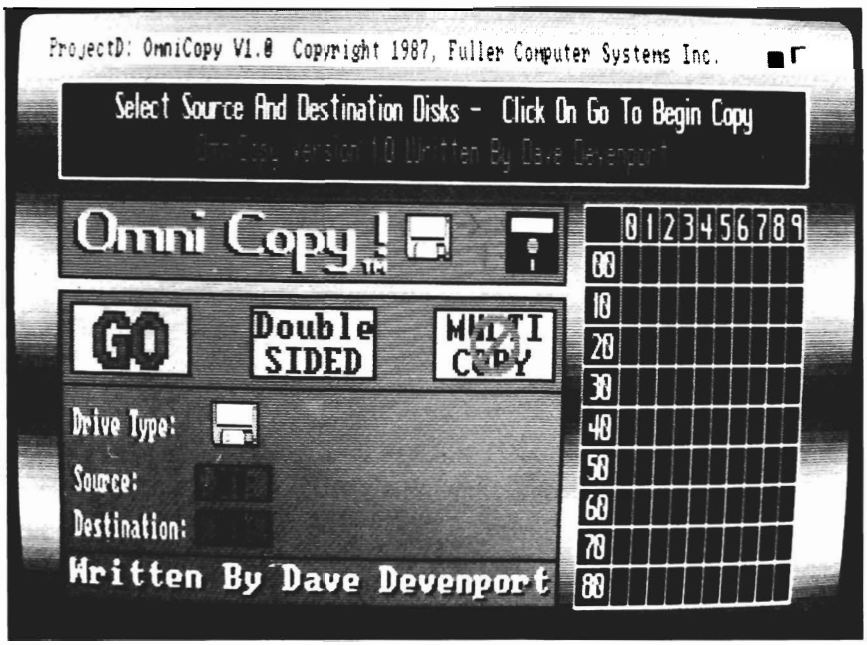
program in it's own right.
The Backup Tool, is an AmigaDOS format disk backup utility. It will copy both protected and non-protected disks using one of its three modes. These are: AmigaDOS mode, Parameter mode, and Index Sync. The Backup Tool layout is essentially like the Omni-Tool in that it is completely driven by menus, gadgets, and requesters. Its gadgets consists of a Multicopy toggle, drive configuration selector, and the important "GO" gadget. The Backup Tool menu also includes the same memory utility discussed in the Omni-Tool overview. One new gadget is the verify copy toggle. This feature will report any errors encountered while writing to the destination disk. The errors will be displayed in the Backup Error List Box located at the bottom left-hand portion of the screen. This is an important feature to have, especially when you are backing-up disks with precious data on them. However, this feature will slow down your copy process quite a bit. Another useful gadget is the track position selector. It is used to select the starting cylinder/head number and the stop cylinder/head number for the copy process. This gadget consists of two sliding rulers, white for the starting track and red for the stop track. Moving the slider with the mouse pointer to the left will decrease the cylinder/head number and to the right will increase it. You may select tracks 0 to 81 for copying. A standard Amiga format consists of only 80 tracks, however, some software companies use one or two extra tracks for encoding their copy protection. Project D will reproduce any of the disks which employ this format out to track 81. Another advantage is being able to copy only the track(s) which you select with the slider.

One of my favorite mini-tools included in the Backup Tool is the Disk Backup Error List. This box will display read/write and drive status errors. The result of an encountered disk error will appear in this box displayed in the following format: Drive number, cylinder number and head number. This information is followed by an error description. The error list box also contains a slider gadget which becomes active when more than five errors are encountered. You can scroll the error list by moving the slider up and down with your mouse pointer. Included in the upper right corner of the error list box is a "C" gadget. Position your mouse pointer and click this gadget to clear the list after use.
You hold the right mouse button down to activate the Backup drop-down menu system. Here you select the Backup Tool's mode. The modes consist of AmigaDOS Copy, Parameter Copy, and Index Sync Copy. The Parameter menu consists of two mini-tools: AutoMAGICally and Parameter List. AutoMAGICally will attempt to identify the disk being copied, and if it is listed in the parameter file, the disk will be copied using the parameter automatically. The other mini-tool allows you to choose a parameter from the current parameter list before the copy process begins. Index Sync Copy will copy disks formatted with the index sync pulses aligned. The next mini-tool is the side select option. This option allows you to copy the top, bottom, or both sides of a disk by selecting which heads to use during the copy. The last mini-tool is the close tool item.



By selecting this item you will return to Project D's Supervisor Desktop Environment. The only part of the copy process remaining are the requesters, prompting you for approval to backup your disk. I spent a lot of time with the Backup Tool using both a 512K and 2 megabyte system. The actual backup time for each mode was very impressive. Compared to other Amiga copiers available, the Backup Tool faired better, or the same as its competitors. I used it to duplicate some of the most sophisticated protection schemes available on software programs today. I found that Project D not only duplicated most of them, but it also removed the copy protection from the vast majority. This of course, makes your software more usable. It enables the user to place his programs on a hard disk drive or create an optional ram disk with the program files which are accessed most often. Most protected software requires the parameter copy, because of software duplicators who write extremely long cylinders as a protection scheme. The Amiga's disk drive can not duplicate this format because the drive speed would have to be slowed down enough to be able to write more information on a particular track than it does at the normal speed. The parameter copy does not write this long cylinder but it will rewrite the data needed in a standard format, thereby giving you a non-protected backup of it. In order to be able to copy future programs protected this way, parameter upgrades will be issued as they are needed. These upgrades will cost an additional fee,but I feel it is worth it to safeguard your diskettes. A most unique feature of Project D, is its ability to multitask. You can continue with other projects while the Backup Tool is busy at work. However, you must be sure to follow the insert/remove requestors exactly,or you may experience a screen lockup. This is due to Amiga Dos' inability to have two disks with identical names inserted at the same time.

