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INFO

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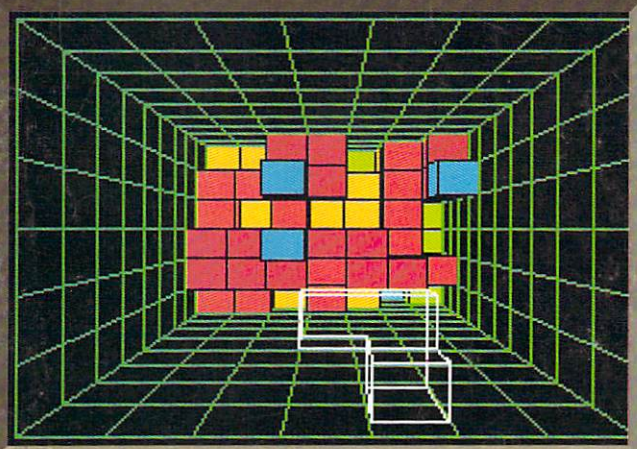
ANNUAL GAMES ISSUE

TOP 10



INFO PICKS THE TOP 10 ALL-TIME GREATEST:

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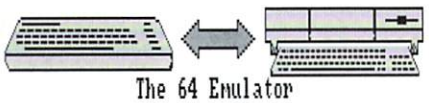

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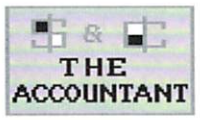

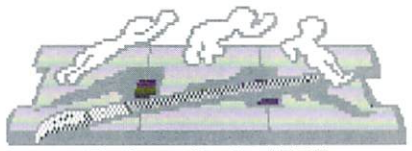

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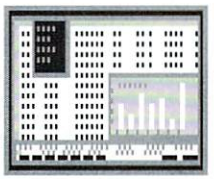

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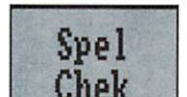

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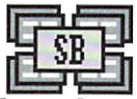

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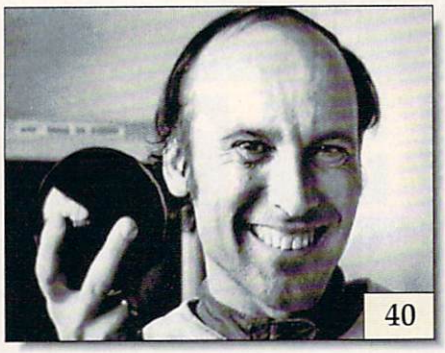

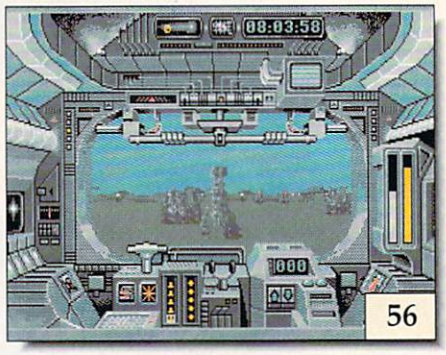

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About INFO

INFO is a living showcase of what can be produced with affordable personal computer equipment (the Commodore Amiga, in particular) and readily available consumer software, peripherals, and services. With the exception of some ads, everything in this issue, including color screen shots and photos, was digitally created, edited, composed, printed, and color separated as complete assembled pages on Amigas, and output as film from a Postscript imaging device at 1270 dots per inch.

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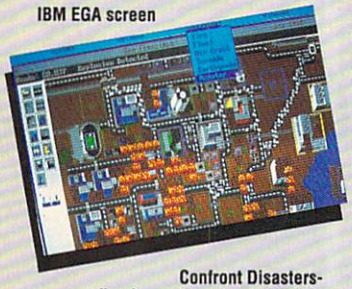

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(These comments are from the correspondence from real SimCity users. ***Honest!***)

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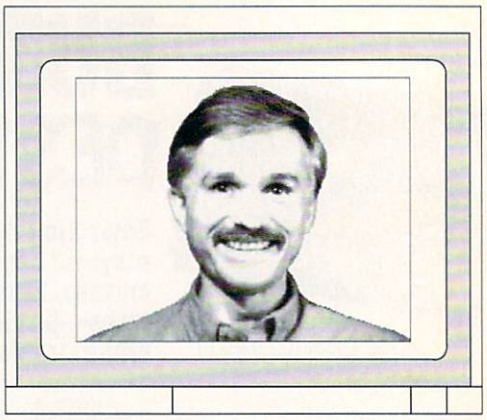

THE STATE OF GAMES

We Americans have always had a love affair with things imported. Cars from Japan, cuisine from China, and now games from Europe. Of the games heaped around my desk lately, about half are imports, and of the games that have remained on my imaginary top shelf over the past few months, most are European: *Populous*, *Archipelagos*, *Prospector*, *Spherical*, *Menace*, *Blood Money*, and the list goes on. All of these were written on the other side of the Atlantic.

There are top-notch American games, but the preponderance of domestic titles are dull, unimaginative, and clearly inspired only by the bottom line. The few outstanding U.S. titles, like Maxis' groundbreaking *Sim City*, are becoming fewer and farther between, and there is a rush lately by American companies to import games instead of developing their own. The biggest difference seems to be that Eurogames are developed on the highest platform first (like Amiga or ST) and then ported downward. US games generally go the opposite direction, being developed for the lowest common denominator and then ported upward with little or no change in the graphics and sound. Those who develop for the IBM formats first are the worst offenders. With the predominance of those machines, publishers are most interested in selling the greatest number of units to the greatest number of people and the sad fact is that there are many more PC clones out there than Amigas. The problem with this attitude is that it makes for underdeveloped, low-quality games. It's cheaper to do it that way.

European games are, on the whole, better than American games because they are produced by people who like to play games instead of people who like to play spreadsheets. The games themselves generally have much better graphics, soundtracks that aren't written for the IBM beeper, and playability that will keep you coming back for "just one more game". It is particularly in graphics and animation that European games shine. Take a look at a Psygnosis game like *Menace* and then look at Atari Games' *Indiana Jones & the Temple of Doom*. Which would you rather play?

American game publishers seem to be taking their lead from TV programmers; if a game is successful, there is inevitably an endless string of clones, sequels, and third-rate imitations. If one company makes a few bucks from a game, other companies think they have to jump on the software bandwagon. As a sad example of this me-too syndrome, there are at least six new tank simulations on the market right now, each no better or more entertaining than the last. How large do the developers think the market is for this type of game, anyway? This is what comes of letting marketing departments run companies.

A few American publishers are doing it right. Cinemaware has developed games that not only have great looks, but are of a new genre. Interplay proved with *Battle Chess* that games developed on the Amiga make better downward ports to C64 and MS/DOS platforms. California Dreams, even though they develop first for the PC, takes enough pride in its products that the Amiga versions are substantially enhanced when they're ported. There are others, but not as many as there should be.

As things stand now, American games are at least a full generation behind those being written in England and Germany. I'm not sure at this point whether we can catch up, but there are a few things game players can do to prod the developers and publishers. Make yourself a smart buyer: read reviews, look at demos, ask your dealer if you can see a game running before you buy it, learn which programmers wrote the games you like and watch for new titles from them, support the game companies publishing good titles, and don't pirate (it only cuts into any potential profit, which means the company will spend that much less on developing their next game). Let the publishers know how you feel about their games. Most companies do read their mail; if a game is bad, tell them so, and give the specific reasons why. The same goes if you're particularly impressed by a game; a little encouragement goes a long way. Above all, don't buy inferior games - money is the one thing the bottom-liners do understand.

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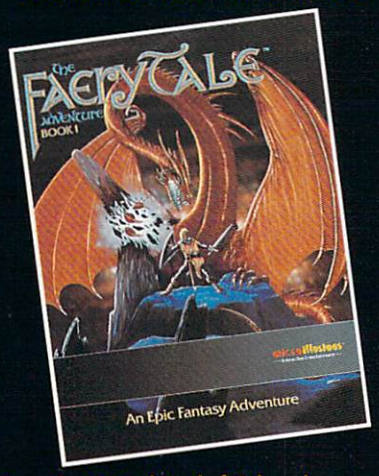

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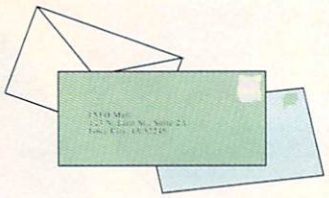

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U.S. Mail From: Dan Teles, Hellertown PA

I own a C64 and my younger brother owns a Nintendo, and to put it simply the Nintendo is not a challenge to the C64. I compared several games including EA's *Skate or Die* on both and the C64 games are much better and cheaper. And there's a heck of a lot more software out there. You can also do much more with a computer than just play games.

Dan, you are so right. It makes you wonder how they've sold so many of the stupid things, doesn't it? I think many people are still just plain afraid of computers, and would rather buy a game machine just so they won't feel intimidated by it. - **Mark & Benn**

PLink Mail From: BRYAN C

I don't have anything against games, and I really do enjoy reading your hard-hitting and honest reviews of them, but the 8-bit community needs reviews of more serious software, too, especially considering the demise of *Commodore Magazine*. If no new titles of this sort are being introduced then, of course, you cannot be chastised.

Then I think we're off the hook. New 8-bit software is rare as hen's teeth, but we do try to find what we can. Though this is a games issue, we've reviewed two significant non-game products for the C64 and C128. And if we had more to choose from, you'd see more reviews.
- **Mark & Benn**

Foreign Mail From: Steven Hurdle, Victoria BC Canada

I was surprised and dismayed to hear you comment in a recent issue that a quarter million Amigas have been sold in the U.S. and most of the rest of the one million sold so far had been sold in Europe. In fact, Canadian sales about equal those of the U.S., with the other half million units spread primarily across Europe.

We stand corrected. It's somehow encouraging to know that half of all Amiga sales have been in North America, at least, though it's somewhat disheartening to find that Canada, with a population only 1/5 that of the States, has been selling just as many Amigas!
- **Mark & Benn**

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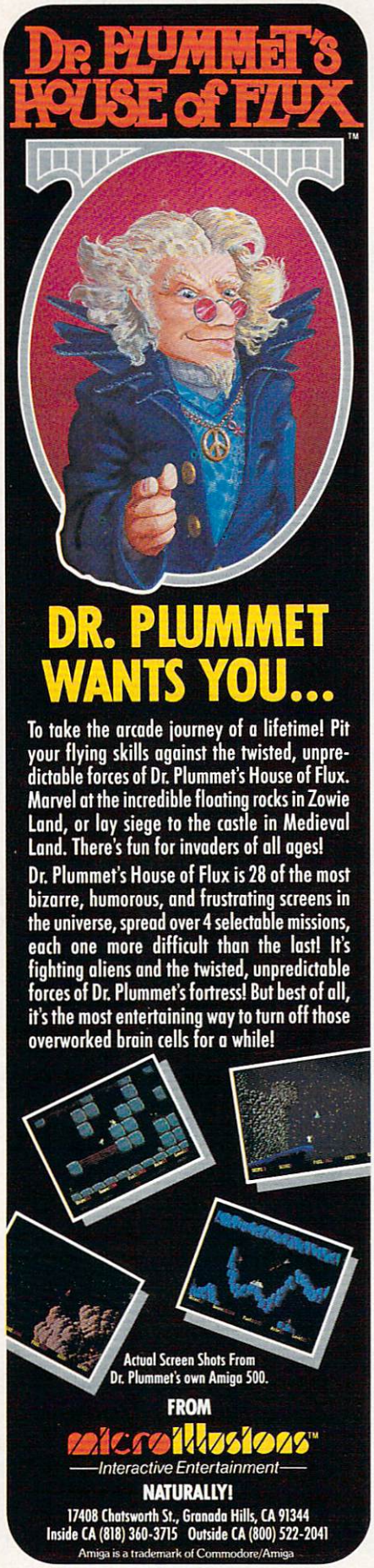

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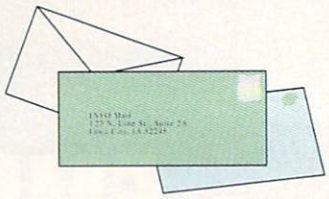

QLink Mail From: MarkK25

I can't tell you how adversely the "64GS" rumors are affecting the mood in our users group. While Commodore owners are used to the industry doomsayers, it's pretty hard to take coming from the company itself. There are a lot of die-hard Commodore owners out there who are seriously considering throwing in the towel. I hope INFO continues to support the 8-bit line.

Commodore has been sending out letters confirming the demise of the C128 and C128D, though they won't say what the fate of the C64 will be yet. We also hear that the odds are better than ever that the "64GS," or C65, as it's unofficially called now, will appear on the market soon. **- Mark & Benn**

U.S. Mail From: Roger J. Long, Kennewick WA

I was puzzled by one of the reviews in your Jul/Aug issue. "Operation: Cleanstreets" by Broderbund is described as "ill-conceived," "ugly to look at," "obnoxious to listen to," and "goes beyond fantasy into the absurd." The reviewer concludes that "the only thing I like about it is that I never have to play it again." Given all that, the program is still given a three-star rating, which according to the chart is "Satisfactory." This rating is contradictory to the review, and apparently was given to avoid Broderbund removing its advertisements from your magazine. Could you please clarify this situation?

First of all, Broderbund has never even purchased an ad in INFO, and we've been a lot harder on some games that were advertised in these pages! With our game reviews, we try to let the star rating say the majority of what we have to say about a game, and use the text to comment on particular strengths and shortcomings, as well as trying to convey some of the personality of the game. What Tom was indicating with the three-star rating was that Operation: Cleanstreets had nothing technically wrong with it and was an average game with adequate gameplay and no perceivable bugs. In other words, it was "Satisfactory." Tom's comments in context convey more of a philosophical difference with the "violent drug war" theme of the game than its actual implementation, though he did manage to pick a bit at the graphics and sound in the process. **- Mark & Benn**

U.S. Mail From: Rob Glanzman

I just wanted to thank you for a great magazine! I recently received the first issue of my three year subscription, along with my mousepad. Needless to say, I love them both. As so many people have said before, your publication is the absolute best. It has a unique feeling which so many others have tried to duplicate, but to no avail. In conclusion, this letter is probably the most blatant attempt you guys will ever see in trying to qualify for your "INFO is great" spot. (Just kidding! I meant every word.)

But you do qualify for this issue's "INFO is Great" letter, Rob! Normally, we'd be too sharp to fall for such a blatant attempt to get a letter published, but we're suckers for people who've laid out the bucks for a three-year subscription! Thanks, guy!

- Mark & Benn

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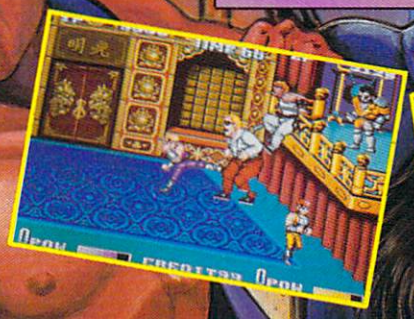
Featuring more weapons and more powerful moves, with more new missions such as the Underwater City, the Garden of Death, and the infamous Trap Room!

It's martial arts at its best, coming soon for your home computer!

Machine availability:

IBM 5-¼"	$39.99	Atari ST	$39.99
IBM 3-½"	$39.99	Commodore 64	$34.99
Amiga	$39.99		



Games

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READER MAIL

QLink Mail From: CJHacker

I really enjoy your magazine and your reviews, but in the review for *Project: Firestart* you stated that you could do without the "graphic closeups of bloody victims." If you look on the box, it is supposed to be a HORROR game.

True. But some of the finest horror films ever made were produced in the 1930s and showed no blood and gore at all. There are subtler ways of evoking a tingle in the spine than merely displaying gore. **- Mark & Benn**

QLink Mail From: Scott Hiland [Wildcat II]

Recently QLink offered *Club Caribe*. The long-awaited *Habitat* technology is less than impressive. I think QLink needs a user warning on this software that says "WARNING! This game may confuse and baffle all who read its instructions."

QLink has not sent us a copy of the Club Caribe software, so we haven't had a chance to review it yet. But your sentiments have been echoed in many letters we've received from QLink users. **- Mark & Benn**

CServe Mail From: Chris Smith [73457,1203]

I need a good color wordprocessor. How about *Pen Pal*? I also need a color printer to print my reports out. I have my eye on the Epson LQ850. What is your opinion?

Pen Pal is definitely a good product, probably the best of the color wordprocessors. As for the Epson color printer, we have no experience with it, though we do like our HP PaintJet very much! **- Mark & Benn**

U.S. Mail From: Richard E. Murray, Lockport NY

Here's how retailers help CBM decide to discontinue the C64: I was in the computer area of a local department store. Their selection of hardware is limited to the C64, 1541, one monitor, and one printer, and none of the equipment was operating! It seems the department manager does not allow the computer stuff to be turned on because the clerks would "play with" the computer instead of waiting for customers to show up. They don't, of course, because there is nothing to attract them. Meanwhile, elsewhere in the mall, Radio Shack had THREE of their machines running. How they stay in business is beyond me, since their clerks apparently do nothing but play computer games all day!

Point well taken. The first rule of marketing is: Create A Demand For Your Product. Commodore is recertifying its dealers, which will hopefully cut out some of the "deadwood" you describe. **- Mark & Benn**

THEY'RE BACK!

ON A COMPUTER NEAR YOU

	IBM	APPLE II	MAC	C64	AMIGA	ATARI ST
SCRABBLE®	$39.99	$39.99	$39.99	$29.99	$39.99	$39.99
MONOPOLY®	$39.99	DEC		$29.99	$39.99	$39.99
RISK™	$39.99	$39.99	$39.99	$29.99	$39.99	$39.99
CLUE® MASTER DETECTIVE™	$39.99	$39.99		$29.99	$39.99	$39.99

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Clue® Master Detective™ © 1988. Produced under license from Parker Brothers, division of Tonka Corporation, and Waddingtons Games Limited.
Scrabble ® Licensed by Selchow and Righter Company, a subsidiary of Coleco Industries, Inc. Scrabble board design © 1948 Selchow & Righter Company.

Virgin Leisure Genius

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MASTERTRONIC

GEOS HAS GO
BUT THIS OFFE

When is an upgrade not an upgrade? When you're upgrading to GEOS 2.0.™

Oh, sure, you've heard a lot of that upgrade stuff before. But GEOS 2.0 isn't just a couple of itsy bitsy enhancements here and there. It's more like 60 whole new options, utilities and applications (some of which were once sold separately) all rolled into one package.

The fact is, GEOS 2.0 is different. Really different. Even in the way it affects your wallet.

For a very limited time, we'll upgrade your GEOS 64 or 128—normally $59.95—for only $29.95 ($34.95 for GEOS 128). Which means that for a very few dollars, you can get a whole lot more out of the system that revolutionized the Commodore® world.

Sound good? Well, this ought to make it sound like music to your eyes:

Order your 2.0 upgrade with this coupon and we'll send you FontPack1™—20 terrific typefaces of all shapes and sizes—for free. Zip. Nada.

Now is that an upgrade offer, or what?

29.95
Special upgrade offer.

Something to write home about.

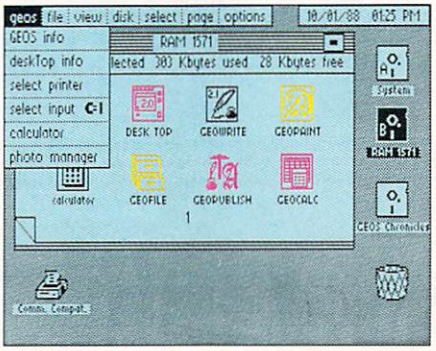
With new geoWrite™ 2.1 you can incorporate multiple column overlays, headlines and borders and instantly convert any Commodore based text (like PaperClip,™ Easy Script,™ Speed Script™ and Word Writer™) into a geoWrite format.

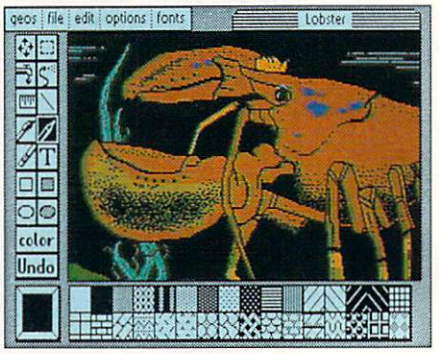
You also get 10 fonts (7 styles in multiple sizes). Date and time stamping. Expandable margins (to 8 inches). Right, left, center and full justification. Single, 1.5 and double spacing. Page numbering. Headers. Footers. Search and replace.

And that's only a *partial* list.

A new geoSpell™ automatically corrects any blunders it finds 38% faster than before. A new geoMerge™ combines with geoWrite to create customized letters and lists. And geoLaser™ prints near-typeset quality output on Apple® LaserWriters.™

Whew.





More graphic displays of power.

A new geoPaint™ still gives you 14 graphic tools, 32 brush shapes and 32 painting patterns. But now it can also enlarge or reduce images to scale. And new paint brushes let you create semi-transparent

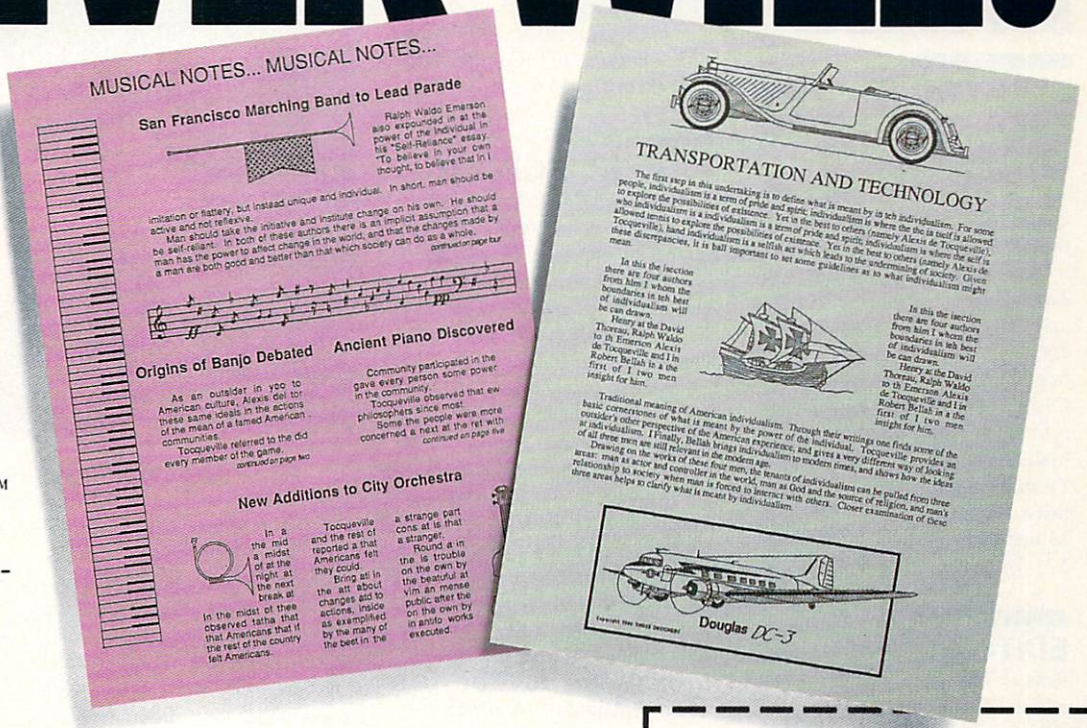
TTEN BETTER R NEVER WILL.

overlay effects.

There's a new grid for easier sketching of large images. New graphic shapes, including connected lines, ellipses and squares. And for more perfect control, you can now stop pattern fills in progress.

The new 2.0 deskTop™ allows multiple file selection for most operations. And erases entire disks without reformatting. It manages more files, three disks and drives (even the 1581) in less time. Copies files faster with fewer disk swaps. And even color codes file icons for easier identification.

There are more keyboard shortcuts. More enhanced desk accessories. It can even retrieve your most recently deleted file from the waste basket!



FREE

The price of power.

For any non-GEOS owner, these two packages might cost a princely sum. But not for you. You were with us when we started, so we figure we owe you one.

Make that two.

So get on your horse and send in the coupon. After all, upgrade offers come and go.

And this one is going very, very fast.

Commodore and Commodore C64 and C128 are trademarks of Commodore Electronics, Ltd. GEOS 2.0, GEOS 128 2.0, geoWrite, geoPaint, geoSpell, geoMerge, geoLaser, deskTop and FontPack1 are copyrights of Berkeley Softworks. Apple, PaperClip, Easy Script, Speed Script' Word Writer and LaserWriter are trademarks of companies other than Berkeley Softworks.

Berkeley Softworks

The brightest minds are working with Berkeley.

FREE FONTS? FOR SURE!

☐ Please send me GEOS 64 2.0 and my free FontPack 1 for $29.95 plus $4.95 for shipping (California residents add 7% tax).

☐ Please send me GEOS 128 2.0 and my free FontPack 1 for $34.95 plus $4.95 for shipping (California residents add 7% tax).

Name

Address

City State Zip

Method of payment:
☐ Check ☐ MasterCard ☐ VISA

Account Number Exp. Date

Signature

Mail to: Berkeley Softworks Fulfillment Center
5334 Sterling Center Drive
Westlake Village, CA 91361

To be eligible for this offer, you must be a current GEOS owner. This coupon plus your GEOS manual cover must accompany your payment. No facsimile will be accepted. Allow two to four weeks for delivery.

This offer is subject to all of the terms and conditions for redemption listed above. Void where prohibited by law and not to be used in conjunction with any other special offer. Berkeley Softworks reserves the right to change this offer at any time.

Orders must be received no later than December 31, 1989 to qualify for this offer.

New Products & Reviews

★★★★★ OUTSTANDING ★★★★ VERY GOOD ★★★ SATISFACTORY ★★ POOR ★ DREK

8-BIT SOFTWARE

EVERYTHING YOU EVER WANTED TO KNOW

A new book called **500 C128 Questions: Answered** has just rolled off the presses. Penned by Loren Lovhaug, publisher of *Twin Cities 128*, Fred Bowen, and Miklos Garamszeghy, the 150-page tome is intended for beginning and intermediate C128 users. It sports a cross-referenced index and is spiral-bound so you can lay it flat. From *Voyager Mindtools*, cover price is $16.95. PO Box 11578, Minneapolis, MN 55411. 612-521-7401.

EDITING

Robert Rockefeller, associate editor of *Run* and author of the *RunScript* wordprocessor among other things, sent us a disk containing two editors he is marketing. The **Diamond Text Editor** and **Diamond BASIC Editor** are aimed primarily at programmers, and use the same commands, making it unnecessary to learn a set for each. They permit up to eight files to be in memory at once, feature split-screen editing, and have sophisticated macro capability. Each macro can contain up to 250 keystrokes, can be nested up to 32 deep (in other words, macros can call other macros), and conditional macros (a sort of IF...THEN...ELSE) are supported. There are also all sorts of block operations and search/replace functions. The BASIC editor displays keywords in all caps, and auto-indent is supported to give a more structured look to your code. The text editor will even coexist peacefully with Commodore's C128 *DevPac HCD65 Assembler*. The editors are $19.95 US each, or $35.95 US for both. *RockySoft*, PO Box 113, Langton, ON Canada N0E 1G0. 519-875-2580.

PATIENCE OF JOB

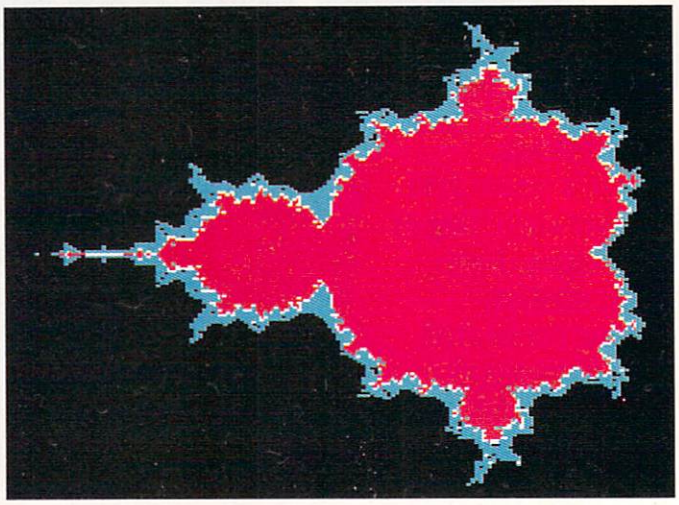
Generating Mandelbrot screens on an 8-bit computer is a certain lesson in patience. If you have an undying interest in fractals and time to kill, check out **Fractal Navigator**. Specific to the C128, it will do the Job (pun intended) in anywhere from 4 hours to a week. To quote the manual, "The fact of the matter is that fractals take time to draw - a long time. (Not as long as you'd have to wait for a proton to decay into an anti-electron, but still a long time.)" It saves to disk as it goes, so if your power goes out, you won't lose everything. $18 from *Tasmanian Softworks*, PO Box 450665, Atlanta, GA 30345.

FORMULA TRANSLATING

The Public Domain Software Copying Company sent us a copy of **Fortran-80**, their C128 CP/M incarnation of the programming language. The program comes on a single disk and is supplied with three manuals. It's quite a hefty package. Cost is $39.95 until November 1989 and then goes up to $99.50. PDSC is also offering **CP/M Forth** for only an additional $29 for those buying the *Fortran-80* package. 33 Gold St., Suite L-3, New York, NY 10038. 212-732-2565.

MIDI-WARE

Triangle Audio is shipping its **MIDI Delay Processor**. Working with a C64 or C128 equipped with a Sequential,



Fractal Navigator for the C128.

Passport, Dr. T's, or other MIDI interface, the device provides up to an 8 second delay on an internal timer. The delay can also be controlled by an external MIDI clock. It will handle all types of MIDI data, even continuous controllers, and can delay each up to 15 times, which, with optional data filtering, can be sent out on the same or consecutive channels. That opens up the possibility of adding all kinds of effects. In addition the the delay features, the processor also offers a number of real-time MIDI control options. Example preset delay functions are included, and you can also save your own, which can then be loaded from from a point-and-click directory, making for fast and simple use during performance. Cost is $50.00. PO Box 1108, Sterling, VA 22170. 301-526-6224.

SPEAKING OF SPEECH

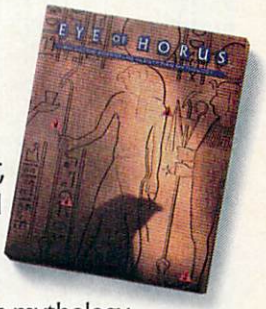
If you've always wanted to include speech in your C128 programs, **Digitalker 128** will let you do just that. The two-disk set includes machine language routines to play digitized speech, along with over a half-meg of sounds. *Digitalker* supports *BASIC 8*, the 1700/1750 REUs (which aren't required, but would obviously make using the sounds much easier and faster). The disks are not copy protected, so you can also transfer them to a 1581 drive. $29.95 from *Free Spirit*, 58 Noble St., Kutztown, PA 19530. 215-683-8567.

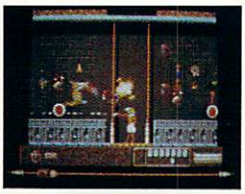
AMIGA SOFTWARE

ICON WARE

Glacier Technologies is shipping **Icon Magic 1.0**, billed as an easy to use icon utility. It will let you do about anything you can imagine to an icon, from creating it to generating C, assembler, or BASIC source code from it. It handles palette conversion automatically, has a screen grab feature to capture images for manipulation into icons, and has the necessary paint program features. $79.95. PO Box 1309 Vancouver, WA 98666. 206-694-1539.

His mummy don't dance and his daddy don't rock and roll.





Horus isn't a happy guy. You see, his father, Osiris, was murdered. His mother, Isis, just lays around the pyramid, grieving. And evil Uncle Set — who's caused all the problems — has challenged him to a fight to the death. It's the original family feud — Egyptian style. And it's all in The Eye of Horus™. A brand new game from Fanfare™ — based on Gods and legends as described in ancient Egyptian mythology. Set has ripped Osiris's corpse into seven pieces and hid them in a dark forbidden tomb deep below the scorching Sahara sands. Your task is to help Horus find the remains, and avenge his father's death. But first Horus must search the dark catacombs for weapons and sacred amulets to aid him in battle. And he'll need all the help he can get. Because in the final confrontation, Set will turn into a dragon to destroy him. Self mapping arcade adventure. State-of-the-art animation. High resolution graphics. The Eye of Horus. An exciting new game for the MS-DOS, Amiga, and Atari ST systems. Look for it at your local software store. Or, call us at 800/572-2272 (in CA: 415/546-1866). LOGOTRON RECREATION

It's no cruise down the Nile. In fact, it's downright ungodly.

FANFARE™

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. . . continued

★★★★

SFX SOUND EXPANDER $120.00

Fearn & Music
519 West Taylor Street, #114
Santa Maria CA 93454

You've wrung all you can out of the SID chip in your C64 and now you'd like to own a nice stand-alone keyboard synthesizer. Problem is, they cost $300 and up and you don't know if you'd like one *that* much. I mean, you're not going to play in a combo or anything, you just want a nice FM synthesizer with, say 9-voice polyphonic sound. It would be nice if it were modular so you could start with the basics and add on hardware and software as you decided you needed it. Programmable voices, music composition software, and the works should all be available should you decide you want to upgrade.

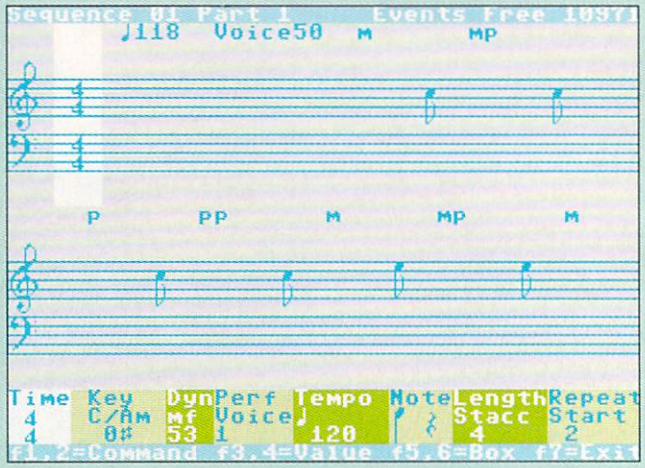
Well, Fearn & Music has the solution. It's called the *SFX Sound Expander*, and not only is it everything we've outlined above, it's even an official Commodore product! So how come you haven't heard of it? Because the Sound Expander comes from Commodore Europe.

The Sound Expander is housed in an oversized cartridge. Inside is a nine-voice FM synthesizer chip similar to that used in the Yamaha DX-7. There is a single audio output jack, and a plug connector for an optional full-size 61-key Philips keyboard ($110). The add-on keyboard feels like a professional instrument, not a "toy." And, unlike most inexpensive combo synthesizers, the keys are full-size. If you prefer, you can get the *Music Master Keyboard* ($10), a plastic piano-key keyboard overlay for the 64 keyboard.

The software included with the Sound Expander is all you need to play 8-voice music with an optional rhythm track using either the 64's QWERTY keyboard or the optional full-size keyboard. Though disk loads are maddeningly long, the software gives you ample control over settings and play options. You've got control over such niceties as fine tuning and transposition. You can optionally assign full chords to play with a single keystroke. If you have the Philips keyboard, you can split it to play two voices, or to allow the lower half to play chords.

The built-in rhythm section offers 12 pre-set rhythms with variable speed play. You can also add a pre-programmed INTRO or OUTRO to the rhythm track. The Riff Machine lets you play back pre-programmed sequences of notes, which are mapped to keyboard keys.

For the most fun, I strongly suggest investing in the *FM Composer and Sound Editor* ($45). This software lets you edit songs for automatic playback and create new voices for your synthesizer. With a MIDI interface, you can even use the system to control MIDI instruments.



The composition software gives you complete control over time, key, tempo, dynamics, voicing, and practically any other aspect of the music you can imagine. All editing is done using keyboard combinations on a graphic staff display (shown).

The sound editor lets you load, save, and edit new voices. An editing screen lets you diddle with envelope, pitch, tremolo, etc. This software even makes for satisfying real-time play, with a built-in programmable drum machine. For added creativity, there is a random voice generator -- with a slot-machine display! (An update of the Composer/Editor is in the works, with even more features.)

This is a fun music system, much more sophisticated and better-sounding than SID music software. I had a ball playing with it. But should you buy a Sound Expander system or a stand-alone keyboard like the Yamaha DX-7 or Casio CZ-101? In favor of the Sound Expander: it's modular, so you can buy a piece at a time; the optional keyboard is full-size, not half-size; and the software provides better control over the sound than you'll find in a stand-alone keyboard. In favor of a stand-alone keyboard: by the time you buy everything, the SFX system costs almost as much ($285); a keyboard synthesizer is more portable; and the SFX is not MIDI-capable like most mini-synthesizers.

If you do decide to go with the Sound Expander system, I think you'll be surprised by the quality of the sounds you can create with it. - Mark R. Brown

SOMETHING HAS CHANGED...
SOMEHOW IT'S DIFFERENT...
SOMEONE MUST BE STOPPED !

IRON LORD

Terror. Repression. Injustice. That's what awaits you as you return to the town you call your home. For 5 years you have been off fighting in the Holy Land. Your father. The King, has been overthrown by your ruthless uncle, terror and oppression now rule this once serene Kingdom.

Take charge. Prove you are IRON LORD - The Crusader of Justice ! You owe it to your homeland, your father, and most of all, to the future of your kingdom !

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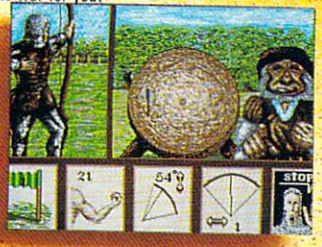
Deceit and treachery abound! prove your birthright through strategy and strength. Amaze the town with your superior archery, arm-wrestling, sword-play, and dice-throwing skills. Ultimately, you must build a following that not only respects you, but will go to war for you!



- ATARI ST
- COMMODORE 64
- IBM
- AMIGA (to come soon)

You are alone... a single warrior in a country of traitors, spies and assassins. You are unknown... the forgotten son of the dethroned King. Can you recover the throne? Only a true Crusader of Justice could succeed at such a feat.

Screen shots represent Commodore 64 and Atari ST Versions; others may vary. Commodore 64 is a registered trademark of Commodore/Amiga, Inc. Atari ST is a registered trademark of Atari Corporation.

UBI SOFT
Entertainment Software

. . . continued

★★★★+

THE WRITE STUFF 128 $15.00

Busy Bee Software
PO Box 2959
Lompoc, CA 93438

There's a truism that your first serious wordprocessor is the standard by which you judge others. My first was *Easy Script* and only *Superscript 64* was good enough to replace it. When I bought my 128, I automatically got *Superscript 128*, too. The *Paperclips* and the *Word Writers* didn't even tempt me. So to admit that I'm using *The Write Stuff* (a.k.a. *BB Writer*) for almost all of my 64/128 related writing says volumes. It's good and I like it and I recommend it.

Externally, *TWS* supports virtually any hardware configuration: multiple drives, RAM Expanders, the Xetec *Supergraphics* printer interface (including font loader), etc. And there is even a version for the *Quick Brown Box* and one on 1581 format disk that uses partitions. The 64 version also supports synthesized *S.A.M.* speech.

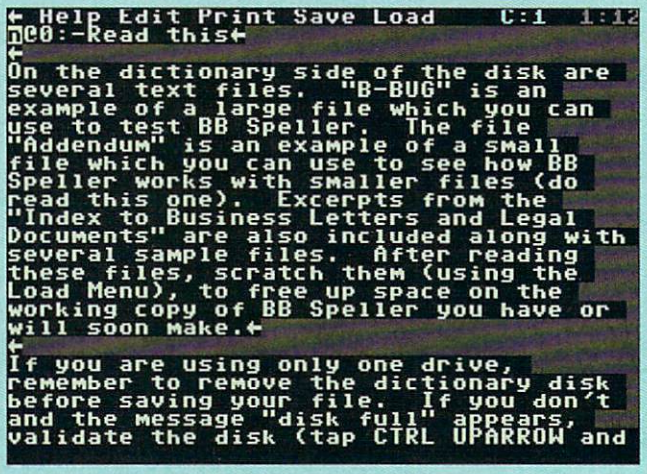
Internally, *TWS* has all of the wordprocessing basics: block moves, copying and deletion (including an "oops" buffer); a powerful search and replace option; file merging and linking; insert and overstrike modes; mail merge; a plethora of embedded format and printer commands; and an on-screen preview mode.

I especially appreciate the search and replace option, which will match strings of blank spaces and RETURN characters - great for unformating "pre-formatted" text files.

TWS also has several kitchen sinks thrown in. One is the extensive collection of on-line and on-disk help and tutorial files. Another is an integrated, easy-to-use outline function that nests your thoughts and ideas up to four levels deep at printout time. Yet another is support for single-pass double column printing. You get support for command and printer macros, various programs for customizing *TWS* to your own needs, tastes and hardware, and even fastload, file copy, and disk backup utilities.

For writers and editors who deal with numerous text file formats, version one has the capability to load text files of virtually any origin. Besides direct support for well over a dozen wordprocessors, *TWS* loads and saves PRG and USR files in PET ASCII or "true" Standard ASCII as well as *TWS*' default screen code. One notable omission: *TWS* will not load or save *GEOWrite* image files or text scraps.

And there are some other minor irritations. The "English" cursors are frustrating at times, and the



embedded asterisk approach to handling blocks is not as intuitive as the more common cursor-reverse highlighting approach. But perhaps the most annoying thing is the Mother Hubbard syndrome: there are so many commands and so few keys. A minor slip can mean doing something entirely different than you expect.

The new *BB Speller* comes as a stand-alone program or integrated with a new Version 2 of *TWS* (for both 64 and 128 users.) In order to maintain workspace in *TWS* V2, the spell checker supplants some of the support for non-*TWS* text files. It's not a bad tradeoff if you have access to V1, or if you rarely use other file formats.

BB Speller is very nicely designed. There's a small dictionary (17,000 entries) for common words and a larger dictionary (61,000 entries) for the less common stuff. Both can be expanded and edited by the user. The two-dictionary approach offers flexibility relative to time constraints and spelling ability.

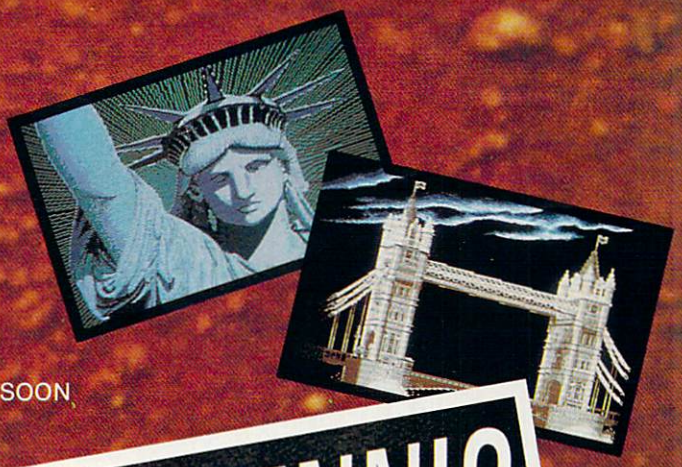
The Write Stuff is "user ware," distributed through user groups which purchase the program disks, manuals, and keyboard overlays (bulk discounts available) and then resell the materials to their members at cost or a reasonable profit. *TWS* stuff can also be ordered directly from the publisher. The price? How about $11 for the *TWS* 64 with 60 page manual? (*BB Talker 64* is $4 extra.) The *TWS* 128 V1 is $15. The *BB Speller/V2* upgrade is $4 for both machines. Definitely a best buy. - Don Romero

This review is primarily based on the 128 version with (hopefully) any differences from the 64 version duly noted. Karl Thurber reviewed the C64 version of The Write Stuff in INFO #22.

OKAY TENNIS ACE

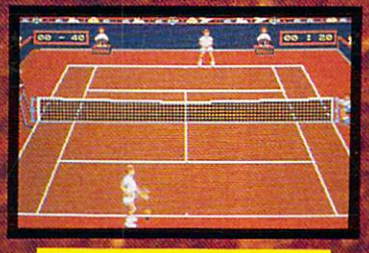
NOW'S YOUR CHANCE TO COMPETE WITH THE BEST.

Pro Tennis Tour - The Ultimate Tennis Simulation ranks you 64th amongst the best tennis players in the world.
Set your sights on such championships as the Australian Open, Roland Garros, Wimbledon, and the US Open.
Step into center court, tighten your grip and prepare to serve up your best shot - Pro Tennis Tour is about to begin.



- IBM
- AMIGA
- ATARI ST
- C 64 TO COME SOON

Warm up on one of six practice programs containing three levels of increasing difficulty. **Put away shots** like a Pro ! **Master** back-hand volleys, passing shots, and other winning tennis strokes.



Rush the net with confidence, knowing you can strategically place your next return.
Feel the excitement build as you challenge your next opponent and **make your way to the top !**

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UBI SOFT
Entertainment Software

. . . continued

Baud Bandit fot the Amiga.

MULTIPLE ONLINE

Billed as simple to use, **Baud Bandit** is the latest telecommunications software from *Progressive Peripherals*. Its most unusual feature is support of multiple serial ports. That makes it possible to have copies of the program running for each port, and have a modem hooked up to each one (or an internal modem could be shared). The kicker to all this is that the program offers a script language and ARexx support, so you could have modems talking to each other and sharing information in all sorts of strange and wonderful ways. All of the usual telecommunications functions are present, along with macros, user-selectable fonts, definable word wrap, a review buffer, and customizable phone book. Price is $49.95. 464 Kalamath St., Denver, CO 80204. 303-825-4144.

