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CBM 64/128  
Spectrum  
Amstrad  
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# ACE

ADVANCED · COMPUTER · ENTERTAINMENT



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powerhouse  
exposed



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## 16 BIT AMSTRAD - RUMOURS HOT UP

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# ACE

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# O!

...You! This is the ACE Team speaking. We wanna have a few words with you, alright?

We just thought we'd like to tell you that we reckon this magazine is the **best on the shelf**. Yeah, we know, you've heard it all before, but just for the record, we're going to tell you **WHY** we think it's the best.

First off, it's aimed at a **different type of reader**. Someone like you, someone with **brakes**, with **discrimination**...not someone with **nappy-rash**, but a real man-about-town who **knows what he wants** in a magazine.

You want in-depth, **authoritative** reviews, written by people who **really know** a good game when they see one, and have the guts to **speak out** when they come across a **stinker**.

You want a **rating system** that leaves no **log-holes**, that tells you which game you'll still be playing in a **year's time**, and which one will end up in the **bin**.

But you want **MORE** than just games, games, and more games...

You want **in-depth features** on the white-hot cutting edge of computer entertainment...You want the **skills** that will turn your monitor into a **blistering display of pixel mastery**. You want the data that will **transform your humble synth** into a **state-of-the-art** music machine.

You want the **news**...the **pokes**...the **competitions**...the **previews**...the **special offers**...the **puzzles**...the **buyers' guides**.

You want the **lot** - and we **give it to you**...

So **don't hesitate** - take this mag to the counter right now. It's the **latest issue** of Britain's **fastest moving new micro magazine**, and it's not going to be on that shelf for long.

• The ACE Team

## ADVANCED COMPUTER ENTERTAINMENT

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• 0225 446804

Fax 0225 446016

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Printed/Microsoft 045 874

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COVER PHOTOGRAPHY: Stuart Burgess Photography, Bath, 0225 4444 • 0488277496 (Carrie Anne Porter) • SPECIAL OFFERS: Christmas Special: The Old Man, Sanderson, Somerset, 1511 791 • 0452 7021 • COLOUR ORGANIZATION: Newcas Reproduction, 55A Heald Road, Birtley, 054 865 • 08978697029 04 Distribution, 1875 Trinity Gardens, London SW2 0JZ • 01-274 87118 • PRINTING: Church & Dwyer, Plymouth • 0757655 PUBLISHING £39 1987 • No part of this publication may be reproduced in any form without our permission.



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# ATARI COIN-OP SENSATION

A Midlands coin-op company has developed a revolutionary coin-op arcade console that promises to close the gap between home computer software and the arcades.

East Midlands Leisure, last 20-floored a cabinet based on the Atari ST, but unlike the Ataris Arcade board system, which uses Ataris boards and plug-in chips, the EML system loads its games from disc. As a result, almost any ST program can be converted in a matter of hours to run on the machine, and already EML have signed up US Code's Temtor for imminent release. Other titles under negotiation include Pitco's Starbarrier, some of the best-selling Intermatic titles, and Tynesoft's ST shoot-up Phant.

'Our system is miles better than the Ataris set-up,' claimed engineer Alan Nelson. 'They still use old ROM boards, which are expensive and get so damaged very easily. Using the disc system we can modify existing software very easily, and we've tested the system for seven months without any problems.'

EML also claim that their displays will be better than the competition, since they're using a 21 inch true Hertz screen, as opposed to the TVs that all other manufacturers use.

## REVOLUTION

Is the Intel V800 System (as it's

called) in all it's marked up to be, it could revolutionise the relationship between the arcade and the home computer industry. Software houses will be able to supply their current bits to EML, who by adding a short routine can make it compatible with the system.

What's more, EML intend to release software of all kinds on the machines, including simulations. 'We're developing a system,' Nelson says, 'that allows the player to buy time on a simulation program in the same way that you buy time in an arcade game.' Don't think and fly could be the message seen, with sub-panels showing out 20p for a quick flight round the Bay with Flight Sim 2.

## CHEAPER

'The hardware of arcade machines are very keen,' said Nelson, 'and our machines are cheaper - between £1000 and £1500 compared to around £1900 for the Ataris systems. What's more, we can change the game on a machine in 20 seconds, and distribute the software on discs very easily. There's also a huge overhead market.'