I anticipate Project D's release version 1.1 (free upgrade to all registered owners of the version 1.0 software). That version will add another two tools to its Supervisor environment. The Editor Tool promises to be a powerful disk editing utility that enable you to edit Amiga disks from the AmigaDOS level to the MFM level. The Catalog Tool will consist of an easy to use disk indexing utility that lets you keep track of your personal, commercial and public domain disks. Project D is certainly one of the most sophisticated, yet easy to use, disk utility packages available for the Amiga.

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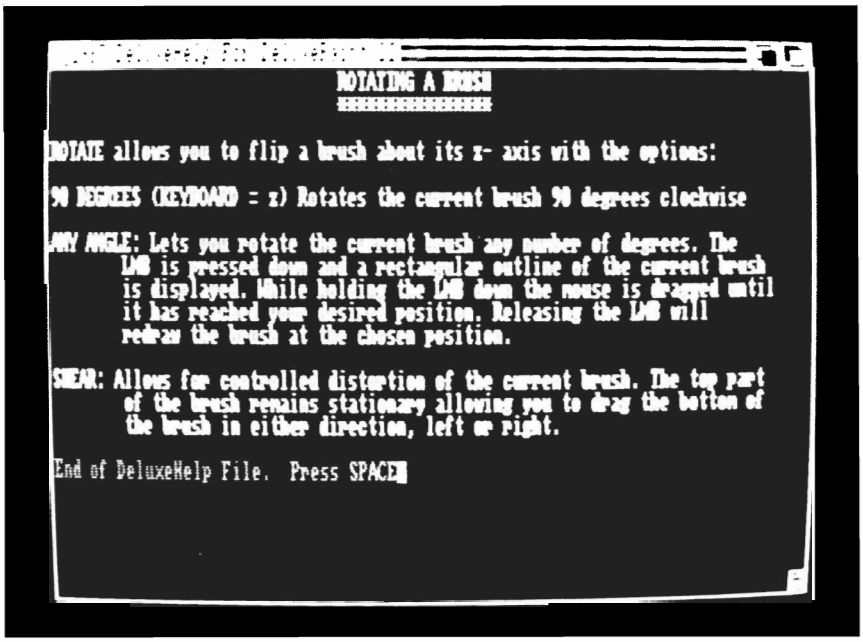
Deluxe Help

An interactive tutorial for Deluxe Paint

by Mark Smith

When the Amiga first came on the scene, everyone was amazed by its graphic potential. Deluxe Paint translated that potential into a powerful mdeium. . Although that power is there to exploit, many people are still confused when they see beautiful IFF pictures. "How do they do that?" they wonder. Enter Deluxe Help for Deluxe Paint II. Deluxe Help(DH) is an online, interactive graphics tutorial which coexists with Deluxe Paint II(DPII).



Clicking on a lesson brings up a text screen that will introduce the concepts expressed in the automated lesson

On opening the package you will find a disk, a reference card, a booting instruction sheet, and an ordering form.That is all you get and that's all you need. There is no documentation,and as you will learn in a moment, it would be quite redundant to document an interactive, menu driven tutorial.

After booting up DH, it will ask you to insert the DPII disk. Once loaded, DPII will ask to set some parameters. Deluxe Help requires that DPII be in lo-res 32 color mode so that the tutorials will run properly. DPII is, by default in 32 color lo-res, so simply click on "LOAD ALL" and "O.K." to begin. Deluxe Help now takes over displaying its own screen rather than DPII's screen.

Deluxe Help works best if you have a second drive and one megabyte of ram. The MouseTalker option needs this extra memory to be utilized. With both programs up and running you are ready to paint and learn. DH consists of five menus,which group the lessons into logical areas. The menus contain over fifty lessons to help you learn to paint, or just improve on your technique.

When you choose your lesson, a brief text description will explain about the lesson and make some general comments then it will proceed to DPII where it literally shows you how to apply the selected function! Choosing Circle from DH's Tools Menu, I was given a brief description of it's application and further comments such as the DPII keyboard equivalent. Following the text Deluxe Help Switches to De-

(continued on page 38)

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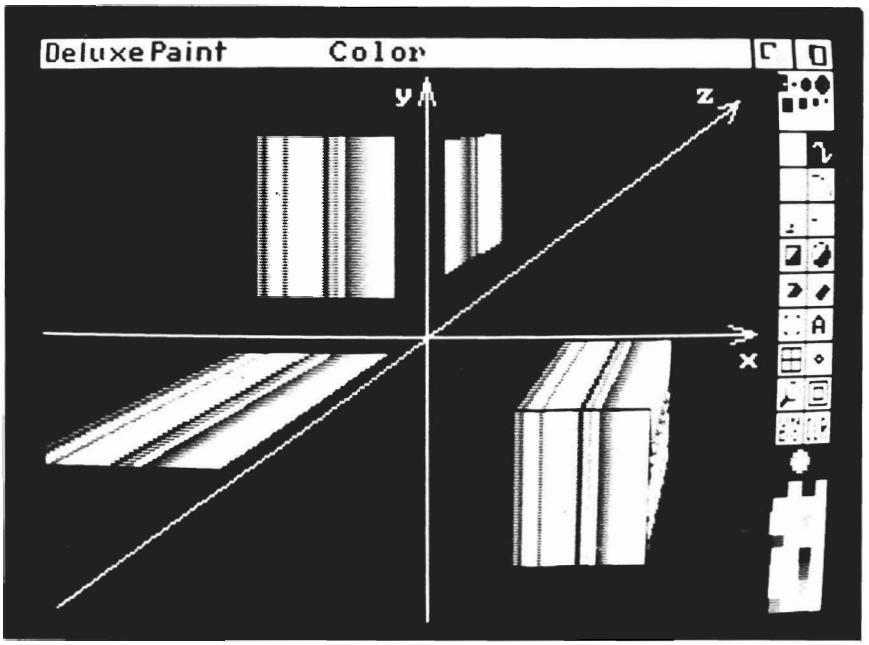
Deluxe Help (continued from page 36)

luxe Paint, takes control of your mousepointer,and proceeds to take you step by step through the process of creating circles with DP.