BACKGROUNDER

Microft Software (we're still wondering if the company is named after Sherlock Holmes' brother) has published a graphics program for generating embossed background screens for video presentation. It gives the user control over the depth of shadow, spacing, contrast, and the like. **VidGen** retails for $149.95. PO Box 1072, Exton, PA 19341. 215-363-2832.

PREFAB STUFF

Gold Disk is shipping two packages to make working with their *Professional Page* and *Professional Draw* a little less time-consuming. **Professional Page Templates and Design Guide** offers over 50 templates along with tips on how to use them for outputting your own pages. They include all the needed typeface information so all you have to do is flow in your text. **Structured ClipArt** is designed to be used with *Professional Draw* and/or *Professional Page* and contains a variety of structured graphics that can be used either as scalable objects or, after conversion with the provided utility, as bitmaps. Each package retails for $59.95. PO Box 789, Streetsville, Mississauga, ON Canada L5M 2C2. 416-828-0913.

THE AMIGA COMPANION 2ND EDITION

by Rob Peck

★★★★ **$19.95**

IDGC, 80 Elm Street, Peterborough, NH 03458

That Rob Peck knows his way around the Amiga is a "given"; he was, after all, on the original Amiga development team. You could almost say he wrote the book when it comes to Amiga computers.

Actually, he's written several. There's the official *Amiga ROM Kernal Reference Manual*, the less official but still indispensable *Programmer's Guide to the Amiga*, and the original first edition of *The Amiga Companion*. The second edition, just released by those friendly folks at *AmigaWorld*, contains updated information on version 1.3 of the Amiga operating system.

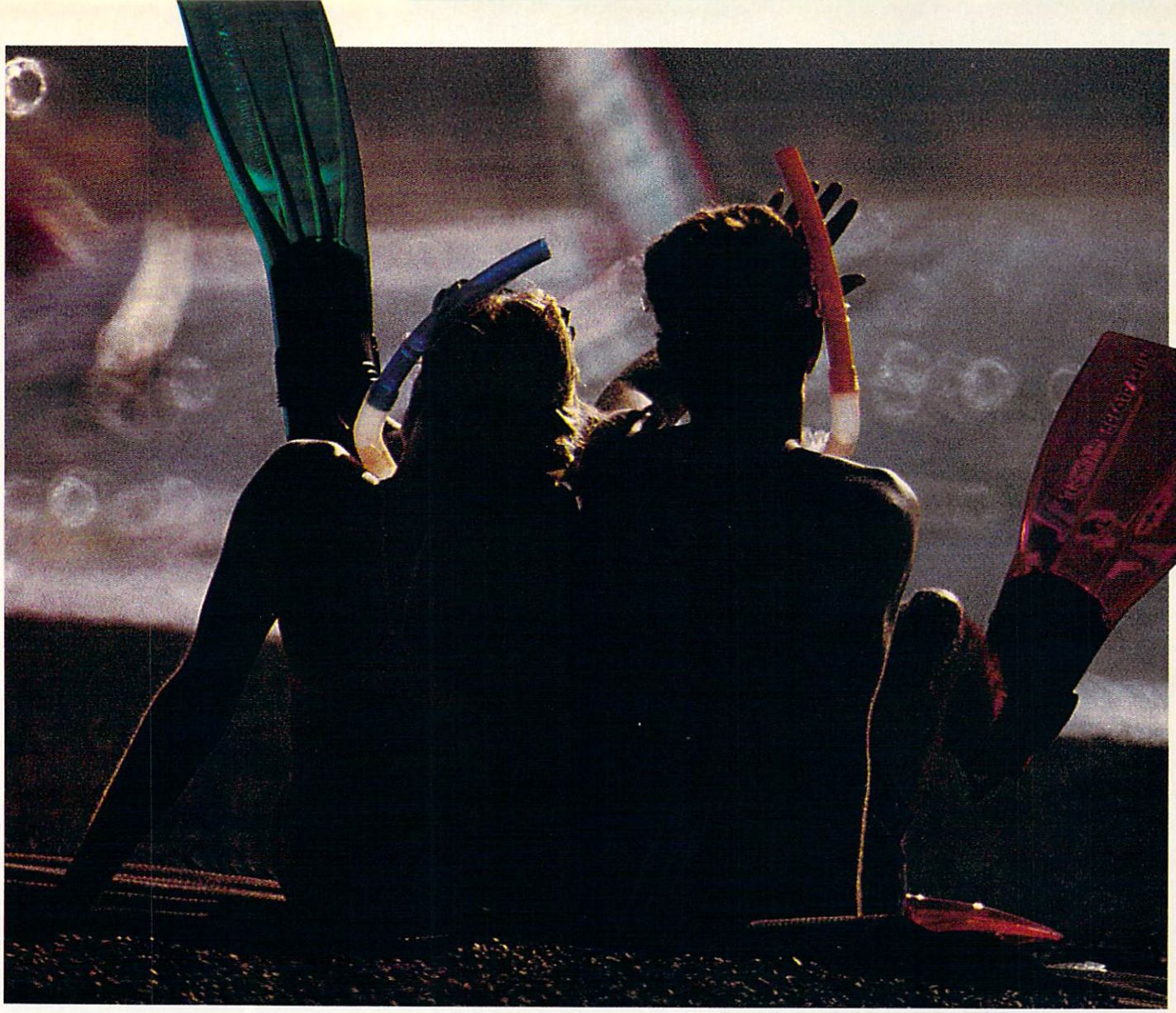
The Amiga Companion is a happy, eclectic collection of keen Amiga information. At the core is a tutorial-style guide to AmigaDOS. Each command is presented with lots of examples to get you started on the right foot. Of course, this latest edition includes all of the new v1.3 AmigaDOS commands as well as the old familiar favorites. Instead of presenting them in textbook alphabetical order, Peck has organized them logically by what they do, which makes it much easier to understand what's going on. (If you need an alphabetical listing with quick definitions and template information, that's handily obtained from the appendices.)

In addition to all the DOS information, there are also chapters on Amiga devices, the new v1.3 command shell and how to use it, and all those nifty programs that are hidden in the WorkBench drawers. As an added bonus, there's a chapter covering all the weird and wonderful escape codes that let you change typestyles, colors, and other attributes in a console window.

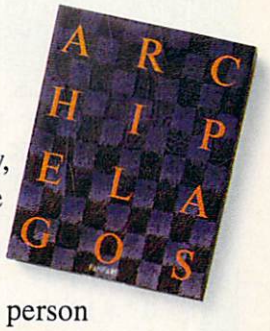
Along the way to imparting all this information, *The Amiga Companion* also touches on such esoterics as what multitasking really is and how to survive with a single drive. There's even a chapter of questions and answers culled from the pile of questions users send Peck all the time. Just for balance, a chapter lists his picks of the best of public domain.

Since Peck always slows down to explain terms and procedures in detail, *The Amiga Companion* is a perfect first Amiga book for the beginner, and even intermediate users will find much that is of use to them.

- Mark R. Brown



Earth has become overrun with strange mutated beings.



We've poisoned our planet. Polluted the waters. Killed the animals. ✷ Now, mutated life forms roam the deserted planet spreading deadly radiation. You're the last hope. So, travel through time and space, back to what was once our home and make it fit for man again. ✷ Archipelagos.™ A brand new game from Fanfare.™ With a totally new level of game play. Real 3-D first person perspective. Real-time ever-evolving animation. And life-like explorations on 9,999 contaminated archipelagos. ✷ Soar above Earth in a plasmic hoversphere — and use a 360° viewing screen to guide you. Purifying the planet may sound easy, but don't get overconfident. You've got little time to search out and destroy radioactive nodes. And even less time to absorb energy from an obelisk on overload — or get blown to bits trying. ✷ ***Win a Hawaiian trip and search the sands.*** ✷ Take the Archipelagos challenge. You may win an all-expense paid trip for two — to the world's most famous archipelagos, Hawaii. ✷ Archipelagos. A new game for the MS-DOS, Amiga, and Atari ST. Look for it and the contest display at your favorite software store. LOGOTRON RECREATION

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★★★+

TOSHIBA EXPRESSWRITER 301
$489.00

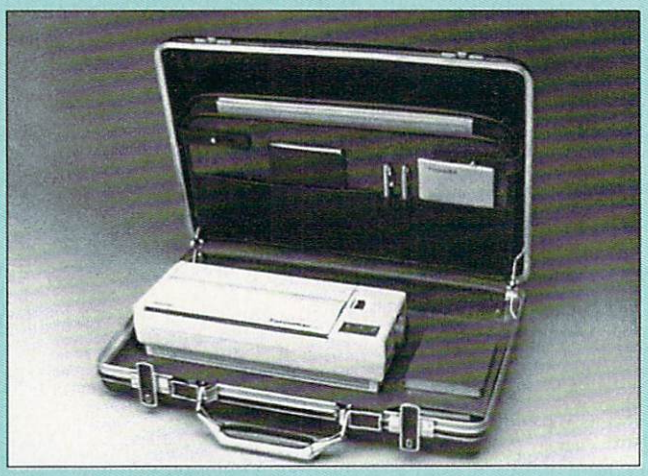
Toshiba
9740 Irvine Boulevard
Irvine, CA 92718
800-457-7777

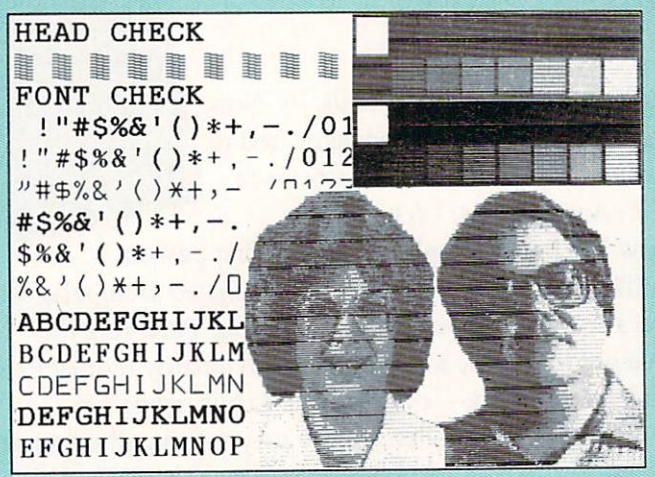
This light little portable thermal printer was really made as an accessory for the laptop market, but we thought its 360 dots-per-inch graphics resolution might make it of interest to Amiga owners, too.

The ExpressWriter 301's major feature is its portability. It weighs only four pounds, the integral paper stand folds down to make a handy case, and the printer operates for up to a solid hour on its internal rechargeable battery. The included "brick-style" AC power supply serves double duty, providing stationary power and battery recharging.

The 301's friction-feed platen accepts single sheets of paper. As this printer incorporates a 24-element thermal printhead, the paper you use must be fairly smooth. INFO's heavily textured stationery came out looking like a bad photocopy, but anything printed on slick copier paper looked like it had been laser-printed.

The thermal film ribbon cartridges are reversible, at least in theory. The first copy through the ribbon is crystal-clear. But once you flip the cartridge, it's good only for rough drafts, if that. The ribbons are also expensive. We paid over $9 per box of two cartridges. Though we didn't count the number of pages each was good for, I've been through five ribbons in as many weeks of normal use (hardly any graphics).





Sample output from Toshiba's Expresswriter 301.

The print quality is excellent, with three built-in fonts and the ability to download more (if you can get hold of any in Amiga format). As with most thermal printers, printing is extremely slow (Toshiba says 42-60 characters per second) but worth the wait. If you need to print lots of multiple copies, this printer is not for you. We used the Toshiba 351SX printer driver for the Amiga (the 301 also emulates an Epson LQ850), which gave us well-formatted print output but failed to recognize italics, underlines, or bolds. A custom driver would be needed to kick in those attributes.

Graphics were of a quality we would call "acceptable." Though the printhead is 24-element and the printer is capable of 360 dpi resolution, greyscale graphics seemed to come out dark and without much variation in tone, no matter how we diddled the darkness settings on the printer. (The sample printed output shown here will, no doubt, appear even darker than the original due to the magazine printing process.) As is typical of any dot-matrix output, there were dark lines between the printhead passes.

Is this a good printer? Yes. Is it a good printer for Amiga users? Probably not. Though the text output is of excellent quality, it is very slow. And graphics output is okay, but not what you want from an Amiga. This printer was designed for portability, and until there is a laptop Amiga, its appeal for Amiga users will be limited.

- Mark R. Brown

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and the list goes on and on...

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New Products & Reviews

. . . continued

NEW CAD

British company *Cadvision International* is marketing their **X-CAD Designer** package exclusively through *American Software* here in the US. The two-dimensional CAD and drafting system claims to be faster than any existing Amiga or PC CAD programs. It features over 1500 command combinations, 256 layers, dimensioning ability, multiple viewports, isometric grids, and access to standard symbol libraries (architectural, electrical, electronic, and mechanical). The program offers print output to the highest resolution of your printer, up to 400 DPI and 125 colors. It supports screen resolutions of 640 x 400 to 640 x 200 and can read and write files in a variety of formats, including AutoCAD DXF, Aegis Draw, and Professional Page. Retail price is $149.95. A Professional version with even more functions is available for $499.95. Cadvision, Hazlitt Mews, London, W14 0JZ, England. 01-603-3313. American Software, RR 1, Box 290, Bldg. 30, Urbana, IL 61801.

TVTP

The Zuma Group has come out with a completely rewritten upscale version of their video titling software, **TV*TEXT Professional**. It has all sorts of special effects, including 3D extrusions, animated glows, glints, and sheens, along with drawing tools and such layout conveniences as automatic leading and justification. Requring 1MB, it operates in all non-HAM resolutions and has two degrees of overscan for each. The $169.95 package comes with *Zuma Fonts* vols. 1, 2, & 3. 6733 N. Black Canyon Hwy., Phoenix, AZ 85015. 602-246-4238.

MUSICAL

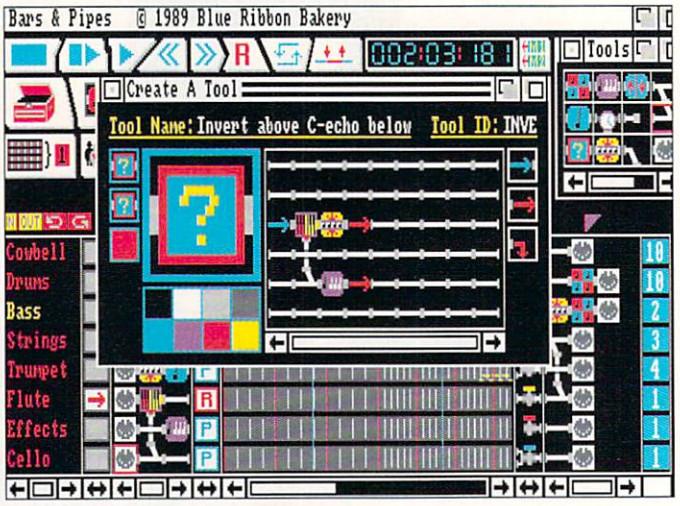
From the same people who publish *Who!What!When!Where!* (and the same people who gave me a big bag of cookies at the last AmiExpo) comes **Bars & Pipes**, an object oriented music system for your Amiga. It's divided into four parts: the Pipeline, which directs the flow of the music track by track; the Toolbox, which is a MIDI processor; the Sequencer, which lets you record on an unlimited number of tracks; and the Editor, which displays your music in either piano roll format or as bars on a staff - you can even type lyrics directly onto the editor screen. $250.00 from *Blue Ribbon Bakery*, 1248 Clairmont Rd., Suite 3D, Atlanta, GA 30030. 404-377-1514.

GRAPHICS IN PRINT

Volume 13 in *Abacus*' ongoing series of reference books is **Amiga Graphics Inside & Out**, a 600-page opus covering a multitude of graphic topics. The book starts out with graphic program listings in BASIC and then switches over to C for more advanced topics. All in all, it looks like a tome that graphic programmers will keep close at hand for a long time to come. $34.95. 5370 52nd St. SE, Grand Rapids, MI 49508. 616-698-0330.

DO-ABLE

Inovatronics has developed **CanDo**, billed as interactive audio-visual authoring software, it is a kind of graphically-based custom application development system. With it, you could put together such diverse things as a hypercard-like barnyard animal educational package for kids, or, using a genlock, a laserdisk player, and the included Laser Disk Control Module, you could make a video or an interactive presentation of your favorite music combined with images from your favorite movies. It will accept files from most popular sound and graphics packages, including ANIM brushes from DPaint III, and supports ARexx, which opens up endless possibilities for marvelous and strange applications. $149.95. 8499 Greenville Avenue, Suite 209B, Dallas, TX 75231. 214-340-4991.



Bars and Pipes from Blue Ribbon Bakery.

DOING 3D

Creating 3D objects for raytracing and other graphic processing just got a little easier. **DigiWorks 3D** uses a proprietary Heuristic Automatic Tracing algorithm to take a flat two-dimensional image (digitized, scanned, hand-drawn, clip art, character, or what you will) and extrude it into a three dimensional object. The program can output the resulting data into either *Sculpt-Animate* or *Turbo Silver* format. It not only performs the necessary edge detection for defining the shape of the object, it also gives the user control over the process and the option to manipulate and refine the object. $129.95 from *Access Technologies*, PO Box 202197, Austin, TX 78720. 512-343-9564.

MAKING FONTS

If you're in the market for a full-featured font editing package, check out *ACS*' **FontWorks**. It has a multitude of special effects options, like automatic drop shadows, neon, 3D, outline, to name a few. Scaling and resizing can be done up to a limit of 1024 x 1024 pixels. The software also lets you use grabbed brushes as characters, and provides enough drawing tools to let you spiff up the image to your liking. Color cycling is supported, as are pattern fills and gradient fills. The program even has macro capability and a Typing Test mode so you can see how well your characters fit together in real use. $99.95. 2135 E. Sunshine #106, Springfield, MO 65804. 417-887-9923.

more on page 81 . .

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News & Views

SALES

According to the SPA, total second quarter 1989 software sales for the C64 dipped 26% over the same period last year to $15 million. More surprisingly, C64 sales in the Recreation category dropped over 20% to $11 million, the first time the C64 has suffered a loss in that category instead of showing a gain. MS/DOS recreational software sales barely edged ahead of the C64 last year, but the second quarter '89 figures show MS/DOS entertainment dollar volumes are now well over double those of the C64. Software houses noting the trends in the SPA sales figures are sure to conclude that they should do more game development on MS/DOS machines, with C64 translations following later.

$4000 APOLLO WORKSTATION

Amiga users sometimes like to worry about "cheap" workstations driving the Amiga out of the professional marketplace. Well, in the wake of its acquisition by Hewlett-Packard, Apollo Computer has introduced a diskless 68030-based Unix workstation priced at less than $4000. The Apollo Series 2500 personal workstation "entry level" system lists for $3990, and includes a 20 MHz 68030 cpu with 68882 math coprocessor, 4 megs of RAM (expandable to 16 megs), and a 15-inch 1024x780 monochrome display. Ethernet and Token Ring networking support are built into the workstation. A system equipped with a 100 meg SCSI hard drive runs $5490. Color workstations are also available, but at $19,495 and $34,990, they won't be competing with the Amiga.

PIRATE NUMBER

The Software Publishers Association has installed a toll-free hotline to track reports of software piracy. If you have information regarding unauthorized software sales, corporate copying, or pirate BBSs, call **1-800-388-PIR8**. You can also obtain a copy of their piracy information booklet *Software Use and the Law* by sending a self-addressed stamped envelope to SPA, 1101 Connecticut Ave. NW, Washington, DC 20036.

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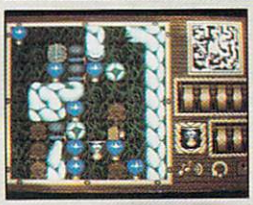
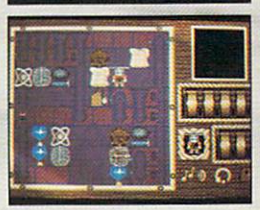
Prospector in the mazes of Xor is available in totally slap-bang-up-to-date 1989 style for your Commodore Amiga NOW! Game designed by Astral Software and developed by Hidden Treasures - the team that brought you StarRay





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COMMODORE NEWS

Things are moving and shaking at Commodore. There have been a lot of changes over the past couple of months, most of them positive. Here's some of what's been happening:

Howard S. Diamond is Commodore's new Director of Education, in charge of all educational marketing efforts. He comes from Apple's educational marketing division.

Dr. John H. Harrison IV is CBM's new Manager of Higher Education Markets. He comes to Commodore directly from the University of North Carolina.

Willy Scheiwiller has been named new General Manager of Commodore International's Switzerland operation. He is the former Sales Manager of the exclusive Swiss distributor of Apple computers.

Commodore has signed a new retail agreement with the Connecting Point chain of computer stores to handle the Amiga and their MS/DOS line. The agreement adds more than 325 new retail stores to Commodore's dealer list.

CATS, Commodore Amiga Technical Support, has been reorganized. The acronym now stands for "Commodore Applications and Technical Support" and has expanded staff and duties to include marketing as well as technical support.

Commodore is forming an Advisory Council of Developers. Seven to twelve members will be nominated from among the ranks of Amiga developers to meet several times a year (at Commodore's expense!) and suggest improvements, standards, directions, and priorities for Amiga development.

An Amiga 500 holiday promotional campaign should be in full swing by the time you read this. Commodore has budgeted $15 million for advertising and promotion, including commercials during NFL and college football, the World Series, on MTV and VH1, and on local stations during the new primetime Fall season. The commercials are being produced by Lucasfilm and directed by Matthew Robinson, who also directed *Batteries Not Included*. They say 90% of U.S. adults will see an average of 20 commercials for the A500 by Christmas!

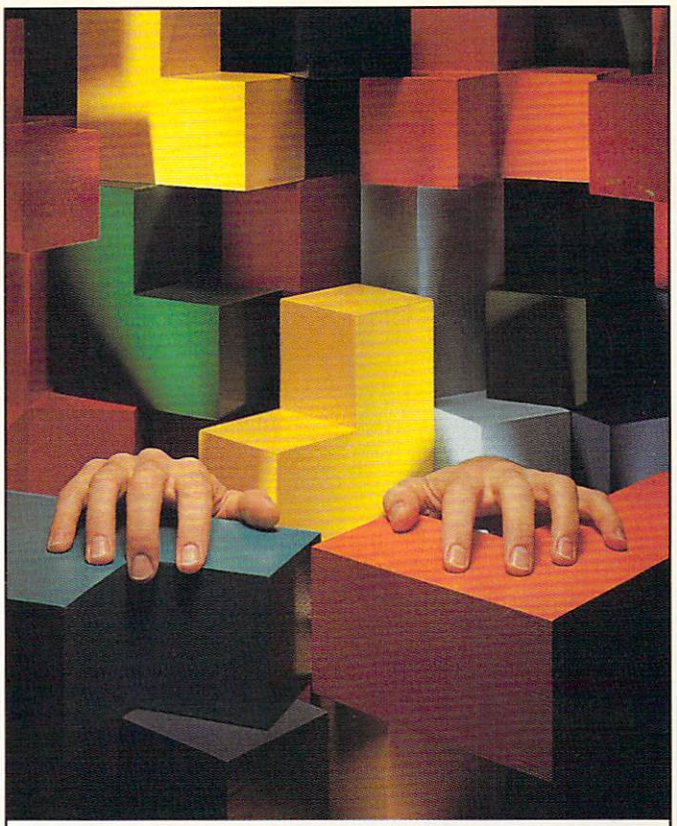
Commodore International reported profits of $50.1 million for fiscal 1989 on sales of $939.7 million. Both sales and profits are up a bit over the previous year. As they had indicated previously, they posted a fourth quarter loss of $10.1 million on sales of $180.3 million, a drop Commodore blames mostly on the strong dollar hurting overseas sales.

Educators can receive a free copy of a new 16-minute video promoting the Amiga's uses in education by writing John DiLullo, Education Manager, Commodore, 1200 Wilson Dr., West Chester, PA 19380. Also ask about the Educator Productivity Package, specially bundled A500 and A2000 systems for schools and teachers.

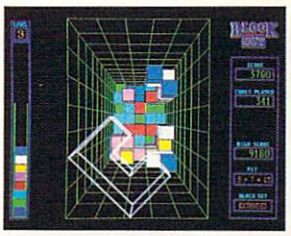
SPEEDY NETWORK

President Bush is proposing that the government spend nearly $2 billion on computer technology R&D. Included in the recent proposal to Congress is a 5-year program that involves setting up a national telecommunications network which would link more than a thousand research sites and be capable of transmitting information at speeds 2000 times faster than existing networks.

➡



WATCH OUT FOR FALLING BLOCKS



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As the 3-D blocks appear, flip, rotate and maneuver them into position as they fall into the playing pit. Fit them together to complete layers, and you'll steadily clear your way out. But, make one false move, and you'll be buried in blocks.

Plus, with more and more complex sets of blocks, faster and faster action and hundreds and hundreds of pits, there's a version of BLOCKOUT for every player.

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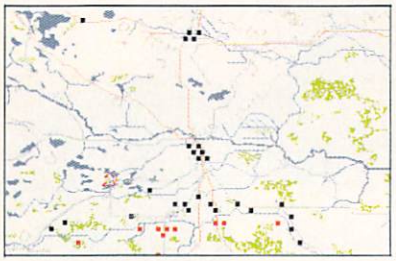
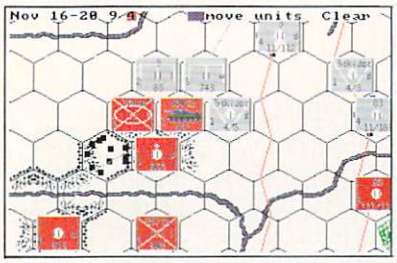
WHITE DEATH



Historical map drawn from 1:100,000 scale maps captured from the Red Army by the Wehrmacht and captured from the Wehrmacht by the Allies.



Magnified scrolling view shows even more detail, including unit ID, unit type, damage, movement expended, and transportation category.

You are on the Russian Front, winter 1942 - 1943. As the German Sixth Army slowly starves in the devastated city of Stalingrad, the Soviets launch a second onslaught . The mission: Encircle and destroy the German garrison entrenched at the vital rail junction of Velikiyi Luki. The stage is set for one of the most bitterly fought battles on the Eastern Front.

Historical accuracy, crucial detail, realistic sound effects and advanced personal computer technology combine to make White Death a highly challenging and exciting wargame.

White Death is adapted from the GDW game of the same name which won, in the year it was released, the Game Designer's Guild Award and F&M's Best Operational Game Award.

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News & Views

. . . continued

MICROSENSORS

Microsensors are miniature electronic sensing devices made of silicon and other materials, both organic and inorganic. An outgrowth of LSI integrated circuit technology, they may revolutionize the way computers measure physical conditions, from blood pressure to oil temperature. They can be implanted in patients to monitor conditions such as insulin levels or heart rhythms, sensing abnormalities and taking corrective action. They will most certainly be built into the next generation of cars and aircraft by the hundreds, constantly monitoring fluid pressures, engine temperatures, and other critical data at key points throughout all systems. Microsensors can also provide senses like touch and smell for robots. The technology is available now, and several companies are working on getting the costs down to a commercially feasible level. They should be in wide use within a few years.

NEW BATTERIES

New thin-film batteries based on solid conducting polymer electrolytes will offer five times greater power storage capacity than the best current batteries. Almost infinitely rechargable, they'll last practically forever, in most cases longer than the equipment they power. They will even be less expensive to make than conventional cells. Since polymer batteries will be manufactured like plastic sheets, it will be easy to make different size cells for calculators, laptop computers, and other portable electronic devices. A battery backup power supply for a desktop computer will be no larger than a box of 10 diskettes. Look for polymer batteries to hit the market in the early '90s.

EPYX REORGANIZES

Epyx has announced that they will no longer be a software publisher, and will become instead a software developer. Rather than developing and marketing their own software as they have in the past, they will develop games for affiliation and licensing with other software publishers. Epyx also announced that they will no longer develop software for personal computers, concentrating instead on developing games for the Nintendo and Lynx home game machines. Epyx says that computer games that were previously announced, such as *Ishido* for the Amiga, will be released as promised. All Epyx computer games will be marketed through the end of the year by the company, at which time they will probably become available as an affiliated label associated with another software publisher. Epyx has reportedly laid off as much as 85% of their staff, and Amiga alumni RJ Mical, Dave Needle, and Dave Morse have all quit the company. Though Epyx would not comment on the situation, speculation among industry insiders is that the $8 million Epyx reportedly invested in the development of their handheld Lynx game machine strained the company's resources, forcing their decision to reorganize. The Lynx will be marketed by Atari.

GAME COMPANY NEWS

- Electronic Arts made their first public offering of common stock in late September, offering slightly over two million shares at an initial price of $8/share. EA's NASDAQ market trading symbol is ERTS.
- Mindscape is dropping disk-based copy protection for all future game releases. Some titles will be unprotected, while others will go to manual-based keyword protection schemes.
- MicroProse has launched a line of coin-op video games for the arcades. Their machines will be based on new 3D graphics technology that is said to be up to five times faster than current videogame machines.
- Hats off to Capcom for its "Capcom Children's Corner" program, which will donate $50,000 worth of games and computer equipment to children's hospitals and pediatric wards in California this year.

SIGGRAPH

The world's biggest computer graphics show, SIGGRAPH, took place this year in Boston the first weekend in August, and Commodore was there reminding everyone that serious computer graphics don't have to be out of the reach of the average person.

This was the year that the Amiga embraced Targa. Truevision's Targa boards are well known in the MS/DOS and Macintosh worlds as high-performance graphics add-on boards. *Active Circuits* was showing off **ImageLink**, their Targa/Amiga image conversion software with support for Sculpt, Turbo Silver, and DigiView RGB files, as well as Macintosh PICT/PICT2 formats. ImageLink also supports several different Targa boards, which are inserted in one of the Amiga 2000's IBM slots. *Octree* had **Caligari Broadcast**, which renders frames to a Targa board.

Dazzling the crowd with millions of colors was *NewTek* with the **Video Toaster** again. Beta-testing has begun, the VT has a firm pricetag of $1595, and units should be available by Dec/Jan. Also on display was the University of Lowell's **A2410** graphics board, which uses TI's 34010 graphics chip to display 256 colors out of 16 million with a resolution of 1024 x 768.

Zuma Group was showing off **TV*Text Professional** ($149), with more resolution modes (including HalfBrite), editable multicolor patterns for fonts and outlines, stencil support, and more gradient background patterns. *Hash Enterprises* displayed its two newest products, **Animation:Soundtrack**, which allows you to synchronize digitized sounds with ANIM format animations, and **Animation:Titler**, a mid-range titling program with very smooth scrolling.

Dale Luck of *GFXBase* was demoing the Amiga version of XWindows, **X11**. The b&w version of release 2 of XWindows is already available ($395, or $1295 for the entire package including Boing! Mouse and Ethernet board), and work has started on both release 3 and a new color version.

Outside of the Commodore booth, one of the most exciting Amiga demonstrations was of *Digital Animations*' **Video Transputer** board. It renders incredible displays, up to a phenomenal maximum of 8K by 8K with 16 million colors! I watched it render a 1K by 1K raytrace using a modified version of the PD program QRT in seven seconds.

In their booth, *Byte-by-Byte* seemed almost embarrassed by the existence of the Amiga -- the nameplate had been removed from a lone Amiga in the corner, and they were showcasing Mac IIs.

While no Amiga animations were shown in this year's main animation show, in the smaller animation screening (45 minutes vs. two hours) an Amiga animation by David Smalley called "Sculler's Dream" was shown.

Finally, it should be noted that the Boston Computer Society's Amiga Users Group did much to promote the Amiga at SIGGRAPH. Not only did they have their own booth in the main lobby, but they also held a special meeting on Tuesday in which Active Circuits, Hash Enterprises, and GFXBase demonstrated their Amiga products in front of 200 people. While Pixar, Silicon Graphics, and similar graphics giants grabbed much of the limelight at SIGGRAPH, Commodore was there in force and served notice to the graphics world that they won't be ignored.

- Graham Kinsey

MAC TV

Apple Computer has opened its own full-time television studio called "Apple TV," based on Mac technology. It will be used mainly to produce in-house sales and promotional videos and broadcasts. The studio took eight months and $1.5 million to build, has a staff of eight, and is connected to a network of 30 satellite downlink stations around the world. Apple is currently installing a fiber-optic network throughout its Cupertino headquarters, and when it's done every Mac at Apple will become a video workstation plugged into the network.

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ZumaGroup

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Phoenix, AZ 85015
TEL: 602.246.4238
FAX: 602.246.6708

Rumor Mill

DISCLAIMER: The following are among the most entertaining rumors we've heard the past couple of months. They are presented for your entertainment and amusement only. Please do not make any important decisions based on these rumors, as some will prove to be inaccurate or just plain false.

➤ New Commodore president Harry Copperman's "Road Show" for Commodore dealers has met with resounding enthusiasm on both coasts. News of a multi-million dollar ad campaign for the Christmas season, to include NFL Monday Night Football, the World Series, and other prime time premium spots, was the major cheer-inducer.

➤ The Father of the Amiga, Jay Miner, now fully recovered from his recent kidney transplant, is ready to return to work. Where will he surface? While the online rumormongers have him negotiating with Atari, Jay tells us that, though Atari has expressed an interest in having him back, it's "not very likely" he'll end up on their payroll. He says he'll probably end up back working in the electronic pacemaker industry.

➤ We've heard from several developers who claim to have been given development Amiga 3000s by Commodore. (One even says he has an "A3500" equipped with a 68040 cpu chip!) Insiders are saying the A3000 (along with V1.4 of the Amiga operating system) may make it on the market as early as March, which may even be in time to seriously compete with the latest wave of high-end Macintosh models.

➤ We hear the recent hiring spree at Commodore may result in a total doubling of the CBM/West Chester staff.

➤ Grumblings online relate "unspecified problems" with Rev 6 and Rev 6.1 A2000 motherboards, many referring to problems with the operation of expansion cards. Commodore isn't commenting.

➤ Look soon for Gold Disk to provide a free disk in every Amiga 500 box, loaded up with a wordprocessor, paint program, music program, and puzzle game.

➤ Some of the mavericks in the Commodore engineering department, torqued off at new, even higher speed bumps in the CBM parking lot in West Chester (much too high to drive over in their sexy little low-slung foreign sportscars), are said to have made their own trail around them by blazing paths through the landscaped lawns.

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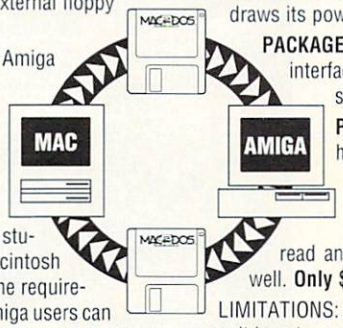

Here are a few typical Mac-2-Dos uses: ✔ Amiga users can now have access to the extensive variety of Macintosh clip art available on Macintosh disks! ✔ Amiga users can now take their Amiga PostScript files (on a Macintosh diskette) to most any typesetting service bureau to be output on professional typesetting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

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

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

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

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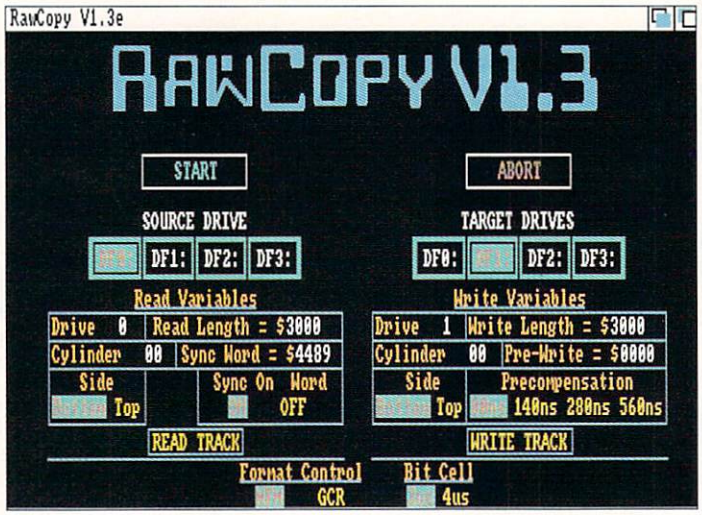


RawCopy V1.3e from Micro Systems International.

RawCopy from MSI is able to reproduce disk copy protection schemes (i.e. disk errors and extended tracks) and it can remove copy and password protection schemes from programs. It's not overly fast for a disk copier, but it does the job in a reasonable amount of time.

The v1.3e package I received came with 201 parameters. I used *RawCopy* to effectively copy my favorite game *Solitaire Royale* and several others. (Contact MSI for the most recent information about parameter support -- I'm sure their programmers are busy trying to keep up with new Amiga products.)

FATTRACKS

FatTracks V1.0 is a special nibble copier aimed at backing up disks that use heavy-duty copy protection, like most European games. The program copies software that cannot be parameter copied, and the copies themselves are written using non-standard disk formats. Therefore, *FatTracks* will make an exact duplicate of the disk being copied. The copied disks will themselves be copy protected, but at least you will have a backup copy to use.

- DM

LOOK AND FEEL

RawCopy sports an intuition interface, which makes nearly everything just a button click away. The control panel features advanced program controls, but most users can ignore them since they are not explained in the manual. Experienced users might know what they mean, but are they really useful? I couldn't find much use for them. Just use *RawCopy*'s defaults and hope that the copy works. If you have a lifetime to experiment or just feel curious, then use *RawCopy*'s disk scanner or RAM edit feature and play to your heart's content.

DOES IT WORK?

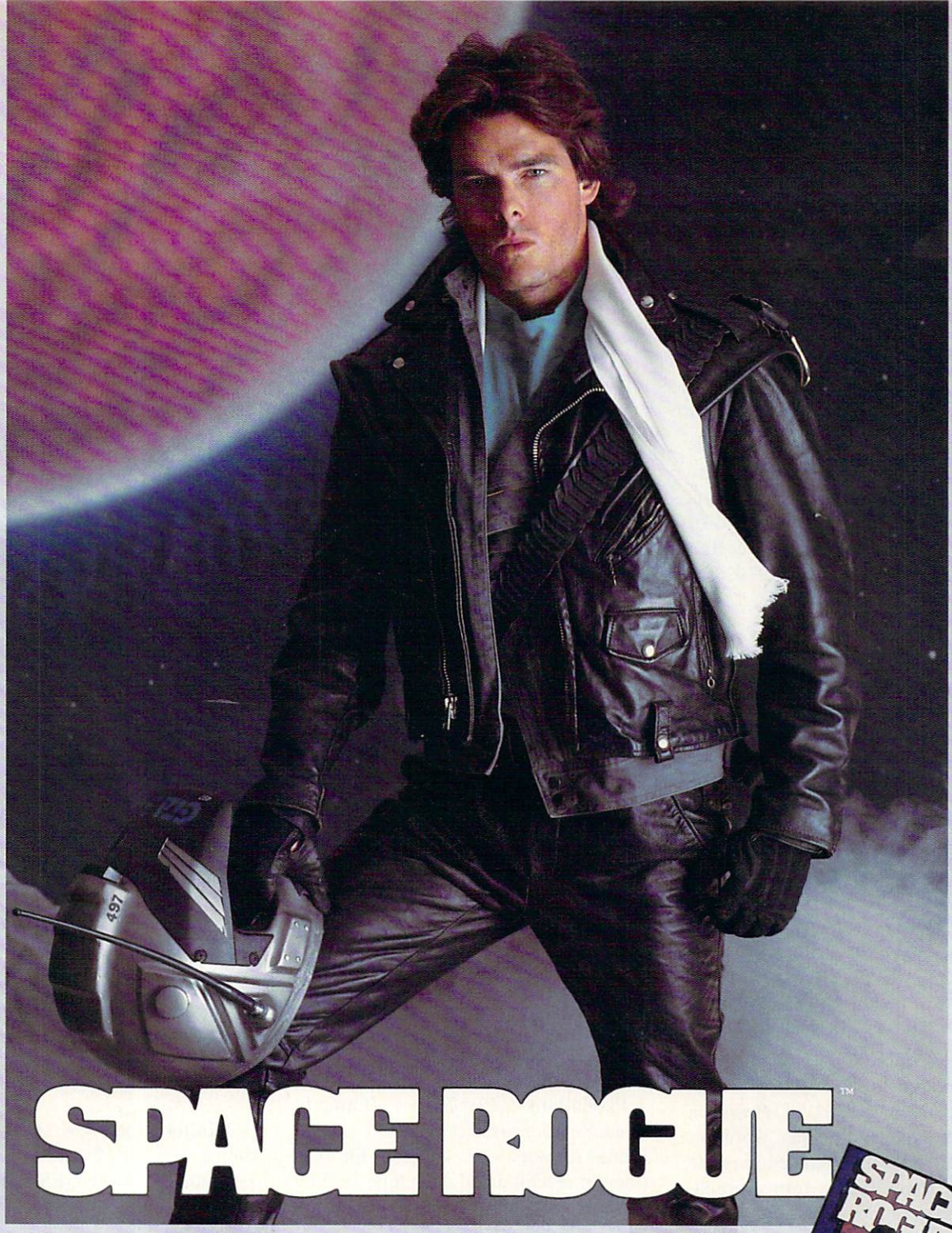
After buying a copy program you probably think you can copy anything, but that assumption is far from the truth. *RawCopy* (or any other disk copier, for that matter) cannot copy 100% of all protected software. The real kicker for me, though, was that this program couldn't even copy itself... until V1.3e that is. *RawCopy V1.3e* will copy itself. You can even use the standard AmigaDOS DISKCOPY command to back it up. The removal of copy protection from *RawCopy* eliminates one of my major complaints about the software. I feel that copy programs should NOT be copy protected, since that process just introduces one more new protection scheme that cannot be copied.

UPDATES

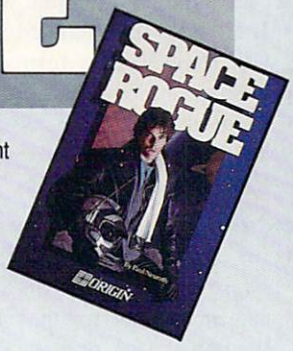
I recently attended AmiEXPO in Chicago and had the pleasure of meeting the author of *RawCopy*, Ron Haines. He pointed out that updates are available for $9.95 plus your original disk, and each update carries an average of 30 new parameters every 90 days. It appears that the author has been able to keep up with this average (and who said the Amiga market was slow?) He also mentioned a new product called *FatTracks* that will copy software titles *RawCopy* is unable to back up.

GET THE LATEST

If you decide to purchase *RawCopy* be sure to get V1.3e. You'll find that it's a functional copy program that will cover most of your archival backup needs. Its only major fault is the lack of instructions fully explaining *RawCopy*'s advanced program settings. Some samples on how they work, etc. would have been appreciated. ★



SPACE ROGUE™



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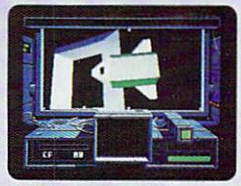

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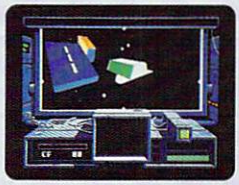

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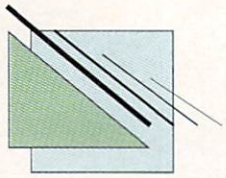
INFO UPDATE



REVISED EDITION

Out in a new edition is the *AmigaDOS Reference Guide* from Compute! Books. Written by the sublimely knowledgeable Sheldon Leemon and the witty Arlan Levitan, the book is now in its third edition and includes coverage of 1.3. Cover price is $21.95. PO Box 5406, Greensboro, NC 27403. 919-275-9809.

VERSIONS

Maxis has done a little bug fixing in *Sim City* and raised the version number to 1.1. It now works on systems with a single drive or more than three. 953 Mountain View Dr., #113, Lafayette, CA 94549. 415-376-6434.

Accolade has released two more add-on disks for *The Duel: Test Drive II*. *Muscle Cars* ($14.95 C64, $19.95 Amiga) provides five classic cars to race with, and *European Challenge* ($14.95 C64, $19.95 Amiga) a new course to race them on. 550 S. Winchester Blvd., Suite 200, San Jose, CA 95128. 408-985-1700.

Brown-Wagh is sending a new disk to all registered owners of *Pen Pal*, their recently released graphic wordprocessor. It contains an upgraded program along with some sample forms, graphics, and letter style-sheets. So if you haven't sent in your registration card, do it now. 16795 Lark Ave., Suite 210, Los CA 95030. 408-395-3838.

LMS Technologies has released an update of the support disk for their *Super Snapshot* cartridge. Among other things, it has a driver for the Star NX-1000 Rainbow color printer. PO Box 3022, Station B, Fredericton, NB E3A 5G8 Canada.

The latest upgrade to **Syndesis**' *InterFont* includes support for Gold Disk's *Professional Draw*, and the font count is now up to twenty. There is also a new *Turbo Silver* module ($29.95) available for *InterChange*. Registered owners can obtain the new version for $10. N9353 Benson Rd., Brooklyn, WI 53521. 608-455-1422.

Tomas Rokicki has added several enhancements to his *AmigaTeX* text layout engine. It now supports IFF graphics printing to an HP Laserjet II or Plus, and support for resident PostScript fonts has been added for PostScript printers, which means that the output files are smaller. Also for laser printer users, the drivers offer a choice of collated or uncollated pages. That could save you considerable effort. **Radical Eye Software**, Box 2081, Stanford, CA 94309.