ACE will be playing the new system in the

next few weeks. In the meantime, there's no doubt that instant conversion to arcade format could have a huge impact on the software business. 'We'll certainly do it again if it works out,' said US Code's Richard Tisdall. ■

The new Intel video system - how software designers fit in.



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## AMSTRAD - WHERE NOW?

'If we're going to get into the market, we're going to have to be quick,' declares Tim Chaney of US Code. 'I don't see MGT doing something like that.' Bernard Douglas, vice of the ODES venture an Amiga clone, said he was followed, his from the Commodore source, 'and we'd like legal advice.'

And a few of the system remains confused by the ACE team over the last few weeks on the subject of Alan Sugar's most successful new 16-bit machine. Just what is the state of the software these days? Is there REALLY anything coming in Ireland? Or has Ireland, heaven forbid, turned its back on the entertainment market?

The latter view is supported by two main arguments. The first is that

Amstrad's profits are currently based largely on the sale of their small business computers; the second is the alleged difficulty of getting hold of new CPC machines. 'I've found it's stopped manufacturing CPC's altogether,' remarked Easton's Pete Woodcock. 'Nowadays whenever we try to get a machine we have to order for second-hand.'

Mr Sugar has no doubt on that last point. 'It's not true,' he said ACE. 'We're making more CPC's than ever before.' But what about future commitment in the entertainment industry? Nick Hawes, speaking for Amstrad, points out that 'At the moment, the bulk of our turnover is in the computer business, and there is a vibrant seasonal market for the games

machines.'

First point of uncertainty - Mr Hawes says games machines, and not games-computers...

'We have no intention,' he continued, 'of leaving our grip on the games market and have every intention of keeping our leadership of it.'

Second point, it doesn't take an IQ of over 10 to see that simply turning out CPC machines is not going to keep Amstrad on the cutting edge of the computer market. So what will they come up with? 'They haven't got a track record for producing anything new,' points out Andrew Heston, 'so the only thing I can think of is an ST or Amiga clone.' Which is just what a lot of other people have said.

Commodore would undoubtedly

take Amstrad to court if the company attempted to produce an Amiga clone's game clone, but what about a licensed Amiga-based console which wouldn't conflict so heavily with Commodore's market?

'That would be a different proposition,' said our Commodore source. 'I'm certainly an interesting idea.'

It certainly is. Amstrad tell the hardware, Commodore could the royalties, and the software houses sell more games. Whatever the answer, there's something in the air. Meanwhile, rumour has it that Amstrad have decided to call the new machine a...Sinclair.

I can't comment on that. We never talk about new products, concentrate on how... ■



# ELITE GO BUDGET

**Be prepared** for classic Elite titles including *Commander*, *Alien*, and *Frank Bruno's Boxing* to tumble into your lap for a bargain £1.99 in the next few months. The company are moving into the budget arena, either with a new label or through a third party, and will be producing many of their classics at the new low prices.

"We're still examining all the options available to us," said company budget spokesman Paul Rutz, but it does sit all in house we'll definitely

be launching a new label. All will be revealed by May or June.

At the same time, the company are pushing hard into the growing 16-bit market and they're particularly proud of ST *Biggy Bay* and *Squire Platter*. With any luck the budget move will enable the company to scoop some revenue that can be ploughed into development of their expensive 16-bit releases. ■

Continued... page 66 in E18

## TELECOMSOFT GRAB US BLOCK-BUSTERS

**Team Simulations**, who produced up-market, high-tech sim-driven games such as *The Unlimited* and *Days for Misterlope* in the States, have set up a programming team in the UK and signed up with Telecomsoft.

Its titles are in the pipeline, including *Days for J* and a "superly animated shoot-em-up game set in the Wild West".

Typically, team do not plan to concentrate on one-driven adventures in future, but mean to move into the arcade game arena. "We'll be producing fast-action graphical arcade games for the ST, Mac, and Amiga. *Commander* 64 versions will also appear, though we aren't sure at this stage whether we'll do them ourselves or contract them out," said Dave Glover, team UK's managing director.