For those who have one meg or more DH enables MouseTalker, which gives new meaning to the phrase "step by step". MouseTalker speaks every mouse action. As DH moves the mouse pointer to DPII's circle tool and selects it, it is indicated with an audio amiga voice saying "RMB" (short for Right Mouse button). When a tutorial leads the mouse pointer to a DPII menu selection, MouseTalker says "LMB", which indicates the Left Mouse Button,"Drag",which drags the menu to the appropriate selection,"Release",which confirms the selection.

MouseTalker doesn't speak what has been selected, nor does it speak the text description. It merely indicates the physical action performed by the mouse. This may seem awfully silly, but some DPII tools respond differently to a left mouse button, than they do to a right mouse button. On a built-in brush for instance, a right mouse button will select the brush in it's built-in size, while dragging the left mouse button will alter the size of that brush. Secondly, imagine Mrs. Smiths second grade art class trying to use the machine to learn about DPII's spraycan. Mrs. Smith wants them to learn how to get the most out of that lesson, but without the MouseTalker, the tutorial cannot show that distinction.



If you really want to get a good grasp of DP II, then Deluxe Help is fantastic

After the mousepointer is done showing you the "how to's", DH follows up with another brief text description, making comments on what it just showed. DH then returns to it's own menus for further lessons. If you are ready to try making some circles on your own; just hold down the left-amiga key and type the letter m and you will be in Deluxe Paint. When you want to start a new lesson, or try the circle lesson again, hold down the left-amiga key and type the letter n.

When DH finishes a lesson it resets so that it is ready for another lesson. If you interact with the program and do some practicing of your own, you are tampering with DH setup. On rare occasion this may foul up some lessons that follow (not permanently). This is due to the way Deluxe Help interfaces with Deluxe Paint. For instance the CTRL key is used to leave traces of lines, splines, boxes, and circles. If the CTRL was not disabled by DH, and you are trying to make a single hollow circle, concentric circles will be drawn as you pull the circle out to the proper size. If you find that DPII is not doing

what you thought it would do; 1) activate the window 2) type the ESC key 3) type the CTRL key . The authors tell me that this information will be placed on the new addendum.

If you really want to get a good grasp of DPII then Deluxe Help II is fantastic! Don't try to run before you can walk or in Deluxe Paint terms: Don't try to multicycle a custom brush before you can draw a rectangle!! Pay attention to the before and after text files in each lesson. They are not fluff. They really teach you something. Watch carefully as the mouse shows you what to do. There are some subtleties that require attention. Where did that mouse click on that circle tool to change it from hollow to filled. It makes a big difference if you make a hollow or filled circle with a 32 color brush. Pay attention!

I thought that I knew Deluxe Paint II like the back of my hand. However, Deluxe Help taught me a number of things that I didn't know. This Is a wonderful program and I recommend it highly. A great deal of work and planning went into this package and it shows. The software is supported with updates and RGB Video Productions BBS. RGB has plans to do similar projects for Digi-Paint and Sculpt 3d. (Hooray!)

I hope that this concept becomes a new standard. Tutorials are not new, but this is a fresh and valuable implementation which I hope other software developers adopt. It takes advantage of Amiga multitasking, and it's about time that more developers do.

Editors note: In addition to producing software, RGB Video Productions is a full service Video production studio using Amiga technology.

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Synthia

The new sound editor from The Other Guys

by Jay Levan

Synthia is a system of five synthesizers which allow you to create custom instruments. Each synthesizer is a separate program. They are: "additive", "Subtractive", "Interpolation", 'String", and "Percussion." Synthia is not a toy. It offers an extensive set of tools to bend and shape sounds.

This package shines as a tool for learning how additive and subtractive synthesis and sound design really work. The key words here are package and learning. The documentation is integral to the package. Synthia is not a terribly intuitive program. If you feel at all tempted to try to figure out Synthia without reading the docs, imagine Sam Kinison standing a foot from your ear yelling "READ THE DOCS". There are no pull down menus, and there is very little obvious about using its many "tools". However, if you sit down with the docs and work through them step by step, mouse in hand, you will learn a great deal about the way waveforms, filters, modulators, and envelopes are used to create sounds from scratch (or nearly scratch.).

Among the tools provided to create and modify sounds are:

-Amplitude Modulation - for anything from simple tremolo to changing a mello horn into a 'blaat!!'.