Gold Disk's *Professional Page* has been upgraded to 1.3. The new version offers support for Compugraphic outline fonts, and printer support (dot matrix, inkjet, laser) at the printer's highest resolution. It now can also direct transfer text to and from *Transcript*, the wordprocessor INFO is written with. PO Box 789, Streetsville, Mississauga, ON Canada L5M 2C2. 416-828-0913.

Pixelations' *PixelScript* (formerly titled *PrintScript*) is at version 1.1. Registered owners can upgrade for $30 (though receipt dated after June 1, 1989 will get you the update for $10) PO Box 547, Northborough, MA 01532. 508-393-7866.

GEnie has added several new areas. *Genieus* offers online information and navigational tips about the service itself, and *Newsbytes*, is a news service formerly on The Source. There are also new RoundTable areas, one on Japan and the other hosted by Jerry Pournelle. 301-340-4485.

It just wouldn't be a new issue of INFO without a new version of *Who!What!When!Where!* **Blue Ribbon Bakery** is releasing French and German language versions of their desktop organizer. 1248 Clairmont Rd., Suite 3D, Atlanta, GA 30030. 404-377-1514.

New Horizons is shipping version 2.5 of *ProWrite*, their graphic wordprocessor. It now can print NLQ text and graphics with a single pass and spellcheck as text is entered, among other things. PO Box 43167, Austin, TX 78745. 512-328-6650.

Inkwell Systems' *Amiga Light Pen and Driver* is now compatible with both PAL and NTSC systems. 1050-R Pioneer Way, El Cajon, CA 92020. 619-440-7666.

AFFS (Automatic Family Financial System), the C128-specific budgeting package from **Peter P. Saltarelli** is now at version 1.2. 3832 Crossbend Rd., Plano, TX 75023.

Strategy Software has added a file conversion feature to their *Strategist 128* stock market timing system to make it compatible with **Abacus Software**'s *TAS-128*. Registered owners can upgrade for $12.95 ($9.95 if the owner supplies a blank disk). Box 14-2403, Anchorage, AK 99514. 907-694-3120.

Minitel, the new C64-compatible online network, has added *FIZZBO*, a For-Sale-By-Owner (FSBO) real estate multiple listing service, to its lineup. 914-694-6266.

City Desk is currently at version 2.01, and now supports C Ltd.'s Laser Express, has a couple of bug fixes, and can be upgraded to by sending in your original program disk and data disk 1 along with $3. **MicroSearch**, 9896 Southwest Freeway, Houston, TX 77074. 713-988-2818.

Sunrize Industries' *Perfect Sound* is up to version 3.0. The user interface has been redesigned and there are several new tools. PO Box 1453, College Station, TX 77841. 409-846-1311.

INFO UPDATE

MOVES

Syndesis, publishers of *InterChange* among other things, has consolidated its offices. The official address for John Foust, Harriet Tolly, et al. is now N9353 Benson Road, Brooklyn, WI 53521. 608-455-1422.

Dr. Evil Laboratories (still one of our all-time favorite company names) has changed its mailing address to PO Box 3432, Redmond, WA 98073.

SunRize Industries has moved to 704 Inlow Blvd., College Station, TX 77840. Mail should go to PO Box 1453, College Station, TX 77841.

Summagraphics moved a while back and we just now found out about it. The current address is 60 Silvermine Rd., Seymour, CT 06483.

Elan Design has moved. Mail should go to PO Box 31725, San Francisco, CA 94131. The new phone numbers are 415-359-7212 voice, 415-359-7181 FAX.

THE OOPS FILE

Someone's fingers got tangled on **Appyware**'s zipcode in #27; it should be 44266.

Back in issue #27, we garbled a bit of the new product entry for **Micro Momentum**'s new stuff. First, the name of the Interchange-compatible font collection is *Lons Fonts*, not Lion Fonts, and it retails for $34.95. There was also a name change on their checkbook program. formerly *Check It Out!*, the program is now called *Momentum Check*. Apparently, the original name had already been used.

The INFOMANIA game tip for *Falcon* in #28 was somehow shifted under the C64 heading. *Falcon* is only available for the Amiga. Sorry for the mixup.

Our combined listing for Digital Creations' *VMachine* and *Supergen 2000S* in the Video RoundUp last issue was a bit confusing. These are two separate products, and the price listed ($1595) was for the *Supergen 2000S* only. The *VMachine* will be a $6500-$7000 professional video system.

PRICE CHANGE

BIX, Byte Magazine's online service, has turned off hourly rates! The flat-rate fee is $39 per quarter (with an yearly subscription) or $59 for a single-quarter subscription. You can also get unlimited off-peak TYMNET for $15 per month. Sounds like a terrific deal all the way around. 603-924-9281.

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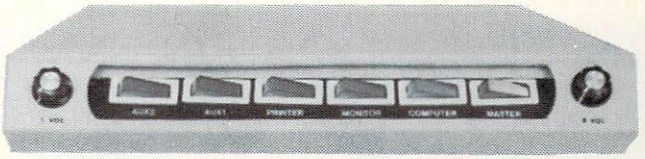

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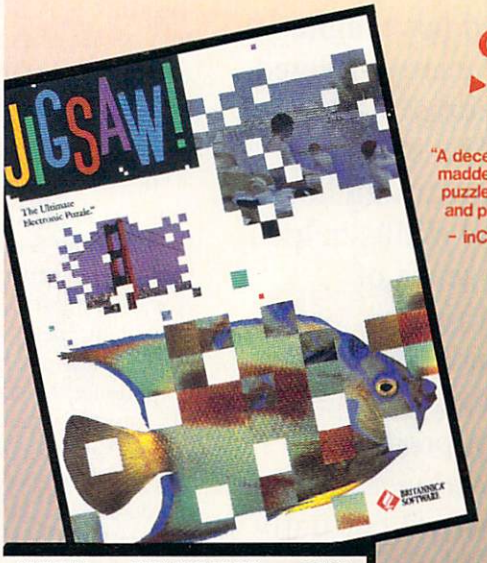

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THOSE WHO DON'T REMEMBER THE PAST ARE DOOMED TO RE-CODE IT.

An Interview With Chris Crawford

by Mindy Skelton

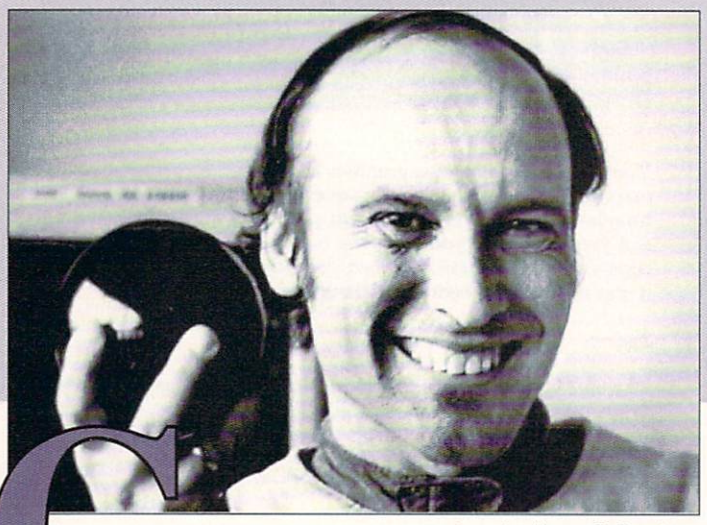

photo by Karen T. Borchers

The views expressed in this interview are the unexpurgated opinions of the interviewee, and do not necessarily reflect those of INFO Publications.

Chris Crawford is an educator, philosopher, strategist, and wargamer. He holds a Master's Degree in Physics from the University of Missouri and has taught physics and energy-related topics in Nebraska and California. His long-time hobby of wargaming honed his analytical skills, helped develop his sense of strategy, led to his designing and programming war and strategy games and eventually to producing games like *Balance of Power*. Crawford currently lives in California, where he is a freelance programmer, the publisher of *The Journal of Computer Game Design*, and one of the organizers of the Computer Game Developers' Conference.

INFO: How did you move from teaching physics to writing computer games?
Crawford: In college I had become interested in the possibility of translating my hobby of wargaming into a computer environment. I produced games for the college's mainframe and when the microcomputer revolution happened, I built a KIM-1 microcomputer, not because I especially wanted one but because I wanted to do wargames. It had a single board (with one whole K of memory) which was programmed in machine language (not even assembler).

In 1979 my wife got a job in California and dragged me to Silicon Valley. I was looking for a job as a scientific programmer when I saw an ad in the paper for a computer game designer. I contacted the head hunter who ran the ad, who asked me how much *professional* experience I had. I told him I had programmed for several years and had published several games, but since I had no *professional* experience, he wished me "Good Day" and sent me on my way. When I told my wife this story, she took out the phone book, looked under "Computer Games" and found the name Atari. We called them, one thing led to another, and I went to work for Atari in what I later found was the job the head hunter had been trying to fill.

I worked for Atari for four years until their collapse. Then I turned freelance and switched to programming on the Macintosh. At one point I approached Amiga (in the days before Commodore purchased them) and offered to go to developers and sell them on how good the Amiga was, and generally try to whip up enthusiasm for the Amiga. I had done this with some success for Atari. Apple eventually used this idea very successfully, calling it "Software Evangelism".

Amiga decided against evangelizing but wanted me to write games for them. I was torn between working on the Amiga and the Macintosh. I realized this would be an absolutely fundamental decision to my career. The Amiga was clearly the superior machine, but the Macintosh had the stronger marketing push. I finally decided that the marketing would win out over machine superiority, and therefore, with some sadness, went with the Macintosh.

INFO: Do you still think the Macintosh is going to put the Amiga out of business?
Crawford: No. The marketplace is large enough now for the Amiga to hold its own and even increase its installed base, but it will never challenge the Macintosh.

INFO: Could you tell us about your founding *The Journal of Computer Game Design*?
Crawford: There are approximately 500 major game designers and about 1000 people overall working in design and development. Professionals need to share their thoughts and ideas as part of

their professional development. We were functioning as individuals with no way to be in touch and no real community, so I established *The Journal of Computer Game Design* as our professional journal. We also hold the Computer Game Developers' Conferences, the most recent of which had over 300 people in attendance. I really can't take a lot of credit. I initiated the conference, but the group has taken off with the idea.

INFO: You've been a game designer for a number of years. Which games are you most pleased with?

Crawford: By far the most successful game I've done is *Balance of Power.* That is also the only one of my games which is available for the Amiga.

One game that was a commercial failure which I still feel pride in was *Trust and Betrayal.* It was a game about character and personality. It had real characters in it. Most games don't have real people in them. The characters are objects; like tanks with charisma. *Trust and Betrayal* is still the only game with anything like characterization in it.

INFO: The Atari game systems and Nintendo have had quite an influence on the shape of computer gaming. Have they moved gaming in the right direction?

Crawford: No, not at all; but I really don't think they will have a long-term effect. This industry has few people with any memory. If you were to interview the software publishers and developers you'd find that they average only five or six years experience, which isn't much when you consider Atari collapsed in 1984. Most of the people in the industry came in after '84 because so few people survived the crash.

We had a big industry before 1984. Atari alone had 11,000 people in 1982. When the crash came, that population was basically laid off and left the gaming industry.

All the people who came along after '85 are blown away by the success of Nintendo, and see it as the wave of the future, but the people who remember the last crash nod their heads and say "We've been here before." I think Nintendo will follow the boom-and-bust path of the Atari 2600, and when it crashes it will take with it all the foolish people who have no sense of history.

INFO: It seems that the vast majority of the games are variations on a theme. Is this because the publishers are afraid to try something new or because people aren't writing anything new?

Crawford: I think there's enough blame to go around for everyone. The publishers bear primary blame. There are few of them with enough sense of history to see the need to innovate. Entertainment requires innovation. Movies and television realize that you can put out sequels (carbon copy sitcoms, "Friday the 13th Part 27," etc.) but you also have to have original things now and then. They do about 80% mindless cloning and 20% shots in the dark, but it's the success of one of those shots in the dark that keeps the whole thing going. Computer publishers want every game to be a guaranteed hit.

The developers are possessed of the same moral cowardice as the publishers. It's more understandable perhaps because developers have more dicey cashflow, but they still seem to be resistant to innovation.

The consumers bear some of the blame for their uninformed purchasing policy. In an ideal world consumers would read reviews, talk to friends, and never buy a game on impulse because the package was so attractive. In fact though, most game purchases are impulse purchases. After several months or a year of random purchases, many of which are clones of each other and many of which are just bad, consumers often decide computer games are not much fun and stop buying them. This hurts all of us.

INFO: What do you think of the practice of licensing characters for games like *Ghostbusters* and *Who Framed Roger Rabbit*?

Crawford: Licensing is generally a waste of time. There have been a couple of good games but generally they really stink. This is often because the license is so expensive that there is no money left for development, and because they are rushed out so quickly that there is no time for good programming.

The worst example I can think of is the five or ten million dollars spent for the license for Atari's *ET* cartridge. Among other disasters associated with that cartridge, Atari began the pitch to Steven Speilberg by saying "This is the game that will make the movie famous!" That cartridge eventually got plowed into a garbage dump.

INFO: Why is it that so many computer games seem to be aimed at adolescent males?

Crawford: There are two issues here; sex and age. Sex is perhaps easier to explain because computer owners are overwhelmingly male. Age is more puzzling because the average Amiga owner is not an adolescent. The answer lies in what I term the evolution of taste. Children like candy, cartoons, and brightly colored comics because of their short duration and intense sensory input. This intensity tends to make the pleasure short-lived and causes a sort of burnout. As we and our tastes mature we like more subtle and exotic sensory experiences like French cooking, "When Harry Met Sally," and *War and Peace.*

Computer games are in the "candy, cartoon, and comics" phase -- short and intense and with lots of sensory input. There's nothing yet on an adult level

"This industry has few people with any memory."

"I'm more interested in what reality does than in what it looks like."

because we just haven't had enough time for a large audience to get tired and want something else. There are, of course, games like *Balance of Power*, but they are rare.

One of the problems is that a game, like a story, must have conflict and violence is the most intense variety of conflict, although not the only one. Violence is easy to do, interpersonal conflict is hard to do, but it's a huge step up. You have to build what I call "Artificial Personality" based on algorithms, and you have to provide language for the characters to interact.

Another thing that is nice to have is facial expression. I'm currently working on a game called *Guns and Butter* that shows seven faces, each with a potential of 23 expressions. I feel that this is something of a breakthrough.

INFO: Do you think that IBM's powerful new stance in the game market will change the way games are done?
Crawford: Yes. We've just finished a major transition in the industry; we've left the eight-bit world behind. If I were to assign 'eras' in computer gaming to different machines I would say that 1980-84 was the age of the Apple II, 1984-1988 was the age of the Commodore 64, and now it is the age of the IBM. Most games are designed with the weaknesses of the IBM in mind. As much as I dislike the prospect, I suspect the IBM will maintain its supremacy for several years to come.

INFO: Do you think technological developments such as laser disks and CD/ROM will have much impact on game development?
Crawford: Two forces will change computer gaming; technology and design. I think the real engine of change will be design, but let me address technology for a moment. There are a lot of people who think technology will drive computer game design, but it simply isn't going to happen. Optical media such as CD/ROM will not have any impact for 3 to 10 years. There are all sorts of design problems associated with its use, the most fundamental of which is that CD/ROM is first and foremost a data technology and a computer game is essentially a process technology. The essence of a game is in the processing the computer does, not in the data it moves around. CD/ROMs do nothing to help processing, and so are not central to good game design.

The coin-op version of *Dragon's Lair* is the perfect example of how technology will not improve games. It was a fad that created a phenomena. Companies set up expensive projects to develop this wonderful technology, not seeming to notice that, aside from what it showed, the game was boring and that doesn't make for good games. All the laser disk games that came out after *Dragon's Lair* were bombs.

We're doing the same thing with CD/ROM because there's no one in the industry who remembers *Dragon's Lair*. What we need are bigger, faster processors and more RAM, and I don't see that happening.

I am optimistic that there will be change in the industry, but it will be slow, artistic change. We're going to see greater emphasis on characters and personality. A good portion of the community of game designers is now talking about storyline and character development, and I think a couple of years from now we'll start to see the results of this talk.

INFO: What would be the perfect game for you?
Crawford: The new, interactive version of the Holodeck on "Star Trek: The Next Generation," which gives an environment where you can interact on an interpersonal level with the characters, would be perfect.

INFO: Some computer scientists are developing what they call "Virtual Reality" where you wear glasses with TV monitors in them and have sensory gloves that duplicate your hand movements in the computer-generated landscape they project for you. Would that interest you?
Crawford: I have problems with the philosophy which stresses a perceptual rather than an operational reality. I think they should call these things "Virtual Perceptual Realities." The designers concentrate on the things you will see and hear, emphasizing the sensory aspect rather than the operational aspects of what the reality does.

That's where I differ from a lot of game designers. I want to excite who you are rather than what you see. I'm more interested in what reality does than in what it looks like. I always ask what my message is, and then decide the perceptual input I need to convey the message rather than deciding what to show first. I see this as the classical argument of form versus substance. I see substance as being more important, even though form is easier.

A lack of commitment to substance and sloppy complacency can bring down any company. A perfect example of this is the recent closing of Infocom. They had a good idea but didn't go far enough with it, and that adversely affected their sales.

INFO: Do you have any parting thoughts or advice?
Crawford: Whenever I speak to the public I like to stress two things: first, please become informed consumers who make informed decisions supporting good programming rather than flashy packaging; and second, please don't pirate. Piracy continues to be a killing problem in the industry and dooms us to more years of copy protection.

The Journal of Computer Game Design is available for $30.00 per year from Chris Crawford, 5251 Sierra Rd., San Jose, CA 95132.

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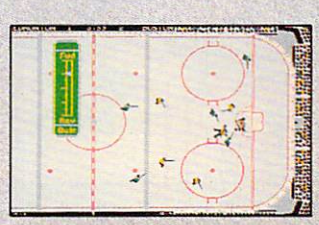

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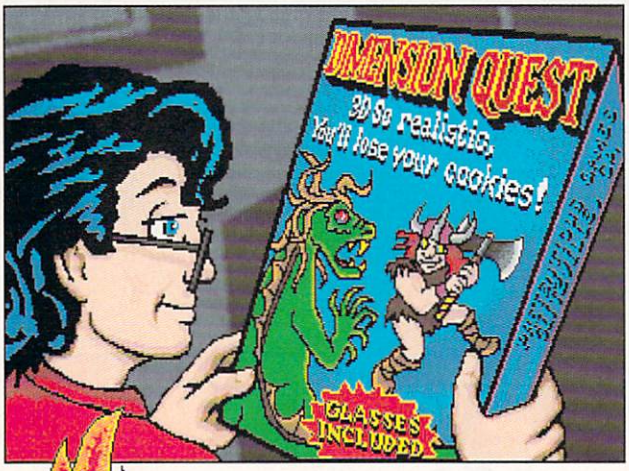
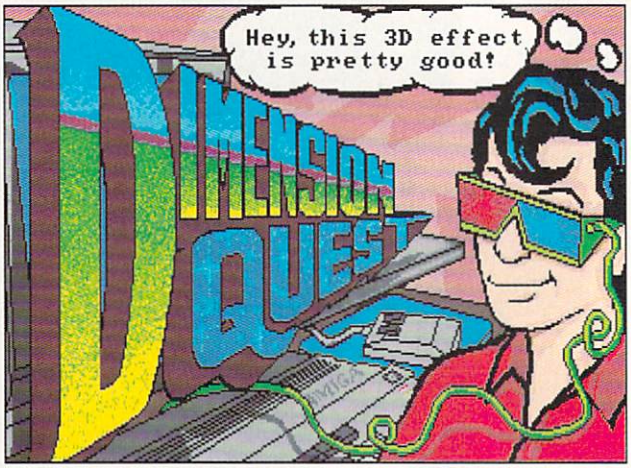
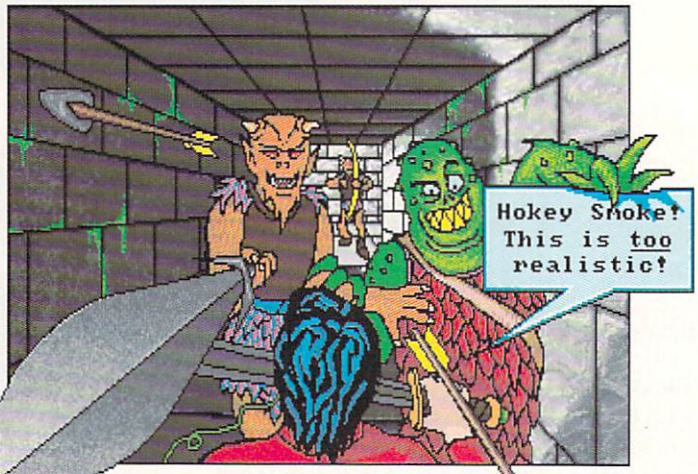
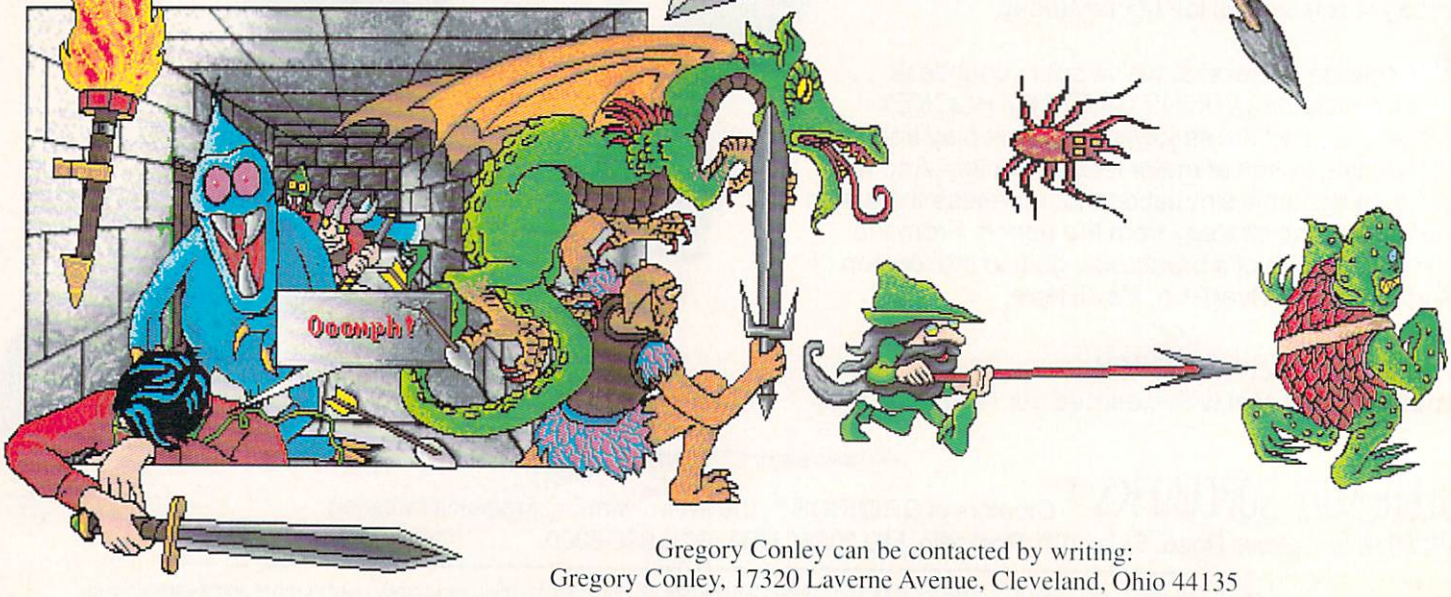
BRYCE'S 3D ADVENTURE

ART: Gregory Conley
CONTINUITY: Mark R. Brown









Gregory Conley can be contacted by writing:
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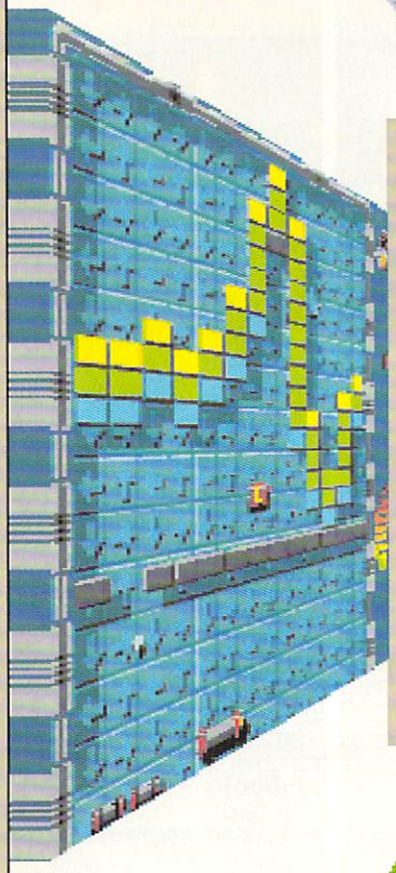
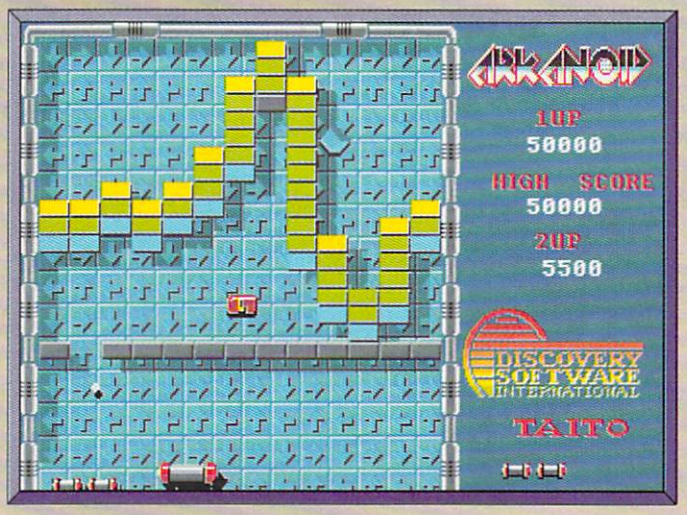


FIRST ANNUAL INFO TOP 10 GAME LISTS

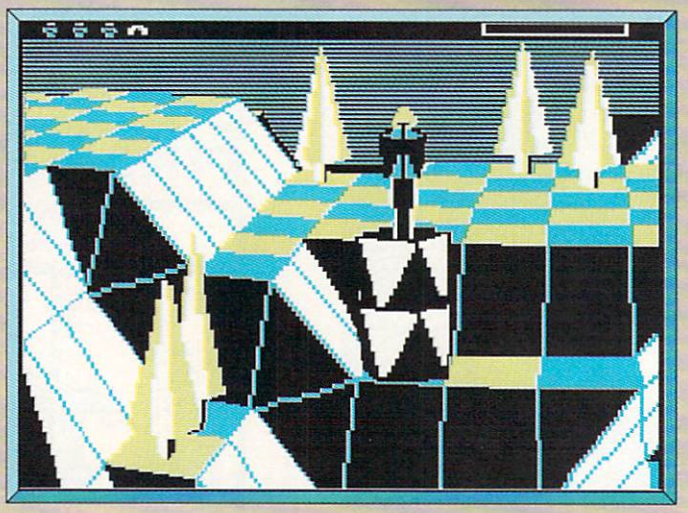
When you talk to your accountant at tax time, you may insist that you "need" your computer for wordprocessing, spreadsheets, and databases, but we all know why you really bought one -- to play games! And you own a Commodore computer because Commodore has always made the best game-playing computers money can buy. The C64 is the least expensive, most powerful 8-bit graphics-and-sound machine ever built, and the Amiga holds that title among the 16-bits. And not only are they great game machines, you can buy more games for the C64 and Amiga than for all the other game-playing machines in the world combined. And that includes Sega and Nintendo!

We thought we'd take a few pages to pay tribute to the very best games of all time for Commodore computers. In these next few pages you'll find our picks of the Top Ten Arcade, Simulation, Adventure, and Traditional games for the C64 and Amiga. (A few games were tough to categorize, so forgive us if your favorite isn't listed where you think it should be.) Our Official INFO Top Ten picks were arrived at after much heated lobbying and balloting, so just for balance we've included the Personal Picks of the INFO editorial staff. We hope you find your favorites here!

INFO TOP 10 Arcade Games



Discovery Software's arcade classic Arkanoid.



Firebird's strange space adventure, The Sentry.

AMIGA

1. **Arkanoid** — Discovery
2. **Spherical** — Rainbow Arts
3. **Better Dead Than Alien** — Discovery
4. **Menace** — Psygnosis
5. **Torch 2081** — Digital Concepts
6. **Gauntlet II** — Mindscape
7. **Zoom!** — Discovery
8. **Marble Madness** — Electronic Arts
9. **Prospector** — Logotron
10. **Ebonstar** — Microillusions

The best arcade games bring all the action and excitement of the arcades right into your home. The worst are nothing but noisy shoot-em-up clones. Here are INFO's picks for the best arcade games of all time.

Arkanoid, our favorite Amiga arcade game, is the best coin-op conversion ever done for a personal computer. Other Amiga conversion classics on our list are **Marble Madness** and **Gauntlet II**. Five of our selections reinterpret a classic theme, or take one to the limit. They are **Spherical** ("ropes-and-ladders" without ropes or ladders), **Better Dead Than Alien** (the ultimate *Space Invaders*), **Zoom!** (a new twist on *PacMan*-like maze running), **Torch 2081** (*Qix*, only better), and **Prospector in the Mazes of Xor** (*Boulder Dash* reinvented). As for shoot-em-ups, our hands-down favorite is the frenzied and colorful **Menace**. Rounding out our list is the unique 4-player space epic **Ebonstar**.

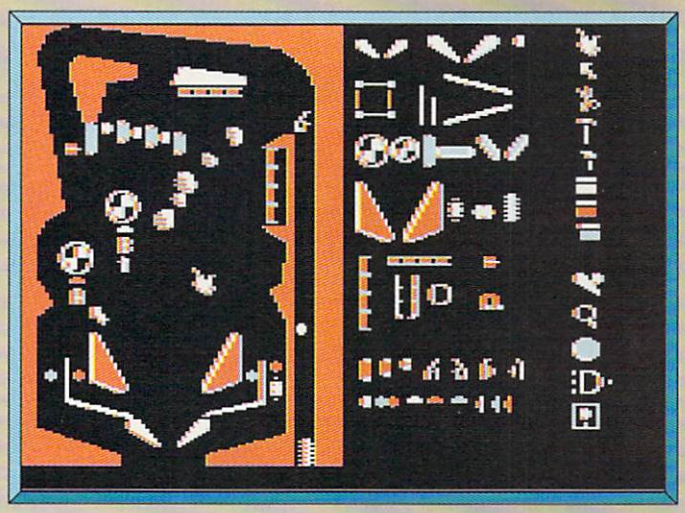
The Sentry, our #1 C64 arcade pick, is a tense strategy game played on a 10,000-level alien landscape. Psygnosis' alien blastfests **Menace** and **Baal** wring incredible graphics and action from the C64. **Ultimate Wizard** remains unequaled in the ropes-and-ladders category, and even has a construction set mode. Atarisoft's faithful cartridge conversions of coin-op classics like **Pac-Man** and **Centipede** earned them a spot on our list. We also included two more excellent coin-op conversions: **Arkanoid II** and **Gauntlet II**. **Shoot 'Em Up Construction Kit** lets you build an endless library of stand-alone arcade games you can share with others, and **Zoom!** is almost as good on the C64 as it is on the Amiga. Finally, **Caveman Ugh-lympics** made our list because its sense of humor makes it the perfect party game.

C64

1. **The Sentry** — Firebird
2. **Menace** — Psygnosis
3. **Ultimate Wizard** — Electronic Arts
4. **Atarisoft Classics** — Atari
5. **Shoot 'Em Up Const. Kit** — Accolade
6. **Zoom!** — Discovery
7. **Caveman Ugh-Lympics** — Electronic Arts
8. **Arkanoid II** — Taito
9. **Baal** — Psygnosis
10. **Gauntlet II** — Mindscape

Simulation Games

Rainbird's best game ever, Starglider II.



Bill Budge's classic, Pinball Construction Set.

AMIGA

1. **Starglider II** — Rainbird
2. **Populous** — Electronic Arts
3. **TV Sports Football** — Cinemaware
4. **Sim City** — Maxis
5. **Flight Simulator II** — subLogic
6. **Carrier Command** — Rainbird
7. **Falcon** — Spectrum Holobyte
8. **Earl Weaver Baseball** — Electronic Arts
9. **Balance of Power: 1990** — Mindscape
10. **Jack Nicklaus Golf** — Accolade

Simulations recreate a complex real (or realistic) system inside the computer. Included in this category are sports games, flight simulators, social and political games, and even games that emulate the evolution of cities or whole ecosystems. Depth and detail are what make a simulation game great.

For our money, the best such game for the Amiga is **Starglider II**, a 3D spaceflight simulator with great animation and oodles of detail. **Carrier Command** is of the same ilk, but it recreates a high-tech naval carrier. **Flight Simulator II** and **Falcon** are the best of the Amiga flight simulators. In the sports category, our favorites are **TV Sports Football**, **Earl Weaver Baseball**, and **Jack Nicklaus' Greatest 18 Holes of Golf**, all extremely realistic, addictive, and fun games. **Populous** lets you create and manage planets of your own, and **Sim City** does the same for cities. Finally, **Balance of Power: 1990** mirrors the flux of world politics.

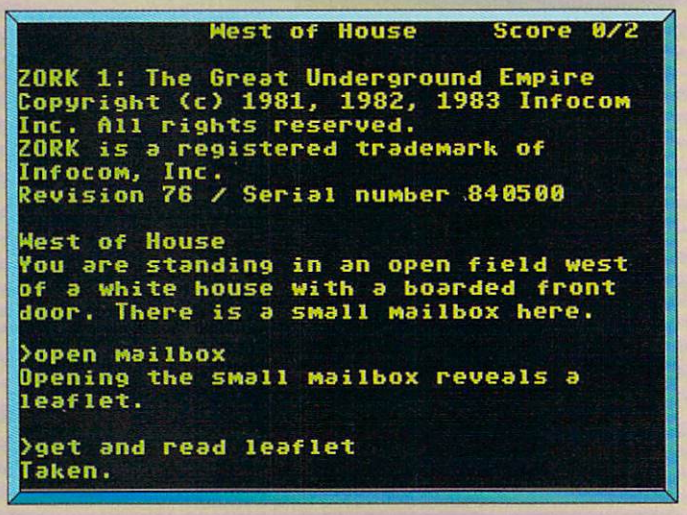
For the C64, nothing to our minds has ever surpassed **Pinball Construction Set**; it and **Sim City** are two of the most ambitious games ever attempted for an 8-bit computer. **Chuck Yeager's Advanced Flight Trainer** and **Flight Simulator II** are the best C64 flight simulators around, and **Elite** is a wonderful combination of spaceflight simulator and trading game. One of the best educational programs to ever hit a personal computer is **Chipwits**, which used animated robots to teach kids programming. Our picks for the best C64 sports games both come from Accolade: **4th & Inches** and **Mini-Putt**. And finishing out our list are an excellent simulation of world politics, **Global Commander**, and a classic game of extraterrestrial economics, **M.U.L.E.**

C64

1. **Pinball Construction Set** — Electronic Arts
2. **Sim City** — Maxis
3. **Chuck Yeager** — Electronic Arts
4. **Elite** — Firebird
5. **Flight Simulator II** — subLogic
6. **Chipwits** — Epyx
7. **4th & Inches** — Accolade
8. **Mini Putt** — Accolade
9. **Global Commander** — DataSoft
10. **M.U.L.E.** — Electronic Arts

INFO TOP 10 Adventure Games

FTL's innovative Dungeon Master.



Zork I, the Infocom game that started it all.

AMIGA

1. **Dungeon Master** — FTL
2. **Zork Series** — Infocom
3. **Faery Tale Adventure** — Microillusions
4. **Uninvited** — Mindscape
5. **Leisure Suit Larry** — Sierra
6. **Captain Blood** — Mindscape
7. **Rocket Ranger** — Cinemaware
8. **Deja Vu** — Mindscape
9. **Portal** — Activision
10. **Three Stooges** — Cinemaware

Adventure games can take you into deep dungeons or to the farthest star. These interactive novels make you the hero; whether or not there is a happy ending depends on your cunning. Story is everything in a top-rated adventure. Well, it's everything except for maybe a good user interface and excellent graphics!

Dungeon Master, our #1 pick for the Amiga, has all three. But for sheer story, nothing can beat Infocom's classic **Zork** series. **Faery Tale Adventure** was the first great full-graphic adventure for the Amiga. ICOM's excellent interface and intense stories put **Uninvited** and **Deja Vu** in our Top Ten. Side-splitting humor is the forte of both **Leisure Suit Larry in the Land of the Lounge Lizards** and **The Three Stooges**. "Innovative" is the word for **Captain Blood** and **Portal**, both of which blazed new conceptual trails for adventure gaming. And we picked **Rocket Ranger** as the best of Cinemaware's unique "interactive movies."

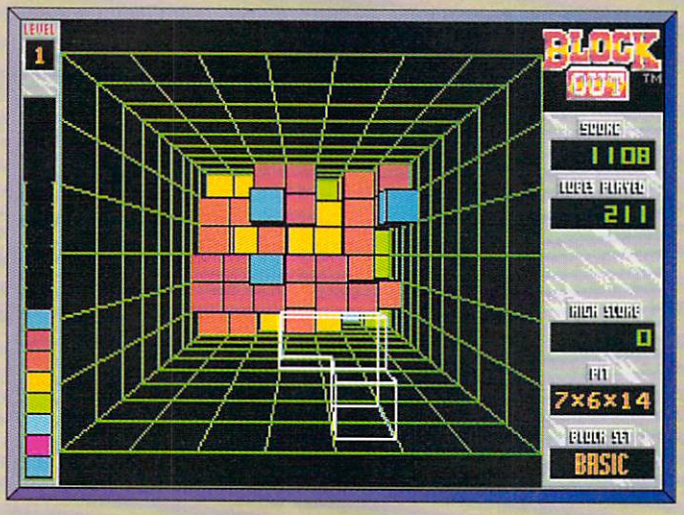
Many of the same games made our C64 list: **Zork, Uninvited, Deja Vu, The Three Stooges, Portal**, and **Captain Blood**. Unlike arcade games, adventure games often look and play not much differently on the C64 and Amiga. But the C64 can also lay claim to some excellent stories and unique user interfaces of its own. Both were factors in our choice of **Neuromancer** and **Zak McKracken and the Alien Mindbenders**. Also on our list is the excellent educational adventure game **Where in the World is Carmen SanDiego?**. Last but not least is Douglas Adams' hilarious text adventure **The Hitchhiker's Guide to the Galaxy.**

That humor plays a significant part in most of the games we've picked is no accident. A good sense of humor is most often what elevates a good adventure to classic status.

C64

1. **Zork Series** — Infocom
2. **Neuromancer** — Interplay
3. **Zak Mckracken** — Lucasfilm
4. **Uninvited** — Mindscape
5. **Deja Vu** — Mindscape
6. **Three Stooges** — Cinemaware
7. **Carmen Sandiego** — Broderbund
8. **Portal** — Activision
9. **Captain Blood** — Mindscape
10. **Hitchhikers Guide** — Infocom

Traditional Games



California Dreams' 3D puzzler, Blockout.

Risk, the best C64 boardgame, by Leisure Genius.

AMIGA

1	**Blockout**	California Dreams
2	**Shanghai**	Activision
3	**Solitaire Royale**	Spectrum Holobyte
4	**Craps Academy**	Microillusions
5	**Battle Chess**	Interplay
6	**Distant Armies**	Eagle Tree
7	**Scrabble**	Leisure Genius
8	**Chessmaster 2000**	Electronic Arts
9	**Enigma Device**	King Publishing
10	**Triango**	California Dreams

Our "Traditional" category encompasses those programs that are recreations of games involving boards, dice, cards, and playing pieces. This includes licensed translations of commercial games as well as original designs. The computer's role in these games is to enforce the rules and (usually) serve as an opponent.

Blockout, our Amiga favorite, is a colorful, animated 3D block puzzle based on that 60's fascination, the Soma Cube. **Shanghai** simulates solitaire play with Mah-Jongg tiles. The finest card game for the Amiga to date is **Solitaire Royale**, and **Craps Academy** is our favorite gambling simulation. Three chess programs make our top ten: **Battle Chess** is a humor-filled animated chess program; **Distant Armies** is a collection of historical variations; and **Chessmaster 2000** is simply the best Amiga chessplayer you'll find. **Scrabble** is the only licensed commercial game to make our Amiga list. **The Enigma Device** is an addictive cryptogram game with a database of 1,000 entertaining quotes, and **Triango** is the best original computer boardgame we've seen to date.

Leisure Genius has created three great commercial boardgame translations for the C64: **Risk, Scrabble**, and **Monopoly**. **Lords of Conquest** is an original re-interpretation of the *Risk* theme. In addition to *Scrabble*, **Chessmaster 2000** and **Triango** are repeats from the Amiga list. **Mental Blocks** is a collection of several games, but the best is a 3D puzzle similar to *Blockout*. **Blackjack Academy** is our favorite C64 gambling simulation, and the **Indoor Sports** collection includes a half-dozen classic games like billiards and darts. Our final pick, **Tetris**, is a puzzler that was designed in the Soviet Union.

C64

1	**Risk**	Leisure Genius
2	**Scrabble**	Leisure Genius
3	**Lords of Conquest**	Electronic Arts
4	**Chessmaster 2000**	Electronic Arts
5	**Monopoly**	Leisure Genius
6	**Mental Blocks**	Accolade
7	**Blackjack Academy**	Microillusions
8	**Triango**	California Dreams
9	**Indoor Sports**	Mindscape
10	**Tetris**	Spectrum Holobyte

Editors' Favorites

Version Color Key: Purple = Amiga, Blue = C64

BENN's Top Ten

I have played literally thousands of games, but when I really want to *PLAY*, nothing satisfies like a good simulation. Whether it's buzzing the Golden Gate Bridge with **Flight Simulator II**, building a fantastic layout in **Pinball Construction Set**, or trying to shave the dealer in **Craps Academy**, how can anything compare with the sheer wonder of a 5-star simulation? **Falcon** can't be beat for realism, **Carrier Command** is exquisitely complex, **Sim City** and **Populous** let you tinker with entire cities and civilizations. **Arkanoid** still "hyp-mo-tizes" me, and **Faery Tale** is my favorite adventure. It's **StarGlider II**, though, with its real-time action, outstanding solid-modelled graphics, and multiple worlds, that gets my vote for best game of all time.

1. **StarGlider II** — Rainbird
2. **Arkanoid** — Discovery
3. **Flight Simulator II** — subLogic
4. **Carrier Command** — Rainbird
5. **Pinball Construction Set** — Electronic Arts

Benn's #3 pick, Flight Simulator II.

6. **Sim City** — Maxis
7. **Populous** — Bullfrog
8. **Craps Academy** — Microillusions
9. **Faery Tale Adventure** — Microillusions
10. **Falcon** — Spectrum Holobyte

MARK's Top Ten

I like mind games more than arcade alien-blasting, so it's probably not surprising to see addictive puzzlers like **Blockout, Shanghai, Enigma Device**, and **Diablo** on my list. Innovative, entertaining, and captivating adventures like **Deja Vu, Neuromancer, Where in the World is Carmen Sandiego?**, and **Bureaucracy** fill in most of the rest of my personal Top Ten. (*Bureaucracy* has the distiction of being one of the few C128-specific games ever.) My favorite games of all time? On the Amiga, it's **Arkanoid** for sheer shoot-em-up fun with a puzzle flavor, and on the C64, it's **Pinball Construction Set**, a unique gaming system with infinite depth and variety which, in my opinion, remains unmatched in the history of computing.

1. **Pinball Construction Set** — Electronic Arts
2. **Arkanoid** — Discovery
3. **Blockout** — California Dreams
4. **Shanghai** — Activision
5. **Enigma Device** — King Publishing

Mark's #4 game, Shanghai.

6. **Deja Vu** — Mindscape
7. **Diablo** — Classic Future
8. **Neuromancer** — Interplay
9. **Carmen Sandiego** — Broderbund
10. **Bureaucracy** — Infocom

Editors' Favorites

TOM's Top Ten

My Top Ten list varies to some degree, though the **Zork** series always remains at the top. It was my first-ever computer game and it's one of the wittiest works of fiction I've ever read. **Sim City** remains near the top because of its innovation. Anything from Psygnosis I like very much - which one varies week to week, though I've spent the most hours with **Menace**. I like **The Three Stooges** because it unfailingly makes me laugh. **Populous**? Who doesn't like to play god? **Spherical** because the game drives my compulsive sense of order berserk. So does **Blockout**. I like the alien-ness of **Archipelagos**, and the look of **Prospector in the Mazes of Xor**. Ask me for my list again in a year. Or next week.

1. Zork Series — Infocom
2. Sim City — Maxis
3. Menace — Psygnosis
4. Spherical — Rainbow Arts
5. Populous — Bullfrog

Tom's #2 favorite, Sim City.