Apparently team are planning to move all their games programming work to the UK, perhaps because costs there are lower. Meanwhile the American division is to move out of the entertainment area and begin programming business software. Looks like the Americans are waking up to the fact that

Europe, and the UK in particular, is where the action is nowadays. ■

**Telecomsoft** celebrates ten years on the first day of the year with a special offer of discounted, and limited, titles to:



## CRAM YOUR FINGER ON THE DIAL

**If you've got a modem** and the software to go with it, Telecom and CompuLink have both got news for you. Telecom are the company who brought you *Modem*, Research's online magazine for computer buffs, but their latest service aims to entertain all computer users.

Called *Power California*, the service is open to anyone over 18 who's got the equipment to log on. There's no subscription to pay (you're charged for the time you spend online, at between 50p and 30p a minute, with the cost added directly to your phone bill. For the money you can access games, classified ads and a mail-order service for catalogue magazine *Kids*.

The real hook of the service, however, should be the open and private chatline services offered.

You can meet strangers for an online chatlog, or confer with friends. What's more, the system links up with Microsoft's Internet service so you can swap computer-related chatter with any of its 20,000 or so members.

The service is fully operational now - just set your modem equipment to 1200/8 windows and dial 0800 18 0800 - but is being run on a trial basis for the next three months. One of the things Telecom hope to find out is whether people are prepared to pay 20p a minute for an online service. "It's not an unreasonable price" claimed PR man Dave Rosenbaum. "You'd have to pay the same to use any 8000 service, so we don't think it'll be a problem." In practice the pricing is pretty much based on Telecom by

BT's charging structure, and could prove to be the service's Achilles' heel.

All CompuLink's services are still very much subscription only, but they've just expanded to take in the world-wide news column *Newsday*. This weekly service has been making quite a name for itself on networks in the States, where it was voted Best Online Publication last year. The UK branch of *Newsday* comes from Steve Gold - best known for his part in the making of Prince Philip's *Taboo* sex magazine - but there's also info on the music scene in Europe, Japan, Canada and the USA itself. At a hefty 15,000 words or so per week there's plenty of reading matter here for the news-hungry ST, Amiga or C&A reader. ■



## TOGETHER WE STAND...

A national TV ad campaign to improve the "leaky keg" image of computer entertainment was first on the agenda as the cream of the industry poured into a luxury Jetset hotel recently and looked the call for a new software publishers' association.

Since the demise of CCEA (Coal of Software Houses) there has been no effective representative body for the companies who produce our games. That's bad news for all of us, because the only way we're going to see computer games really take off is if the market can be expanded to support

expensive new projects. Everyone agrees that 16-bit games can cost a packet to develop, so unless there are more people to pay for them we can't see truly advanced computer entertainment goodbye.

The good news, then, is that these people — which included major players such as Elite, Newton, and Electronic Arts — voted strongly in favor of a pilot study and the establishment of an organization that could give us a bit more street cred. Let's help our fingers crossed that whoever's piloting the study knows how to fly. ☐

## VERMINATOR - BLACK LAMP EXTERMINATOR?



Nigel Brown

One of the problems with 16-bit software is spending lots of money on convincing games with magazine graphics, and ending up with sub-bit graphics. Games like Dungeon Master offer hope for the future, but we're still getting offerings like Freedom's Black Lamp, which looks stunning but falls down seriously on the playability stakes.

Nigel Brown, designer of Freedom's Verminator (programmed by Chris Hinde), has strong views

on this. At first sight, Verminator looks disturbingly like another Black Lamp—fantastic graphics, but apparently very little to do except run, jump, and zap. "There's so much more to it than that," counters the confident designer. "This game is going to be a Black Lamp killer. Basically you have to set up a successful business as a 'verminator.' That means other going around destroying points and working your way up the ladder, or you can try other methods..."

What other methods? Well, you could go to the banks and borrow lots of money, or you could go to The Mill-raid borrow even more money. You could even go gambling. Trouble with having lots of skills, however, is that the various solutions will get straggly if you don't pay up, and start sending after debts after you...

Verminator is due out in May — watch out for the delirious ACE review. ☐



Verminator... gets unspooled

## TILT, BURN, AND FIRE...

New-look Teleconsult budget label (Shearbar) are on the verge of releasing *3D Thrust*, and about time too. The game's been ready for ages and its good stuff — fast, sensitive and very tricky with four new planets compared to the 3-64 versions — isn't it could have been a nice little starter over *Elite*. But the real test it may not do so well now, with the spectacular *Orbs* to lure titans like fans away.