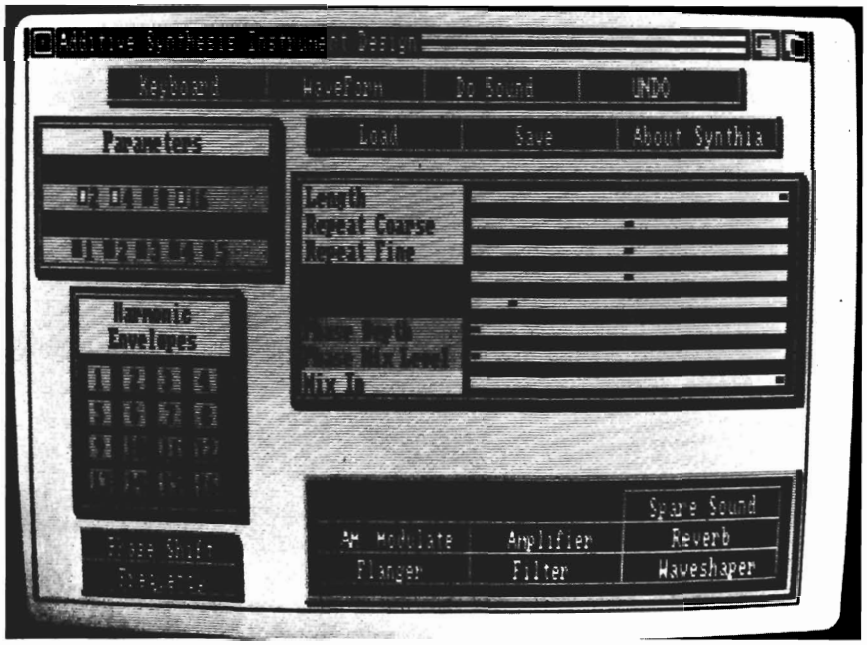
-Amplifier - to control the "set" volume of an instrument from soft to distortion, and to attenuate the amplitude (volume) of individual "parts" of a given sound.

-Envelopes - a graphic manner of describing desired changes to a sound over the period it lasts, such as, loud beginning (Attack), tapering in volume slightly (Decay) staying at that volume for a given period (Sustain) and fading (Release). (ADSR.) Envelopes can also apply to pitch and waveform elements.

-Waveform editor - allows extensive shaping of the individual-waveforms (elements) that make up a whole sound (instrument).
Reverb, Delay and Feedback - These are not true analog or even digital effects as in the $350-

(continued on page 42)

Synthia features an extensive set of sound manipulation tools



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Synthia *(continued from page 40)*

$2000 boxes used in the music world. But Synthian provides its' own algorithms designed to mimic these effects. (Sprinkle this stuff around sparingly to enhance dimension and timbre. Practice, practice, practice.)

-Spare sound - a buffer used for comparing and combining sounds (layering).

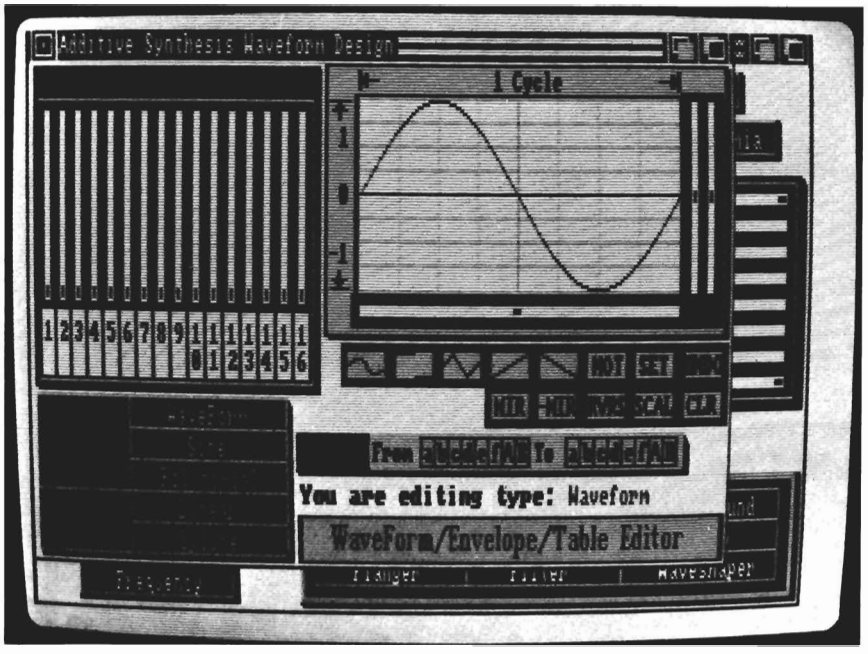
-Keyboard - A graphic keyboard which your mouse can play instead of hitting your AMIGA keyboard to hear your creations. This feature was somewhat disapointing, you must click the mouse each time you want to hear a note, it would have been very easy and VERY desireable to be able to do a glissando up the keyboard with the mouse.

Mixers - to mix in just the right amount of your effect.

-Octave - to select which octaves will be effected by your choices.

-Filters - Low, High, Band, and Band limit filters to use within many tools. These controls allow you to determine which frequencies will be passed through and which will be rejected by the filter. Here you also control bandwidth (breadth of frequencies affected by the filter).

You would be hard pressed to find a more extensive program



Some of Synthia's other tools are: Harmonic mixing panels with 16 faders, a choice of traditional waveforms or customized ones, Undo , Flanger (for phase distortion), Ring modulation, Filtered noise, Phase shift, and Phase depth. Obviously I've not mastered all of this in one week.

Synthia is also extremely useful as an editor and modifier of existing sounds or samples from the other AMIGA sound programs. You can take that wonderful marimba from Instant Music or Sonix and transform it into a reverberating gong. Or you might take a nice guitar sample with a little hiss in the background and clean it up.