6. Blockout — California Dreams
7. The Three Stooges — Cinemaware
8. Baal — Psygnosis
9. Archipelagos — Logotron/Britannica
10. Prospector — Logotron/Eurosoft

JUDITH's Top Ten

In another life I must have been an elf. In this one, however, I satisfy my craving for questing by losing myself in adventures. I love best adventures that I can lose myself in most completely. **Zork** opened up not only the Great Underground Empire for me to explore and conquer but also the world of computers, both equally intriguing and exciting. For sheer scope **Zork** is my number one game. **Dungeon Master** follows at a close second. Other adventures make my list because of qualities they all have in common - an elegant quester-interface, an exciting plot with fascinating roles, humorous prose, tantalizing puzzles, and terrific graphic detail. The others are favorites because, well, even elves need an addictive diversion every so often.

1. Zork Series — Infocom
2. Dungeon Master — FTL
3. Faery Tale Adventure — Microillusions
4. Tetris — Spectrum Holobyte
5. Beyond Zork — Infocom

Judi's #3 selection, Faery Tale Adventure.

6. Uninvited — Mindscape
7. Solitaire Royale — Spectrum Holobyte
8. Shadowgate — Mindscape
9. Zak McKracken — LucasFilm
10. Blockout — California Dreams

More Game Lists

Once we'd finished with our lists of the best of this and the best of that, we realized there were lots of other lists we'd really like to do. So these two pages are a sort of tribute to those games that may not have earned space on the Top Ten lists, but which have earned notoriety in other, perhaps more subtle ways.

THE NAME GAME

Can you match these 21 celebrities with the 20 games they endorsed? Better yet, mix 'em up! It's fun!

1	Larry Bird	A	___'s Advanced Flight Trainer
2	Rick Davis	B	___'s Basketball
3	John Elway	C	___'s Blackjack
4	Charles Goren	D	___'s Game of Good Sex
5	Wayne Gretzky	E	___'s Greatest 18 Holes of Golf
6	Dr. J	F	___'s Guide to Chess Openings
7	Magic Johnson	G	___'s Pro Soccer
8	Dr. Timothy Leary	H	___'s Quarterback
9	John Madden	I	___'s Top Fuel Challenge
10	Shirley Muldowney	J	___'s World Trophy Soccer
11	Jack Nicklaus	K	___ and ___ Go One on One
12	Pete Rose	L	___ Baseball
13	Dr. Ruth	M	___ Hockey
14	Sheinwold	N	___ Football
15	Jeremy Stillman	O	___ Pennant Fever
16	Dorothy Truscot	P	___ Teaches Chess
17	Ken Uston	Q	___: Learning Bridge
18	Keith Van Eron	R	Play Bridge With ___
19	Earl Weaver	S	Play Bridge With ___
20	Paul Whitehead	T	Mind Mirror by ___
21	Chuck Yeager		

ANSWERS: A-21, B-7, C-17, D-13, E-11, F-15, G-18, H-3, I-10, J-2, K-6/1, L-19, M-5, N-9, O-12, P-20, Q-4, R/S-14/16, T-8

UNUSUAL CONCEPTS

Most games are pretty straightforward. Blast the aliens, smack the puck into the net, shoot down the enemy fighters, etc. But a few games over the years have started with a totally new concept and worked it into a videogame. Some have succeeded better than others, but we won't deign to judge them here. We merely pass on our list of Most Unusual Game Concepts for your amusement and enlightenment.

In *Alter Ego*, you took on different personalities, sexes, and ages to deal with life's little daily frustrations. Unusual among real-world simulations is *Reel Fishin'*, a bass fishing simulation. *Surgeon* let you perform realistic heart surgery. *Chomp!* makes you a fish in a bowl who has to grow and jump to freedom. *Moondust* was more a way to create colorful and compelling graphics than a game. *Towering Inferno* had the somewhat tasteless theme of catching people jumping from a burning building (the fat ones would squash you). If you can imagine this mix, *Quizardry* blended a trivia quiz with sword and sorcery adventuring. And you programmed musical worms that battled over territory in EA's excellent *Worms?*

We've only seen the theme of Greek gods and thunderbolts used once, in a game called *Zeus*. *The Ball's Revenge* provided the strange twist of having a ball chase athletes in their locker room. In the category of unusual hardware, *PQ: The Party Quiz Game* included four custom Suncom multiple-choice controllers. *Vaudeville*'s theme involved the old vaudeville act of spinning plates. And there have been a lot of olympics games, but three of the most unusual have been *Caveman Ugh-lympics* (prehistoric olympics), *Purple Saturn Day* (space olympics), and *Highland Games* (Scottish olympics, complete with caber toss).

Space Taxi made you a cab driver in space. *Racter* put you into conversation with a weird Artificial Intelligence with an interest in Mozart and fine wine. You rang bells to earn a ride on a magic carpet in *Master of the Lamps*. *little Computer People* gave each purchaser a unique little person who lived in his computer. Finally, *Whistler's Brother* made you your brother's keeper (he was a little batty, and had a tendency to get into trouble).

What's next? *Pillsbury Bake-Off Simulator*? *Evolution Construction Set*? How about *Mojo Nixon Goes to Coney Island*? The great thing about unusual games is they don't follow trends and they don't set them. They just make it impossible to predict what's going to show up on our doorstep next.

UNUSUAL NAMES

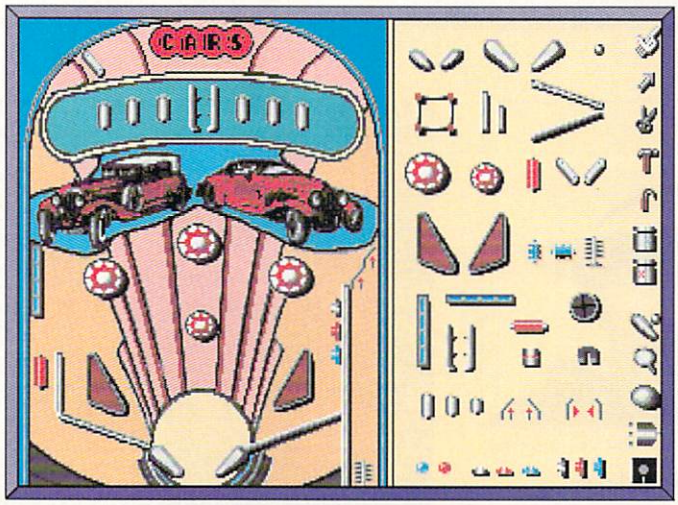
Most game titles are pretty unmemorable, but we have heard a slew of unusual game names in our time.

A list of some of the Funniest Names would have to include *Cosmic Relief, Attack of the Mutant Camels, Attack of the Phantom Karate Devils, Babies of the Dirt, Kid Pro Quo, Oo-Topos, Dr. Plummet's House of Flux, Fiendish Freddy's Big Top O' Fun, Leather Goddesses of Phobos, Sex Vixens From Space, Better Dead Than Alien, Scary Mutant Space Aliens From Mars, Capt. Fizz Meets the Blaster-Trons, and Zak McKracken and the Alien Mindbenders.* I mean, how do you pick the best one out of that list?

Some of these would also qualify for our list of the Longest Game Names of All Time. But we'd also have to include *The Way of the Little Dragon, Prospector in the Mazes of Xor, How About A Nice Game Of Chess?, Where in the World is Carmen Sandiego?, The Great American Cross-Country Road Race, Leisure Suit Larry in the Land of the Lounge Lizards, Trump Castle: The Ultimate Casino Gambling Simulation, Jack Nicklaus' Greatest 18 Holes of Major Championship Golf,* and *Leisure Suit Larry II: Looking for Love in Several Wrong Places.* But the hands-down longest name belongs to the wargame *Decisive Battles of the American Civil War Volume II: Gaines Mill to Chattanooga.*

On the other end of the spectrum are the World's Shortest Game Names. Here's a great substitute for those Primal Scream Therapy sessions you're paying big money for: just open the window and, as loudly as you can, shout out these 21 monosyllabic game titles: *AAARGH!, Ace, Baal, Beam, Chomp!, Drelbs, Hex, Jet, Jinks, Jug, Qix, Quest, Quink, Risk, Twerps, Warp!, Z, Zoids, Zoom!, Zork,* and *Zwark.* Okay, now do it three times real fast!

Last, and certainly least, INFO's resident poet Arbuckle Q. Fuller has composed a poem specially for this issue which is made up entirely of game titles that rhyme. He calls it "Game Names."



This is the game we'd most like to see done for the Amiga: Pinball Construction Set.

GAME NAMES

by Arby Fuller

Fight Night, Fright Night, Chop 'N Drop, Wheel & Deal.
Countdown to Shutdown, Floyd the Droid, Joker Poker, Killer Piller.
Lazer Blazer, Mean 18, Flower Power, Miner 2049er.
Space Ace, Vampire's Empire, Pogo Joe, RoadToad.

Notice the poet's cunning juxtaposition of the hauntingly similar rhymes "Fight Night" and "Fright Night" in the opening stanza. Awesome.

MOST USUAL NAMES

While compiling names that rhyme, it was Arby who noted that by far the most-used literary device for naming games is alliteration, or the practice of starting words with the same sound. His theory is that this is a direct offshoot of having someone with the job title "computer company marketing manager" make them up. To prove his point, he handed us a list of 70-odd titles, including: *Ant Attack, Axis Assassin, Ballblazer, Bazooka Bill, Bubble Bobble, Carrier Command, Coil Cop, Crazy Cars, Dan Dare, Dig Dug, Double Dragon, Fire & Forget, Flip & Flop, Highway Hawks, Hollywood Hijinx, Karate King, Kongo Kong, Land of Legends, Maniac Mansion, Marble Madness, Mind Mist, Moonmist, Pioneer Plague, Pole Position, Power Play, Road Raider, Robot Rascals, Rocket Ranger, Silent Service, Sim City, Tangled Tales, Tass Times in Tonetown, Tower Toppler, Wizard Wars, Zig-Zag,* and *Zork Zero.* We think he made his point. In his somewhat lengthy report, he also noted that the letters E, G, I, J, N, O, Q, U, V, X, and Y remain completely unused in this regard. He goes on for several pages speculating that they may be teaching in Marketing School that these are "bad letters" to use when naming products. Personally, I think Arby needs more things to keep him busy around here.

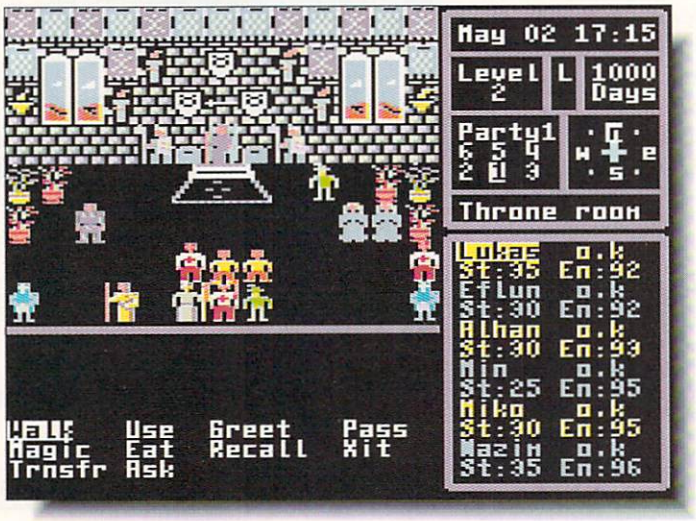
YET MORE LISTS

Well, that's all we have room for. We won't be able to squeeze in our list of Most Obnoxious Games, or Funniest Games, or our VideoGame Timeline. Maybe next year.

ADVENTURE ROAD

photo by Tom Ives

by Shay Addams



The Magic Candle for the C64 from Mindcraft.

Forget those ominous rumors still circulating amongst the wee folk of the Dark Forests -- Adventure Road did not come to a dead end when *Commodore Magazine* folded its massive oak doors this Fall. Thanks to a teleportation spell invoked by White Wizards Markus and Bennettus, the entire span of Adventure Road, stretching from the borders of Sosaria to the crystal-strewn plains of Xuluii, will henceforth meander through these very pages. (Promises of "enough gold to buy your own castle" also ensured this fortuitous turn of events.)

Now that the mood-setting rhetoric has been dispatched, let's get down to the quest at hand, a unique challenge indeed: to seek and slay -- no, that's not it... let's see, was it to find and return the Mystic? No, that was last week. Let me check the docs again -- ok, I've got it: a year-end roundup of the Best Adventures of 1989.

TOP RPG QUESTS

The Magic Candle was among my favorite role-playing games, mainly because of the many "specials" in store for the player. While prowling the continent of Deruvia, your party occasionally bumps into characters and situations in which a full-screen graphic replaces the usual overhead view of the land. Then you solve a puzzle, obtain information, or otherwise interact with people and events by typing in simple sentences, as in *Ultima IV*. Graphics are simple yet charming in a Grandma Moses kind of way. A magic system that requires finding and consuming a variety-pack of mushrooms distinguishes the game from *Ultima* and other RPGs. So does the original plot: to prevent an evil dragon from escaping imprisonment by a magic spell that keeps it locked inside a magic candle. Programmed by Ali N. Atabek of Mindcraft, the C64 game has been out since Summer; an Amiga version may be ready by Spring. It's an advanced-level quest with a time limit.

Might and Magic II: Gates to Another World, another toughie, introduces some novel features, particularly one that lets you change your party's disposition at any time from Inconspicuous all the way to Thrill-Seeker, which affects the number and strength of monsters. Mini-missions too numerous to count must be completed as you struggle to save the land of CRON, which entails a fair amount of time travel, lots of combat (with some new magic spells), more emphasis on skills and a mind-numbing logical puzzle at the end. You can use *M&M I* characters, or create new ones. The C64 game is out now, with an Amiga version on the way. (*M&M I* won't be converted for Amiga: author Jon van Caneghem says the graphics just aren't up to its capabilities!)

For first-timers, *Tangled Tales: The Misadventures of a Wizard's Apprentice* is a natural. Even hard-core Orc-slayers will appreciate the sense of humor that prevails as you strive to regain your magical powers by completing three quests for the Great Wizard Eldritch. The inventive presentation scheme shows 3D graphics on the left and an *Ultima*-like aerial view on the right. You solve puzzles by manipulating objects and uncovering passwords, and combat and magic are relatively simple to master. No Amiga version of this Origin game is planned.

Neuromancer took top honors in the field of science fiction. It's set in a futuristic Japan, but most of the action occurs in "cyberspace," where you'll break into databases of industrial giants, global law enforcement agencies and other organizations. Wielding programs like Thunderhead 2.0, you'll fight the most unusual kind of combat ever seen in such a game (though more animation would have improved it). And *Neuromancer*'s twisted sense of humor parodies everything from *Pong* to MicroSoft. Available from Interplay for C64 and soon for the Amiga, it's an intermediate-level, one-character game.

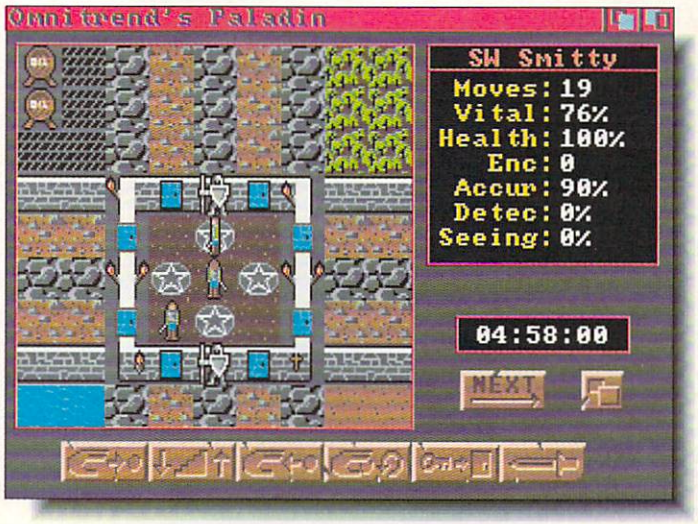
BEST QUESTS OF 1989

Swords of Twilight was easily the year's most innovative RPG, funneling an original and beguiling fantasy world into a game system that permits up to three people to play simultaneously by directing the actions of two Fighter-types on joysticks and a Magician-type on keyboard. I played a beta version of the Amiga original (no C64 version is planned) and found Jon Freeman's prose often outshone the brilliancy of the illustrations as your gang sets out to restore the Rainbow Road, an interdimensional freeway that connects a series of worlds, all color-coded for convenient questing.

Hillsfar was the year's best action adventure -- and the only one of SSI's AD&D titles I've enjoyed. (In *Curse of the Azure Bonds*, like *Pool of Radiance*, you spend too much time fighting protracted tactical battles and will find almost no puzzles to solve.) It's a one-character RPG that tosses you into the Arena to fight Orcs, and mixes in several more action sequences as you explore Hillsfar and the vicinity. With three quests for each character class, you get a lot of game here. *Pool* and *Curse* characters may be imported, or fresh ones created. The lockpicking puzzles are original and fun -- you've got to match several picks with the tumblers shown onscreen before an animated fuse burns down.

BEST PUZZLERS

Now let's get to the traditional "adventure games," not to be confused with the genre of adventure, which encompasses these and role-playing games (in which hit-points dominate). Specifically, I mean quests like *Zork*, in which your English-composed commands are interpreted by a parser as you labor to unravel logical puzzles. I had two favorites: *Zak McKracken and the Alien Mindbenders*, with the most effective "no-typing required" interface to date and a humorous science fiction/New Age theme, and *King's Quest IV* from Sierra.



Omnitrend's Paladin for the Amiga.

In *Zak* you play a supermarket tabloid reporter who journeys to Mars, Egypt, and other faraway destinations for the items needed to build an anti-stupidity machine and foil the aliens' plot to take over the world. Elvis, Bigfoot, and a VW bus converted into a spaceship -- these and other off-the-wall elements play a part in this parody of life as we knew it in the late Eighties. An intermediate-level game from LucasFilm, it's for the C64 with an Amiga version coming soon.

King's Quest IV debuts soon in Amiga-only format; this enchanting fantasy adventure of enlivened with animated sequences and an assortment of odd conundrums. Roberta Williams' first game in which your character is a woman, *KQ IV*, like *Space Quest III* and all of Sierra's subsequent Amiga releases, will feature double the resolution of previous conversions, plus superior sound and music.

More Amiga-only winners in this category are *Space Quest III* (you must rescue those Two Guys from Andromeda, who wrote themselves into the story this time), *Zork Zero* (an illustrated text game that's a laugh-filled prequel to the *Zork* mythos), and *King Arthur* -- Infocom's last adventure produced at the Cambridge offices. Activision shut them down in mid-summer and moved Infocom (minus Lebling, Meretzky, and other long-time designers) to California. Marc Blank is working on another adventure, but is not on staff. Unfortunately, we're seeing far fewer adventures like these for the C64, especially since Infocom stopped doing all-text games.

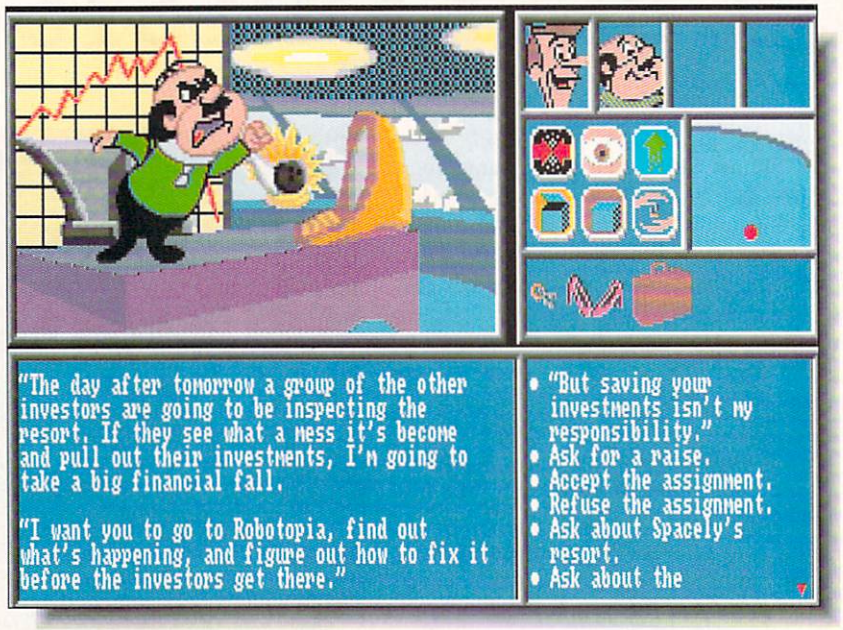
Other recommended Amiga outings published this year include *Paladin*, and *Populous* (role-playing) and *Journey*, *Leisure Suit Larry II* (coming soon), and *FISH* (graphic adventures). For the C64, check out the graphic adventure *FISH* and RPGs *Times of Lore* and maybe *Legend of Blacksilver* (if you liked *Questron II* and don't mind deja vu dungeoneering). Until next time, keep those swords sharp and your wits even sharper.

Shay Addams, "the world's foremost expert on adventure gaming™," is the publisher of the excellent gaming newsletter *Questbusters* ($18/yr., $24 Canada, $32 Int'l., PO Box 32698, Tucson, AZ 85751). He also owns more computers than you can shake a stick at, so he may occasionally mention a game he has played on the Macintosh (ick) or even on an MS/DOS computer (double-ick).

All of us who have been waiting for this game kind of holding our collective breath can heave a big sigh of relief. Our favorite (at least mine) Hanna-Barbera cartoon has come to life and is letting us participate in the lives of George, Jane, Judy and Elroy, Astro, Mr. Spacely, and even arch-rival Mr. Cogswell. The best part of it is that the game succeeds in being true to its source, something licensed titles too seldom achieve.

The graphic player interface has brought the genre another generation forward in its evolution. The object-oriented, icon-based system is very slick for manipulating the highly detailed *animated* locations. And the animation is what makes the game play so well. It is fast paced, as you play George, beset on all sides with the weasels of life, particularly Mr. Spacely, who bullies the hapless futuristic dweeb into investigating one of Spacely's souring investments. Above all, the game is funny in exactly the same way the cartoons are. And yes, the theme music is so good you'll be singing along. *The Jetsons* was worth waiting for.

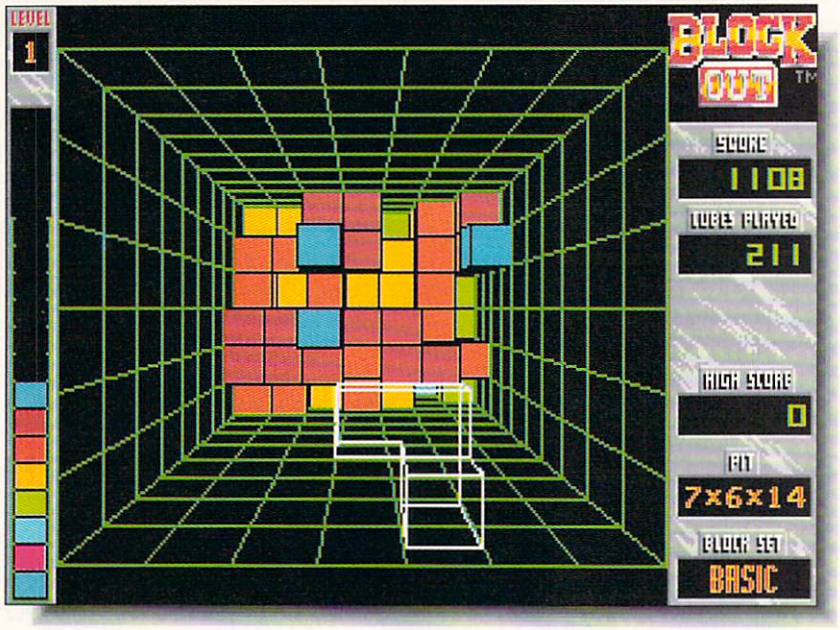
- Tom Malcom



THE JETSONS

★★★★★

Microillusions
17408 Chatsworth Street
Granada Hills, CA 91344
818-360-3715



BLOCKOUT

★★★★★

California Dreams
780 Montague Espwy., Suite 403
San Jose, CA 95131
408-435-1445

Wow! This game ought to have a warning label on it -- it's one of the most addictive games ever to float down the bitstream. A 3D version of *Tetris*, it is the next logical step in the genre. The blocks you must fit together as they fall toward a grid are three-dimensional, starting out as rotatable wireframe objects that solidify into colored layers as they reach the bottom of a pit. If you can completely fill a layer, the layer disappears. If the pit fills to the top, you lose.

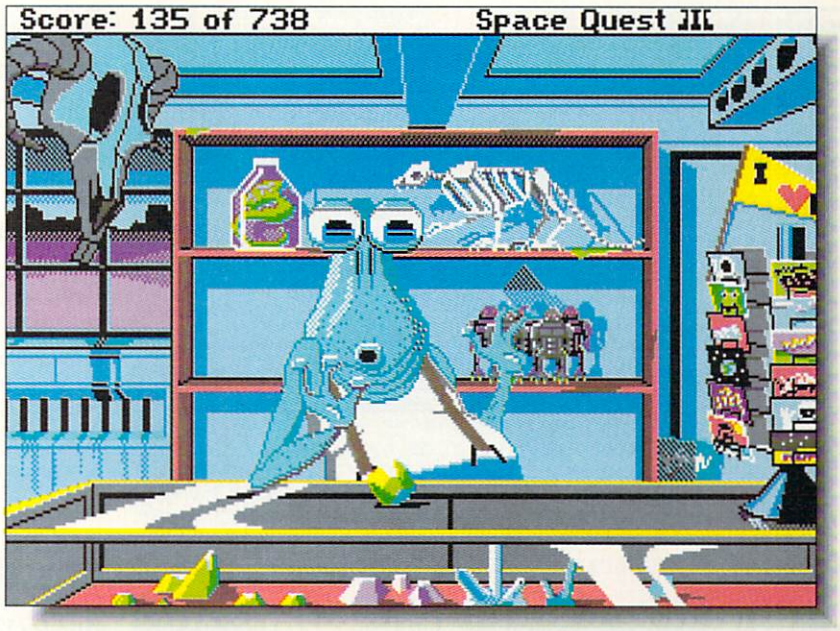
Everything about the game contributes to its playability. You can choose from three sets of blocks, ranging in shape from the simple to the insane. Control can be mouse and keyboard or keyboard only, but using the keyboard alone is my preferred method for turning and moving the blocks. The game even keeps track of your high scores not individually, but by posting them separately for each complexity of block and size of grid.

Mark and I both had a youthful fascination with Soma cubes, which this game revives and satisfies. *Blockout* is an instant classic, sure to stay on your top shelf for years to come.

- Tom Malcom

Sierra is endeavoring to enter a new era in its graphic adventure games by improving the graphics and sound. The cartoon graphics are dramatically better than their previous games, but still suffer a bit from MS/DOS conversion-itis. Drawn in only sixteen colors, there are several instances where more colors would improve the gameplay. For instance, your character's body sometimes disappears because it's the same color as the background. The music, however, is another story. Written by Supertramp's drummer, Bob Siebenberg, there are several tunes in the 4-disk game good enough to go Top 40.

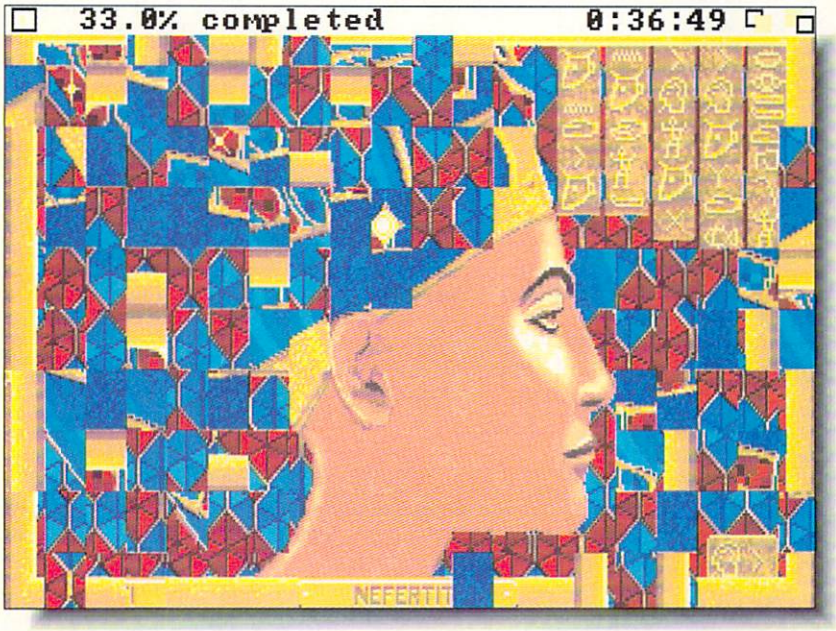
So how does it play? It makes me laugh. The primary objective is to find those Two Guys from Andromeda, who have been abducted by the Pirates of Pestulon. The game is overflowing with sight gags, snotty repartee, and a healthy dose of satire. It's a delight all the way around. The disk swapping gets tedious, so playing from hard disk is preferable. Once Sierra gets their graphics up to full Amiga standards, and speeds up the play (nearly every location has to be loaded from disk) the games will be unstoppable. - Tom Malcom



SPACE QUEST III

★★★★+

Sierra
PO Box 485
Coarsegold, CA 93614
209-683-6858



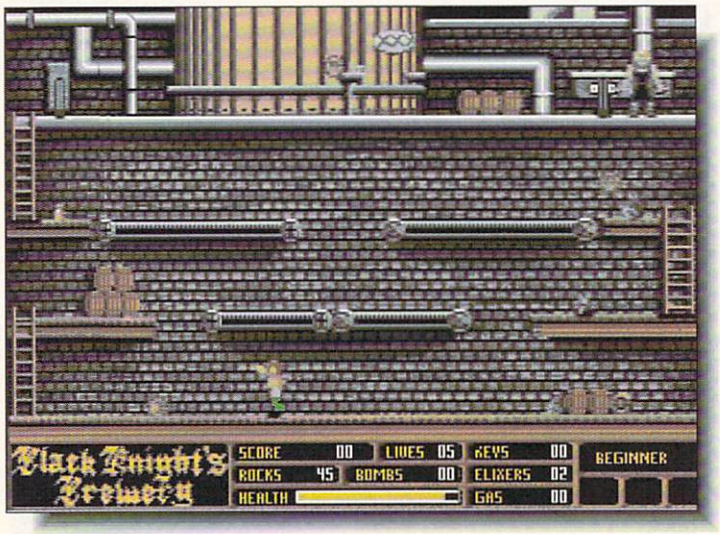
JIGSAW

PREVIEW

Britannica
345 Fourth Street
San Francisco, CA 94107
415-546-1866

The concept of *Jigsaw* is so obvious that I wonder why it hasn't been done before. A computer jigsaw puzzle that will take any IFF graphic, and turn it into a puzzle with anywhere from 8 to a nearly impossible 200 pieces is a perfect thing for the Amiga to do. That means no more lost pieces and no more trying to force that piece you KNOW fits just above the old covered bridge and bending it when it fails to. (I have a pet theory about jigsaw puzzles that says pieces change shape between the time you pick them up and the time you try to fit them together.)

The game has many options, including several difficulty levels (at the medium level, pieces rotate, while on the hardest level, they not only rotate, but flip over as well - aaaarrrgggghhh!). Control is all by mouse: click on one piece, then on another, and they switch places. There are also such modern conveniences as flashing the pieces that aren't in the right place and keeping a copy of the unscrambled image on a swap screen for reference. It will accept any IFF image (except HAM) as long as it's in a standard, non-overscan size. *Jigsaw* is a real time-stealer. - Tom Malcom

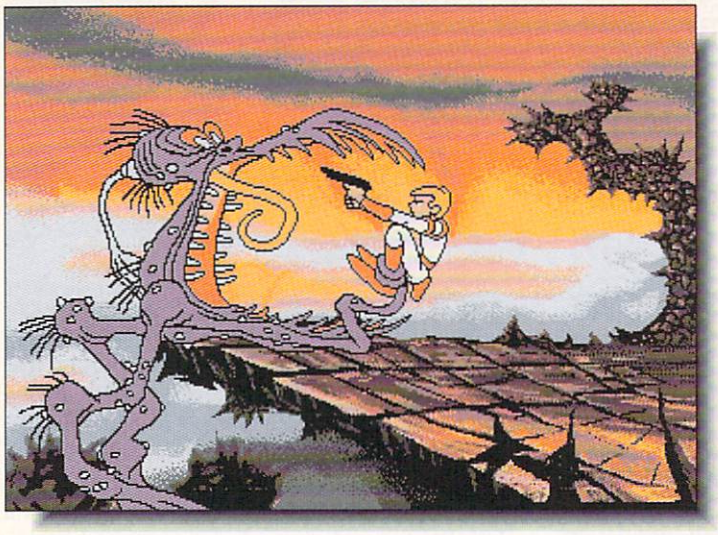


BEYOND DARK CASTLE — PREVIEW

Activision
3885 Bohannon Drive
Menlo Park, CA 94025
415-329-0800

I think this sequel to *Dark Castle* is going to be much more playable than the original. The emphasis seems to have shifted a little more towards the arcade and problem solving direction, though the adventure aspect is still present. I especially like the areas where you have a propeller strapped to your back and can fly around the screen. There's even a practice mode included. The graphics and animation don't make the game look like a Mac port, and the sound effects are primo. *Beyond Dark Castle* looks like a winner.

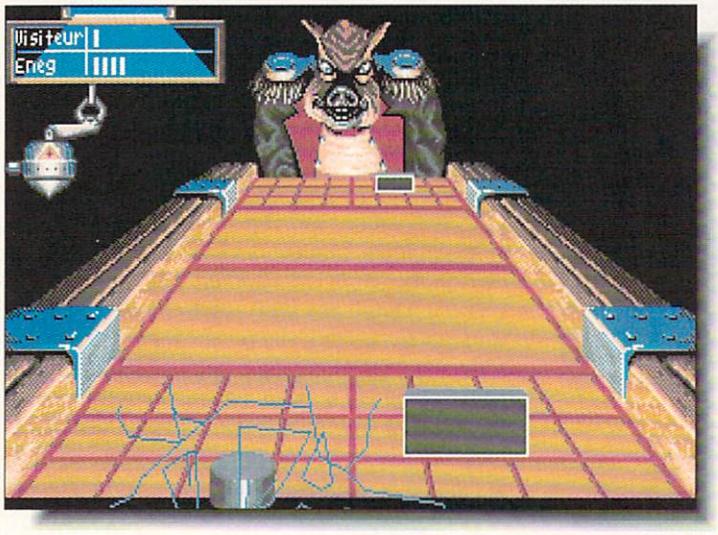
- TM



SPACE ACE — PREVIEW

Readysoft
25 Red Oak Drive
Richmond Hill, ON
Canada L4B 1B9
416-731-4175

I picked up a disk of screens from this new Don Bluth opus while at AmiExpo in Chicago. What I've seen has, inevitably, the same style as *Dragon's Lair*, though the setting is strictly space age. The game looks like it will operate basically the same way as *DL*, and is probably going to be about the same size. (I only hope it's a lot faster and considerably more varied to play than *DL*.) *Space Ace* will, if nothing else, be something to use to show off your Amiga when you need something with great graphics. - TM



SHUFFLEPUCK CAFE — PREVIEW

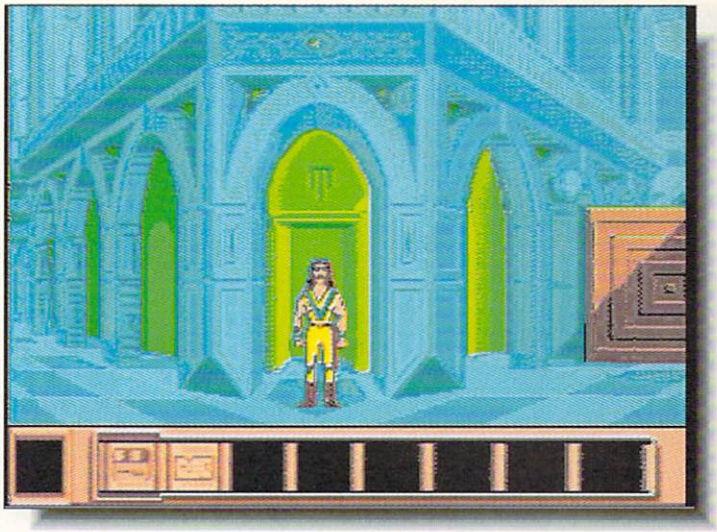
Broderbund
17 Paul Drive
San Rafael, CA 94903
415-492-3200

Imagine that you've wandered into a seedy tavern, one not unlike the cantina in Star Wars, in the far reaches of the galaxy. In this tavern is the last remaining *Shufflepuck* air hockey table in the universe, and there's plenty of talent hanging around to play against. Each of the nine opponents (my favorite is Vinnie the Dweeb) plays the game in a distinct style, though they're intelligent and may change strategies on you in midgame. The game has several player-configurable options, like paddle size and bounce strength, to make it more interesting. Looks like it's going to be great fun. - TM

THE KRISTAL

★★★★★

Cinemaware
4165 Thousand Oaks Boulevard
Westlake Village, CA 91361
805-495-6515



Imported from Europe by Cinemaware, *The Kristal* is one of the best interactive graphic adventures ever. *The Kristal* combines superior graphics, life-like animation, and arcade action. The animated Dancis Frake, a swashbuckling space pirate, moves with graceful smoothness and amazing realism. The futuristic, fantasy galaxy, rich with detail and depth, is huge and spans four disks. Frake moves through the universe via joystick, and there are some fancy movements needed to master duelling, the sport of choice in 5053. *The Kristal* comes close to setting a new standard for interactive adventures. - JKC

PLANET OF LUST

★★★+

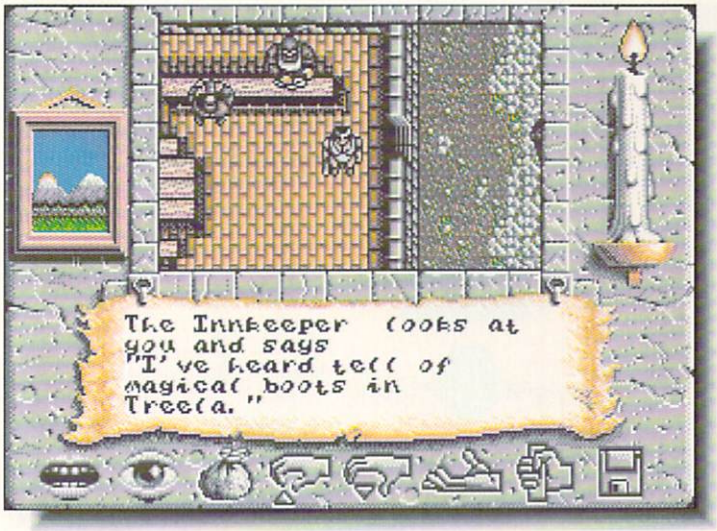
Free Spirit
58 Noble Street
Kutztown, PA 19530
215-683-5609

Frequently ribald, always naughty, sometimes lewd, *Planet of Lust* is strictly an "Adults Only" illustrated text adventure. If your tastes run to the raunchy, you will enjoy this game. However, if most R-rated movies (the kind with Brief Nudity) offend you, forget this game. *Planet of Lust*'s strong points are its colorful cartoonesque graphics and its smutty, humorous, double entendre filled text. Its weakest point is its somewhat stilted parser. Although improved since *Sex Vixens in Space*, the parser still needs some fine tuning. *POL* is a great stag party game. - JKC

TIMES OF LORE

★★★★

Origin
136 Harvey Road
Londonderry, NH 03053
603-644-3360

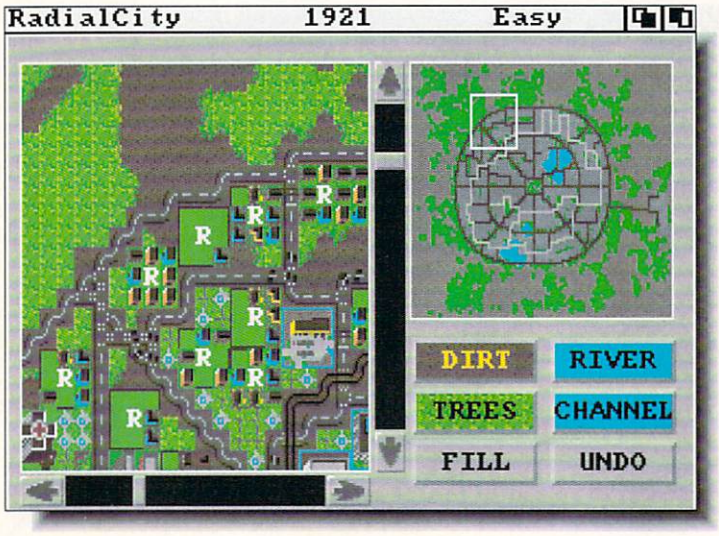


Times of Lore is a graphic action adventure reminiscent of *Faery Tale Adventure*. The emphasis in this tale, however, is on interacting rather than hacking. Good conversational skills are a must and there are dozens of NPC's with whom to converse. While marching about the countryside of Albareth searching for King Valwyn, you are treated to lushly detailed graphics, a terrific musical score, and a unique, easy-to-use player interface made up of large icons which you click on to perform actions. This charming, colorful adventure is a must-have. - JKC

SPHERICAL ★★★★★

Rainbow Arts
Units 2/3 Holford Way
Holford, Birmingham B6 7AX, England
021 356 3388

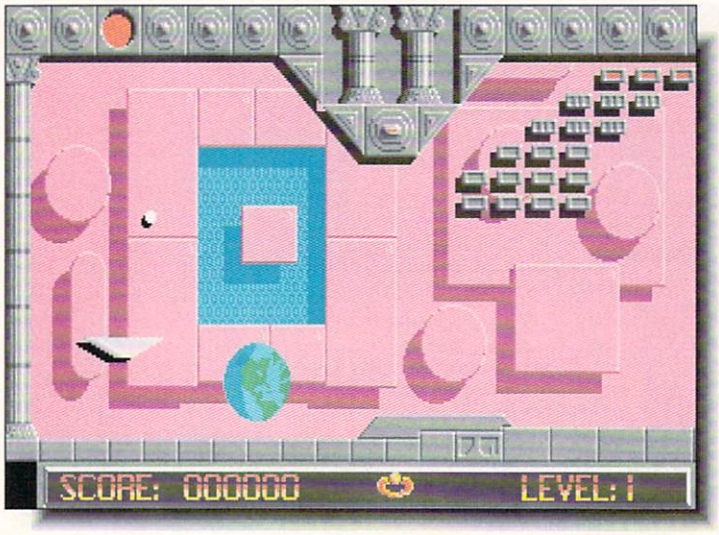
Spherical is one of the best games I've ever played. It has you as a small wizard trying to guide a glowing sphere toward each screen's exit, while avoiding power-draining creatures. You have the power to make the blocks of the maze appear and disappear, and since the sphere starts rolling inexorably toward the bottom of the screen after a few seconds, you must work quickly to construct a path for it to roll along before it becomes trapped. First rate in every way, the game even has a cooperative two-player mode with a different set of screens. Don't miss it. - TM



SIM CITY TERRAIN EDITOR UNRATED

Maxis
1042 Country Club Drive, Suite C
Moraga, CA 94556
415-375-6434

If you have *Sim City*, you have to have the Terrain Editor. It's that simple. It allows you to create actual (or imaginary, if you're so inclined) places for your Sims to live in, and its features are exceptionally easy to use. You can place land, rivers, river channels, and trees anywhere you like, and there are some very nice built-in smoothing algorithms to give your landscape a natural look. The program will also let you edit existing, living cities. I'm glad Maxis has released it. - TM



JINKS ★★★+

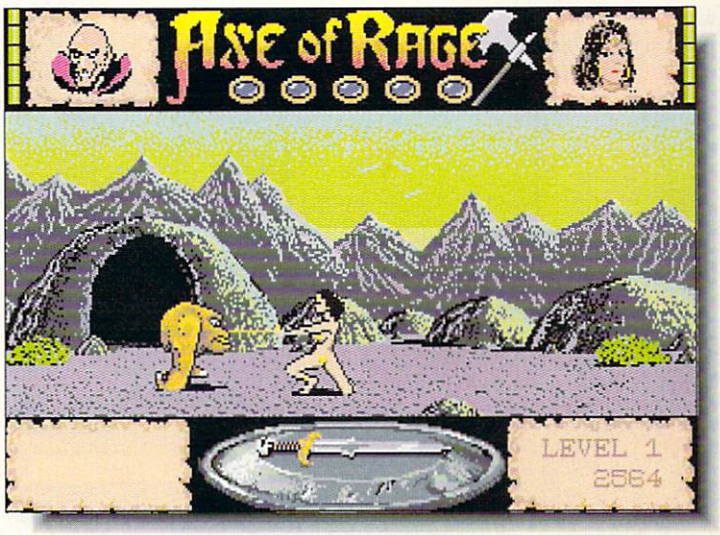
Hard Wired/Gold Disk
2179 Dunwin Drive, #6
Mississaugua, ON, Canada L5L 1X2
416-828-0913

Jinks plays like a sideways space-age pinball machine, with a playfield filled with colorful rotating objects and Arkanoid-like bricks. Kind of like *Breakout* meets Pinball. The game is very bouncy, and it takes some practice to get the hang of deflecting the ball where you want it to go. I'd like to have seen the first level a little easier, and restarting the game shouldn't take so long. I do like the look of *Jinks*, and the scrolling across the field is well done. Overall, worth a substantial chunk of playtime. - TM