Not to worry, Teleconsult have a secret weapon in the form of

Jack Hunter's *3D* and Brian Roberts of the closely related *3D Shoot-Up* won't be out until the summer, and probably won't even be called *3D* — current working title is *3rd of May* — but as mentioned in our *3-Dimension* feature (page 11) the *3D* version is already looking very good indeed. Fans of interesting and unusual control methods (but to mention amazing graphics) should start forming an orderly queue now — and lets hope this one doesn't get held up for six months or so! ☐



3D Thrust as 3rd of May features, you can't see that

## IN BRIEF...

### BT BUY DO

**Be Janglebug.** The programmer who thrilled Spectrum owners with the awesome adventure *Paintlight* three years back, is now working on his first 16-bit title for Teleconsult. A new Spectrum title, *Resolution*, is also under development and due for release...

### AUF WIEDERSEHEN, ANTILOSOFT

After three years the side of the North Sea, German games house Antilsoft have pulled out of the UK software market. According to Antilsoft UK head man Peter Krammcke the firm had "failed to make enough of an impression on the market" — this despite some great games like *Conquerors*, *StarLORD* and *They Shall A Million*.

If you were looking out for those magic *Exile* titles that Antilsoft were planning to publish over here, don't despair: Creative now have UK rights in the games, with the first of them — *Vampire's Empire* — released this issue. Stay tuned for *Paranoia*, *The Pink Panther* and others in the very near future.

### SYDNEY CLAIMS

Since their management buy-out, former CRL budget label Power House have signed a publishing deal with venturing named Vancouver based games programmers Sydney Development Corporation. Under the deal, Power House get to sell old Sydney titles like *Spectrum Entertainment* and *GM BC's Quest for Tunes*. Sydney's press release on the subject described the games as "recently successful" — how many years ago is "recently" guys? — and came with a photo of Sydney Opera House. Either they don't know where Vancouver is, or they're trying to be fancy... ☐

## US GOLD GO ACE

...for advanced computer entertainment, that is. Full-price software houses need to spend longer developing games so that the resulting products are better. Don't just take our word for it: listen to the pleasure houses themselves. At the Atlantic launch a couple of months ago, Conan Gold (David Ward explained how his firm would be concentrating their efforts on fewer titles in order to raise the quality.

For one of the country's largest software houses to make that kind of decision is good news, but Conan isn't alone: near games giant US Gold has followed suit. As product marketing manager Richard Telford explained, "This year US Gold will have 20 machine titles including companions, compared with around 30 last year - though there will also be its Capcom conversions and 18 Nintendo titles marketed and sold in their own right." This drop in output will allow an emphasis on "the best" of the games, he added, coupled with extensive playtesting and - the best news of all for many ACE readers - a massive investment in products for 16-bit machines. ■

## IN BRIEF...



Telenovela: These expert Data Entry girls in a sign at the top of the Tower will be yours...

### TOWERING TELECOMFORT

**ST Tower**, now sadly overshadowed by Microsoft's excellent CDIs, was one of a host of new games recently on show at the top of the Telenovela Tower. Other goodies included *Scaphin II* on the Amiga (reminds me of *Star Trek*), *Feminista* (see story elsewhere), and *Legend of the Second* - a graphical adventure featuring a combination of menu-driven commands and text only. Star of the show, however, was undoubtedly an almost finished version of *Carrie Command*, showing a superb solo 3D display shifting gears at an alarming face rate.

In the faded restaurant (no longer open to the public, alas) high above old London town, Telenovela also branched new legs

for the three 'Red' labels and coughed up a lavish lunch for those present. After several glasses of vino the potentiated fanks began to waltz the landscape around them would stay in one place - funny that, since the Tower only started to rotate AFTER the welcoming drinks. ■



### UP, UP AND AWAY

**ACE co-editor Pete Connor** looks more confident in the above job than he feels - not surprising since journalists invited to share the pleasures of the high-life with Major Will Giff (Stacy of *Microgrip* fame) came in for a little more than they bargained for. Pete took to the skies with the American air-ace - who claims to be an adviser to the Pentagon - and soon found himself in a headlong dive towards terra

terra, ending with a sharp pull-up and a 30 dose of vertigo (see below) you can see what he looked like afterwards - (doing a good job of coming back to breakfast). ■