The controls are straight forward enough, mostly sliders and buttons. Move a slider to the right and the value of the parameter it controls is increased, slide to the left and you attenuate (decrease) its effect on the sound. I only wish that Synthia's user interface included some overall patch panel or visual representation of all the aspects of hoe I've designed or modified a sound. It's difficult to keep track of what's going on with the many envelopes, amps, waveshapes

(continued on page 45)

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Music Mouse

Opcode's port of the popular Macintosh program

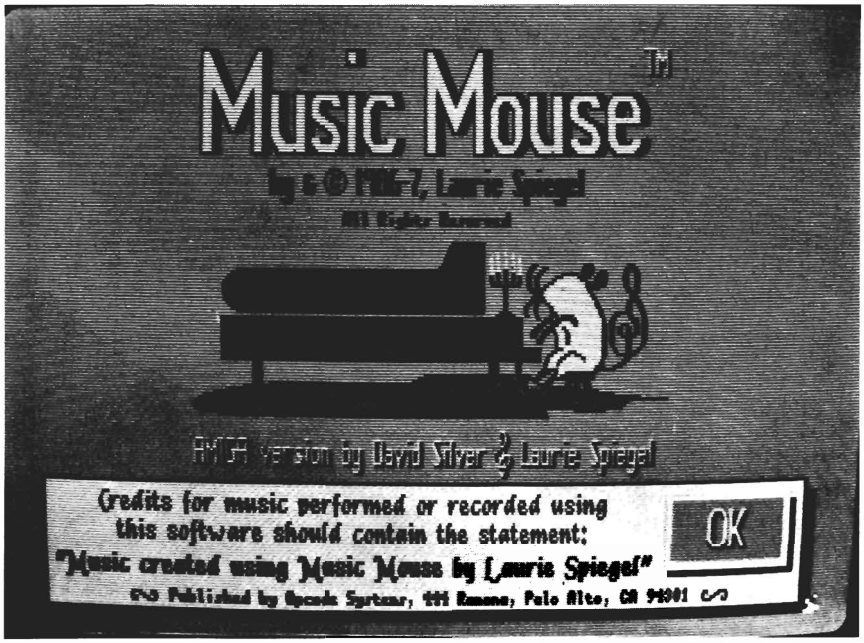
by Troy Albany

Like many other Amiga owners, I have been waiting for quite some time for a truly professional music program. Of course, there have been several enjoyable music packages over the past two years, but most have been of the entertainment variety. It has been discouraging to see many good programs on computers of lesser capabilities. The wait is finally over.

Introducing: MUSIC MOUSE for the Amiga. Music Mouse was originally written for the MacIntosh by Laurie Spiegal. The Amiga version is by Laurie Spiegal and David Silver. Our version incorporates all the Mac's features, plus a few extra goodies. By now you are probably asking "What is a Music Mouse?" It is an intelligent instrument. Any movements that you make with your mouse will trigger notes. The program will participate in your music-making by adding notes or patterns of its own.

Music Mouse has grown famous as a tool for the professional musician who may be at an impasse in a composition. In this common situation, MM can provide new ideas as a point to take off from.

However MM is not just for musicians, but for anyone who owns an Amiga and enjoys music. It can be used with Amiga's internal voices, as a MIDI controller, or with both on simultaneously. Program features are numerous, and one has the option of changing tempo, harmony, tonality, voicing, mode (major, minor, pentatonic,etc). The user interface is very good. MM can be started from the CLI or Workbench.



The program loads with its default sound, a piano. The screen will now show three vertical bars and one horizontal. Each bar is a different color and represents a different voice. The axis, the timbre, and the voicings can all be changed with pull down menus. Every menu command has a keyboard equivalent.

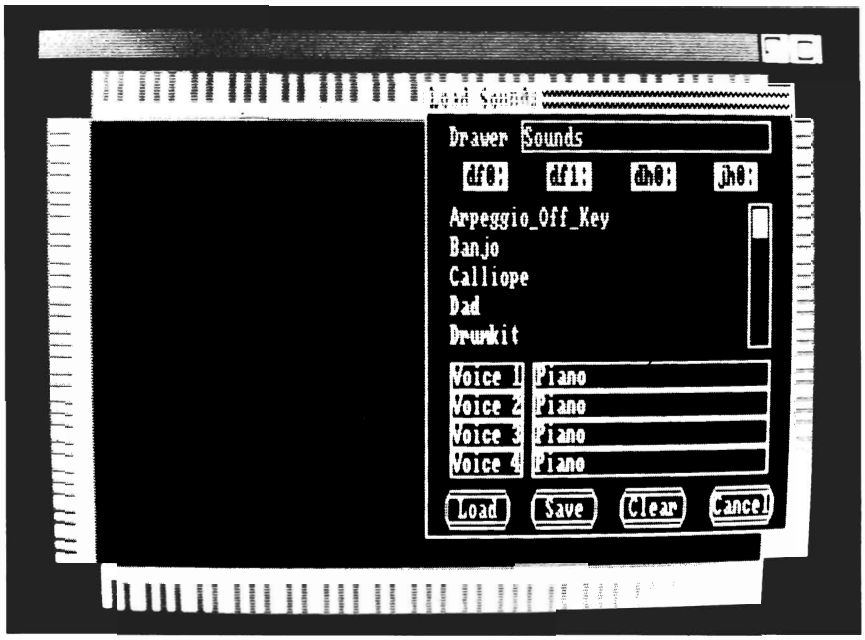
Music Mouse has controls for the Casio CZ-101, the Ensoniq Mirage, and a generic feature which can control virtually any MIDI device. I tried my CZ-101 and Yamaha DX7 keyboards with Music Mouse. Everything worked well (read on for the minor exception). I was pleasantly surprised to find that with the CZ, I could have four different timbres playing on four MIDI channels AND still hear four distinct timbres on the AMIGA. As if this weren't enough, with

Music Mouse

the DX7 connected, Music Mouse will accept foot, pitch wheel, amplitude, and breath control modulation. Other Amiga MIDI software ignores these important subtleties.

The one problem I experienced, was that when using the Casio or Yamaha, MM seemed to give continuous MIDI information, even when mouse movement had ceased. At first the sounds would die down, but within a few seconds they would rise again. This pattern would repeat continuously until mouse movement resumed. Hopefully this glitch will be addressed in future versions. MM's documentation is complete, and the 51 page manual contains a keyboard guide for ease of use. You can import any of your IFF instruments into Music Mouse. It will also load into the patch panel of SoundScape Pro-Midi Studio. These are examples of outstanding programming practice which let the user take advantage of a variety of software tools.