AXE OF RAGE

★★★★

Epyx
600 Galveston Drive
Redwood City, CA 94063
415-366-0606

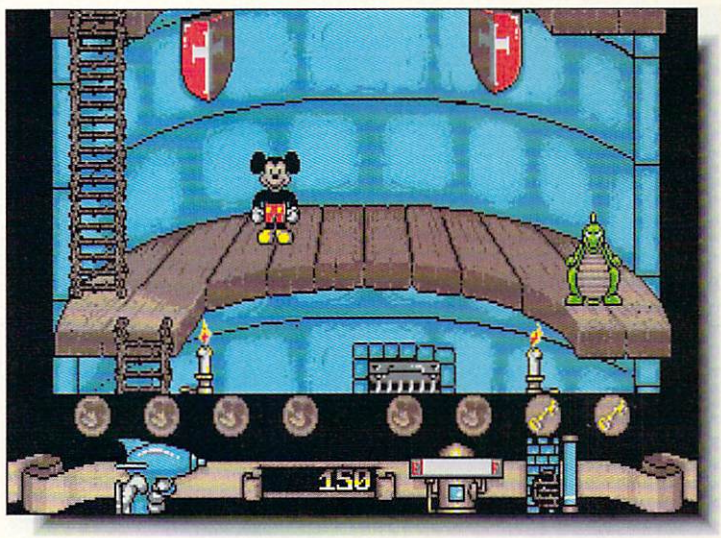


Axe of Rage is blessed with silliness. It's a cartoonish swords and sorcery arcade adventure that's far more arcade than adventure. You are either Gorth or Mariana, and your main objective is to stay alive while you do battle with all sorts of whimsical creatures, hacking your way toward a confrontation with the evil Draxx. I liked the C64 version of this because of its sense of humor, and the Amiga *Axe of Rage* is even better implemented, with entertaining graphics and fun sound effects. - TM

MICKEY MOUSE

★★★★

Gremlin Graphics Software
Alpha House, 10 Carver Street
Sheffield S1 4FS, England
0742 753423

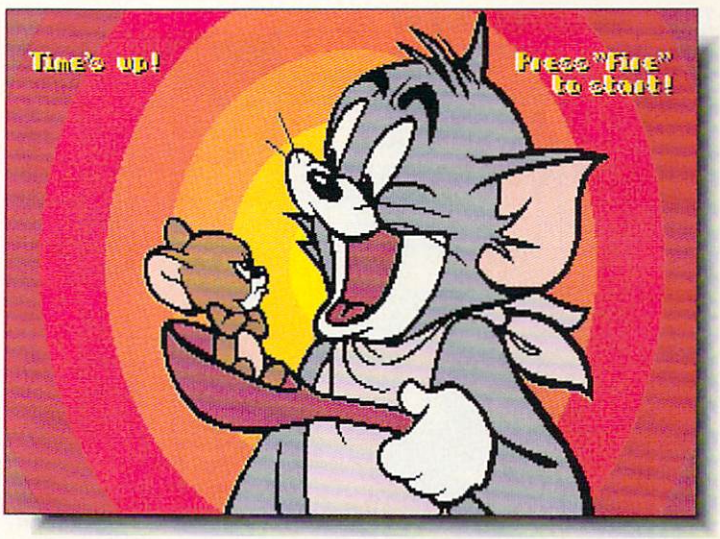


Mickey Mouse is an adorable arcade adventure that has everyone's favorite mouse escaping cuddly monsters or shooting them down with his squirt gun while he searches Disney Castle for the broken pieces of Merlin's Magic Wand. The animation is smooth, very cute, and faithfully drawn. Mickey really looks like, well, Mickey. This game is perfect for younger kids - the concept is simple and understandable, the music is swell, and the joystick maneuvers are easy for small hands to do. -JKC

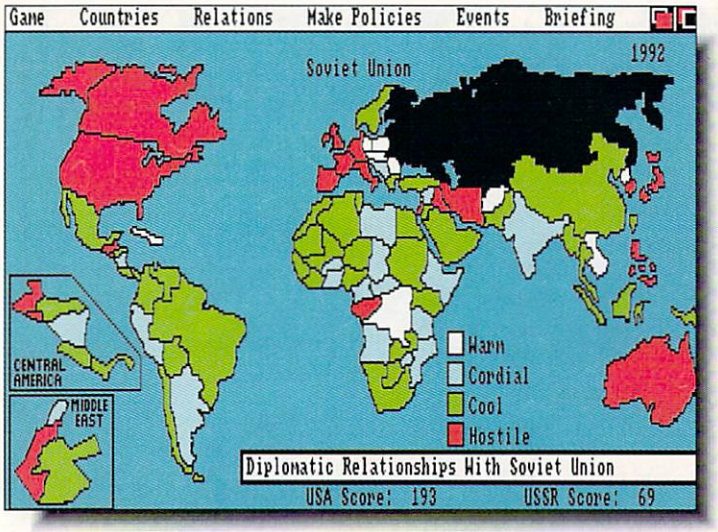
TOM & JERRY

★★★

Innerprise
128 Cockeysville Road
Hunt Valley, MD 21030
301-785-2266



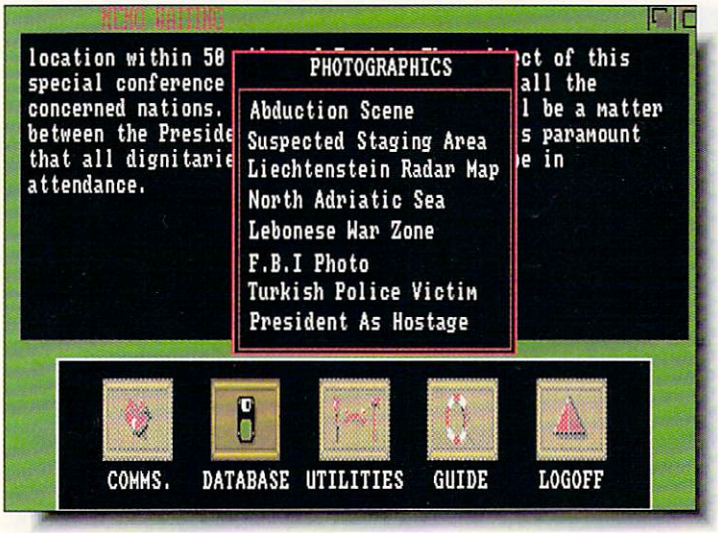
Even though they were never among my favorite cartoon characters, I still had high hopes for this game based on the MGM shorts. I was sorely disappointed. It is nothing more than a repetitive, sidescrolling arcade game that is far too difficult to play, especially for the children it's aimed at. You control Jerry, trying to grab pieces of cheese scattered around the screen while avoiding being captured by Tom. Unfortunately, you aren't permitted to move fast enough to escape him. The graphics are reasonably true to the originals, but the animation is poor. Give this one a miss.
- TM



BALANCE OF POWER: 1990 EDITION ★★★★+

Mindscape
3444 Dundee Road
Northbrook, IL 60062
312-480-7667

This classic game of geopolitical strategy has been updated to reflect current political trends. This version also exhibits less anti-war bias than its predecessor. Chris Crawford has added eighteen new countries, a "Crisis Advisory" feature, more background info, and a new, killer "Multipolar" level of play in which the actions of all countries effect the outcome of the game. *BoP: 1990* is a serious, challenging simulation for closet powermongers who've always wanted to rule the world. - JKC



THE PRESIDENT IS MISSING PREVIEW

Cosmi
415 North Figueroa Street
Wilmington, CA 90744
213-835-9687

The President Is Missing is one of the more interesting developments in the interactive fiction genre. Released last year for the C64, this version still shows its 8-bit origins, but the game is more than interesting enough to compensate. Fans of political thrillers and spy fiction will find it particularly intriguing, as you are assigned to ferret out who was in on the kidnapping of the President. To do that, you are given access to files that have the necessary information in them. Somewhere. Sifting through the evidence and playing secret agent is great fun. - TM

RED LIGHTNING ★★★★

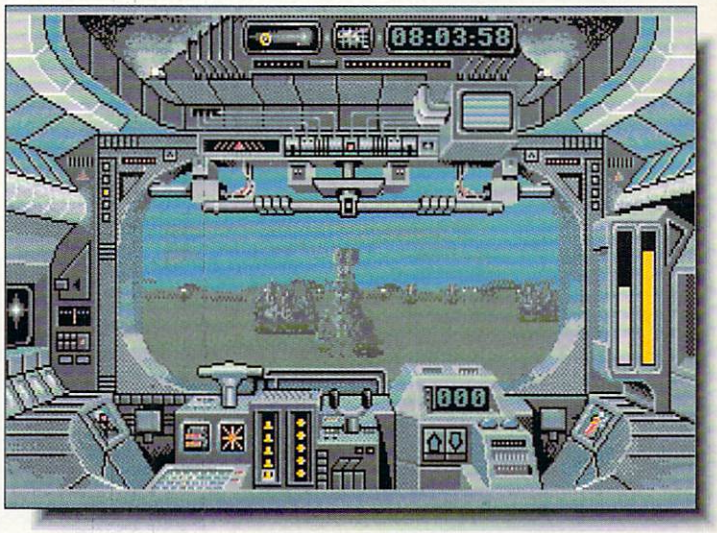
SSI/EA
1820 Gateway Drive
San Mateo, CA 94404
415-571-7171

SSI's hex-grid wargames are consistently the best in the business, and *Red Lightning* is no exception. A simulation of brigade-level battle in central Europe in the 1990s, this game incorporates some heavy research into the latest technology, strategies, and strengths of NATO and the Warsaw Pact nations. The user interface is slick, the response quick, the amount of detail awesome (right down to individual plane and tank data) and the documentation exhaustive. Highly recommended for experienced wargamers. - MRB

PROJECT NEPTUNE

★★★★

Epyx
600 Galveston Drive
Redwood City, CA 94063
415-366-0606

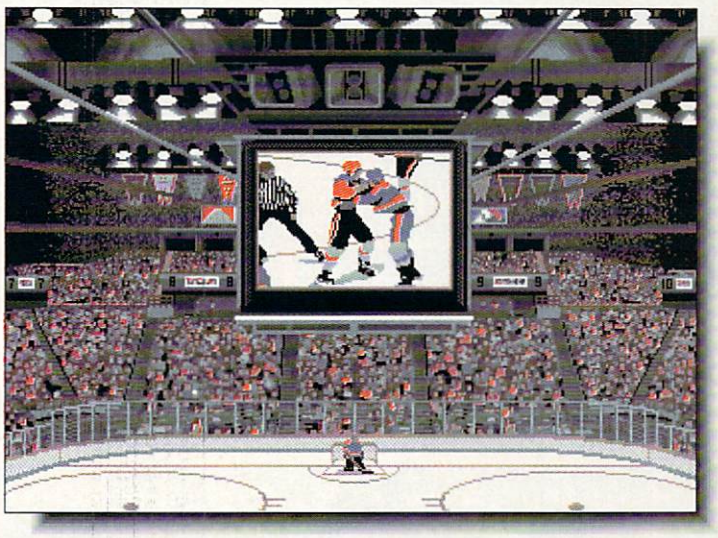


An underwater blast-up with a James Bondian scenario, *Project Neptune* has considerable going for it. Reminiscent of EA's *Return to Atlantis*, this European import from Infogrames is much better, with well-drawn graphics and just-right sound. The plot involves thwarting a supervillain (what else?) called the Yellow Shadow. There is considerable strategy involved in locating his bases and destroying them with the arsenal of weapons at your disposal. While not the best of its genre, *Project Neptune* does have enough depth to keep you involved and it's enough fun that you won't get bored with it. - TM

WAYNE GRETZKY HOCKEY

★★★★+

Bethesda Softworks
15235 Shady Grove Road
Rockville, MD 20850
301-926-8300



Smooth and slick are the two words I would pick to describe this excellent hockey simulation. Though the players are small, they are smoothly animated and play is augmented by realistic sound effects The user interface is quick and intuitive. Editing team rosters, selecting lines, calling plays -- everything is about as easy as it could be. The manual is very readable and is full of detail. If you're a sports game fan, you'll love this gem. - MRB

F40 PURSUIT SIMULATOR

★★★★

Titus
20432 Corisco Street
Chatsworth, CA 91311
818-709-3692

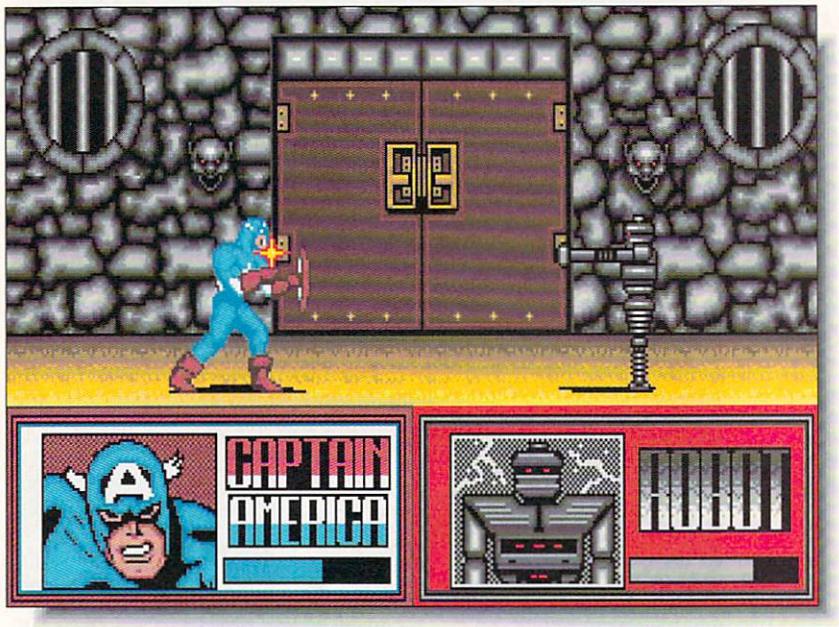
I think this game may have just caught me when I was ready to spend some time with a car race game. And don't let that 'simulator' in the title fool you, *F40* is car racing, pure and simple. The game is based on getting from Point A to Point B in several Western states, and finding your way while avoiding or trying to outrun the cops. There is little depth, but if you're in the mood for simple pleasures without the complexity of detailed controls, give it a spin. The fun is in the driving, not in reaching the destination.

- TM

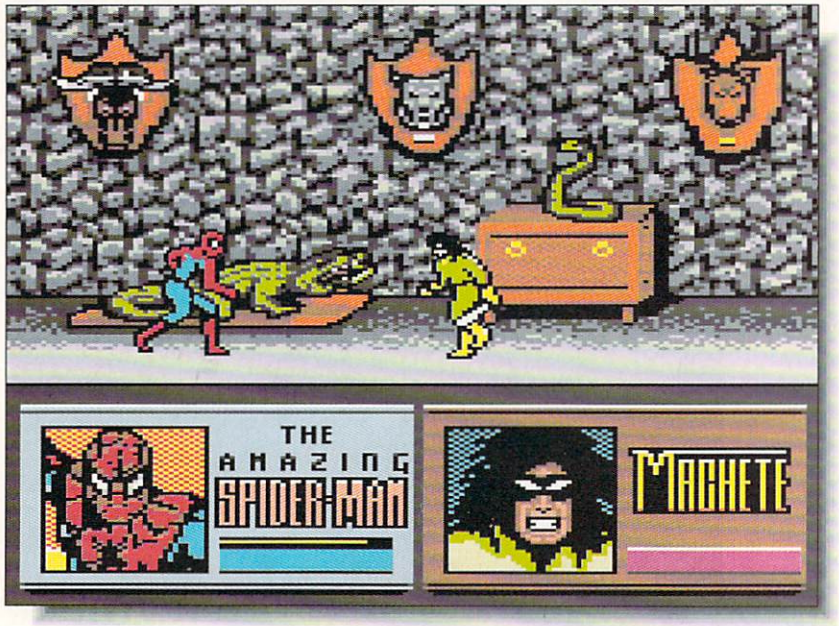
SIDE BY SIDE

DR. DOOM'S REVENGE

Paragon/Medalist
180 Lakefront Drive
Hunt Valley, MD 21030
301-771-1151



▲AMIGA ★★★+ ★★★+ C64▼



When I was a kid, I read and reread every Marvel comic book I could get my hands on, so I'm more than pleased to see Marvel characters finally making the transition to the videogame screen. In this first Marvel adaptation by seasoned gamemaker Paragon, Captain America and Spiderman travel to Doc Doom's castle to retrieve a stolen nuclear missile. If they fail, New York City is toast!

The game's format is unusual. First, you're given a four-color Marvel comic book that presents the prelude to the game. You see how Cap and Spidey team up, get the assignment from the President, travel to Latveria, and prepare to enter Doom's castle. Then you switch over to the game manual to read the dossiers of the eleven Marvel super-villians your heroes will face in the corridors of the castle, including Doom himself. Only then do you boot the game.

The game picks up where the comic book leaves off. You are first presented with a comic book page on the screen which depicts a couple of panels that show what happens next, such as "Cap encounters a guard robot." You tap the spacebar and a battle sequence loads which pits you against the indicated villian or trap, against a backdrop of some castle room or corridor. You jerk the stick around, playing either Cap or Spidey, depending on the scenario. If you win, you go back to the next panel of the on-screen comic. If you lose, you're shown a picture of New York City getting nuked by Doc Doom. Needless to say, you don't get to find out how the story ends unless you defeat all the villians and traps, including Doom himself.

Except for the obvious graphic differences, the C64 and Amiga versions are pretty much the same. The C64 version comes on both sides of two disks, but the game is more or less linear so there isn't much swapping involved. The Amiga version is on two disks, and you can use two drives if you have them.

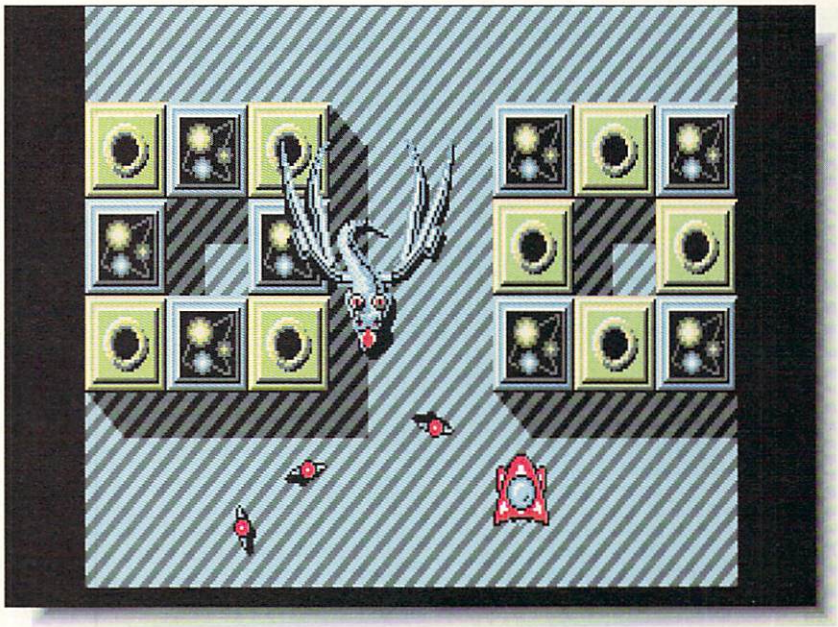
Fighting, web-slinging, shield-throwing, and flipping around like an idiot are all involved in the battle sequences, just like in the comics. There isn't much depth beyond that to this game, but die-hard Marvel fans won't care. It's enough just to see Our Heroes on the gamescreen!

- Mark R. Brown

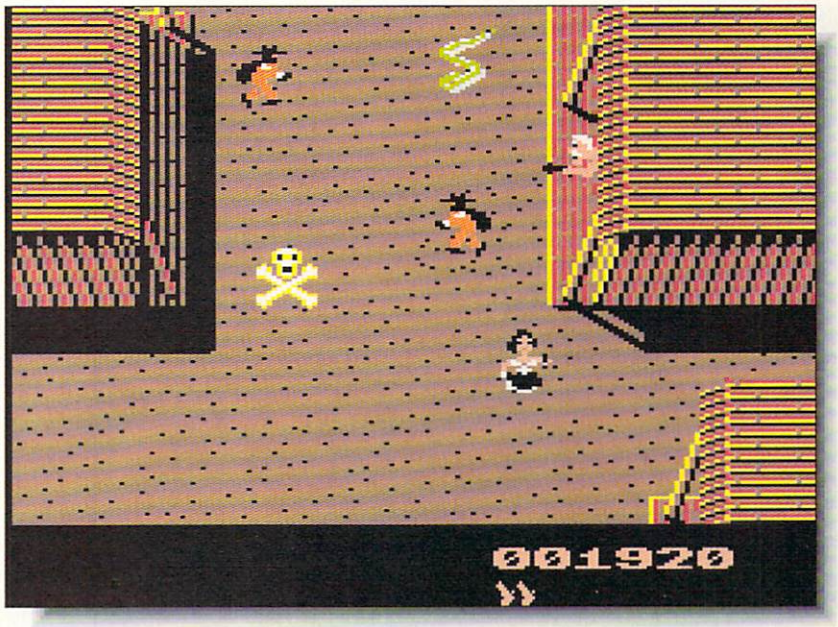
COMPARISONS

SHOOT 'EM UP CONSTRUCTION KIT

Avantage/Accolade
550 S. Winchester Blvd.
San Jose, CA 95128
408-985-1700



▲AMIGA ★★★★★ ★★★★★ C64▼



What a pleasure to be able to put five stars on both versions of this stand-out arcade game maker! Both are powerful enough to construct games the equal of about any scrolling shoot 'em up you care to name, and versatile enough to produce about any level of graphic detail you're willing to spend the time putting into the game. Being a fan of the genre, I've already started making my own game. After spending an hour learning the controls by modifying the three included games, getting *Project.1* (yeah, I know - I'm still working on the name) going was a piece of cake. And the results are better than some commercial games I've seen. Well, OK, I'll admit that I probably see more games than the average Joe Computer Geek, and therefore more than my share of turkeys, but still, *Project.1* isn't all that bad.

SEUCK is divided into several sections, each providing a vital function in the production of the finished game, which, by the way, is stand-alone and can be played without the construction kit. There are editors for background graphics, the play map, sprites, objects, player attributes, sound, and other functions. The editors are all among the best I've seen, capable of doing what you want without being overwhelming or complicated. The two built-in test modes let you check the progress of your game either "for real" or in a cheat mode.

The three finished games supplied for each version are more than worth the cost of the package. In fact, both versions of *SpaceHawk* would probably rate a three or even four-star rating on their own. We don't often mention game prices, but in this case it is a factor. In a magnanimous gesture, Accolade, as a kind of service to the game playing community, released *SEUCK* on their budget Avantage line, retailing it for $14.95 on the C64 and $19.95 on the Amiga.

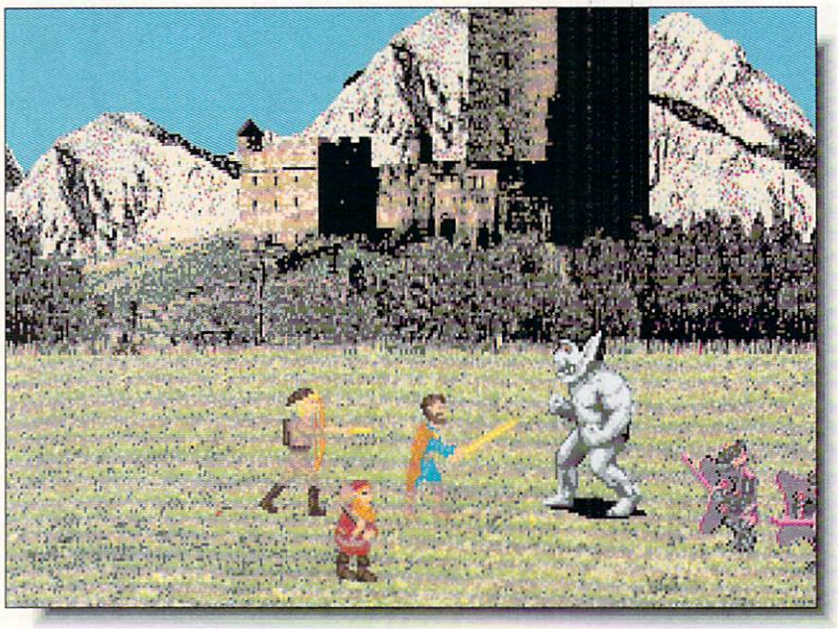
If you're one of those joystick jerkers (like me) who has always said, "I could design a better game than that!", the time has come to put up or shut up. For the next few days, I'll be working on *Hairy Mutant Android Eyelash Snappers from Maybelline Meet Tammy Faye Bakker*. Even if it isn't the greatest game ever done, at least I have tools that are as much fun to play with as any game I come up with.

- Tom Malcom

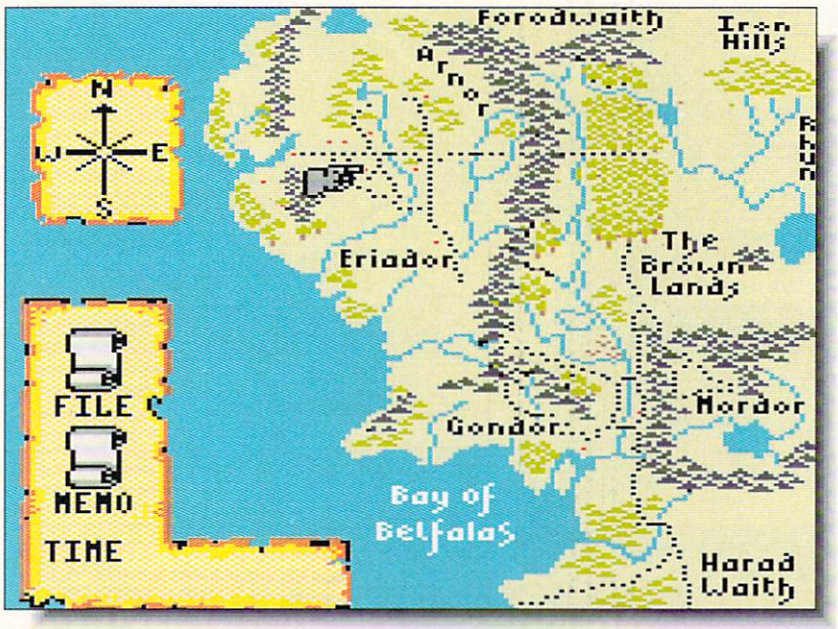
SIDE BY SIDE

WAR IN MIDDLE EARTH

Virgin/Mastertronic
18001 Cowan Str., Suites A & B
Irvine, CA 92714
714-833-8710



▲AMIGA ★★★★+ ★★★+ **C64▼**



Have you ever wanted to journey along with Frodo, Gandalf, and Aragorn on their adventures with the One Ring, or wondered what might have happened to the story if Frodo had not stopped at the Last Homely House? *War in Middle Earth* is a great game to help you live out such literary fantasies. The Amiga version is a vast, three-tiered game combining elements of role playing, wargaming, and animated adventuring, while the C64 version is primarily a wargame.

On the Amiga, the first tier is a strategic level which is comprised of a map showing the entirety of Middle Earth and detailing the locations of the opposing forces, Good and Evil. The second tier is a tactical, detailed, topographical, 36-screen scrolling map, and it is on this level that you maneuver armies. The third tier is an animation level depicting individuals or small groups of characters as they march along on their quests. Think of it as controlling the adventure from the top of Saruman's tower and peering ever closer to the ground.

The graphics on all of the levels are spell-binding and gorgeous -- almost exactly as I imagined Middle Earth to look like. You can try to recreate the action of the novels as closely as possible or come up with your own strategy to destroy the Ring and defeat the forces of evil. Unlike many games that parallel a book or movie, you're not locked into any certain sequence of events.

Gameplay is smooth and easy and can be speeded up by switching from normal to "hasty" or "very hasty" speeds. Switching modes is accomplished by clicking on a magnifying glass icon.

Because of memory restrictions, the C64 version is a very different, much scaled down game. The C64 version lacks the roleplaying feature and animated mode of the Amiga version. What's left is still a pretty good wargame, and animated battle sequences have been added to the C64 version. The two versions are quite different games with similiar graphical grandeur and the same theme.

War in Middle Earth will have a special place on the computer game shelf of J.R.R. Tolkien fans, but should also appeal to intrepid adventurers who haven't read the classic trilogy, but simply like a terrific adventure.

- Judith Kilbury-Cobb

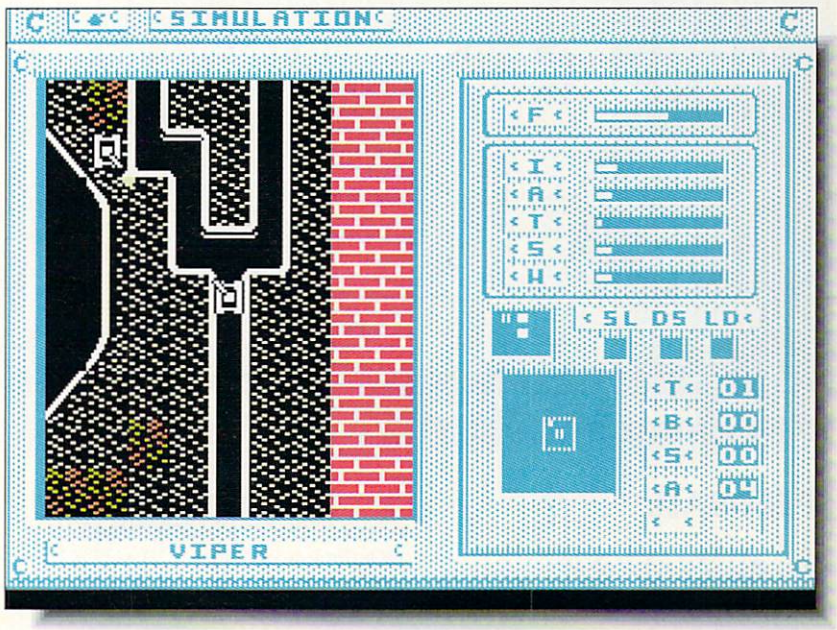
COMPARISONS

OMEGA

Origin
136 Harvey Road

Londonderry, NH 03053
603-644-3360

▲AMIGA ★★★+ ★★★+ C64▼



I am a longtime fan of Keith Laumer's *Bolo* stories about cybernetic tanks, so I looked forward to Origin's *Omega* with great anticipation. I wanted to be able to design and program battle tanks of my own. In many ways, *Omega* is the program I had hoped for. In others, it falls short.

A fat manual fills most of the box, supplemented by an orientation guide and a machine-specific instruction booklet. Before you boot up, read them all carefully and be prepared to refer to them often.

Omega is not a fast-action arcade game. Its appeal lies in being able to put together a tank's armament and then program its AI unit to perform well in simulated battles. The AI language is the fun part of this program, which, unfortunately, will limit its appeal to those who enjoy programming. The AI language is very English-like, but it will definitely scare non-programmers away.

The battlefield editor is fun, and during the battles you can monitor your tanks' performances against a field of others. But you can't watch your programs "trace" as they run, which would be enlightening. And though the battlefields look nice, in both C64 and Amiga versions the battle graphics are blocky and move in a jerky manner.

I also found the program hard to get into. Though the user interfaces are clean, quick, and easy to use, there's nothing in them to take you intuitively from one step in the process to the next. I strongly suggest following the process all the way through once using the large manual's tutorial section.

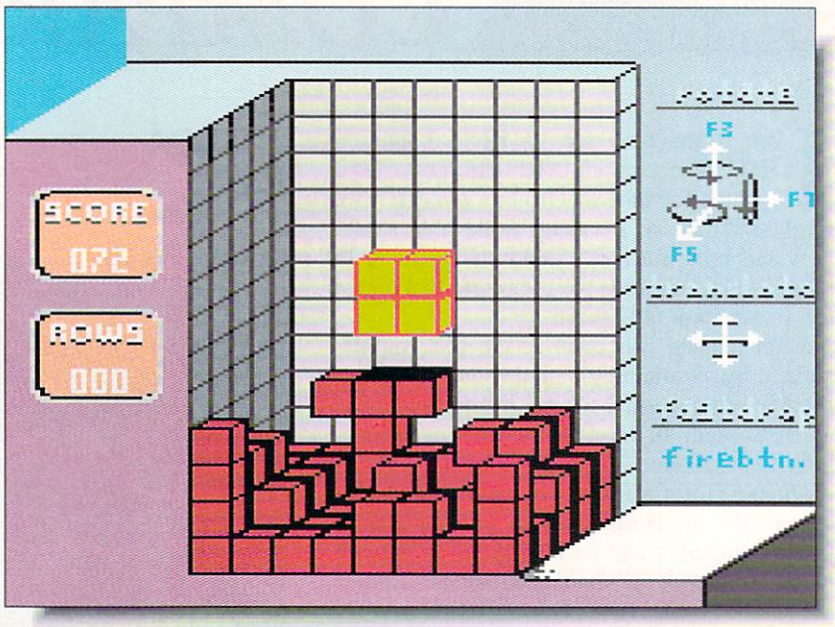
The Amiga version is more colorful than the C64 version, which tends towards blue/white monochromatic. Amiga *Omega* (sorry) comes on one disk, where the C64 version comes on both sides of two floppies, which makes for a lot of disk swapping. However, the C64 version was quick and responsive in most other respects. As for bugs, the Amiga version did crash the screen when I inserted an unformatted disk at the initial prompt.

I like the premise of this game, and for wargamers and others who are used to wading through the documentation before they play, it's very good. For those who would like more bells and whistles and a more intuitive flow, it's rougher going. - Mark R. Brown

Just when you thought you had your *Tetris* addiction under control, along comes *Mental Blocks*, a killer four-game compendium of brain twisters that are about as easy to let alone as a bowl of popcorn.

The first game is like those IQ tests where you must figure out which of four flat, unfolded cubes would fold up to become the pictured solid shape. The other pattern-matching game simply has you matching abstractly patterned squares as fast as you can. Both are kind of fun, if not very deep.

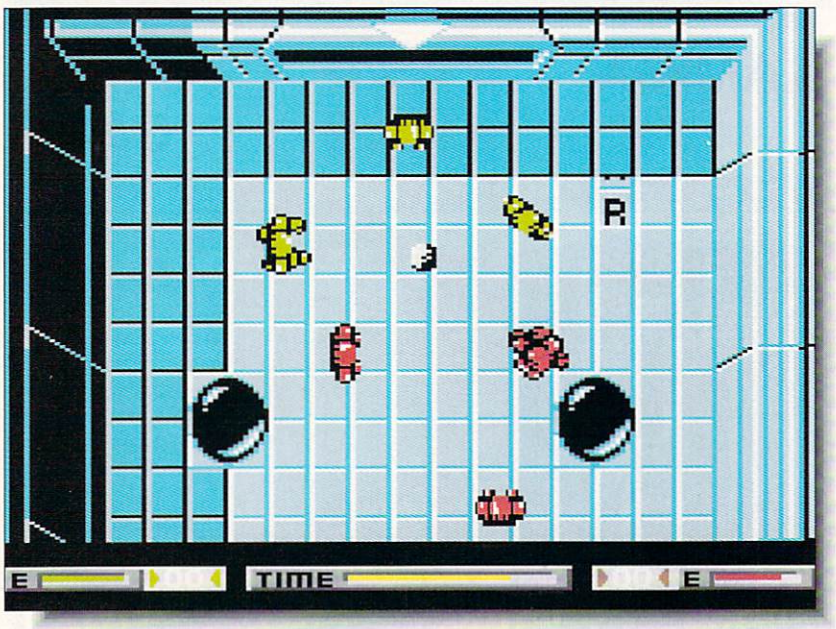
The main reason to buy *Mental Blocks*, though, is for the two 3D versions of *Tetris*. The first is basically a perspective view of the regular flat game, and is well-done but with blocks only one cube deep. The full 3D version has more complex shapes that you must fit together as they drop from the top of the screen into a 5 x 8 square grid. The pieces are rotated in three dimensions by the function keys, while positioning on the grid is done with the joystick. It takes a little practice, but once you get the hang of it, you might as well not make any plans for a few weeks - you'll be playing *Mental Blocks*. - Tom Malcom



MENTAL BLOCKS

★★★★★

Avantage/Accolade
550 S. Winchester Blvd.
San Jose, CA 95128
408-985-1700



SPEEDBALL

★★★★★

Spotlight/Cinemaware
4165 Thousand Oaks Blvd.
Westlake Village, CA 91361
805-495-6515

One of the first wave of Cinemaware's new import line, *Speedball* combines elements of hockey, bumper pool, football, and mayhem into a greased-lightning entertainment that will leave you panting by the end of a game. While it can be played solo and that's a good way to practice, the game is really designed for two players going head to head, and it is there that it's at its best.

Speedball has a host of options, from choosing team captains to bribing officials. During play, you can slide, tackle, dive, jump, and generally perform all the actions you would expect if you were playing this imaginary new sport in the real world. Along the way, you can collect power tiles that have various attributes to help your team. It all makes for varied play with considerable depth. The graphics are superlative, with a characteristic sharp British look. The playfield is roughly three times the height of the screen, and the scrolling is absolutely smooth, automatically following play as the ball moves.

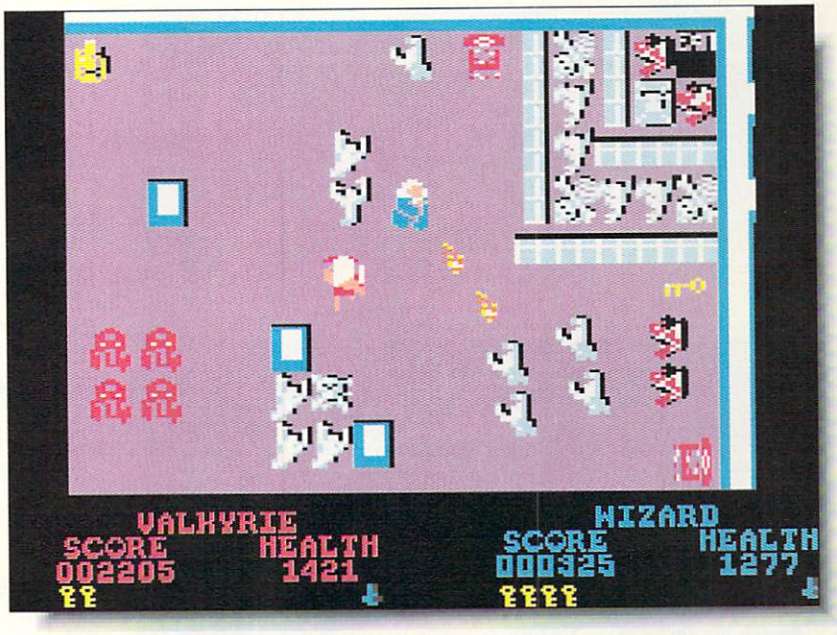
Find yourself a copy of *Speedball* and a fiercely competitive friend, and have at it. You'll have a great time. - Tom Malcom

Gauntlet II is a fast and furious sequel to *Gauntlet*, the arcade adventure classic. In the C64 version you may choose up to two characters from four races; wizard, warrior, valkyrie, or dwarf. (The Amiga version can use all four characters at once controlled by four joysticks via a special adapter. Details for obtaining one are in the manual.) Each character has different skills and powers, but all begin with the same amount of Health points. After choosing your heroes, get ready for action!

This game is most fun when played with a pal. Team effort is almost required to get very deep into the Dark Dungeons. *Gauntlet II* includes over 100 new dungeon maze layouts to explore, lots of treasure to grab, and bazillions of baddies to bash. Detailed graphics and digitized sound effects add to the frenzy, and the villains are numerous and nasty. Tips for doing away with monsters are given in the manual. The emphasis here is on points, not puzzles, making this a true arcade game.

Gauntlet II is a terrific fast-paced arcade game for die-hard demon-slayers.

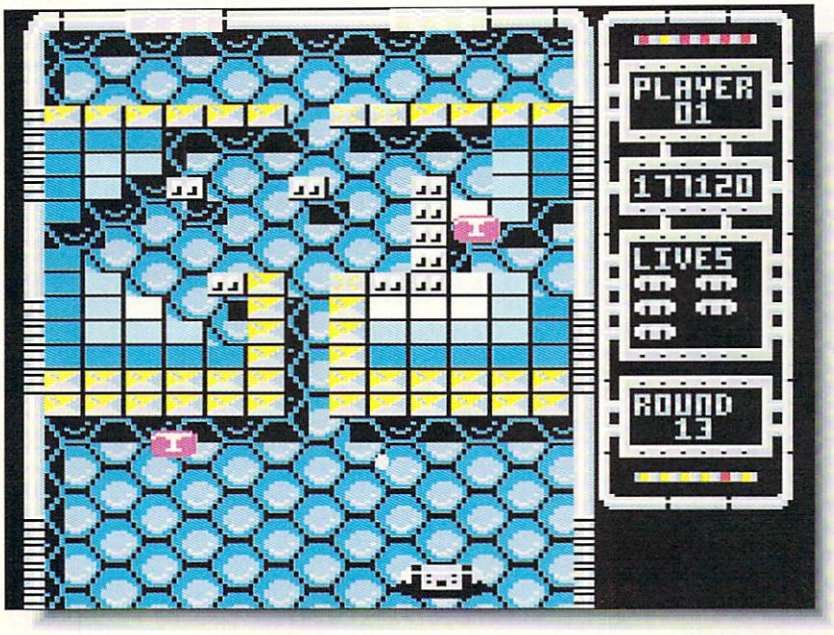
- Judith Kilbury-Cobb



Gauntlet II

★★★★★

Mindscape
3444 Dundee Road
Northbrook, IL 60062
312-480-7667



ARKANOID II

★★★★★

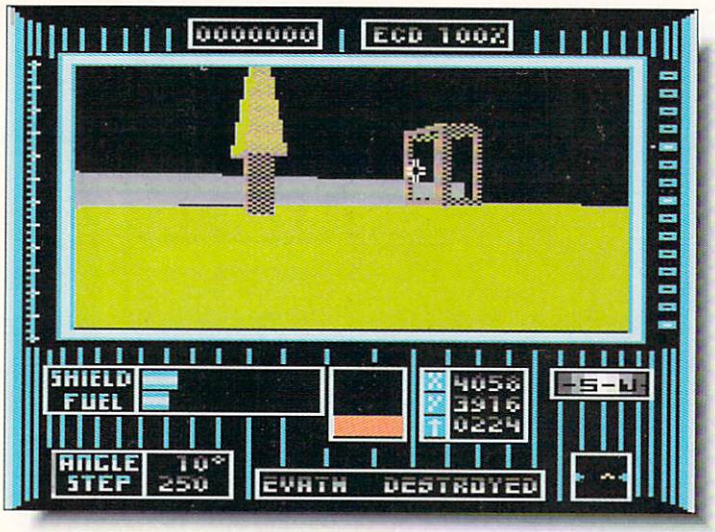
Taito
267 W. Esplanade Plaza
N. Vancouver, BC, V7M 1A5
Canada 604-984-3344

This game is one of the best arcade conversions ever done for the C64. It has all the frenzied action of the original *Arkanoid* and adds extras like reappearing silver and sliding gold blocks, as well as new capsules for a "shadow" Vaus, a smaller high-score Vaus, and "Mega Energy Balls" that will destroy even gold blocks.

Up to 4 players can play using the keyboard (touchy), joystick (better), or 1351 mouse (best). The graphics are great, the action fast, and the sound effects and music wonderful. [INFOMania Game Tip: Enter DEBBIE S on the High Score screen for infinite lives. You'll need them to finish Level 15!]

But I do have one gripe... The Apple IIGS and IBM versions include the *Arkanoid Construction Set*, an editor that lets you create your own screens. The C64 version does not, even though the entire back side of the disk is empty. We've seen this kind of corner-cutting before, and it's unfortunate. *Arkanoid II* deserves a five-star rating just as it sits. But C64 owners will have to do without the construction set just because their machine lacks status.

- Mark R. Brown



DARK SIDE ★★★★

Spotlight/Cinemaware
4165 Thousand Oaks Boulevard
Westlake Village, CA 91361
805-495-6515

Reminiscent of Epyx' *Space Station Oblivion*, *Dark Side* is one of the first titles on Cinemaware's new Spotlight Software label. The game is set on an alien world where you must locate and destroy energy towers in order to save the planet. The graphics are solid modeled, the soundtrack very good, and the play difficult but not impossible. Control is a joystick/keyboard combination with all kinds of options and conveniences. I do wish that movement were a little smoother, but it's still a game well worth your time.

- TM

REVENGE OF DEFENDER ★★★+

Epyx
600 Galveston Drive
Redwood City, CA 94063
415-366-0606

Actually an 8-bit version of Logotron's *StarRay*, this game retains much of the same look, smooth scrolling, and incredible speed as its 16-bit sibling. It's basically *Defender*, updated with tasty backgrounds and parallax scrolling. Your assignment is to protect a series of resource installations from invading aliens, which come in all kinds of shapes, many animated. The action is furious, if not exactly deep, and you can start on any of the first four levels (there are 7 altogether). If you're feeling particularly mindless and want to do a little alien blasting, *Revenge of Defender* is a fine choice.