### CASCADE RAP LICENCE

**If you thought US Gold's** pocket-learning (Charles Chaplin, Marilyn Monroe) was really how about the deal Cascade have just pulled off: They've got the licence for an official Rap for Fania game. It's good news for injured R&P personnel and their dependants - the licence fees paid go to the R&P Benefactor Fund - and Cascade are pretty stuffed too. In the US market where Cascade fight since Ace and Ace-Plus sit well, the R&P are apparently regarded as an elite force - and that makes them a very marketable commodity indeed. ■

## ACE ON THE ROAD...

First in a new series of roving mini-reports. This month we trip down to St Austell for a visit to MICRODEAL.

**Microdeal** are one of those software houses who don't set up a big fan and cry about everything, yet they've been around in the 16-bit market as long as anyone, and have consistently turned out some of the most popular games for Amiga and ST. Amazing to think that for years they were

write-developers with software for the...Dragon. A trip to the picturesque seaside town of St Austell in the County of Cornwall revealed Microdeal's history and what they've got up their sleeves for the rest of '88.

Sadly invited by '86 to show-up fans will be *Goldhammer 2*. Those who are fed up with the straightforward combat will be relieved to hear that it's not just the same old thing as it's predecessor, elements of *Deliverance* creep in as you try to reflect shots on your horse. It's exceptionally fast and smooth-scrolling, and looks as though it will be very playable when released in a couple of months time. You will also be able to buy a couple of money disk (is probably your interest - if they should sit around CTS.

Leafletsman in Microdeal's long-remembered central game, reminiscent of *Star Wars* in its stark killing action. The main attraction here is the way joystick adapts



to flow.

The Microdeal will be marketing for use with the game; it plays in the ST's parallel port and will probably cost around £150. While the idea is to cooperate, you can actually shoot your battles in the back - and hear their wails.

While all the above prog are out for the ST, Amiga owners should not despair: they'll all be converted. And

this summer should see an Amiga version of *Astral*, the 3D arcade adventure that was such a big hit on the ST. In fact, John Lynch says that Microdeal could well be moving away from the ST and toward the Amiga as a development machine over the coming months. It's a long way from the 1988 their last programs were written for. ■



John Lynch - looking towards the Amiga.

# SUPER ACTION FOR YOUR AMIGA

The advertisement features four game boxes arranged around a central Ocean logo. Each game box is accompanied by a joystick controller. The background is a dark, textured grey.

- WIZBALL:** Box art shows a watermelon and other colorful objects on a table.
- PLATOON:** Box art shows a soldier in a trench with arms raised, holding a flag.
- ECO:** Box art shows a large, colorful, abstract creature or landscape.
- ARMY MOVES:** Box art shows a tank and a keyboard.

**ONLY £24.95 EACH**

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**STRIP POKE 2 (PLUS)**

Amiga C14.950k  
AmiST C14.950k

If it's female good flesh you want, then *Strip Poker 2* has to have just the thing for you. There's a smidgeon of male good flesh too in the form of a small on-screen character that represents the player - how a hand against someone like the detectable Star, and your on-screen representation sheds some clothes.



MSA - 899.99k

**HERCULES**

Commodore C1.950k C13.950k  
AmiST C1.950k C14.950k  
MSA C1.950k

Ancient Greece is the setting for this arcade adventure that gives the player the chance to battle it out with skeletons and minotaurs in an attempt to complete 10 heroic tasks. Backdrops for the action include Crete (temples and holes) - look out for it in the near future.



MSA - Hercules

**STAR BAT**

Logotron Amiga C18.950k  
AmiST C18.950k

This fast 'n' colourful shoot-'em-up looks ever so slightly like that old classic *Defender* - and why not? If this is the sort of blast you're after, look out for it sometime in May.

**MIGHT AND MAGIC**

Activision OS/128 C24.950k  
MSA PC C29.950k

For Fantasy role-playing fanatics, *Might and Magic* looks mighty interesting. You've got 94 spells to cast, 264 items to collect and one and over 260 monsters to deal with. If that's not enough you'll have wizards to create, mountains to climb and villages to search.

# Snippets...

Up and coming titles for your micro.