Music Mouse was a unique concept on the Macintosh, and the authors have done a good job of writing this port for the Amiga. Like Electronic Art's *Instant Music,* it can be used by someone with very little musical know how to create simple passages, while the program provides the harmonic accompanyment. By the same token, experienced musicians may be able to use MM as a useful tool in their creation process.



The disk contains a directory of instrument sounds

Music Mouse

Opcode Systems
1024 Hamilton Court
Menlo Park, CA. 94025

1-(415)-321-8977

Synthia

(continued from page 42)

upon waveshapes, and modulators. With the old Analog synths I learned on, the big Moogs & Arps with wires all over the place, I could always see what filter or modulator was filtering or modulating which wave, or exactly how the envelope was shaped. Here you can only see a small piece of a complex set of controls at any given time.

Synthia writes your finished instruments in IFF format so you can use them in almost any other AMIGA sound program. An extras disk with an SMUSPlayer for listening to scores from any of the popular Music programs on the AMIGA is also included in the package.

To wrap up, this is a powerful and very extensive tool for editing sounds and samples to be used in other programs. It could be an excellent educational resource, which could teach the student the nuts and bolts of how sounds are shaped and altered. The user interface is not the easiest to follow. The usual conventions found in Intuition are generally not used here, and it takes time to learn the operation proceedure. However, the bottom line is if you need a program like Synthia. If you have such a need, you would be hard pressed to find a more extensive program.

Synthia $99.00

The Other Guys
55 North Main Street
Logan, Utah 84321

1-(800)-942-9402

Money Mentor

MONEY MENTOR 2.0

by George Graves

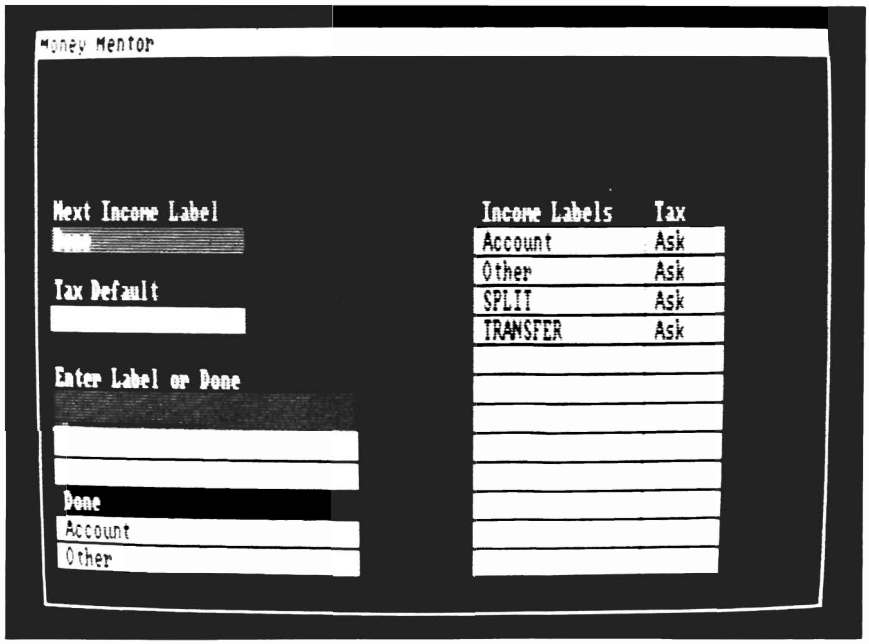
If you've ever said "I wish I knew where my money goes", I have a deal for you. Or if you just need a way to justify your computer expenses to your spouse... or if you are looking for something new to do with your Amiga... here it is. Money Mentor V2.0 is here, and it is definately worth looking at.

I should premise this review by saying that I am not a fan of "home" finance packages. They are usually too limiting for my needs, or too difficult to set up, or too complex to manage a household, or they miss some critical function. But Money Mentor, in its 2.0 version seems to have corrected those complaints, and retained what has to be the nicest "look and feel" of any money manager package for home use that I have seen.

Some time ago I examined an early version of Money Mentor and rejected it, so for me to reverse my position means I have to eat some words, but in light of the improvements of this package I do so gladly.

Money Mentor comes packaged as a small 3 ring binder containing a manual, and a single diskette. In the version I have, the documentation is at the Version 1.4 level, with an addendum to explain changes for Version 2.0. This makes the package easy to review, but somewhat difficult to learn by reading the book. But then, reviewers are the only people who read the book, aren't they? Fortunately, for most of us, Money Mentor 2.0 (MM2) makes the task of building a budget and entering transactions simple enough that it can be done without manuals. And with MM2, unlike some other home accounting packages, if you didn't do something properly thefirst time through, it is relatively simple to correct problems.

Money Mentor uses prompts and plain language to guide you through the accounting process



The interface to all programs is both mouse and keyboard driven so that you may select and scroll fields in the manner you prefer, not what the program designer decided. MM2 runs from the Workbench or CLI. The keyboard interface is one of the most interesting I have encountered anywhere. All alphabetic infor-

mation is entered in lower case, but the program capitalizes the first character of each word in a field. You may make a letter in caps if you wish (such as initials). This tends to make the printed reports look nice and makes for a consistent entry format.

To begin the home accounting process with Money Mentor, you need to make a data disk. All that is required is a free disk and a couple clicke of the mouse to build your data disk. A program called "create" has been included on MM2 for this purpose. You simply click on it, and follow he prompts.