- TM

MIGHT & MAGIC II ★★★+

New World Computing
14922 Calvert Street
Van Nuys, CA 91411
818-785-0519

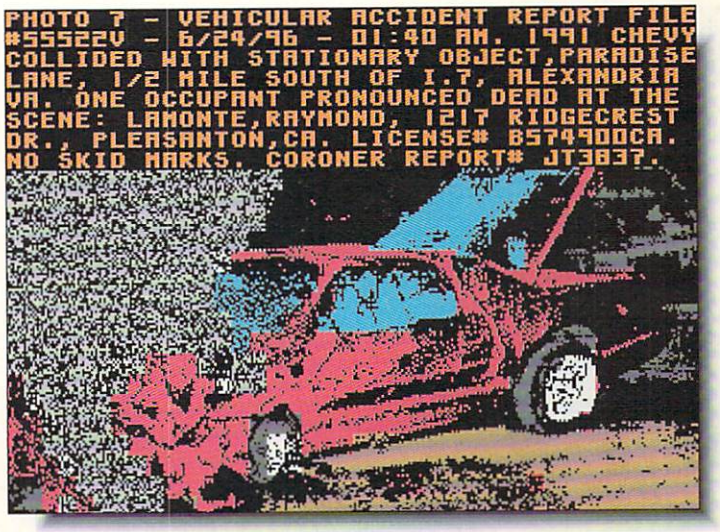
Might and Magic Book II has you embarking on a quest to save the world of Cron. *M&M II* features two new character classes, more weapons, more skills, more monsters, and more spells than you can shake a wand at. It also has auto-mapping, a welcome feature for mapping weary questers. (Be forewarned, however, you must have a character with cartographer skills for this feature to work.) You can also transfer characters from *Book I*. The detailed scenes, animated monsters and new features combine to make *M&M II* a sure hit.

- JKC

PRESUMED GUILTY

PREVIEW

Cosmi
415 North Figueroa Street
Wilmington, CA 90744
213-835-9687

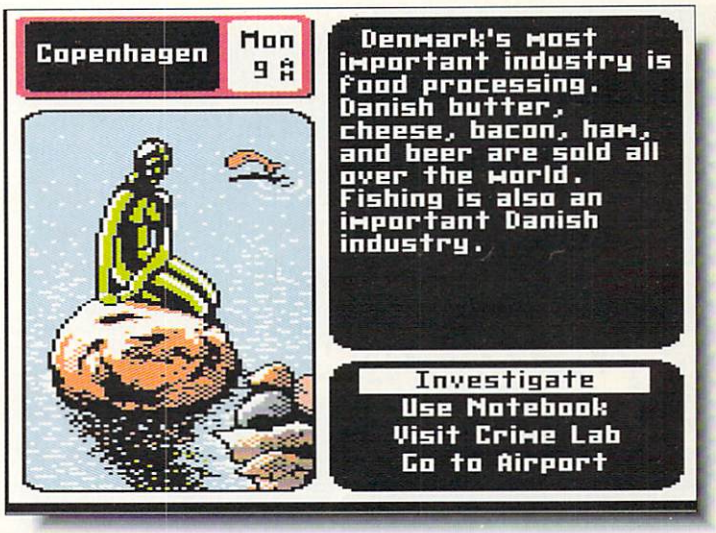


Using the same intriguing interface as the previously released *The President Is Missing*, *Presumed Guilty* is the second in Cosmi's series of interactive political thrillers. The byzantine plot has you framed by a mysterious villain called The Falcon for the murder of a top scientist, and you must clear yourself by rooting around in the computer files of COPNET, a fictional law enforcement agency. The job is not easy, but I found considerable satisfaction in uncovering pertinent bits of information and piecing them together. Good stuff! - TM

WHERE IN EUROPE IS CARMEN SANDIEGO?

★★★★+

Broderbund
17 Paul Drive
San Rafael, CA 94903
415-492-3200

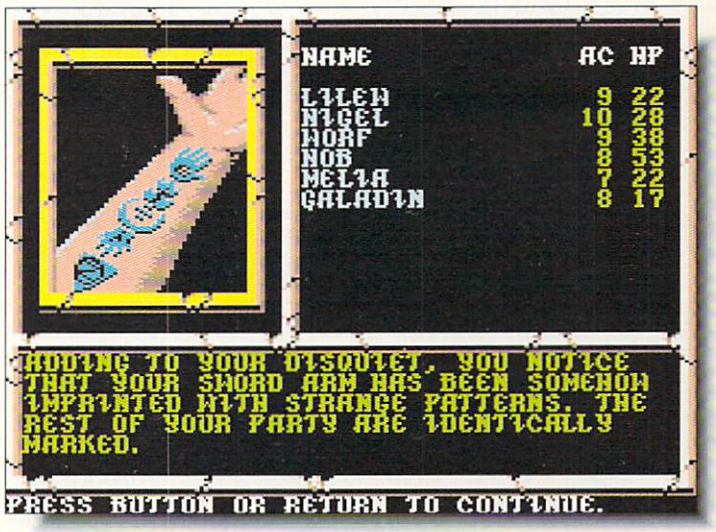


Carmen Sandiego and her gang are on the loose again and this time they are terrorizing Europe. Your mission, should you choose to accept it, is to track them down, and if you're not careful you just may get a pretty good lesson in geography at the same time. The *Carmen Sandiego* games are a great way for kids (and adults) to develop their powers of deduction and knowledge of geography. Combining elements of adventuring, mystery, and trivia, *Where in Europe is Carmen Sandiego* succeeds in being marvelous fun, as well as highly educational. - JKC

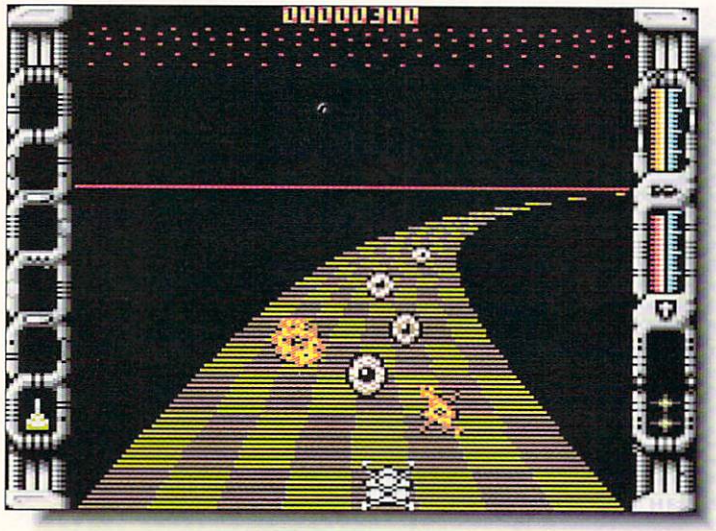
AD&D CURSE OF THE AZURE BONDS

★★★+

SSI/EA
1820 Gateway Drive
San Mateo, CA 94404
415-571-7171



Curse of the Azure Bonds is the sequel to *Pool of Radiance* and third in the series of official Advanced Dungeons and Dragons games. After being ambushed while marching to Tilverton, you find five blue marks on your arm which have the power to control your actions. *Azure Bonds* includes new player types and new spells, and allows characters to be transferred from *Pool* or *Hillsfar*. Like *Pool*, *Azure Bonds* concentrates heavily on combat sequences, and succeeds in sticking closely to dice-rolling D&D gaming. If you like action, pick this one up. - JKC

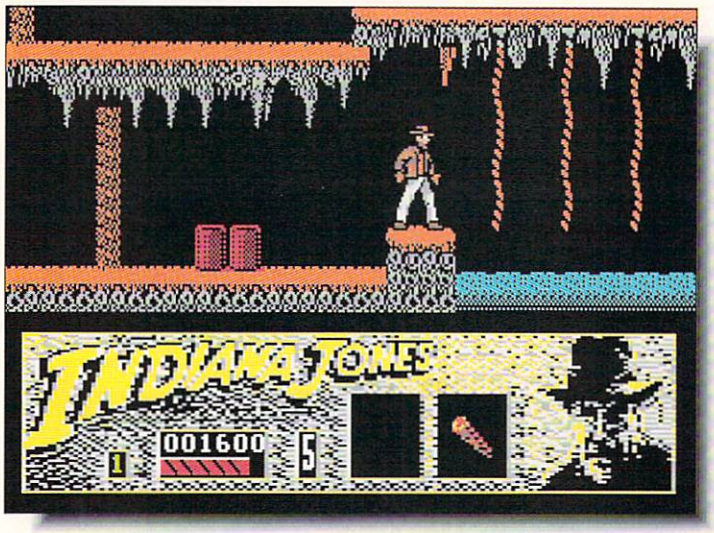


ELIMINATOR

★★★★

Hewson/Medalist
180 Lakefront Drive
Hunt Valley, MD 21030
301-771-1151

Mindless arcade action at its best, *Eliminator* has you steering a high speed ground vehicle along The Road, a sort of intergalactic superhighway. It is strewn with obstacles, hostile aliens, and other stuff to make your trip more interesting and more deadly. The twisting, rising, and falling Road zips along at a rate furious enough that I had to disengage my brain and rely solely on reflex (which at my age doesn't get me nearly as far as I'd like). The graphics are classic British, and the music is catchy, though even following the docs I couldn't get it to turn off. - TM

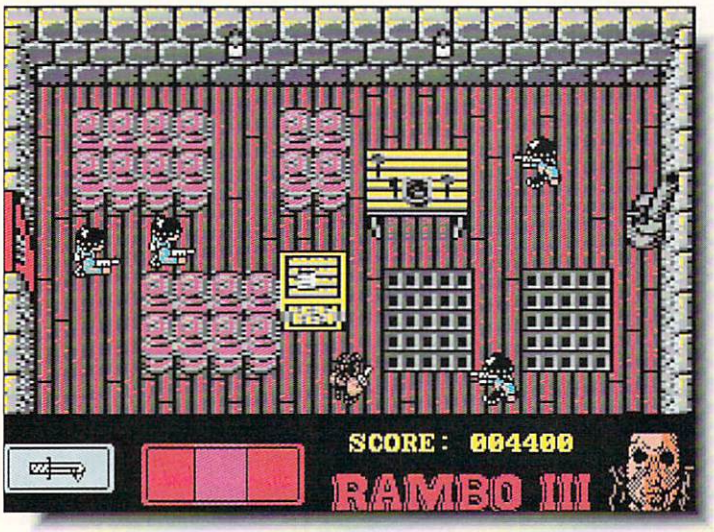


INDIANA JONES & THE LAST CRUSADE

★★★

Lucasfilm/EA
1820 Gateway Drive
San Mateo, CA 94404
415-571-7171

One would think that the company that made the movie and produces the best special effects in the film industry would have some idea of how to write a game. This one is a tired action arcade game that plays decently, but with all the excitement and inspiration of an afternoon spent watching water evaporate. The PC version of *Last Crusade* is a full-fledged, fun-looking graphic adventure, but apparently the Lucasfilm people felt the C64 version wasn't worth the effort of doing well. I feel cheated. - TM



RAMBO III

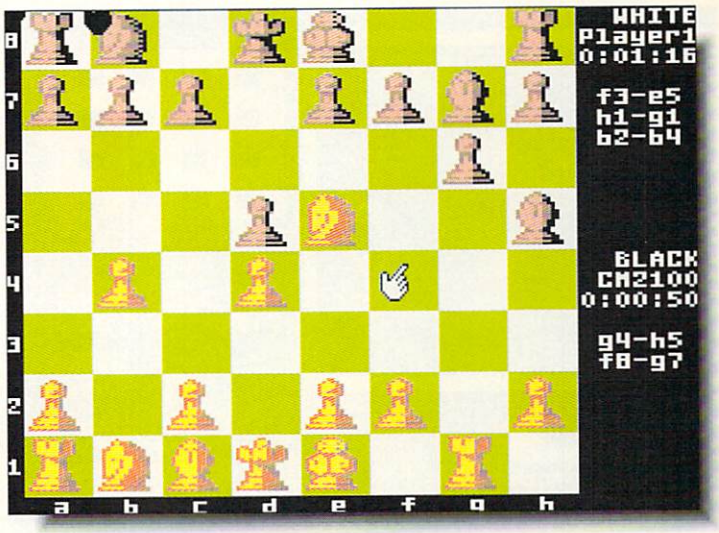
★★★+

Taito
267 West Esplanade Plaza
North Vancouver, BC, Canada V7M 1A5
604-984-3344

This game has captured all of Rambo's wit and charm, has the same depth as the movie, and a body count that makes the Battle of the Bulge look like a hangnail. The game is divided into three segments and has you as the inarticulate hero trying to rescue Colonel Trautman, who has been taken prisoner in Afghanistan. (Personally, I'd rather let him rot.) The game's fine graphics, good sound (though, disappointingly, there's not a single "Yo!"), and fast play are Taito trademarks; I just wish they would use them on a game that doesn't involve bathing in blood. - TM

THE CHESSMASTER 2100 ★★★★★

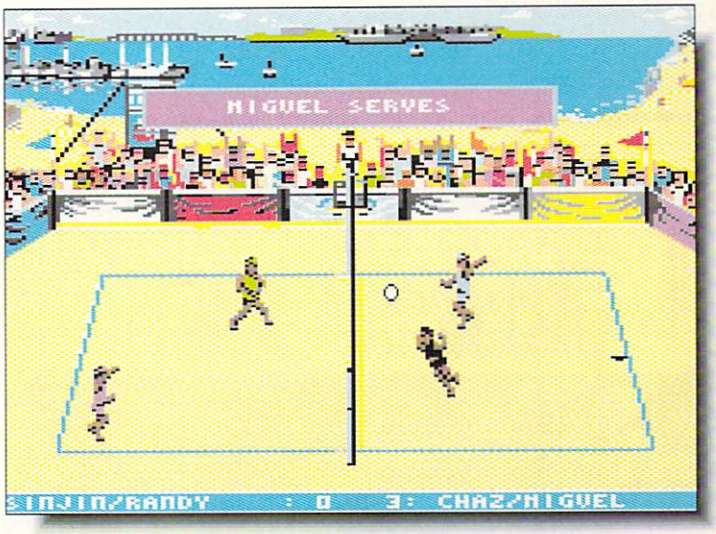
The Software Toolworks
19808 Nordhoff Place
Chatsworth, CA 91311
818-885-9000



Based on algorithms developed for the top-ranked Fidelity electronic chess game, this is the smartest chess program you can buy for a micro. Getting beat is no problem, no matter what level you play at. Fortunately, you can also choose beginner and "Coffeehouse" levels that give you a fighting chance. The user interface is great, with pop-up menus and optional joystick movement. You can load and replay a bazillion historical games, set up problems, be tutored, get hints, etc. You can even just sit back and watch *Chessmaster* play itself. For serious chess buffs, this is the best there is. - MRB

KINGS OF THE BEACH ★★★

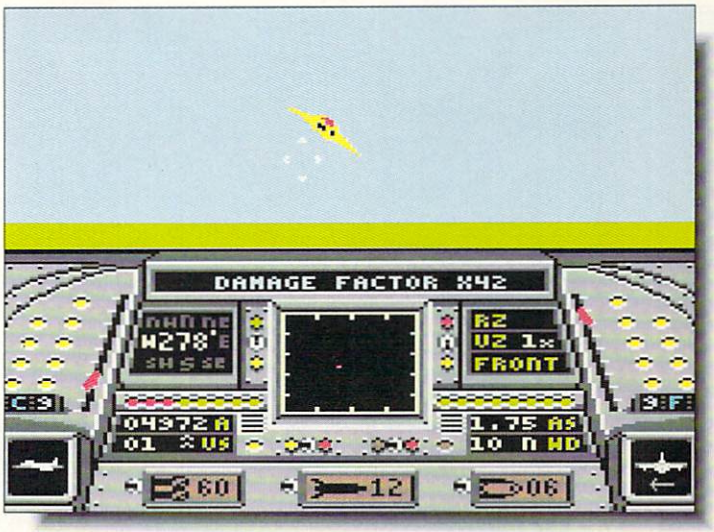
Electonic Arts
1820 Gateway Drive
San Mateo, CA 94404
415-571-7171



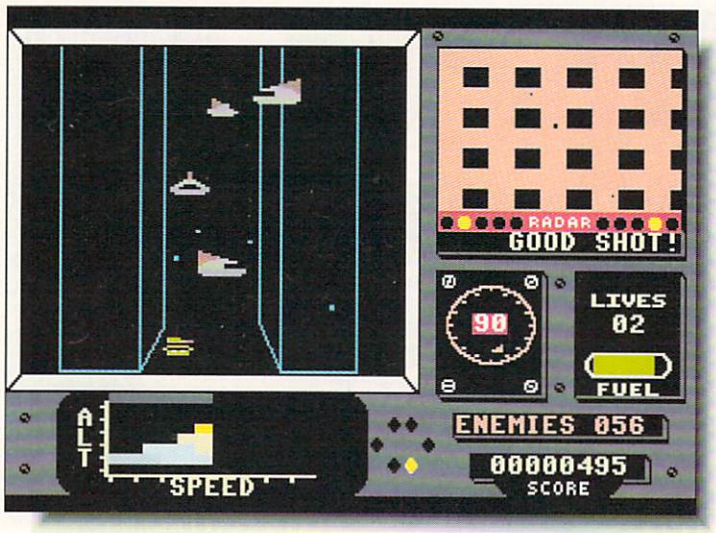
Provided you're willing to invest considerable time practicing this "Professional Beach Volleyball" game, it looks like it might be some fun over the long haul. After some excellent intro music, it offers two-on-two volleyball action. The game's biggest weakness is that there are too many multiple click firebutton presses and unintuitive joystick movements involved in the play system. I also think the ball moves a little too fast to be able to maneuver your player into position for the return shot. At least there are practice areas, and the beach bullies don't kick sand in your face. - AF

SNOW STRIKE ★★★+

Epyx
600 Galveston Drive
Redwood City, CA 94063
415-366-0606



This is a nicely done little flight combat simulator with a timely "blast the South American drug lords" theme. Air-to-air, air-to-ground, and air-to-sea missions are all available. Your plane is an F14. It flies nicely, with a "look and feel" similar to most Epyx battle games. The joystick has a good feel, and keyboard commands are easy to learn. The manual offers some combat tips and tricks to get you going. There are some nice little bits of detail involved like choosing crew members, "Taps" for downed pilots, and parachuting out of downed planes. Not bad. - MRB



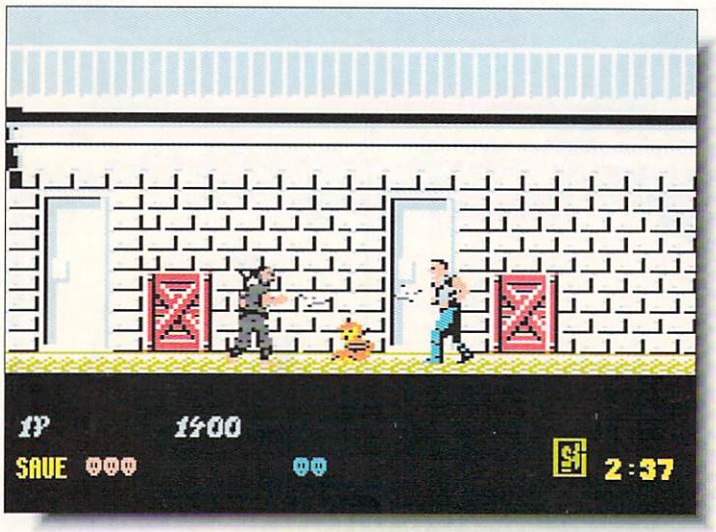
APACHE STRIKE

★★★

Activision
3885 Bohannon Drive
Menlo Park, CA 94025
415-329-0800

Apache Strike invites comparison to Sega's *Thunderblade*, and it comes off poorly in the contest. The biggest problem is boredom. The first level has you flying your attack helicopter through city streets looking for enemies to blast. Unfortunately, the streets are all alike: an unrelieved square grid pattern of closely spaced skyscrapers. The other problem is that the response is too slow to be able to draw a bead on the enemies, and they're too easy to lose track of besides. Get yourself a copy of *Thunderblade* instead.

- TM



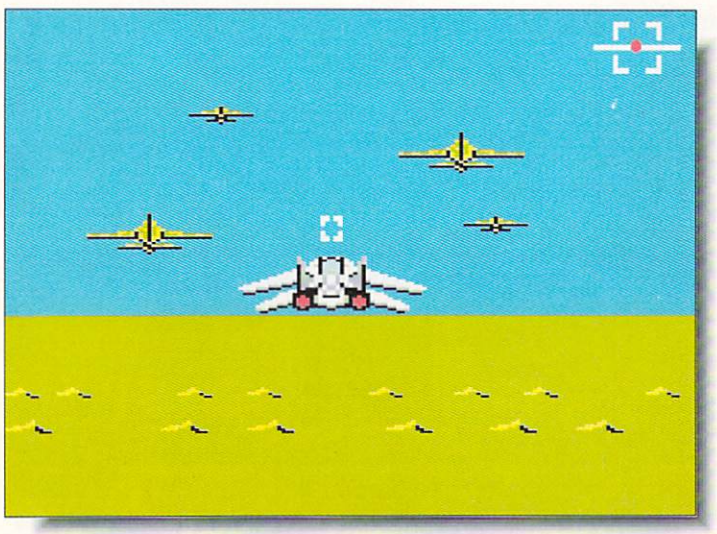
SHINOBI

★★★+

Sega/Mindscape
3444 Dundee Road
Northbrook, IL 60062
312-480-7667

Having burned a few quarters on the arcade machine, I was expecting a little better from the C64 conversion. The graphics aren't, of course, quite as good, but they're very passable. It's in the sound that the games falls short, with the best sounds little more than clicks and whizzes. The conversion seems very accurate, though I have considerably more trouble jumping in the 64 version. I have to admit that I'm pretty burned out on ninja-theme games, but this is one of the better ones.

- TM



AFTERBURNER

PREVIEW

Sega/Mindscape
3444 Dundee Road
Northbrook, IL 60062
312-480-7667

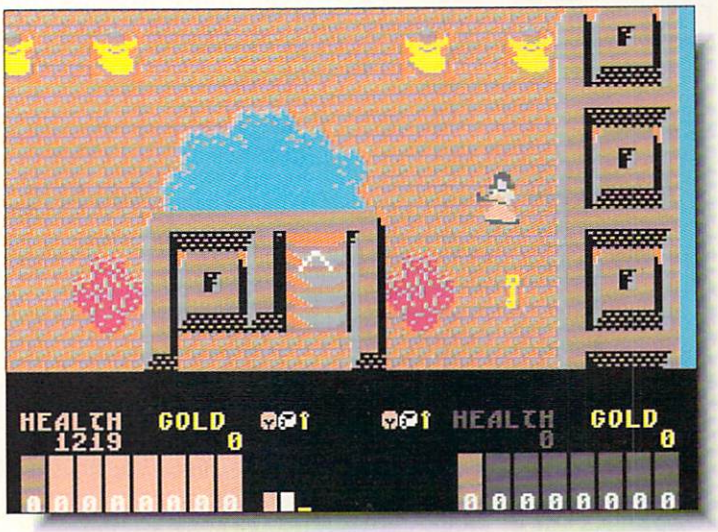
Flying and shooting are about the only activities involved in *Afterburner*, but you're flying and shooting so fast that you don't have time for anything else! The beta version I've been playing is very fast, and will let you roll your plane a complete 360 degrees (it's given me a little motion sickness in the process). The game is down-to-basics dogfighting in the sky through various levels, and though the graphics are only about average, the play is wild enough to make up for it.

- TM

FIRE KING

★★★+

SSG/EA
1820 Gateway Drive
San Mateo, CA 94404
415-571-7171



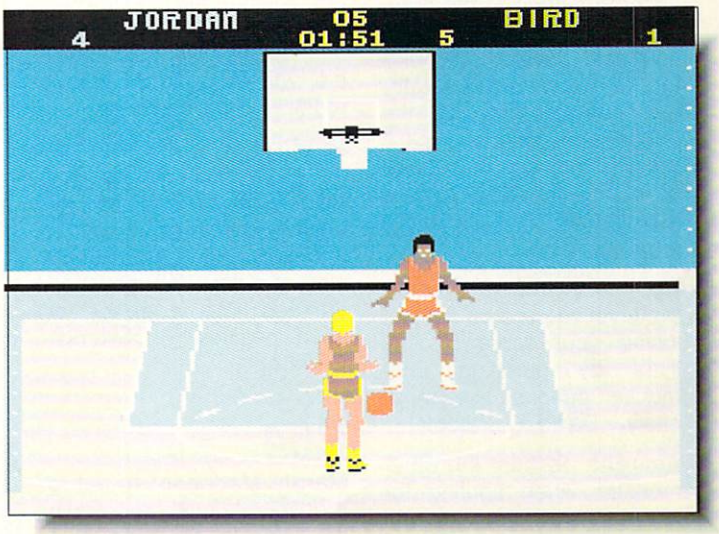
This action adventure plops you in the midst of an unnamed kingdom in the midst of a crisis. The *Fire King* has been murdered by a Beast which has moved into the catacombs under the kingdom, occasionally snacking on unsuspecting townsfolk. The storyline is familiar and the graphics and sound effects are standard-issue stuff. There is a two player mode to liven things up, and you can chose from six characters (Emily the Enchantress winks at you while you are making your choice.) A solid little adventure.

- JKC

JORDAN VS. BIRD: ONE ON ONE

★★★

Electronic Arts
1820 Gateway Drive
San Mateo, CA 94404
415-571-7171



You've got lots of moves to master in this pro-level squeakball matchup. Prepare to practice. Air Jordan and Larry Bird's player stats are all in the program code, and it's fun to watch the computer play them against each other in a game of one-on-one, or in slam-dunk and 3-point contests. (You can also play against the computer or another human.) Not much graphic detail here, and the players are huge (1/3 screen) which makes for somewhat sluggish response, but it's still quite fun.

- MRB

OMNI-PLAY BASKETBALL

★★★★+

SportTime
3187-G Airway Avenue
Costa Mesa, CA 92626
714-966-1311

From the developers who brought you *Superstar Ice Hockey* comes this excellent 5 man per side basketball simulation. This unusual modular game is supplied with an "SPA League" module, with optional add-on modules available for Pro and College play. You get the "End View" game shown, and can add a "Side View" module. This is one of those great games where you can watch the computer play itself, or play two humans or human vs. computer. You also choose whether to control players and plays, or just one or the other. Good play action and a lot of fun.

- MRB

INFO MANIA GAME TIPS

GAME TIPS

Here are some secret "side doors" and "back doors" to your favorite C64 and Amiga games, discovered by INFO readers!

AMIGA

Batman: To gain energy faster, go to a window with a thug in it, walk to the left or right edge of the window (don't go to a side with a wall) and stand so that when you throw a batarang, it leaves the screen immediately. If you do this just when you hold down the button and the thug walks to the edge you're at, he will become pinned to the edge of the screen for as long as you hold down the firebutton. When he drops an energy device, release the button and you can pick it up. The trick can be repeated in other windows to gain more energy. - Max Hagedorn

Robbeary: You can restart the level you are on without losing your score or any lives by pressing both mouse buttons simultaneously. - David A. Choboter

Aaargh!: To beat the other monster when fighting for an egg, hold your ground and punch. If you keep eating even when your life shows full, it will keep going up even though you can't see it. - Bruce Carey

Sinbad: If you get killed, click the quit icon twice in rapid succession and then immediately click on Resume Game, and continue playing, minus your boat crew. - Gerry Peiser

Double Dragon: To avoid a fight with the first Abobo on Mission 1, make sure to kill all of the bad guys up to the girl. When you kill her, take the whip, go up the ladder, and keep walking. When the Abobo breaks out of the wall, he should disappear. - David Herman

Crystal Hammer: On starting the game, hold down the left or right mouse button as normal. If you click the other button before the ball appears on your paddle, you will advance to level 26. - Mike Prostka

Mindroll: The first level of the game really isn't a long plank after all. You have to be very careful to roll down the mere five squares one step at a time. You are then dumped into a series of short puzzles. - Lawrence E. Parent

C64

Marble Madness: To get to the secret level, roll down the ramp in level one, give the marble a burst of speed and jump to the left onto the platform with the numbers. Roll to the 3 and then move northwest seven squares. Sit on this square until the timer hits 13. Your marble will sink and in twelve more seconds you will be in the Water Maze and have 98 seconds on the timer. - Derek Godat

Dragon's Lair: When you are on the magical horse, if you go all the way to the left, you won't hit a wall through the entire ride, though you can still be hit by fireballs. - Tom Ferro

Pacmania: Reset the computer after loading, and enter POKE 22459,173 to disable sprite collision, POKE 28520,165 for infinite lives, and then restart the game by entering SYS 14336. - Alan Curry

Karnov: On the 4th level, you can use the ladder to go over the cave instead of through it. On the 3rd level, look for a hole in the ground with brown mud on top of it, and fall into it. It opens up into a secret cavern. - James Mayer

Neuromancer: On the street east of the Matrix, you can slip through the south wall to get to the end of the game. - Derek Godat

Ghosts 'N Goblins: When fighting the dragon, run to the far right, against the gateway and you will be invincible as long as you stay there. - Derek Godat

Guerrilla War: When the 'Fight on Guerrillas' screen appears, flip off the disk drive. You will stay at the current level, advancing only when you turn the drive back on. - Derek Godat

Heavy Metal: While in your MBT, after destroying a target, keep firing as long as explosions keep appearing on the screen and your score will keep going up, too. - Jim Fisher

Robocop: If you shoot sideways instead of straight up, most of the bad guys won't come back at the beginning of another building. - Andy Vega

John Elway's Quarterback: When playing against the computer and you're on the receiving end at kickoff, hold the joystick up and right before the ball goes over your head, press the firebutton to dive and catch it. You should end up around the fifty yard line. - David Sheely

Pirates: When in a town, go to the tavern, sign up the men who want to join your crew, then save the game. Reboot, and go through the process again. Each time you do this, you will get the men, your log will record it as a visit, and you'll have as many men as you need. - Steven Hurdle

Zak McKracken: Take the butter knife from the kitchen when you start out. You can sell it at the Buy/Sell Shop on 13th Avenue for $1500. - Bruce Carey

If you've discovered hidden "secret tricks" in your favorite game, share them with other INFO readers! We're not interested in strategy tips, but true "side doors" or "back doors" that work to your advantage, or let you do something weird and wonderful. If we print your tip, we'll include your name and send you a world-famous INFOManiac Kit! Don't forget to tell us which machine the tip is for! Send to: INFO Mania, PO Box 2300, Iowa City IA 52244.

GAMES COMING SOON

COMING SOON

Here's our latest list of games recently announced by your favorite game companies. Games that we've actually received are marked with an asterix (''). For even more exciting new game news, check the Game Review section in this issue.*

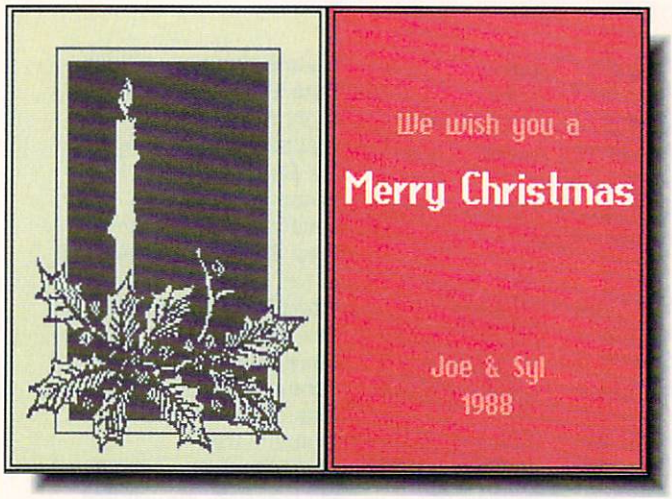
AMIGA

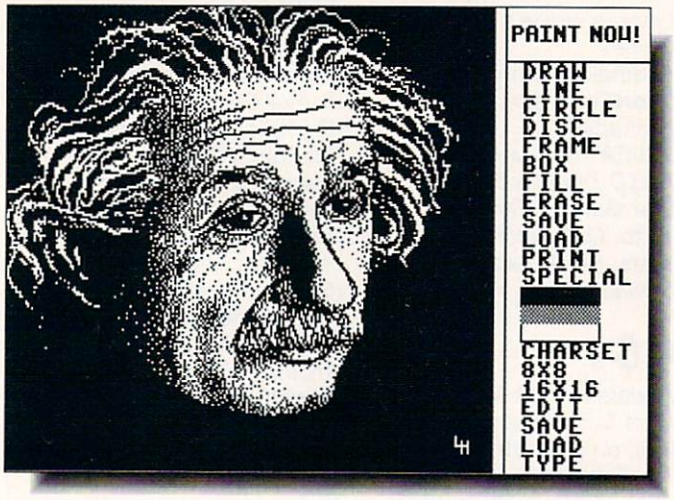
Accolade: *Shoot Em Up Construction Kit* (Avantage)*, *European Challenge* (course disk for *The Duel*)*, *Hardball II*, *The Blue Angels*, *Heatwave*, *Jack Nicklaus International Courses*
Activision: *Beyond Dark Castle*
Aurum Software: *Scavenger Hunt I: An Adventure through Time*
Britannica: *Archipelagos* (Fanfare)*, *Jigsaw*, *Eye of Horus*
Broderbund: *License to Kill*, *Where in the USA is Carmen Sandiego*, *Shufflepuck Cafe*
California Dreams: *Blockout*
Cinemaware: *The Kristal**, *Death Bringer* (Spotlight)*, *Speedball* (Spotlight)*, *Total Eclipse* (Spotlight)*, *Dark Side* (Spotlight)*
Command Simulations: *Blitzkrieg at the Ardennes**, *White Death*
Cosmi: *The President Is Missing*
Data East: *Batman**
Electronic Arts: *Keef the Thief*, *Star Flight*, *Strike Fleet*
Elite: *Speed Buggy*, *Ikari Warriors*, *Aquablast* (European version)*, *Thundercats* (European version)*
Epyx: *Project Neptune**, *Purple Saturn Day**, *Axe of Rage**
Free Spirit: *Bride of the Robot*, *Revenge of the Sex Vixens*, *Planet of Lust**
FTL: *Chaos Strikes Back* (*Dungeon Master II*)
Hard Wired/Gold Disk: *Denaris**, *Jinks**
Infocom: *Circuit's Edge*
Innerprise: *Battle Squadron*
Koei: *Romance of the Three Kingdoms*, *Genghis Khan: Conquests of Love and War*
Mastertronic: *World Trophy Soccer*, *Magic Johnson Basketball*, *New York Warriors*
Maxis: *Sim City Terrain Editor**
Microillusions: *Turbo**
Microprose/ MicroPlay/ Medalist: *Stunt Car*, *3-D Pool*, *Savage*, *F-19 Stealth Fighter*, *RVF Honda*, *Fast Track*, *Weird Dreams*, *Xenophobe*, *Dr. Doom's Revenge* (Paragon)*, *Eliminator* (Hewson)*, *Netherworld* (Hewson)*, Rereleases of Rainbird titles -- *Starglider II*, *Carrier Command*
Microsearch: *Professional Football Simulation*
Mindscape: *Gauntlet II**, *Paperboy*
Omnitrend: *Breach 2*, *Rules of Engagement*, *Universe 3**
Origin: *Space Rogue*, *Omega**, *Knights of Legend*, *Windwalker*, *Times of Lore**
Psygnosis: *Stryx*, *Never Mind*, *Shadow of the Beast*, *Barbarian II*, *Infestation*, *Matrix Marauders*, *Carthage*, *Killing Game Show*, *Flash Dragon*, *Aquaventura*, *Gore*, *Firestone*
Readysoft: *Space Ace*
Scorpion: *Lancaster*, *Legend*
Sierra: *Space Quest III**, *Leisure Suit Larry II*, *Hero's Quest*, *Code Name: Ice Man*, *Manhunter San Francisco*, *The Colonel's Bequest*, *Conquests of Camelot*, *Leisure Suit Larry III*, *Hoyle's Book of Games*
Spinnaker: *Stargoose*
SportTime: *Omniplay Basketball**
SSI/EA: *Red Lightning**, *AD&D Dragons of Flame*
Star Games: *Targhan**
Taito: *Qix**, *Rambo III**
Titus: *F40 Pursuit Simulator**

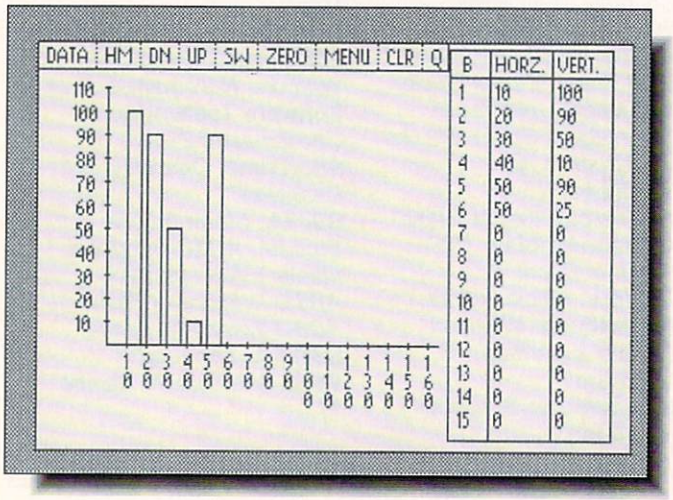
C64

Accolade: *The Muscle Cars & European Challenge* (add-on disks for *Test Drive II*)*, *Frightmare* (Avantage), *Jack Nicklaus International Courses*, *The Cycles: International Grand Prix Racing*, *The Blue Angels*, *Heat Wave*, *Mental Blocks* (Avantage)*, *Harrier 7* (Avantage)*, *Shoot 'Em Up Construction Kit* (Avantage)*
Activision: *Apache Strike**
Addison-Wesley: *The Crack of Doom*
Artworx: *Kaleidokubes*
Broderbund: *Where in Europe is Carmen Sandiego?**
Cinemaware: *Speedball* (Spotlight)*
Cosmi: *Presumed Guilty*
Data East: *ABC's Monday Night Football*
Electronic Arts: *Kings of the Beach**
Epyx: *Revenge of Defender**, *Snow Strike**
Free Spirit: *Wheel & Deal** (C128 only)
Interplay/Mediagenic: *Dragon Wars*
Lucasfilm/EA: *Indiana Jones & the Last Crusade**
Mastertronic: *War in Middle Earth**
Microillusions: *Firepower**
Microprose/ MicroPlay/ Medalist: *Dr. Doom's Revenge* (Paragon)*, *Eliminator* (Hewson)*, *Netherworld* (Hewson)*, *Carrier Command* (Rainbird), *Starglider II* (Rainbird), *Savage*, *Fast Track*, *3-D Pool*, *Weird Dreams*, *Xenophobe*
Mindscape: *Gauntlet II**, *Hostage**, *Afterburner* (Sega), *Shinobi* (Sega)*
New World/EA: *Might & Magic Book II: Gates to Another World*
Origin: *Space Rogue*, *Omega**, *Windwalker*, *Times of Lore*, *Knights of Legend*
Psygnosis: *Ballistix*, *Blood Money*
ShareData: *Nightmare on Elm Street 3: Dream Warriors*, *Rollergames*
Software Toolworks: *Chessmaster 2100**
SportTime: *Omniplay Basketball**
SSI/EA: *Storm Across Europe**, *AD&D Dungeon Master's Assistant Vol. II*, *AD&D Dragons of Flame*, *AD&D War of the Lance*
SSG/EA: *Fire King**
Taito: *Arkanoid II**, *Rambo III**

Public Domain







QUANTUMLINK GEMS

HOLIDAY PKG.SDL

This download consists of five baroque music files accompanied by classic holiday pictures (like the one shown). With the right equipment, you can even play it in stereo. After downloading, dissolve the files, load your favorite SID player, and enjoy. Happy holidays! [Location: CSS/ Browse C-64 Software/ Music SID/ Holiday, Religious, Patriot/ Pictures/Ani/Holiday/ Religious; From: Jabba Hutt]

PIXELPACKER.SDA

Pixelpacker allows you to convert any of 24 different drawing formats (like the PAINT NOW!-format EINSTEIN, shown) into DOODLE and KOALA regular or compressed files. This is the most comprehensive graphics conversion program on the market, and it's public domain! [Location: CSS/ Software Library/ Browse C-64 Library/ Graphics/ Graphics Toolbox/ Picture Conversion Programs; From: SteveE8; By: Steve Emsley]

GEOGRAPH

GeoGraph (shown) is a GEOS application which produces line, point, and bar graphs from your data. This new, bug-swatted version saves the output as a data file and as a photo scrap for import into GEOS documents. [Location: GEOS Arena/ Software Libraries/ User Applications/ Part 2; From: VTobarino; By: John Howard]

REBELLION V2

This fine Risk-type game allows one to eight players to strive to take over their opponents' villages. This is accomplished by first building up your villages with men and then attacking adjacent locations. Games can be saved to disk and continued at a later date. [Location: CSS/ Software Libraries/ Browse C-64 Software/ Game World/ Adventure/ Text and Graphics; From: Ravenweird]

PUZZLE.MAKER

This excellent word search puzzle creator was first written for Loadstar but has been released to the public domain by the author. Just enter your list of words and a puzzle is made and printed out. Options include saving puzzles to disk in two different formats and printing an answer key. [Location: QCC/ Browse C-64 Software Library/ Games/ Words and Numbers/ Word Puzzles; From: FutureTech; By: Jeffrey L. Jones]

THE ANIMALS SHOW

This little C128 program will provide your kids with hours of entertainment. After you choose joystick or keyboard, the 40-column screen displays a chorus of animals. Press the numbers on the keypad to make each one sing. Different animals produce different notes. My kids love it! [Location: CCC/ Software Libraries/ Browse C-128 Software/ Music/ Music and Sound Utilities; From: Peacemont] - Saul Cohen

8-BIT PEOPLELINK

C64 GAMES

The PLink games library contains over 250 games for the C64, and includes everything from PD versions of classics like Yahtzee, Checkers, Chess, and Poker to original games of skill, chance, and adventure. Here are some of our best games:

BLACKJACK.SDA [#6,858], was written by Rick Moore for those who wish to experience a one-on-one game using Las Vegas rules. It gives a graphic analysis of up to 300 hands, uses four full decks of cards, lets you split pairs and double down, and much more. Released as Shareware.

QIX [#441], (shown) is one of the better C64 PD coin-op arcade adaptations. Just plug your joystick into port #1 and have fun!

MELTDOWN [#10,352] is a great C64 game for both adults and younger children, written by Joe Sweely. There has been a nuclear meltdown on the moon. Your job is to beat the clock and arrive on the moon, armed with the codeword to turn off the reactor. You enter any of nine rooms and grab one of the letters of the code. Once you have all nine letters, unscramble them to find the code. It's not as easy as it sounds... you don't have much time!

C128 GAMES

There are a great many exciting C128 games in the PLink library. Here are some of the best:

MAH-JONGG [#10,370], (shown) is Kurt Tappe's very professional-looking BASIC 7 version of "Shanghai." It runs in 40 columns, and can be used with a 1351 mouse or joystick.

OTHELLO [#10,291] from John's Zoftware is identical to the board game. Each time you jump an opponent's piece it becomes yours. You can play against a computer opponent and tell it whether to use good or less-than-good strategy against you. It runs in 80-column mode.

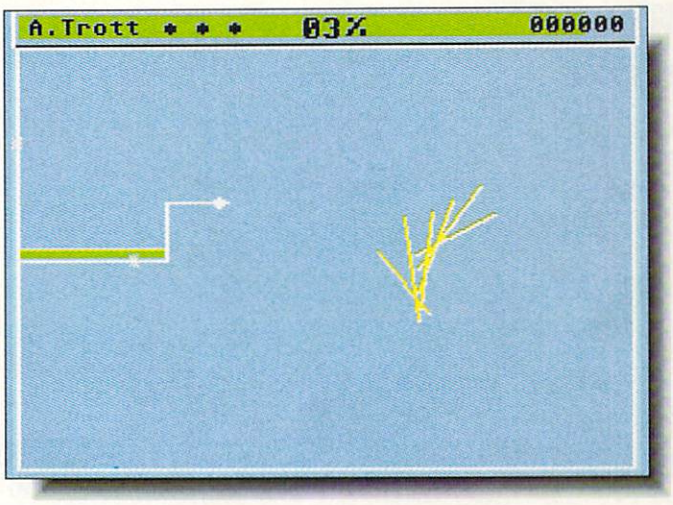
DRAW POKER 128 [#10,193] lets you gamble $2,000 on the 40-column screen. Play against a friend or against the computer. On-screen instructions are available, and deuces are wild in this version. See if you can bluff your way to a fortune!

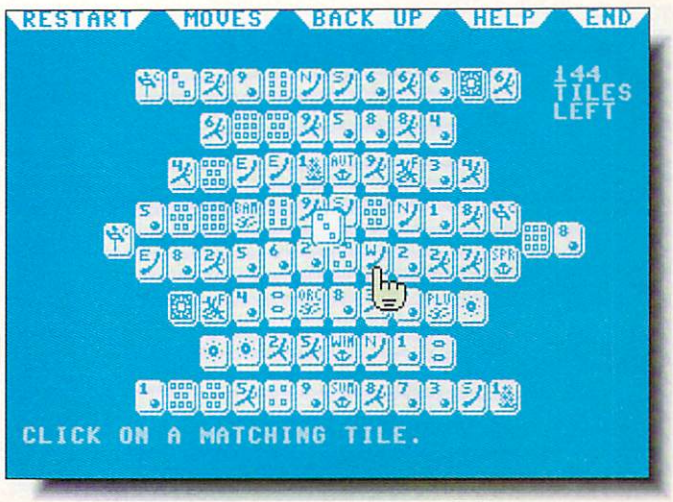
CHECKERS 128 [#10,267] was written by Cobra Man for the 40-column screen, and lets you play your standard game of Checkers using a joystick. Don't worry if you have no one to play the game with you -- the computer will be glad to be your opponent. The graphics are very good.