As with all accounting, you first enter Income and Expense categories. Income accounts may be Checking, Savings, Cash, or Credit Card (actually most of us don't get income from credit cards, but they are a source of funds). Expense accounts are set up by entering a name, and whether the account is deductible or not (or if the question should be asked at all). I have worked with a number of annoying programs where deductibility is simply YES or NO, no MAYBE.

Once budget categories are set up, you then fill in the budget amounts. The authors have really done a nice job in this area. There is a scrollable spreadsheet which shows thirteen budget categories by five months on the screen. (The system can contain up to 100 expense categories and 30 income categories). The yearly total by category, and the current monthly total for all categories is also shown on the screen).

After all (or at least most) of your budget categories have been entered, then transactions may be entered against those accounts. Entering transactions is a breeze. The system asks for name on a check, the amount, the budget category and allows you to make a note about the check. The current account balance is displayed at all times, as are the last five transactions. If you have a negative balance in the account, it is displayed in red. If mistakes are made, they may be redone, either immediately, or later. Checks may also be printed from this menu. It is at this entry, also that Money Mentor will ask you

(continued on page 48)

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Money Mentor *(continued from previous page)*

whether or not a transaction is tax deductable (if you told it to ask you when you set up the account). Checks with more than one budget account, otherwise known as split transactions (for example a single check for Principal and Interest on a mortgage) are handled very nicely by the program. There is also an interesting feature that I haven't seen before, Pay Back and Get Back, where you can borrow and lend money, but not add it to the Income and Expense balances. This is great for handling business expenses and payments, which affect checking account balances, but not actual income amounts.

Account balancing is straightforward. If errors are discovered in balancing your accounts, the search and edit facilities are useful. Ranges of checks may be searched by date or by number. Search may also be performed by payee on all or part of the name (First Part, Last Part, Somewhere in the Namefield). Other search criteria include amounts (specific or range), budget categories (up to 5), deductibility, cleared field, or a month or range of months.

One of the neatest features of Money Mentor is the Study Accounts feature. The last 250 transactions are searched and the 50 most common ones are "remembered" and will be inserted the next time that transaction is entered. A real timesaver. There are printed and screen reports for categories, for problems and summaries. There are also screen graphs which closely parallel the printed reports.All in all, version 2.0 of Money Mentor is a fine package which can, if anything can, help you get a firm grip on your personal finances... and help you find the money to buy the memory expansion... or the hard disk... or the digitizing tablet... or the new game... or the new...

Money Mentor 2.0
$ 95.95

Sedona Software
11844 Ranchero Bernardo Rd.
San Diego, CA. 92128
1-(619)-451-0151

Audiomaster *(continued from page 33)*

on tuning controls explains that in order to make a useful instrument, our sound must play Middle C at a sample rate of 8363 samples per second. This will work with most music programs which feed middle C to the Amiga sound chip at 8363 cycles per second.

Fortunately, Audio Master provides a button to play a tuning tone in the background, while our sound is also playing. This makes fine tuning easy. Slide the tuning gadget until the beep sounds in unison with the tuning tone, and make sure that the sample rate is 8363. Now we can use the project menu to Save the Range. (Remember we specified the number of octaves and instrument type earlier). AM will use the range we have designed to create a 1, 3, or 5 octave instrument in either DCMS (IFF) or Sonix format. Some time will be spent in this computation, but once finished, you will be able to play the beep as an instrument in your favorite music software!

I'll mention just a few more of Audio Master's features. The HiFi Save option creates better sounding copies of your sample for an instrument's lower octaves. You can take advantage of a Hi Sampling rate, yet create an instrument which is compatible with most music software. Seek Zero searches the waveform for the nearest zero crossover point. This is useful when copying or repeating ranges. My favorite special feature is Ram Scan, which appears on the Project Load menu. When selected, the waveform window will fill up with the current contents of your Amiga's RAM. Some interesting sounds are waiting to be discovered in the Amiga.

So far, I haven't found the inevitable glitches, or missing features. Even if I do, Audio Master will continue to delight me and produce incredible sounds for use in my other music software.

AudioMaster $59.95

Aegis Development
1-800-345-9871

Telegames

Reviewed by Ernie J. Tapman

How about a nice game of chess? This one is not quite as exciting as playing with JOSHUA of War Games, and we will not play Global Thermo Nuclear War. Instead, we will be playing TeleGames by Scott Lamb. If you enjoy the challenge of a good game of checkers, chess or backgammon then this game is for you.

Telegames adds a new twist to these classic computer games. You must play against a human opponent. Your opponent, may be sitting next to you or thousands of miles away. If both computers are in the same room you will use a null modem cable. If you are hundreds of miles away you will play Telegames via modem.

Before starting, select your color, red or white. You may also choose a two or three dimensional playing board according to your preference. The board's view angle can be altered to either the white/red's view or the king/queen's side. Of couse modem parameters must be set to match your opponent. Finally select your game; Chess, Checkers, or Backgammon.

You are now ready to teleconnect. Enter your opponent's telephone number, take a deep breath, and let the battle begin. The game's graphics are quite good. There is also optional sound which makes for a less quiet atmosphere. Moving the pieces uses standard Amiga practice. Simply hold down the left mouse button, position your pointer on the desired piece, and glide the mouse towards a new location.

On screen displays indicate which player's turn it is and any incorrect moves. Games can be saved and re-loaded anytime you or your opponent decide to quit for the day. During play, you may even chat with your opponent using the

(continued on page 51)

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Silicon Dreams

Fantasy....or nightmare?

by George Rapp

Start with an interesting premise and plot. Add to this an innovative main character with good history and development. Now translate this as a text and graphics adventure game on the Amiga, and you should have a winner. Silicon Dreams, from Rainbird is actually three separate stories tied with a central character, Kim Kimberly. In the first two, Snowball and Return to Eden, you take the role of Kim; while in the third, The Worm in Paradise, you play a character in the future trying to find out what Kim has done in the past while trying to save your political career, and if necessary, the world.

Rainbird has provided a menu screen which allows you to open any or all three games at once, memory allowing. The games support full multitasking so you can switch between any or all of the games should you get stuck. There is also an undocumented feature that provides clues for some situations by pressing the help key.

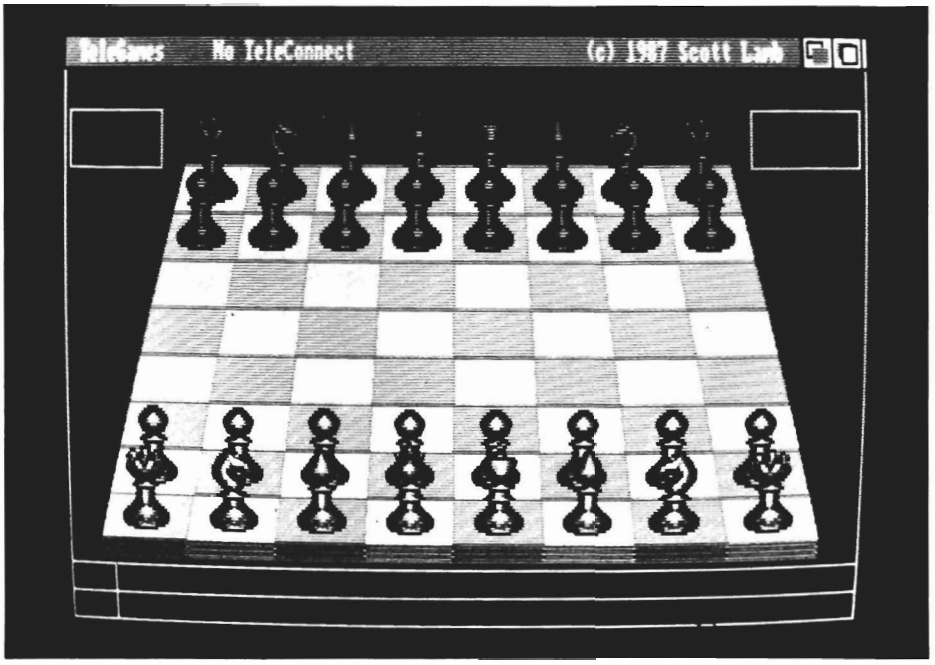
The games have some nice features other than the Help key and multitasking support. During play, you can type "ram save" or "ram restore" to save your position in memory and recall the last saved position. You also have the advantage of typing "oops" to undo your last move. These are very important features since it is extremely easy to get killed in the first two games; and still very easy in the third. It is also possible to save the games to disk and restore them later. Saving is where you encounter the copy protection scheme. The program will request a word from the manual. I soon became annoyed with how easy it is to get killed in these games, especially in the beginning. It seemed that as soon as I got started, I got killed off and had to start again. There should be simpler tests in the beginning to allow you to develop a feel for the game before the tough tests begin. My biggest complaint is that this game is an obvious port from an 8 bit machine. As a result, the game is very compact in size and the parser is small, with a vocabulary limited to about a dozen commands. The graphics are done by drawing outlines and filling with the desired color. This makes for slow, low resolution graphics. The graphics are so slow that they hold up the game play. It is possible to switch the graphics off, but they do add to the thin descriptions provided by the text. Between the slow response, the limited range of actions, and the frequent deaths, I felt more frustrated than entertained. Silicon Dreams is a game full of potential that is unrealized. A year ago, I may have been satisfied with this game. Now, Silicon Dreams pales when compared to The Guild of Thieves, also from Rainbird (see the September Sentry for a full review) and Knight Orc from Level 9 and Rainbird . Normally, I would make some suggestions for improving the game, but in this case, a complete rewrite is required. The parser must be improved so that it will give more helpful responses. The graphics routines must be improved as well. Instead of colored line drawings, painted graphics should be used. Knight Orc shows more of what Level 9 is capable of, and the type of game Silicone Dreams should be like. I can not recommend Silicon dreams in its present state. I hope for an update which will make the changes to bring this interesting story up to the real capabilities of the Amiga.

Silicon Dreams
Firebird Licensees
Box 49
Ramsey, NJ 07446

Telegames *(continued from page 49)*

keyboard.

The overall effect of playing a through a serial cable is unsual but not difficult. The programmers at Software Terminal have done a fine job of giving a good feel to the program. However, Telegames is unlike other Chess or Checkers simulations. You will not be able to take back a move, switch positions, or ask the computer for a tutorial. The level of play will be dependent on you and your opponent's skill. I can recommend TeleGames to everyone who enjoys the basic board version of these games.



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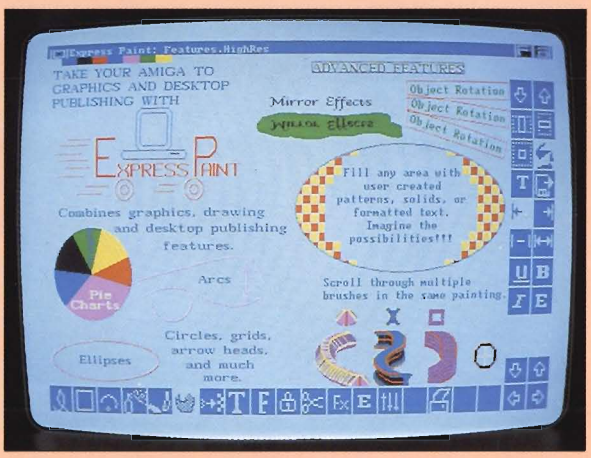

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