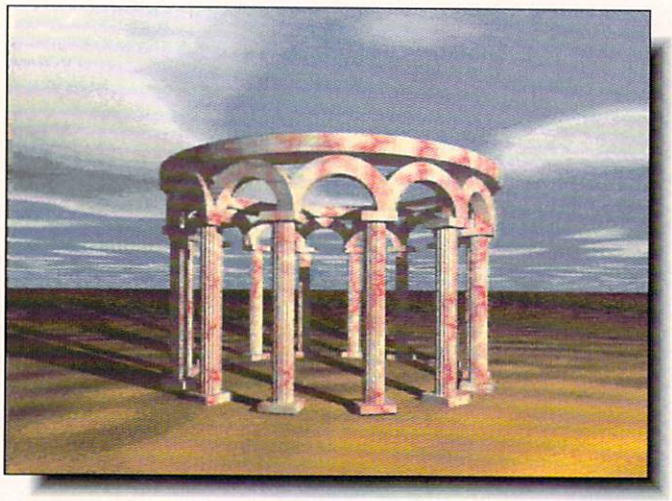
- Bob Umfer [CBM*BOB]

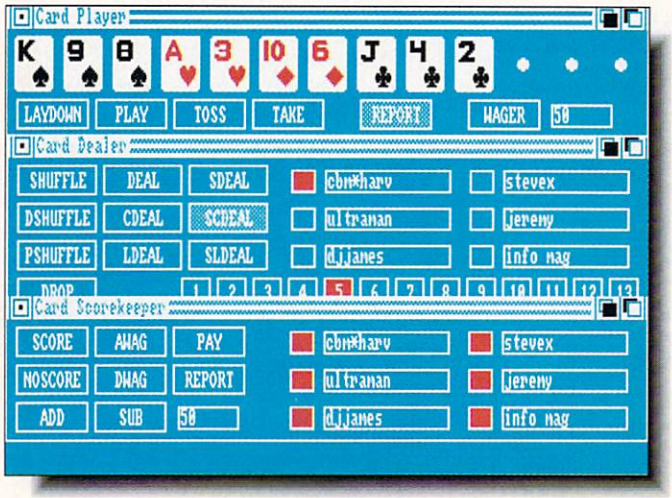
The programs listed here are available on QuantumLink and American PeopleLink, and on other networks, local BBSs, and on public domain disk collections. You don't have to belong to these online services to obtain these programs. But if you're interested, you can get information about signing up for these network services by calling:

QUANTUMLINK:
703-883-0788
AMERICAN PEOPLELINK:
312-648-0660









AMIGA PEOPLELINK

DKBTRACE.ZOO [#18,929]

This is a complete raytracing program by David Buck. It doesn't have a graphic user interface, but it does have a lot of powerful features such as textures and anti-aliasing. The ZOO file includes the data for a number of sample pictures, including "ROMAN" (shown). A special version for 68020/68881 is included.

LVCRAPS.ZOO [#18,836]

This is a superlative piece of shareware which is better than many commercial games. Whether you want to play craps or just learn more about it, you can't do much better than this program, short of going to Vegas! LVCRAPS is rich in detail, with a full list of features. There's an accurate, beautifully-rendered table, sophisticated HELP facility, strategy editors, comprehensive bet information, graphic representation of players' chips, animated rolling dice and dealer stick, and digitized sound and speech, just to name a few. For one to four players, it's multitasking, and it runs in 512K.

WARPUTIL.ZOO [#18,864]

Here's the newest version of the WARP software for transferring whole disks via modem. This ZOO file includes a new program called UNWARP that uncrunches downloaded .WRP files 3 to 5 times faster than WARP itself! (Beware: there are a few bogus renumbered versions of WARP floating around. Version 1.11 is the latest as of this writing and the one you'll find in this file.)

CARDCOMM100.ZOO [#18,263]

"Comm 1.34 with Cards 1.00" by John Hoffman is an extension to Dan James' classic Comm 1.34 terminal program. CardComm adds a gadget-oriented graphical interface to the card playing commands which are available in the conference area of People/Link's Amiga Zone. The card commands are organized into Player, Dealer, and Scorekeeper areas, and each is controlled through separate stackable windows. This way, you only open the windows that you need, leaving more space for conference text display. Join us online for a few hands!

BOINGTREK-1.WRP [#19,299]

ShowANIM 4.0 or later is required to view this massive Leo Schwab animation of the infamous Starship Enterboing! This file and the two following it in the PLink library unwarp to fill a whole disk with a single colorful and entertaining animation done in the inimitable Schwab style. The fastest way to unpack these three files after downloading is by using UNWARP, which you will find in the file WARPUTILS in the section 4 library. Make sure you get all THREE BoingTrek files as you will not be able to play the animation without all three parts!

- Harv Laser [CBM*HARV]

New Products & Reviews

. . . continued from page 28

TELECOM

Michtron has released **VTX On-Line**, a telecommunications package with an emphasis on graphics. It supports scripts, and will automatically generate simple scripts. An ARexx interface is also provided. On the graphics side of things, VTX has special provisions for handling Compuserve's RLE and GIF images, and functions are included for viewing images of any resolution. There's also a PD GIF viewer on the disk. $79.95. 576 S. Telegraph, Pontiac, MI 48053. 313-334-5700.

WORDWARE

Chock full of powerful editing features, **Protext** is a new word-processor imported from Europe by *Michtron*. Completely keyboard driven, it has such conveniences as transposing two characters with a single keypress, editing of documents larger than memory (by using disk storage), footnoting, spellchecking as you enter text (or after, if you want), automatic formatting, and much more. Online help is provided, and it has macro capability. Cost is $199.95. 576 S. Telegraph, Pontiac, MI 48053. 313-334-5700.

SHIPPING

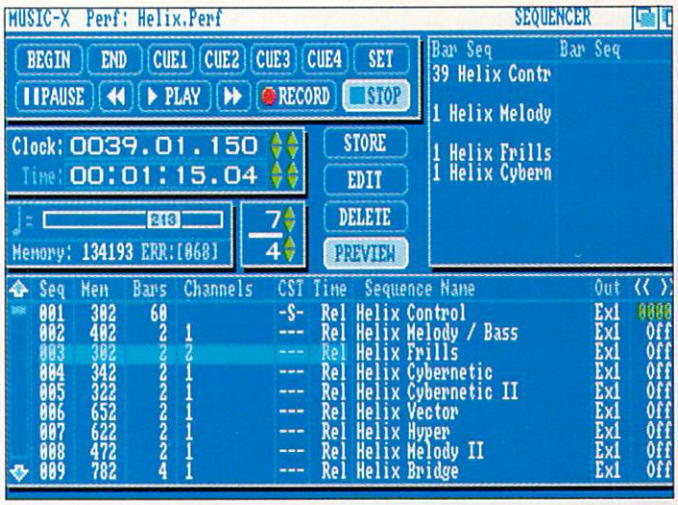
Brown-Wagh's graphic word-processor **Pen Pal** is now shipping. We previewed it in issue #26 and the release version looks even better than the beta. It will allow you to mix graphics and printer fonts on the same page, making for terrific looking output. The $149.95 package also includes a database manager and forms generator. 16795 Lark Ave., Suite 210, Los Gatos, CA 95030. 408-395-3838.

MUSIC, MUSIC, MUSIC

The long awaited, and oft-postponed **Music-X** is shipping at last. The package requires a MIDI interface, but from there the music processor offers versatile control over about any MIDI process you can come up with. It is divided into eight basic parts: a sequencer, bar editor, event editor, MIDI filter, Amiga internal sound controller, keymap editing (MIDI routing maps), protocol editor, and librarian. Music-X plays both IFF and Sonix samples and supports drum sync both send and receive. The list of other features goes on and on. A disk of examples and another of utilities is also included. The whole package is powerful enough to handle everything from a simple home keyboard setup to a full-blown MIDI recording studio. It comes with a 75 lb. manual. $299.95 from *Microillusions*, PO Box 3475, Granada Hills, CA 91394. 818-360-3715.

COMMODORE SOFTWARE!

Commodore is back in the software business with the release of **Amiga LOGO**, the language popular with educators for teaching the basics of programming to children. It features turtle graphics and pull-down menus, among other things. Cost is in the $100 range and it should be available by the time you read this. Also on the education front, Commodore has put together a promotion package for schools and educators. It includes an A500, A501 memory expansion, and 1084S monitor, bundled with MSS' *The Works! Platinum Edition*, Progressive's *CLImate*, and Abacus' *AmigaDOS Quick Reference* book. Cost for the whole package is $999. (It's also available with an A2000 at a higher price.) 1200 Wilson Drive, West Chester, PA 19380. 215-431-9100.



MicroIllusions' long-awaited Music-X.

TAKING IT APART

The Puzzle Factory is shipping an interactive, intelligent disassembler called **ReSource**. Compatible with most major assemblers, including Assem and CAPE, it will take apart just about any code you care to throw at it. It recognizes base-relative addressing, which means you can disassemble C code. The program not only works with executable files, but will load and take apart binary, pieces of memory, or even disk blocks; all Amiga hunk types can be scanned. $75.00. PO Box 986, Veneta, OR 97487. 503-935-3709.

BACK TO BASICS

Delphi Noetic Systems is shipping their **F-BASIC 2.0** system. The language supports all sorts of features, like record structures & pointers, recursive subroutines & functions, high level access to Intuition functions, direct ROM kernel access, and more. A Source Level Debugger is also available, which employs a windowed interface for showing source code, registers, variables, and the like. It also includes a reverse-assembler. Cost is $89.95 for F-BASIC, $149.95 for the language plus the debugger. PO Box 7722, Rapid City, SD 57709. 605-348-0791.

SPREAD OUT

Plan/It, the latest incarnation of the popular *Maxiplan*, is shipping from *B.E.S.T.* Heavily rewritten, the spreadsheet has sophisticated graphing and database functions in addition to all the expected number-crunching features. The program supports ARexx, has print preview, Lotus import/export capability, along with a nifty onscreen calculator. The graphics functions now include rotatable 3D displays. The database features allow easy setup and viewing of data via onscreen forms. $149.95. 11525 SW Durham Rd., Tigard, OR 97224. 503-684-6655.

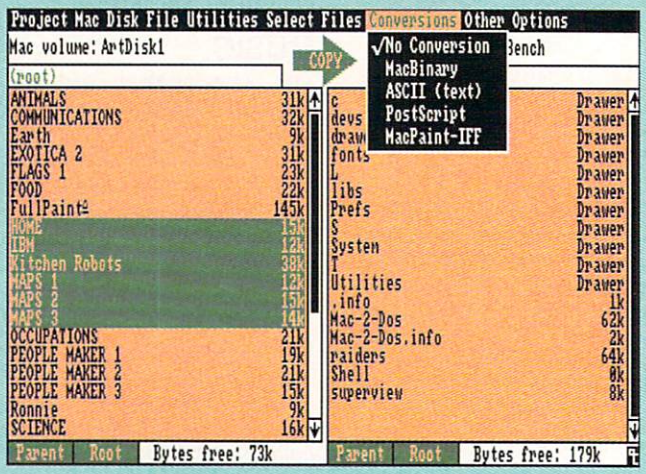
. . . continued

★★★★

MAC-2-DOS

$99.95 / $349.95
w/ drive

Central Coast Software
424 Vista Ave.
Golden, CO 80401
303-526-0520



If you need Mac compatibility, but would rather use an Amiga, *Mac-2-Dos* from Central Coast Software is what you've been looking for. *Mac-2-Dos* isn't a Macintosh emulator like *AMax*, and it won't allow you to run Macintosh programs on your Amiga. What it does give you is a fast, simple way to convert Macintosh text or graphic files for use with Amiga programs, or vice versa.

Mac-2-Dos is available in two versions. Package A consists of a hardware interface adapter (to connect to a standard Mac drive which you supply), the *Mac-2-Dos* software, and a well written, concise manual. Package B includes all of the above plus a specially-configured Mac compatible drive with driver software. Once properly installed you can also use this drive to read and write Amiga files under AmigaDOS.

Using Package A is fast and easy. You plug the interface adapter into your Amiga drive port, connect a 400k or 800k Macintosh floppy drive, start up the the *Mac-2-Dos* program, and away you go.

Installing Package B is not quite so fast nor quite so easy. Unfortunately, the automatic installation program INSTALLM2D, doesn't actually install anything. It directs you through a four-step procedure that involves editing your startup-sequence and mountlist. If you have some familiarity with CLI, this shouldn't give you any trouble.

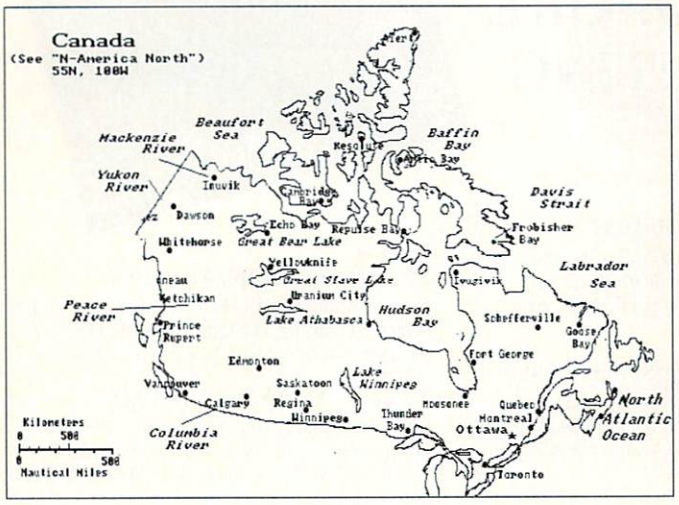
The manual does an excellent job of explaining the complexities of Mac and Amiga file formats so that you can transfer your files easily and use them without frustration on the other machine.

Mac-2-Dos v.1.0 supports four file conversion options: MacBinary, ASCII, PostScript, and MacPaint-IFF. You can also select "No Conversion," which transfers data or text files between programs which already have directly compatible formats -- for example, WordPerfect and music programs that use SMF (Standard MIDI File) format. "MacBinary" transfers all the Mac information needed to copy a Mac program to an Amiga format disk. "ASCII" transfers ASCII text files bidirectionally between Mac and Amiga format disks. The ASCII option is for wordprocessing documents, spreadsheet info, or database files. "PostScript" will convert Amiga PostScript files to Mac PostScript format that you can take down to your local copy center for output to a PostScript laser printer. *M2D* will also convert Encapsulated PostScript text and structured graphics (including EPS clip art) bidirectionally, though it cannot yet convert bitmap images in EPS format files. "MacPaint-IFF" converts MacPaint bitmapped images to/from IFF format, including HAM, overscan, and half-brite modes.

I had little trouble converting my MacPaint graphics and MacWrite documents to Amiga formats quickly and easily. Straight ASCII text transfers were a piece of cake, and MacPaint-IFF conversions really zip. By the time I settled back in my chair and got ready to wait, *M2D* had finished converting a nearly full disk of Mac clip art! The resulting black and white IFF images can be used quite successfully with Amiga DTP or paint programs. Amiga art to Mac format, however, is another story. To convert an IFF image to MacPaint format, *M2D* must combine multiple-color bitplanes into a single black and white bitplane. This, coupled with differences in screen resolution, makes some Amiga-to-Mac images look pretty fuzzy, and they take a comparatively long time to convert. Error handling is also somewhat vague. I spent quite a while trying to transfer a corrupt Mac file with no hint from *M2D* that it was unusable.

More conversion options are promised in future releases of *Mac-2-Dos*, including support for Mac II color files, PICT/PICT2 to IFF, font conversion, SMF to SMUS, and transfering HyperCard Stacks. As it stands now, *Mac-2-Dos* is a useful, fast utility for people who need Mac file compatibility but don't want a Mac.

- Judith Kilbury-Cobb



Canada, courtesy of Map Pics from Tangent 270.

IMAGES

We received a sampler of clip art disks from *Tangent 270*. The ones we've seen include **Acft**, a two-disk set of aircraft pictures, and **Map Pics**, a four-disk collection of world maps in several scales. *Acft* retails for $49.95 while the *Map Pics* cost $59.95. P.O. Box 38587, Denver, CO 80238. 303-322-1262.

DOUBLE CROSS

Received just in time for this issue, **CrossDos** is a utility from *Consultron* which allows you to read and write MS-DOS (both 360K & 720K), PC-DOS, and Atari ST format disks with standard Amiga 3.5" & 5.25" drives. All we can say is - it's about time! The system is mounted as an AmigaDOS device, operating transparently, and permitting most AmigaDOS operations to function normally. You can read or write any file, make directories, rename files and/or directories, set file dates and protection bits, etc. There are special utilities for using MS-DOS disks, and while you can use text files and the like, you won't, of course, be able to use .EXE or .COM type files (what would be the point?), though you could transfer them from disk to disk. $30.00. 11280 Parkview, Plymouth, MI 48170. 313-459-7271.

AMIGA HARDWARE

NO FLICKERING

Owners of *MicroWay*'s **Flicker-Fixer** will want to check out the new add-on module that allows the video board to be used with a genlock. The little device installs right on the FlickerFixer board, making it unneccesary to unplug the board when using a genlock. Cost is $50. PO Box 79, Kingston, MA 02364. 508-746-7341.

HARD STUFF

Microbotics has released their **Hardframe/2000 SCSI** interface for the A2000. Using efficient DMA circuitry, it autoboots under the 1.3 ROM, via an included EPROM, directly into the FastFile system. It doesn't require a mountlist entry, automatically mounting all partitions by itself. The thing is built to accomodate a 3.5" hard drive right on the optional frame and is compatible with Commodore's 2520 accelerator. Cost is $329 with the frame, $299 without. 811 Alpha Dr., Suite 335, Richardson, TX 75081. 214-437-5330.

LASER CANNON

The latest printer rolling off *Toshiba*'s prolific production line is an $1899 fully HP Series II compatible laser printer called the **PageLaser6**. It will accept HP font cartridges as well as download fonts, and it can be upgraded from its standard 512K to over 4 megs. It has a resolution of 300 x 300 and shoves pages through at a rate of six a minute. Toshiba, Computer Systems Division, 9740 Irvine Blvd., Irvine, CA 92718. 714-583-3000.

SCANNING...

C Ltd. sent one of their **Han-D-Scan** handheld black & white scanners for us to try out. The unit is able to scan images up to 4.13 inches wide; length is limited only by memory. It scans in resolutions of 100, 200, 300, and 400 DPI, in 16 grey levels and has three dithering patterns built in. The package includes Impulse's *Diamond* paint program and retails for $399. Look for a review in our upcoming Jan/Feb Desktop Publishing issue. 723 E. Skinner, Wichita, KS 67211. 316-267-6321.

COLOR LASER

If you have a longing for a color PostScript laser printer and a spare ten grand laying around, *QMS* can provide one for you. The **ColorScript 100 Model 10** lists for $9,995 and has one of the new Mitsubishi G370 thermal transfer print engines controlled by a 68020, and comes with 4 MB of RAM (optional 1 & 4 MB expansion boards are available), a 1 MB ROM. The sample output we've seen looks very good, with crisp color on very white paper. It has a resolution of 300 DPI. This is the first color PostScript printer costing under $10,000 to hit the market. QMS, One Magnum Pass, Mobile, AL 36618. 205-633-4300.

LOCK MY GEN

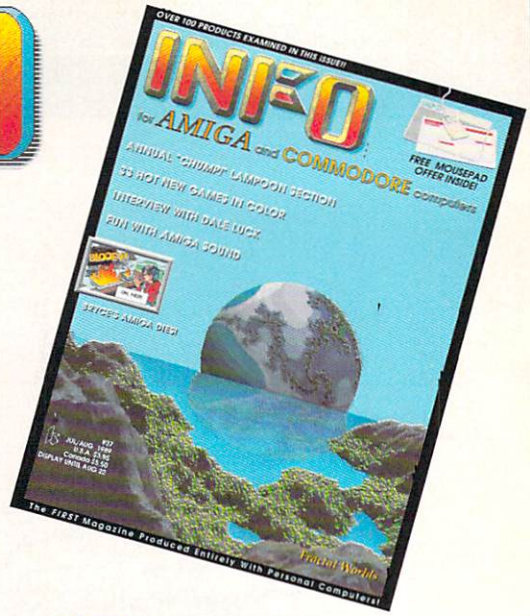
Omicron Video is shipping two models, one NTSC and the other PAL, of a new remote-controlled rack-mount genlock. The remote is attached by a cord and has two sliders, one for key fade and the other a fade to black, along with controls for the video source and a key on/off toggle. The thin box has its own power source, all the expected genlock functions, requires no special software, and has separate Y-C output for S-VHS. The **Omni-Gen 701** (NTSC) and **Omni-Gen 702** (PAL) retail for $1595. 21822 Lassen St., Unit L, Chatsworth, CA 91311. 818-700-0742.

BIGGER MINDS

Two new memory boards are shipping from *Supra*. The **SupraRAM 2000** comes configurable in 2, 4, 6 (rarely seen), and 8 MB configurations. Prices range from a semi-nude 2MB board at $499, up to $1399 populated with 8 MB. The **SupraRAM 500** is a replacement for the Commodore A501 initial .5 MB cartridge that fits in the bottom of the A500. Price is $149. 1133 Commercial Way, Albany, OR 97321. 503-967-9075.

INFO

SIX YEARS OF COMMODORE COMPUTING



#1 INFO 64, Fall 1983
Premiere issue! Review and product guide, Games, Flexfile 2.1, Sorcerer's Apprentice.

#2 INFO 64, Winter 1983/84
Buyer's Guide to 1000 C64 products, Koala pad, Flexidraw, UltraBASIC-64, Home Accountant vs. C.P.A.

#3 INFO 64, Spring 1984
Product Round-up: 1000 product listings for C64, Superbase 64, Commodore LOGO, C64 Forth, Model Diet, Computer Mechanic.

#6 INFO 64 Spring 1985
Color Gallery! C64 hard drives, Intro to Assembly Language, COMAL 2.01, The Print Shop, Whither C/PM.

#7 INFO 64 Summer 1985
The C128, CP/M 'Best of' & tutorial, Sound Advice on Keyboards, Robotics, Vizastar, Disk copiers, Disk Speedups, and 3 assemblers.

#9 INFO Dec/Jan 1985/86
Expanded C64/128, Amiga color gallery, Guide to C128 software, Network Wars, 1571 Disk Drive Survival Guide.

#10 INFO May/June 1986
Monitor Roundup! C64 word processors, Multiplan for C64/C128, Amiga BASIC, Tips & tricks.

#11 INFO Aug/Sept 1986
Product Roundup issue: over 1500 hardware and software listings for C64, C128 and Amiga.

#12 INFO Nov/Dec 1986
Graphics report: C64/128 and Amiga painting, drawing, CAD, drafting, video animation, tools and utilities. Idea-processors, 8 bit business software.

#13 INFO Jan/Feb 1987
Games issue: C64/C128 and Amiga games. C64/C128 business and application software (part I), Telecommunication networking, Amiga Music.

#14 INFO Spring/Summer 1987
PRODUCT ROUNDUP! Over 2000 hardware and software products listed for the C64, C128 and Amiga computers. First look at the A500 & A2000 systems.

#15 INFO July/Aug 1987
1st Annual C.H.U.M.P. Magazine! Survival Guide: Commodore-Amiga computing, Anne Westfall interview, COMPUTE! exposed, C64/C128 and Amiga reviews.

#16 INFO Sept/Oct 1987
Graphics Renaissance! GEOS Update, C128 BASIC compilers, Microtroll, Fontmaster, Amiga 500, Sidecar, Genlock, Multi-tasking.

#17 INFO Nov/Dec 1987
Annual GAMES issues! 39 games for C64/C128 and Amiga, GEOS Update, 16/32 bit comparison, C128 ROM upgrades, B.E.S.T. Accounting, DIGA!

#18 INFO Jan/Feb 1988
Desktop Publishing! Amiga wordprocessors (part I), Virus diagnosed, Geos Update, C64 Powerful Cartridges, C128 Superpak II.

#19 INFO Mar/Apr 1988
More Desktop Publishing! Amiga wordprocessors (part II), Leo Schwab interview, GEOS Update, ICT hard drive, Digital SuperPak2, Thoughtform.

#20 INFO May/Jun 1988
Desktop Video: Titlers, genlocks, converters, C64 slide show programs, GeoStuff, INFO visits NewTek, AmigaDos 1.2 Bugs, Joel Hagen tutorial.

#21 INFO Jul/Aug 1988
Second Annual C.H.U.M.P. Magazine! Jay Miner interview, Easing The Upgrade Path, GeoStuff, Virus prevention, Over 40 8 & 16 bit reviews.

#22 INFO Sep/Oct 1988
Fifth Anniversary issue! Digitizing, Mac VS. Amiga, GeoStuff, Over 50 reviews for C64, C128, and Amiga computers, INFOmania Game Tips! BRYCE debut!

#23 INFO Nov/Dec 1988
ANNUAL GAMES ISSUE!
OVER 100 GAMES IN COLOR!!

#24 INFO Jan/Feb 1989
Amiga 3D Graphics Round Up, Reichart Von Wolfsheild interview, GeoStuff, SuperBase Pro, Spectrascan, Sky Travel.

#25 INFO Mar/Apr 1989
Amiga Animation Round Up, Rodney Chang interview, C128 T.H.I.S., GeoCalc 128, Dr Term Pro, AC/BASIC, Miceofiche Filer Plus.

#26 INFO May/June 1989
Paint Program Round Up, Loren Lovehaug interview, Removable Mass Storage, 1581 Toolkit, MicroLawyer, WillMaker, Pen Pal, Graphics Tablets, Lightpen, PageStream.

#27 INFO Jul/Aug 1989
3rd Annual C.H.U.M.P. Magazine! Dale Luck interview, Sound & Music, Fractals, Maverick, GeoProgrammer, Masterpiece, Professional Data Retrieve, Silentwriter LC890, Transcript.

#28 INFO Sept/Oct 1989
Video Boot Camp! High-End Amiga Expansion. Gail Wellington Interview, 3D options, Home Town, Moniterm Viking I, A-Max, Anti-Virus, V.I.P.

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Magazine Index

INFO's Guide to the Best From the Rest

AMIGA WORLD

The September issue's cover feature is a compendium of tips and hints for getting the most out of your applications. Joel Hagen's regular column offers some ideas on getting more color into hi-res graphics. The October issue is the first with Doug Barney's name in the top editorial slot on the masthead. His first editorial shows he's pretty impressed with the Amiga. The feature is on desktop publishing and provides a good start for beginners in the field, providing step-by-step instructions for producing a 4-page newsletter.

AMIGA plus

Editor Nat Friedland brags that some of the pages of the Aug/Sept issue were created using *Professional Page*. I was extremely disappointed with all of the fractal programs included on this issue's disk as a corollary to the print article on the subject. For the most part, they are single-function and slow enough that I was starting to wonder whether I would be celebrating the turn of the century before the screens finished generating. The October/November issue begins using a rating system based on five plus (+) marks. The issue also has a piece by new Contributing Editor Guy Wright, who visits Amiga graphics perfectionist Peter Lullemann, and the first in what is promised to be a series of articles by Commodore's Gail Wellington. This one talks about last June's Amiga Developers' Conference.

AmigaTimes

August's issue examines the Amiga's place in the business world and starts a two-parter on using the Bridgecard. Elsewhere the issue is a fictional cautionary parable about viruses by Richard Smith that's worth reading, along with an interesting piece on Kara Blohm, creator of *Kara Fonts*, and a look at three mathematical software packages by Matthew Leeds. The best moment in the issue, though, is a hysterically funny multiple choice show report by John Foust.

BYTE

The August issue contains a fine letter from Ron Charlton taking Byte to task for misleading its readers about the Amiga's multitasking in the April issue. He also berates Byte for showing an uncolorful flight simulator screen instead of something to really show off Amiga's color. Someone please stop me! After reading the reviews of the tiny new Zenith, NEC, and modular Agilis (an extraordinary handheld that can run either MS-DOS or Unix) laptops I felt lust in my heart for MS-DOS machines! When are we going to get an Amiga laptop?

Commodore MAGAZINE

Several items of note appear in the August issue. Matthew Leeds discusses laser rot, which causes videodiscs (but not - and a big sigh of relief here - CDs) to go bad. Attorney David A. Weinstein itemizes recent changes in US copyright laws, but unfortunately, the piece is written in a style so convoluted and full of legalese that it's nearly unintelligible.

COMPUTE!

I'm starting to think humans have taken over the Compute! offices. The writing is getting better, the supercilious MS/DOS bias has abated a bit, and the result is that the whole magazine is more fun to read. September's feature on buying a first computer has favorable things to say about the A500, treating it as an equal with the Mac Plus and Headstart III (MS/DOS clone). Also in the issue is a useful chart-style listing of memory expanders for MS/DOS PCs, Macs, Apples, and Amigas.

The above paragraph was written about two weeks before I got my hands on the October issue. The metamorphosis is now complete, with this latest issue emerging as an unabashedly MS/DOS magazine. While there is still a little coverage of the other machines, it is done in about the same proportions as the machine's relative market share, about 85% MS/DOS. It is a decidedly better magazine for the change. The editorial staff has admirably adopted the attitude of treating all makes of computers with equal respect, viewing each as a valid tool for a particular group of people. It goes out of its way to print articles pertaining less to specific machines and more to general computing topics, like a thoughtful, speculative piece by Paul Freiberger and Dan McNeill on what computing will be like in the not so distant future. And the magazine has found a sense of humor; there are flashes of wit scattered through it, and a new humor column by Dan Gookin makes its first appearance. This first installment is a long list of wonderfully on-target, and very weird things Gookin believes in, like "I believe in tabletop fusion. But instead of using heavy water and palladium, we should dip a Commodore 64 into a vat of Jolt Cola. That will produce enough heat to power a small user group writing campaign for weeks." Compute!'s new format looks like a winner, especially for PC users, and there's plenty to interest the rest of us, too.

COMPUTE!'s AMIGA RESOURCE

Spiffy is about the best word I can come up with to describe the October issue. The sprightly writing is from some of the most respected authors in the Amiga community, the magazine doesn't take itself too seriously, and the information is up to date. It's especially good to see Peggy Herrington talking about her pet field of music software again. The reviews are creditable and pull few punches. The heavily-illustrated cover piece on graphics is a good overview of producing art on an Amiga.

COMPUTE!'s GAZETTE

In the September issue, both Larry Cotton and Fred D'Ignazio devote their respective spaces to the continuing Commodore vs. Nintendo debate. If you

need ammunition to convince a friend to buy a computer instead of a game machine, these two columns provide whole armories of it. As for the rest of the issue, there's Yet Another Exciting Speedscript Enhancement and Just One More Memo Program. The October issue's cover feature on the do's and don'ts of desktop publishing offers such good advice that newsletter editors should clip it out and reread it every time they publish an issue. There's even a type-in called *RGB Kit* that looks like it might be useful; it allows you to run the 64 side of a C128 at 2MHZ, displaying the output on an RGB monitor.

COMPUTER SHOPPER®

We just had to brag a little. The August issue has a review of *PageStream* by our own Megan Ward. She had previously reviewed it in INFO, but expands on her negative opinion in the Shopper review. As if being the newly installed Editor in Chief of such a massive tome weren't enough, Bob Lindstrom somehow found the time to write a fun review in the same issue of a new book called *Desktop Publishing: The Awful Truth*. We'll be searching for a copy.

JUMPDISK

There are all kinds of goodies on the August issue. My favorite is a tiny 564-byte program called *Tbar*, which will let you change the pattern of the drag bar of any Intuition window. It comes with several built-in patterns and you can also design your own. (Since it took a while to figure out how to do that, I'll pass along a tip: the 8 hex numbers required aren't in order; the first number is the bottom line, and then it jumps to the top line and fills down from there.) The same issue has version 3.0 of Jimmy Yang's *Calc*, a sophisticated, easy-to-use, iconifiable, programmable calculator. The September issue, unfortunately, looks like it was thrown out the door a day or two too early. There are a couple of arcade games I've had guru problems with, and the editorial content is a little thin. Publisher Richard Ramella says it's because he was trying to get the issue mailed before heading to Chicago for AmiExpo. Still, the disk has its plusses. On the news front, it says that a new virus by some dweebs called the "Enforcers 2000" has surfaced -- let's just start beheading these jerks, whaddaya say? Just for fun there's a coloring book program for kids that I've wasted more time with than I should have.

LOADSTAR

I'd been wondering why I hadn't seen a new issue of *UpTime* lately and then received a press release from Softdisk stating that they have taken over UpTime's subscriber list, along with rights to UpTime's 64 programs. Softdisk will be fulfilling all outstanding subscriptions with issues of their own Loadstar disk magazine. Those who already subscribe to Loadstar will have their subscriptions extended. Issue #62 (I wish they would start dating these things!) has some particularly fine artwork from Chris Henry. If you still have a Rubik's Cube laying around, be sure to boot up the *Cubik*. The program lets you tell the computer the current state of all six faces of the cube and then shows you how to solve it move by move. Keen stuff!

RUN

The September issue of Run is billed as a Special GEOS issue, but the 'special' part is pretty thin, consisting mainly of interviews with geoPeople. To give credit, the interviews are interesting. There are a couple of type-ins, but they're nothing we haven't seen forty bazillion times before.

THE AMIGA SENTRY

Sentry keeps scooping along, with the July issue (which we received in Mid-August) containing reviews of such barely-released titles as Cadvision's *X-CAD Designer* and Microillusions' long-awaited *Music-X*. There's an informative report on the San Francisco Devcon and Workbench 1.4, and a lengthy two-page review Ontological Survey's *Palette Printer*.

Amiga FOR THE Transactor

In the July issue of AT, Dick Barnes' aptly acerbic article called *A Vile of Illiteracies* details some of the worst, and most entertaining, grammatical slips in computer publications. (I must admit considerable relief that nothing from INFO was included.) Then I read the August issue of Transactor and didn't understand any of it. Oh, sure, there were a couple of articles that raised a glimmer of comprehension, but the sparks were quickly extinguished by techie-speak, long assembler listings, and circuit diagrams. Next week I swear I'm going to dig out all those C manuals and buckle down and learn enough that I won't feel quite so ignorant. This time for sure.

I am much relieved. I understood considerably more of the September issue than the August one. There is a very important article on achieving high speed serial baud rates. Also covered: building your own Amiga software devices, and an interesting piece on the esoteric field of chaos.

TWIN CITIES 128

Outspoken publisher Loren Lovhaug is at it again. His editorial in issue #25 takes a dim view of Commodore's new 8-bit machine the C65, giving his reasons why the thing should never see the light of day. Then, pouring more oil on the fire in a face-to-face shouting match with Frank Hudson, Lovhaug tells why he's satisfied with the current state of software development for the 128. Hudson, of course, disagrees. On the useful, if not quite so entertaining, side of #25, there's a four-page feature listing terminal programs, an interesting piece on Basic 8 structures, and a look at using IEEE drives and interfaces.

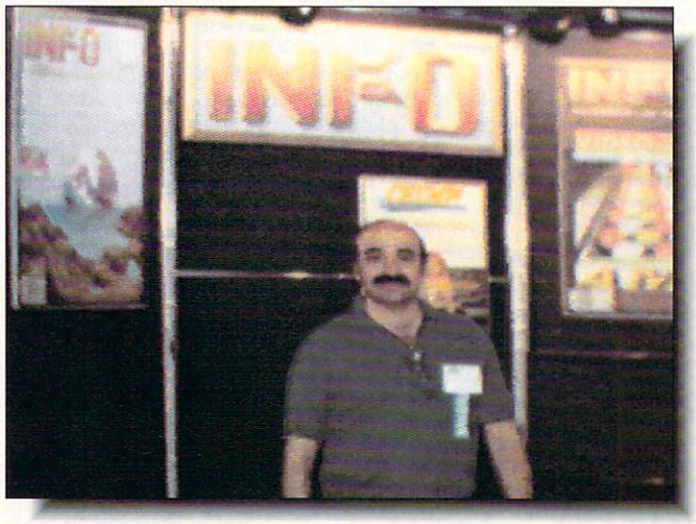
- Tom Malcom

MY KIND OF AMIEXPO Chicago

by Mark R. Brown

If you've seen the big chase scene in "The Blues Brothers" then you know what Lower Wacker Drive in Chicago looks like: a dark labyrinth of multi-layer streets and concrete pillars. At the bottom of this morass of concrete and steel lie the truck docks for the exhibition hall of the Chicago Hyatt Regency Hotel, the site once again this year of the Chicago AmiEXPO Show. In stark contrast to the high-tech glass and steel of the aboveground portion of the Hyatt, these subterranean loading docks are dark and dingy, visited only by vagrants, hopelessly lost tourists, well-armed cops, and Teamsters. And, on this occasion, by computer dweebs with trucks and vans full of Amiga equipment. Despite our trepidation (and bitter memories of union troubles at the Chicago CES Show several years back), to our utter amazement Benn and I were able to get the stuff for the INFO booth unloaded and set up with minimal hassle.

10,437 attendees made this AmiEXPO a bit bigger than last year's; the presence of dozens of Secret Service agents made it much more exciting. The Governor's Conference was going on in the conference room next door, and President Bush was scheduled to address the assembled Heads of States on the Monday after AmiEXPO closed. A good many Hawaiian-shirt-clad computer nerds drew suspicious, steely stares from grim, pistol-packing SS agents over the three-day run of the show. Even NewTek president Tim Jenison, nervous about the hardware he had mounted to himself for his fan-powered roller skating entrance to his keynote speech, thought it best to inform the Secret Service before surprising them in his unorthodox garb. Agents checked him out and okayed the getup, but they did not seem to be the least bit amused.



Our Flounder shows off INFO's keen new booth for AmiExpo.

NEW SOFTWARE

There were some interesting new products on the show floor. **Ultracard** ($50), an Amiga Hypercard clone from *Intuitive Technologies* [408-646-9147] drew crowds with its colorful graphics interface and raw power. (The fact that Jay Miner also occupied the Intuitive booth may have helped a little!) Sound, graphics, gadgets, and ARexx hooks integrate in this Hypertext/Hypermedia system to make applications creation easy. *Elan Design* [415-621-8673] was demoing **Elan Performer** ($59), which maps graphics and animations to the Amiga keyboard for ease of display. Also in the vein of desktop control, the folks from *Vivid Produce* [416-686-7850] stopped by the booth to drop off a copy of **Interactor** ($100), a "graphics presentation environment" for the desktop presentation crowd. *Zuma Group* [602-246-4238] displayed powerful and colorful new versions of their "TV" series of video software; **TV*SHOW** is improved to version 2.0, and there's a whole new incarnation of their premiere titling program, called **TV*TEXT Professional**.

Mindware International [705-737-5998] featured their new **Mideo System** software, which integrates MIDI control and video animation in exciting new ways. MIDI musicians can use it to actually control video graphics in real-time from their keyboards. Mindware also announced **TASS**, the "Thut Application Support System." TASS lets application developers build end-user interfaces to implement AREXX macros for use with programs that have AREXX hooks. It is being made available for free through public distribution channels, or can be obtained directly for $10.

We were also excited to see *Central Coast Software* [303-526-1030] demoing **Mac-2-DOS** (see review elsewhere in this issue), their new hardware/software product that lets you hook a Mac drive to your Amiga and transfer/translate files. *Abacus*' [616-698-0330] new **Virus Protection Toolbox** looks interesting, too -- look for a review by David Martin in our *Tech Corner* column next issue. **Bars & Pipes** is *Blue Ribbon Bakery*'s latest, a complete boxful of MIDI-capable music tools on disk. Dale Luck of *GfxBase*

[408-262-1469] was talking about the new color version of the **X11** Xwindows implementation for the Amiga, now in beta testing. He flashed photos of sample screens showing beautiful 3D shaded Motif gadgets and windows. In a suite upstairs, *Gold Disk* showed v1.3 of **Professional Page**, now improved with hi-res scalable Compugraphic fonts and direct text transfer to *Transcript*. A new face at AmiEXPO was *Lee Software* [214-530-5337]. They were promoting **Total Control Diet**, a software-based user-configurable diet program that tracks what you eat and analyzes its nutritional value.

Also of interest were the **Magdex** and **Pubdex** disks dropped by the INFO booth by Stan Spence of *Selectronics* [5147 So. 37th St., Lincoln, NE 68516]. The disks contain complete database indexes of Amiga magazine articles and public domain programs, respectively. These invaluable information sources are only $10 each, ppd.

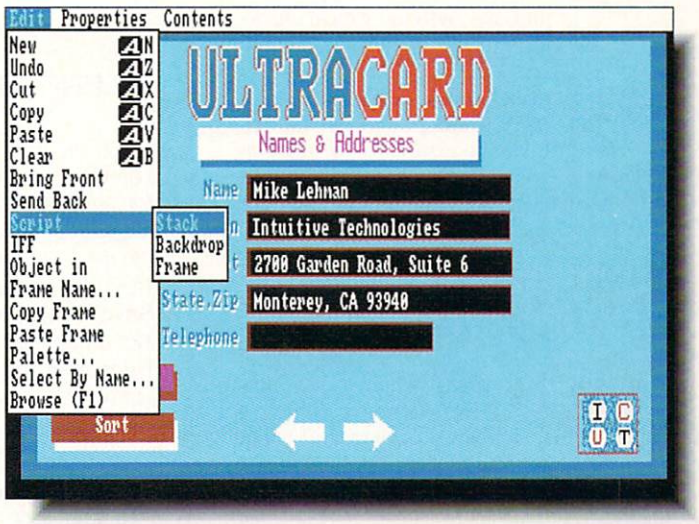
GAMES

There weren't a whole lot of new games shown at AmiEXPO, but here are the new titles we did see: *ReadySoft* was demoing **Space Ace**; *Mindscape* showed **Fiendish Freddy's Big Top O' Fun** and **Gauntlet II**; *InnerPrise* had MGM's **Tom and Jerry** up and running, and was talking about five other new game titles; *Psygnosis* has several new games on tap for release soon; and *Sierra*'s latest, **Space Quest III** includes new higher-resolution graphics. (See this issue's *Coming Soon* list for even more new Amiga games.)

Also in the "fun" category is the **Mousestik** from *Advanced Gravis* [694-434-7274], a programmable joystick that looks pretty keen.

HARDWARE

Our favorite new hardware item at AmiEXPO was undoubtedly the *Software Distillery* **Beverage Container**, a beer mug emblazoned with the logo of that infamous group of talented hackers. They really do sell these things; write to Software Distillery, 235 Trillingham Lane, Cary, NC 27513.



Ultracard from Intuitive Technologies.

On the more serious side of things, *Xetec* [913-827-0685] was showing a new add-in RAM board for their hard drive controllers. It uses four SIMMS to give .5, 1, 2, 4, or 8 megs of storage. Bare board price is $99.95. *Interactive Video Systems* [714-890-7040] drew lots of interest with a shareware driver for their hard drive controller that makes theirs the first hard drive compatible with the AMax Macintosh emulator from ReadySoft. *Supra* [800-727-8772] could not keep their new **SupraModem 2400zi** internal half-card modems for the A2000 in stock. *GVP* [215-889-9411] demoed their 32 MHz 68030 card, as well as a new **150 Meg Streaming Tape** backup unit and a **44 Meg Syquest** removable platter hard drive system. *MicroWay* has added an optional $50 **Genlock Compatibility Option** for the flickerFixer. As the name implies, this add-on means you no longer have to unplug the flickerFixer to use a genlock, and vice versa. A1000 owners were happy to hear about the **A1000 Rejuvenator** from Gregory Tibbs [513-255-7316], an upgrade board that allows them to use the new Super Agnus and Super Denise chips, and adds jumper-selectable Kickstart-in-ROM, a battery clock, and a subset of the A2000 video slot that is compatible with the flickerFixer. *Digital Animation Productions* [617-720-2038] showed their speedy **Transputer** boards again, along with EPROM burners, 68030 co-processors, and other high-end hardware.

Sharp was displaying their new little 200 dpi 4"x6" color scanner, which will be available from ASDG [608-273-6585], complete with software and interface, for $995. *C. Ltd* [316-267-3807] was demoing their new 400 dpi hand-held scanner, the **Han-D-Scan** -- look for a review next issue. We're also excited about *CMI*'s [503-691-2552] new **MultiPort Board** and AppleTalk-compatible **CMI-net** software. The board adds additional serial and parallel ports, an AppleTalk port, and optional SCSI controller. CMI-net will let you hook your Amiga into an AppleTalk network with Macs and PostScript laser printers.

Those were the highlights of Chicago AmiEXPO for us. Coming up next are AmiEXPOs in Santa Clara, CA Oct 20-22, Cologne, West Germany Nov 12, and Washington, DC, March 17-19 1990. ★

News & Views

. . . continued from page 34

CYBERSPACE

Fans of William Gibson (*Neuromancer*) will rejoice to know that progress is being made on turning cyberspace into a reality. The July 24 issue of Infoworld reports that a company called Autodesk is developing a system to be introduced at the August Siggraph show, called - surprise, surprise! - *Cyberspace*. The $30,000 prototype virtual reality system is based on a PC equipped with a pair of Matrox graphics processors (one for each eye) and will display *Autocad* drawings through stereoscopic goggles outfitted with two color LCD screens, thus giving the viewer the illusion of being inside the shaded drawing. The developers have also hooked a "data-glove" into the system, which allows the user to pick up and manipulate objects within the virtual reality. Now if some bioengineers would just get into the act, I would gladly be the first to volunteer to have the socket installed behind my right ear and jack into the matrix.

HP LASERJET IIP

Hewlett-Packard's new $1495 *LaserJet IIP* is a scaled-down version of their $4295 LaserJet IID. It outputs 4 ppm, comes with 512K of RAM (expandable to 4.5 megs), and has 14 internal fonts and 1 font cartridge slot. H-P is offering a *Great Start* font cartridge for the IIP for $99, including Times and Letter Gothic fonts. The IIP can also use almost all IID-compatible font cartridges, except the new $995 IID PostScript compatibility cartridge. It plugs into a font slot in the IID and converts it into a PostScript printer, complete with 35 built-in Adobe typefaces. (The IID must alse be equipped with 2-4 megs of RAM.) H-P says that a IIP version of the PostScript cartridge will be available in the first half of 1990.

AT PRESS TIME

Just as this issue was going to press, we unearthed some of the details of Commodore's print ad campaign for the A500. The multiple-page ad inserts will feature a mother and daughter who just happen to be played by the real-life wife (Janice) and daughter (Kassondra) of New York area Amiga dealer Eric Miller (Compu-U-Save's infamous "Dr. Oxide"). The ads will break in the November 6th issue of *Time*, the November 20th and December 4th issues of *Newsweek*, and the December issue of *Life*. Watch for them!

COMMODORE IN THE MEDIA

Here are some more sightings of Commodore computers on film, on television, and in print, as reported by INFO readers.

In an article titled "PC Rider: Six Ways to Go Racing at Your Desk," the September issue of *Car and Driver* reviews six racing programs, five of which run on the Amiga. - Joel Murray

On the Sunday, August 13th episode of *Sesame Street* the characters were using a C64 and 1702 monitor. There were graphics on the monitor, but there was no power cord plugged into the computer. Anything is possible on Sesame Street, I guess. - Keith Ritchie

The picture of Peter Gabriel on the cover of the October issue of *Keyboard* magazine was created on an Amiga 1000. On page 4, editor Domenic Milano gives the full story of how it was done. - MichaelH30

The July edition of *Computer Graphics World* contained a feature titled "Amiga: Tool or Toy?" (Their conclusion: mostly a tool.) Other articles on ray-tracing also talked about the Amiga's capabilities.
- Chris Schmidt

An August *Nova* episode titled "The Strange New Science of Chaos" featured an A2000 showing graphic displays of heart fibrillation and other chaotic events.
- Eric Tobler

The July 31 edition of *PC Week*, a weekly newspaper for corporate computer users, contained a very positive feature on the Amiga's strengths as a low-cost graphics workstation.
- Anthony M. Parry

Both the Commodore 64 and the Amiga were featured prominently in a MIDI music feature in the August issue of *Radio Electronics*, and the Amiga was even featured on the cover... hooked up to an Atari SC1224 monitor! - Wayne V.H. Lorentz

Though there's an IBM PS/2 in the garage on the TV show *Alf*, an Amiga 500 with 1010 disk drive has the place of honor in the family's living room - Steven Hurdle

A guest editorial in the July issue of *Heavy Metal* talks about the internationally-acclaimed French comics artist Moebius and his experiments with the Amiga. - Ed Borkowski

Though the Amiga isn't mentioned in a MIDI article in the August issue of *Guitar Player* magazine, an A1000 is pictured prominently. Go figure.
- Rob Glanzman

The music video of Paula Abdul's song "Cold Hearted" shows an A500 controlling some of the MIDI instruments with A.M.A.S. - John Miller

Look for the made-for-video film from Suburban Tempe called *Robot Ninja* which features Amiga-generated titles, effects, and music. There's also a guest appearance by an A500 running Cinemaware's *Lords of the Rising Sun*.
- J.R. Bookwalter

In the song "Make it Funky" by Information Society, the Amiga's voice can be heard to repeat the title phrase a number of times. - Ray Krause

Thanks to all who contributed sightings! If you've spotted a Commodore product in the media, report it to INFO Sightings, PO Box 2300, Iowa City IA 52245, or send EMail to our Reader Mail addresses. If it's the first we've heard of it, we'll print it here and give you credit. Such a deal!

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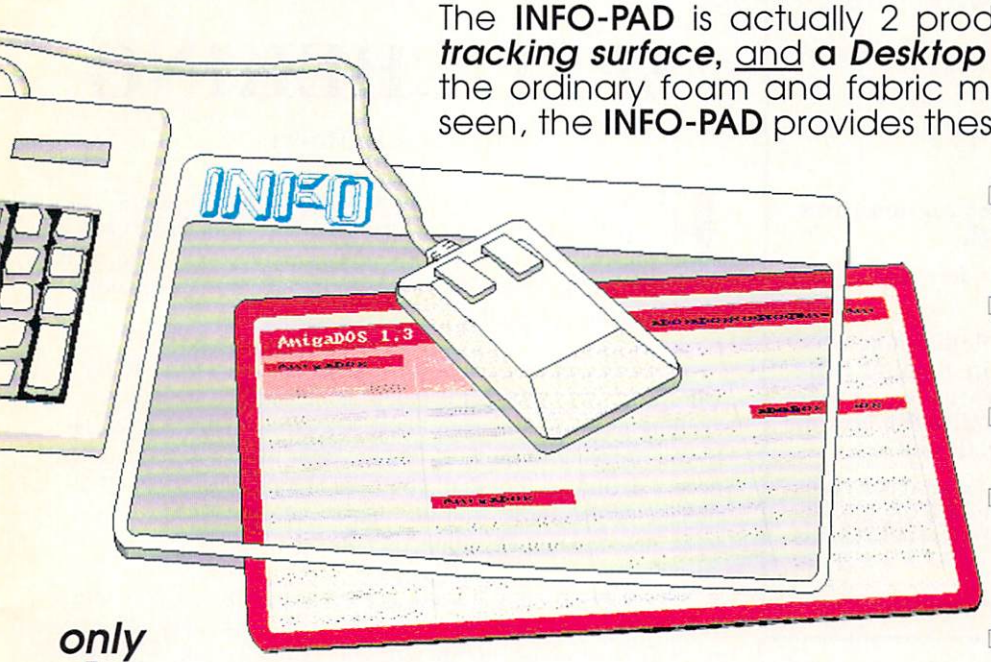

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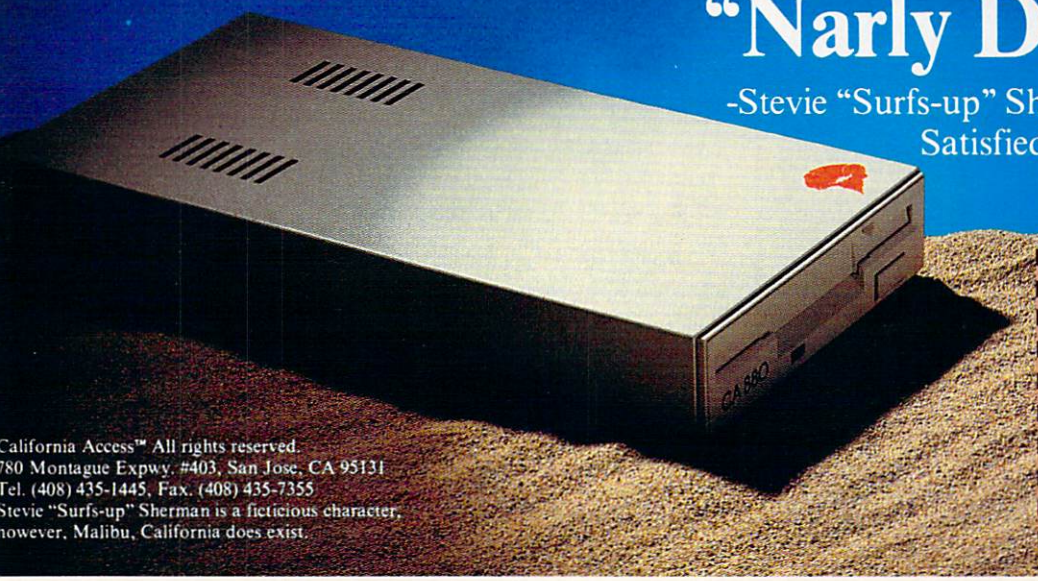

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REAL WORLD

SPEL CHEKING

by Mark R. Brown

For some strange reason, most computer users can't spell.* It's my theory that the same set of brain cells is responsible for spelling and computer skills and early on in a child's development those cells choose to develop in one direction or the other.

So thank your Higher Power for spelling checkers. To me, a wordprocessor just isn't much good unless it includes a spelling checker. But even the best spelling checker is useless if you're trying to think of just the right word to use or if you need a definition. For that, you need a good old fashioned dictionary or thesaurus. You do, that is, unless you have one of those new-fangled electronic dictionaries.

Why they are able to build a better spelling checker into a stand-alone box than you can buy to run on a personal computer is beyond me, but they do. For example, take Franklin's Language Master 3000, which I've been playing with for the last couple of months. Franklin has squeezed an 80,000 word Merriam-Webster dictionary with definitions and a 470,000 reference thesaurus into a case not much bigger than a pocket calculator, complete with QWERTY keyboard and 4-line, 160-character LCD display. Its electronic logic can even look up words phonetically, which is something no print dictionary can do. The menu system is sublime (grand, exalted, superb), allowing you to intuitively switch from definitions to synonyms or follow chains of words through the lookup process. If you tire of the serious uses of this incredible (inconceivable, unbelievable) little box, you can even take a break and play anagrams or hangman or any of a dozen other built-in word games!

The computer system in this little wonder (marvel, miracle, stunner) is nothing to scoff at, either. The LM3000 has an 8 MHz NEC CPU chip, 1.5 megs of ROM, and 32K of RAM. Thanks to innovative data compression techniques, its ROM chips contain over a million words.

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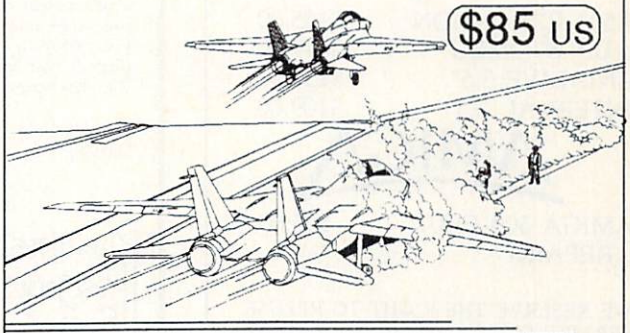

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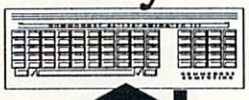

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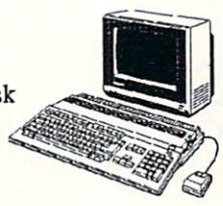

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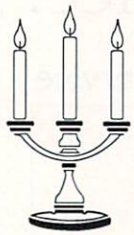

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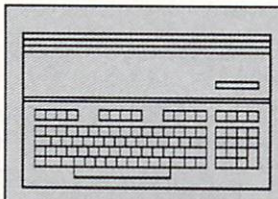

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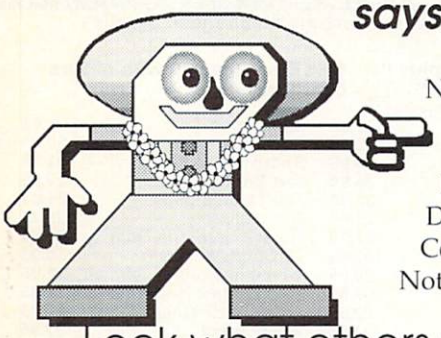

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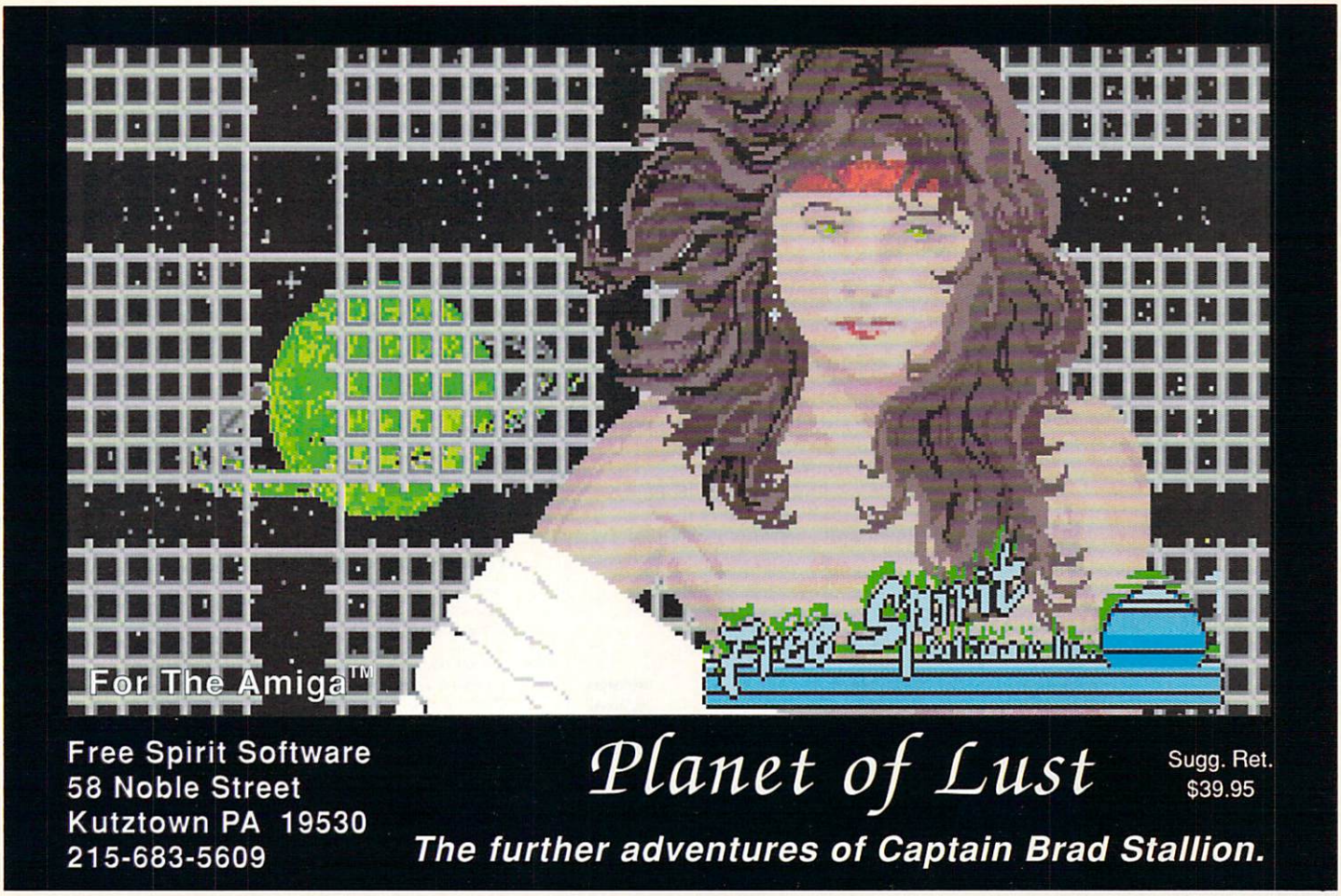

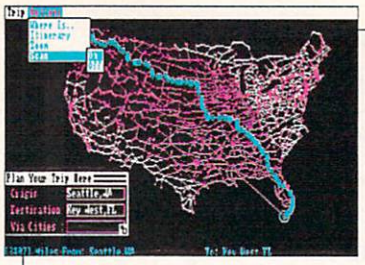

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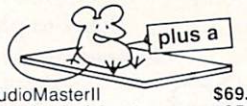

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MAVERICK ™ V4

PLEASE Don't Call Us The Best Copy Utility On The Market!

We've always been known as the best Commodore copy utility made. But that label just doesn't fit us anymore. Because Maverick is so much more than just a copy utility. Over its life span, Maverick has evolved into a total software management system capable of extending the abilities of your Commodore computer well beyond its original capacity.

Maverick V4 continues the evolutionary process that is transforming our original copy program into a series of dedicated modules, each component created by a master programmer, each designed to deal with a specialized task. The result is a program that creates an entire software management environment of which backing up protected software is only one part. Software Support, the company that has always pushed the Commodore further that it was ever designed to go, is proud to present Maverick V4. We've added several important new features and many dramatic enhancements to the Maverick platform. For example:

- RAMBOard™ NYBBLER: A MAJOR leap forward in protected backup capabilities, our exclusive new nybbler works with our own RAMBOard to AUTOMATICALLY shred some of the toughest protection schemes ever created! This combination of ingenious hardware and superb new software can handle many protection schemes that are untouchable with conventional nybblers alone.
- RAMBOard GCR TRACK EDITOR: This new feature, found ONLY in Maverick V4, works with RAMBOard to allow you to read, write, and even edit whole tracks at a time!
- 1581 SINGLE OR DUAL DRIVE FAST DATA COPIER: Now backup your data disks faster than ever before with your 1581 drive! 1764/1750 RAM expansion and 64K video RAM are supported!
- FILE, TRACK, & SECTOR TRACER: Identify, view, and edit any sector in any program file-fast!
- HIGH SPEED SEQUENTIAL FILE VIEWERS: Now you can view or print sequential files WITHOUT having to load the application that created those files! For example, view PaperClip™ files without waiting for PaperClip to load. File Viewers are the current rage in the IBM world -Software Support brings this advanced feature to your Commodore with the new Maverick V4!
- ENHANCED DIRECTORY EDITOR: Works with the 1541, the 1571, and now supports the 1581 disk drive! The ultimate tool for organizing your disks!
- ENHANCED TRACK & SECTOR EDITOR: Works with the 1541, the 1571 (in true double sided format), and now supports the 1581 disk drive!
- ENHANCED SECTOR MAP EDITOR: Now supports the true double sided format of the 1571 disk drive!
- ENHANCED PARAMETER MENU: Now supports two drives!
- ENHANCED BYTE PATTERN SCANNER: Perform high speed searches on 1541 disks and, now with true double sided format support, 1571 disks.
- MORE ALL-NEW PARAMETERS: Maverick V4 now includes over 450 parameters that either copy or entirely break the potentially destructive protection schemes of the world's newest and finest programs! Our parameters have always been the strongest on the market but, with our exclusive RAMBOard support, now they're more powerful than ever!

A turntable is just one component of a complete stereo system. And a copier, even the best one made, is just one module of a complete software management system. From this point on, we won't settle for just being known as having the best copier on the market. Once you see Maverick V4, you'll understand why.

THE NEW MAVERICK V4 -ONLY $34.95

NOW INCLUDES PARAMETER MODULES 1-7

Maverick V4 is available from Software Support International: Products That Work - From A Company That Cares

ALL NEW

ADDITIONAL MAVERICK V4 FEATURES

- REU support in Maverick's major modules
- 64K video RAM support in many modules
- Automatic directory recovery utility for damaged disks
- GEOS™ 2.0 64/128 1581 boot disk transfer utility
- 1541/1571/1581 fast file copier -any direction
- State of the art single or dual drive GCR nybbler
- GCR editor for the experienced hacker
- GEOS™ Parameters & Tools module
- GEOS™ desktop accessible file copier
- GEOS™ desktop accessible sector editor
- Error scanner with unique sector editor
- Single or dual drive high speed data copier
- Scrolling M/L monitor with DriveMon
- Works with ALL Commodore 64/128 computers in the 64 mode
- Extensive documentation included - over 40 pages.
- AND OUR FAMOUS SSI EXPERT TECHNICAL SUPPORT!

Attention Registered Maverick Owners: You may upgrade to the new V4

$9.95

Parameter Module #7 is also available

$9.95

(Includes Modules 2 through 7)

PLEASE NOTE: Many features now require the use of RAMBOard Available seperately from Software Support International

WELCOME TO HACK U

HACK U

A School Of Higher Learning For A Select Few.

Welcome. This is a different kind of school. Here, we will teach you about power. The power of knowledge. The power of mastering a very specialized discipline. And the power of the Commodore 64/128.

Not everyone can qualify to enter Hack U. You've got to be self-motivated - we're certainly not going to come to your house and hold your hand. You've got to be driven - mastering the Commodore can be a long journey, and is not recommended for the faint of spirit. And you've got to be intelligent - but your intellect must be tempered with equal doses of creativity and patience.

Think you qualify? Good. Not many do. But there is one more thing you need to bring with you. Curiosity. Overwhelming, insatiable curiosity. Because that's the fuel we'll use to power you on this journey.

If you're among the few to still be with us, congratulations. This is where your journey begins. The combined experiences of those who came before you are here, available for you to use whenever you're ready. All it takes is making the first step.

NEW

★ THE CSM NEWSLETTER COMPENDIUM / $29.95

From 1984 to 1986, the Golden Years of Commodore hacking, the CSM Newsletters were THE best source of inside information on the complex world of copy protection. This compendium provides you with the very best tips, tricks, hardware modifications and expert copy protection cracking techniques! If you're hungry for knowledge, this is a great source, and highly recomended by the Kracker Jax team.

★ THE CSM PROGRAM PROTECTION MANUAL VOL I / $24.95

The CSM books are the logical starting place to begin your higher education in copy protection. CSM, the original central clearing house of specialized info for hackers, put their best knowledge into these two books. Volume I provides an overview of copy protection issues and provides you with a foundation of information to begin building on.

★ THE CSM PROGRAM PROTECTION MANUAL VOL II / $29.95

Volume II begins where Volume I left off. It covers the evolution of copy protection schemes; autoboots; interrupts & resets; compilers; undocumented opcodes; encrypted programs; machine language; GCR data recording & reading; custom DOS routines like half-tracks, extras sectors, & modified formats; decryption & decoding techniques, and much more! This is a MUST READ for all serious Commodore users.

★ KRACKER JAX REVEALED: VOLUMES I, II, & III / $23.50 Per Volume

No serious hacker can be unfamiliar with the Kracker Jax name. The experts who created the award winning series of deprotection parameters were brought together to create a graduate course of inside information for the truly serious student of hacking. This is not an easy course - we strongly recommend that you don't even try the Revealed books until you study (or have experience equivalent to) the information in the CSM materials described above. But once you're ready, you'll find the Kracker Jax Revealed books to be the final step on the path to copy protection mastery.

KRACKER JAX REVEALED Book I

Uses 20 specific tutorials to introduce you to the unique concepts used by the Kracker Jax team. Includes a ML monitor, sector editor, error scanner, reset switch, & more.

KRACKER JAX REVEALED Book II

Gives you 20 more examples, and also reveals the secrets of the famous Rapidlok™ copy protection system! Includes the legendary HesMon™ machine language monitor cartridge at NO ADDITIONAL CHARGE!

KRACKER JAX REVEALED Book III

Is the final book in the Revealed series. Here, the student becomes the master as we show you how to create your own copy protection schemes, including one that can NOT be copied by any nibbler currently on the market! This book takes you deep inside the 1541 itself, where the new breed of ultra tough protection lives. Order now & get our famous $19.95 Hacker's Utility Kit software package FREE!

SOFTWARE SUPPORT INTERNATIONAL

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THE RAMBOard

Beyond Super

RAMBOard does just what the other copy card on the market does: it adds RAM to your 1541 disk drive. This RAM is used to create a workspace where custom software can work its magic. Copy protection is evolving past the point of nibblers and other software-only solutions. Believe us, card based copiers are the future of archival technology.

So how do you decide between our card and "Brand X"? Don't compare the similarities - compare the differences. Their card is just "out there". You buy it, and that's pretty much it. RAMBOard was designed from the very beginning as an integral component in Maverick™, a complete system of archival tools and products. Their card puts the burden of the work on you. Are you good at soldering? You better be - their card REQUIRES it. On the other hand RAMBOards require NO soldering to install, the only exception being a handful of older 1541C's. That's not all - the other guys say they don't use parameters, but what they really mean is they don't WRITE parameters. The user is required to make special critical "copy adjustments" to copy software. Sounds like creating parameters to us. On the other hand, RAMBOard uses Maverick parameters, designed by experts to instantly and easily copy today's toughest titles. So when the other guys say that their card will copy "everything", that may be true - providing that you can figure out the proper "copy adjustment" settings for everything. Good luck!

The differences go beyond the product itself. Software Support International is the company that began with the award winning Kracker Jax series of archival parameters. Our customer support system has earned industry praise, and we've established a reputation for honesty and integrity. A close look at the track record of the other guys will show just how deep our differences run. So when you're ready to get involved with the future of archival technology, pick RAMBOard - a product you can trust, from a company you can trust.

The RAMBOard

1541/1541C Version: $34.95

NEW **1541 II Version: $44.95**

1571 Version: $49.95

ATTN. C-128D Owners — The 1571 RAMBOard is for external drives only.

The RAMBOard is an optional Maverick accessory

THE 1750 CLONE

Are You Overdrawn At The Memory Bank?

Ah, the venerable Commodore 64/128. Stock, it has better sound than an Atari ST. Better graphics than a CGA equipped IBM. And more memory than....

Uh-oh.

As powerful as the Commodore is, memory has always been its weak spot. Some brilliant programmers have found some ingenious ways to work within the computer's very limited available RAM, but the fact remains that you can only go so far with 64 or even 128K. But you can go MUCH further with 512K.

The bad news is that Commodore's own 1750 512K RAM Expansion Unit (REU) is expensive and almost impossible to find. The good news is, we did something about it.

We bought brand new Commodore 1764 REU's, which come with only 256K of RAM. Next, we installed a 256K upgrade which was custom engineered to our demanding specifications. Once modified, we tested each and every unit and warranted them to be free from defects. The final product is called the 1750 Clone, and it's all the room you'll ever need on a simple plug in cartridge.

Once on board, you'll have a whopping 512K of RAM - the SAME amount of memory found on the Amiga 500. Your Commodore will operate at advanced levels of performance that the original designers never even dreamed of! You'll be amazed at the enhanced capabilities of software that takes advantage of the 1750 Clone, programs like GEOS, PaperClip III, and our own Maverick, to name a few.

The 1750 Clone works EXACTLY like the original 1750. It will open the door on years of extended use from your Commodore as even newer, more powerful software appears on the horizon, software that requires the room the 1750 Clone can provide.

Twin Cities 128 magazine says they "can completely recommend the 1750 Clone." Once you see it work, you'll feel the same way. So don't buy a whole new computer just to get more memory. Get the 1750 Clone instead -and get another decade of satisfaction from your Commodore.

IMPORTANT NOTES - READ CAREFULLY

C-64/64c (but NOT C128/128D) owners MUST buy a heavy-duty power supply to use these units. The power supply is NOT included - it is available from us separately. If you ALREADY own a 1764 RAM cartridge, we can upgrade it for you. Your unit MUST be in perfect working order for us to upgrade it. The turnaround time on upgrades is approx. 2 weeks. It will NOT be necessary for you to purchase a new power supply - the one that came with your 1764 will still work fine.

THE 1750 CLONE ONLY $199.95

1764 UPGRADE ONLY $124.95

ALL NEW

FasTrac/128 by Mike J. Henry

Look Who's Come Out Of The Basement

ALL NEW

At Software Support International, we've gained a reputation for providing Commodore owners with the products they need to get the most out of their computers. We've never hesitated to do whatever it took to provide you with the best software on the market. So when we decided to produce the ultimate 128 utility system, we went looking for one of the ultimate programmers.

We found him.

Mike J. Henry, the brilliant young programmer who was the driving force behind the "Basement Boys", the software team that created the phenomenal Fast Hack 'Em, has turned his considerable talents onto the 128. The result: FasTrac/128, the TOTAL utility system for your 128.

Here's a list of the major features found in FasTrac/128. ALL use both 40 and 80 column outputs and are PAL compatible for our overseas users. Read carefully -FasTrac/128 does some truly amazing things:

- **FasTrac/128 Disk Copy:** Single or dual drive / Copy with or without verify / Copy in 1541, 1581, or true 1571 formats / 1764-1750 RAM expansion support / 64K video RAM support / Uses the 128's additional memory.
- **FasTrac/128 File Copy:** Single or dual drive / File Copy between ANY two Commodore compatable Drives including the SFD-1001, MSD drives, hard drives, and others / Copy in 1541 or true 1571 formats / 1581 file copy with partition support / 1764-1750 RAM expansion support / 64K video RAM support / Uses the 128's additional memory.
- **FasTrac/128 M/L Monitor:** Go ANYwhere in memory / Access both main banks / Full scrolling in both directions / Includes scrolling DriveMon.
- **FasTrac/128 Directory Editor:** Edit and organize ANY standard directory / Edit 1541 or true 1571 formats / Edit 1581 directories with full partition support.
- **FasTrac/128 IBM™ MFM Disk Copier:** Copy standard IBM formatted 360K 5.25" disks with your 1571 drive (required) / 1764-1750 RAM expansion support / 64K video RAM support / Uses the 128's extra memory to copy in fewer passes.
- **FasTrac/128 1581 Duplicator:** Single or dual drive / 1764-1750 RAM expansion support / 64K video RAM support / Uses the 128's additional memory / This is the fastest 1581 to 1581 copier ever created!

Quite a package, eh? We don't want to mislead you - FasTrac/128 is NOT for copying protected software. Our own Maverick™ already has those bases more than covered. FasTrac/128 was designed to allow serious 128 users to get total control of their computers.

If you want to own the finest set of utilities ever made for the Commodore 128, we've just made it a lot easier - we've told you the name . . .

Mike J. Henry's FasTrac/128

Only $34.95

ATTN. REGISTERED Maverick Owners ONLY: You may buy ONE (1) copy of FasTrac/128 for only $20.00
This offer is ONLY for orders placed with Software Support.

ALL NEW

THE 1581 TOOLKIT V2

If You've Been Waiting For A Sign, This Is It.

ALL NEW

Introducing the 1581 Toolkit Version 2, the newest incarnation of the best program you can buy for your 1581 disk drive. How good is it? Well, V1 received 4 1/2 of a possible 5 stars from INFO™ magazine - and V2 is even better. What can it do for you? Picture using your 1581 with a:

- ★ **Fast Disk Copier**
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And V2 adds many new or enhanced features, like the fact that both our single drive fast data copier and fast file copier now support the 1764/1750 RAM expansion units for super-fast one pass copies, or like our 64k video RAM support for 128 owners! And remember also that all of our 1581 Toolkit utilities use hyperfast read/write routines and, wherever appropriate, allow full access to partitions.

So whether you're thinking about buying a 1581 drive or you already own a 1581 drive, we guarantee you'll never really USE a 1581 drive until you've got your hands on the 1581 Toolkit.

NEW LOW PRICE:

THE 1581 TOOLKIT (3.5 disk) . . . . . NOW ONLY $24.95!

VERSION 1 OWNERS: Upgrade to V2 by Sending us your Original Toolkit V1 disk along with $9.95 plus S/H

Ever wish you knew more about your 1581? David Martin's book, "The 1581 DOS Reference Guide", is what you've been wishing for. Martin's invaluable resource holds over 100 pages of detailed information that took over a year of solid research to compile. This exhaustive manual will show you the inner workings of the 1581 as nothing else can. Order now, and we'll include some additional utilities like a machine language monitor with DriveMon - the perfect companion to The 1581 DOS Reference Guide!

THE 1581 DOS REFERENCE GUIDE / $14.95

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C-128 VIDEO RAM UPGRADES

For 128 Owners Who Refuse To Be Left Behind

When Commodore first released the new 128D, we got one, opened it up, and took a good look. It didn't take long to discover one MAJOR difference. The standard C-128 has just 16K of video RAM, while the newer 128D has 64K: 400% more! We knew that there were tremendous advantages to the extra RAM. Like being able to scroll through video memory or the potential for greatly enhanced color resolution. And, since Commodore had seen fit to make it a standard feature on all new 128D's, we knew it was only a matter of time before new software started taking advantage of the full 64K.

That time has arrived. Programs like BASIC 8, the BASIC 8 Toolkit, Spectrum 128, Sketchpad 128, and News Maker 128 have all been coded to utilize the full 64K of video RAM found on the 128D's. So if you've got a regular C-128 with only 16K of video RAM, you've got a problem. And we've got the solution.

You could upgrade on your own - but if thoughts of splattered solder and heat-damaged motherboards bother you, relax: we've developed a module that just plugs right in to your C- 128. No soldering, no hassles. Now your computer can have the same 64K video RAM as the new machines. And you'll be ready for whatever the future holds.

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We've also cut the price on The Shotgun II, one of the most powerful nibblers ever produced. Originally $14.95, you can now own it for only **$9.95!**

And just because there's a remote chance that it might be your birthday, we'll go one step further: Buy the Kracker Jax Volume 1 -7 package for **$29.95,** and we'll throw in The Shotgun II nibbler **FREE!** Quite a deal, huh? But if you want it, better hurry - supplies are limited. After all, nothing good lasts forever.

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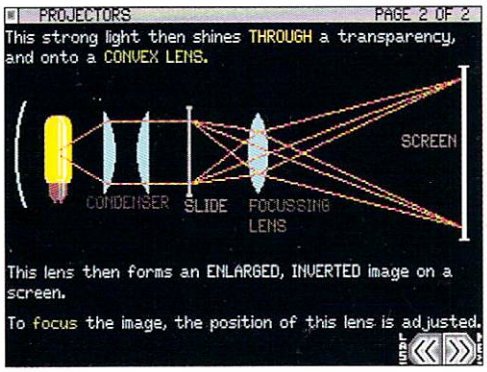

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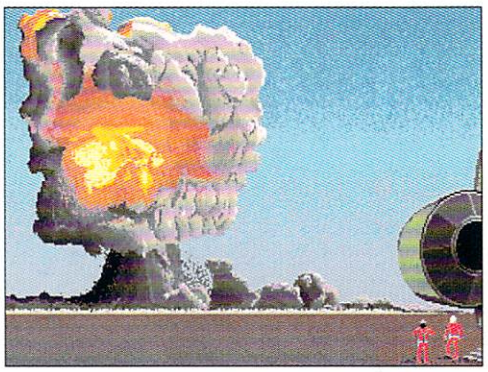

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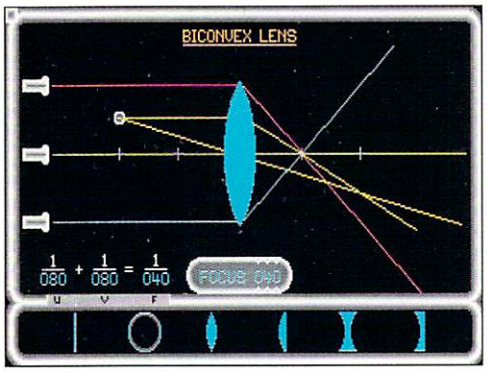

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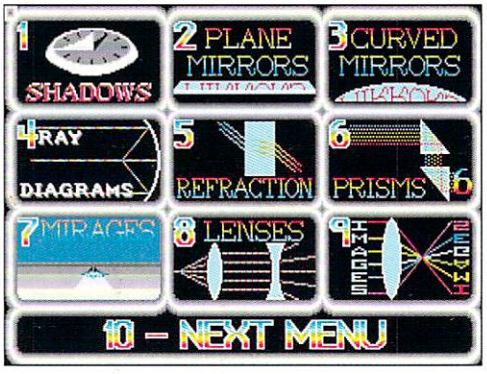

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s	Dotted Draw	f	Fill
d/D	Draw/Draw Filled	b/B	Grab/Recall brush
v	Straight line	t	Text (ESC quits)
q	Curve	g/G	Grid toggle/reposition
r/R	Open/Filled rectangle	/	Symmetry
Alt-R	Filled & outlined rect.	m	Magnify toggle
c/C	Open/Filled circle	</>	Zoom
Alt-R	Filled & oulined circle	u	Undo
e/E	Open/Filled ellipse	K	Clear screen
w/W	Open/Filled polygon		

ANIMATION

M	Move requester
r	Reverses animation play
Tab	Color cycle on/off
Left Amiga	Hold while painting to turn on animpaint
Left Arrow	Slows down animation play
Right Arrow	Speeds up animation play
Space bar	Stop animation play
Esc key	Stop animation play

KEYBOARD NUMBERS

	PLAIN	SHIFT
1	previous frame	first frame
2	next frame	last frame
3	go to frame	last "go to" frame
4	play continuously	reverse play continuously
5	play once	reverse play once
6	play pingpong	unused
7	previous animbrush frame	first animbrush frame
8	next animbrush frame	last animbrush frame

BRUSH COMMANDS

F1	Matte	-	Brush smaller	X	Double horizontal
F2	Color	+	Brush larger	Y	Double vertical
F3	Replace	Z	Stretch	O	Add one pixel outline to brush
F4	Smear	h	Halve	o	Remove one pixel outline from brush
F5	Shade	H	Double	Alt-s	Brush handle center
F6	Blend	x	Flip horizontal	Alt-x	Flip brush handle horizontal
F7	Cycle	y	Flip vertical	Alt-y	Flip brush handle vertical
F8	Smooth	z	Rotate 90 degrees	Alt-z	Place brush handle

PERSPECTIVE

; and '	move brush along fixed axis perpendicular to its plane
: and "	same as ; and ', in big steps
> and <	modifies distance from vanishing point
Ctrl	locks y axis to move brush in x and z planes
\	angle / position display toggle

NUMERIC KEYPAD

Enter		activate perspective mode	
.(decimal)		reset center	
-(minus)		perspectivefill screen	
		PLAIN	SHIFT
	0	reset all axis to 0°	reset axis, settings and positions to 0°
Z axis	1	rotate -1°	- step angle
	2	rotate +1°	+ step angle
	3	reset to 0°	Fix axis
Y axis	4	rotate -1°	- step angle
	5	rotate +1°	+ step angle
	6	reset to 0°	Fix axis
X axis	7	rotate -1°	- step angle
	8	rotate +1°	+ step angle
	9	reset to 0°	Fix axis

MISC KEYBOARD COMMANDS

F9	Menu bar on/off
F10	Menu bar & Toolbox on/off
p	Palette requester
?	Memory
F	Fill requester
S	show full page
a	repeats last menu command
j	jump to spare
J	copy to spare
n	centers area under cursor
{/}	Step through background colors
[/]	Step through foreground colors
Ctrl	leave trails with some tools
Ctrl-a	Memory available
Shift	vertical /horizontal cursor constraint
Tab	color cycle
DEL	cursor on/off
Esc/Spacebar	stop / cancel operation
Cursor keys	scroll screen
Ctrl-cursor	Adjust screen position
~ (tilde)	Stencil make
‘ (grave)	Stencil on/off
, (comma)	Pick color
. (period)	One pixel brush
| (vertical line)	coordinates on/off

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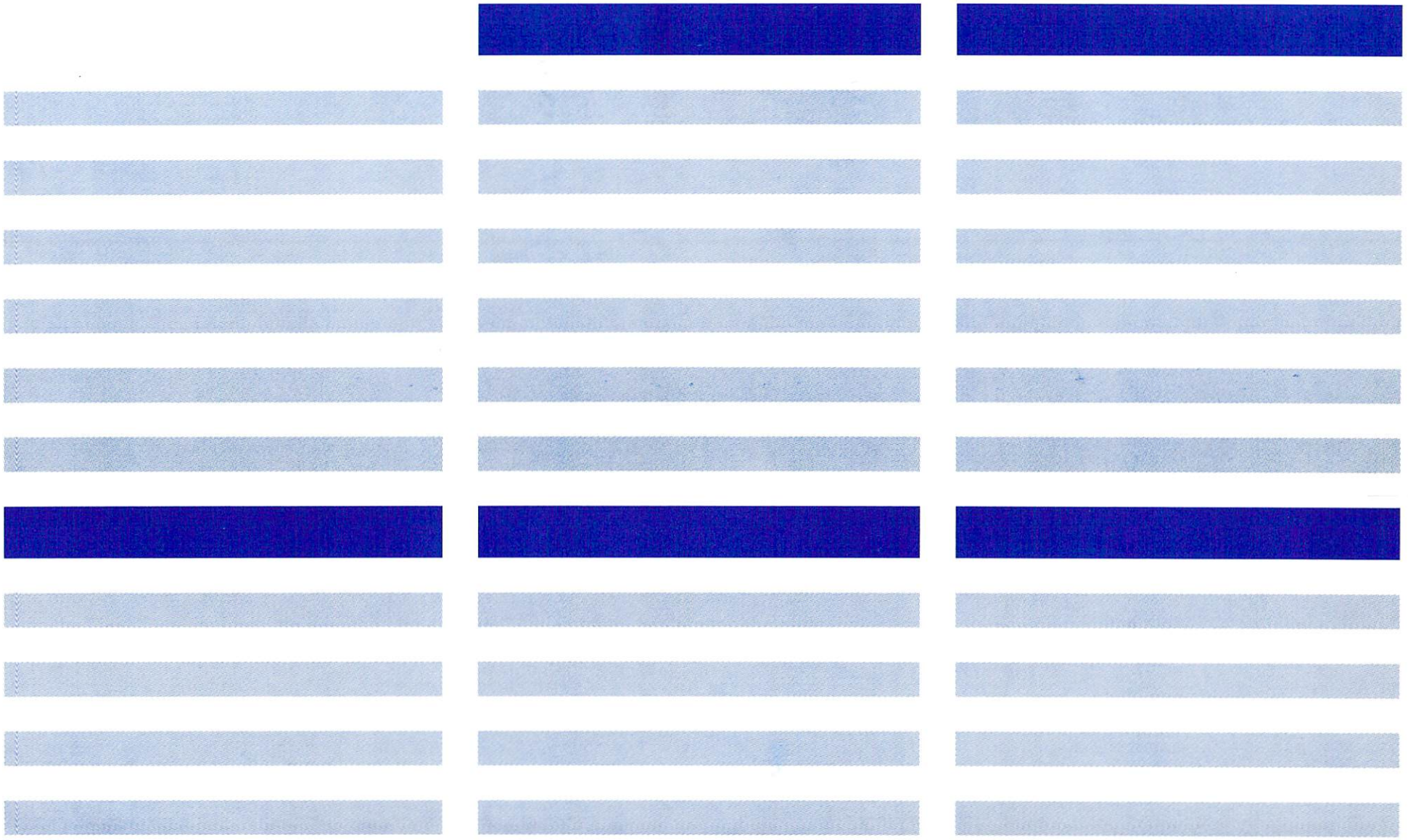

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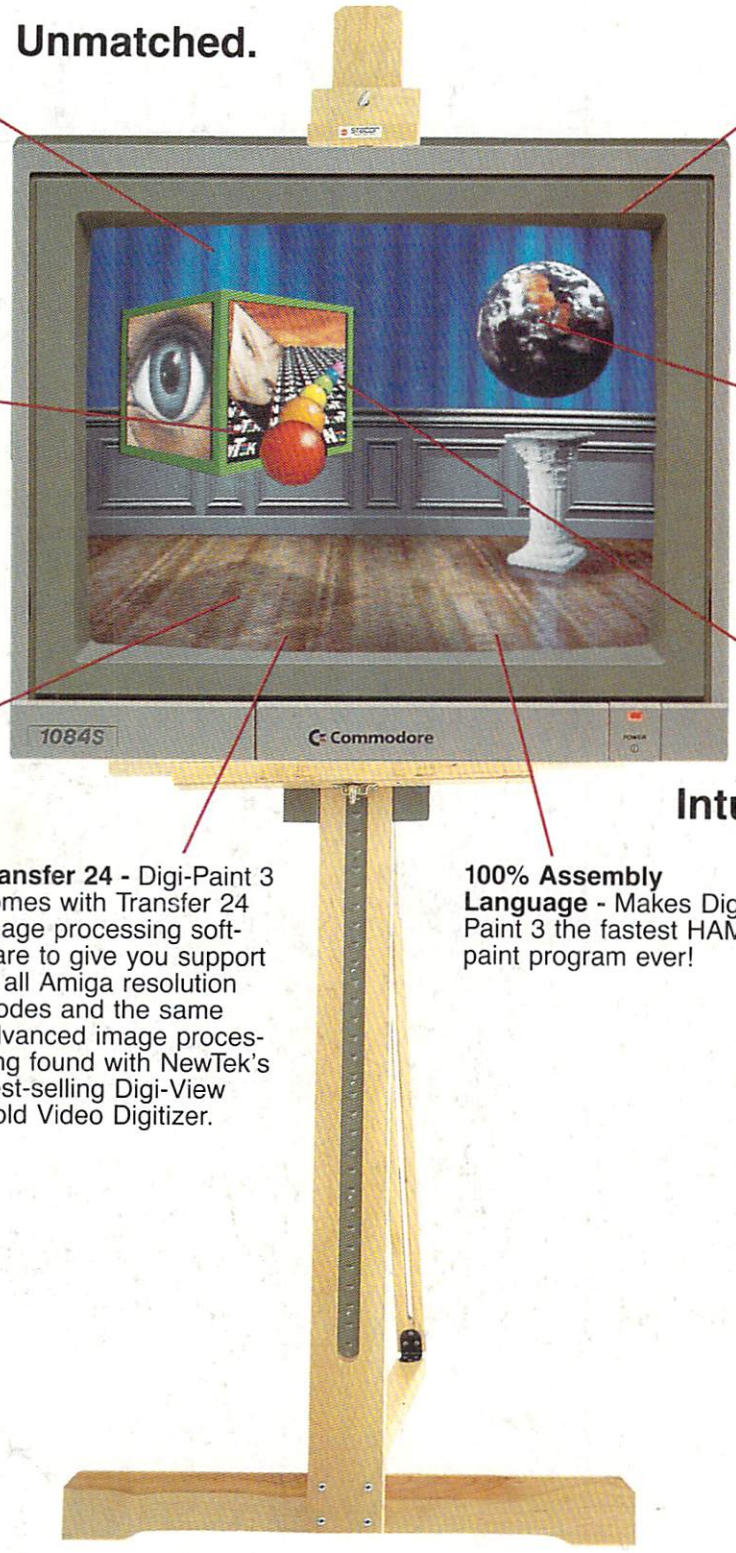

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