**CYBERKNIGHTS**

ORL Egon C7.950k C14.950k  
Consider the name *CyberKnights* - does it mean anything special to you? If you answered yes then chances are you're a Spectrum or Amstrad wargamer who has enjoyed some of this man's earlier works - *Mutal*, *Arbitan*, *Desert Risk*. It might come as something of a surprise to you then to learn that he's turned his attention to arcade style games - at least for his next release. *CyberKnights* is a one- or two-player combat/platform game which comes as two separate programs. The first program allows



your character to battle against other gradators, while the second lets you re-design your own robots before sending them into battle against either another player's robots or computer controlled foes. *CyberKnights* should be available now.

**STAR DOOR**

Logotron Amiga C14.950k  
AmiST C14.950k  
MSA PC price undecided

The *Star Door* and *Star's Eminent* duo (Star Top, Black Lamp) team up again for this curiously titled space shoot-'em-up. Climb in your "gazer" and fly through the tunnels and across the planes of Neon, blasting away. There's not much time to stretch the old grey matter, but it is good, clean horizontal fun, worth out for it soon.

**THE FLINTSTONES**

Grand Slam Entertainment Amiga C19.950k  
AmiST C19.950k  
Egon C8.950k  
OS/128 C8.950k C14.950k  
AmiST C8.950k C12.950k  
MSA C8.950k

*Barney*, *Fred*, *Wilma*, *Pebbles* - they're all here in this gaming adventure of classic proportions. They're up to his neck in all sorts of trouble and it's up to you to sort it all out. The 16-bit versions should be available first with the 8-bit versions coming close behind.

## Birds of a Feather

**STARGLIDER II**

Starbird Amiga C24.950k  
AmiST C24.950k

Having chased the Egon forces away from *Newsies* with a flea in their ear, *Jayson* and *Katie* have volunteered (had to) to infiltrate the Egon-dominated planet of *Mia* and annihilate the Egon forces once and for all - not to mention destroy their team projector which is based on *Newsies*. Even getting to *Mia* is going to prove extremely difficult, but you should be able to attempt the highly unlikely feat

soon now. *Starglider II* is going to be the first game released to incorporate the Argonaut Disc Loading System - the same disc will sit on both ST and Amiga machines.

**RETURN TO GENESIS**

Trilog AmiST C14.950k  
Amiga C14.950k

This is the latest game from the author of *StarStorm* and *Planet Star II* - Steve Bak. You're flying a craft over fantastic landscapes that are rearming with aliens. There are obstacles to hinder your progress

that will require lots of skill to negotiate. The ST version should be here shortly with the Amiga version following shortly after.



ST - Legend at the moment

**LEGEND OF THE ENFORD**

Starbird AmiST C4.950k

This new style of adventure game tells of the discovery of *Enford* and of a magical sword and shield which was protected the inhabitants of *Enford* for many centuries. It's only because of an invasion by mutant humans under the command of the evil wizard *Sauron*, that King *Enford* has summoned you and his others to find the enchanted sword and shield. The game boasts over 350 individual cartoon illustrations - which change according to the situation - loads of intelligent characters to interact with, and a highly flexible interpreter. Legend of the Enford should find it's way into your local stockist very soon.



MSA - Starglider II





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### WALK THE GREAT WOOD

Walk with the world of WALK. Walk with the world of WALK. Walk with the world of WALK. Walk with the world of WALK.



### WALK THE GREAT WOOD

Walk with the world of WALK. Walk with the world of WALK. Walk with the world of WALK. Walk with the world of WALK.



### JACK THE HOPPER IN COCKNEY CAPERS

Jack the Hopper in Cockney Capers. Jack the Hopper in Cockney Capers. Jack the Hopper in Cockney Capers. Jack the Hopper in Cockney Capers.



### KANGARU THE DOG

Kangaroo the Dog. Kangaroo the Dog. Kangaroo the Dog. Kangaroo the Dog. Kangaroo the Dog. Kangaroo the Dog.



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### WILLOW

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The decoder program will convert the number obtained when you use the program into a 4-letter code. The number you use is the number on the ACE card. A 4-letter code is a prize in the program which is awarded to the winner.

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### CSA, CPC, ST, AMIGA version

10 FOR A=1 TO 25 INPUT "CODE";B\$  
20 B=FOR C=1 TO 4 B=B+C\$  
30 D=ABCDEFGHIJ.C: I J  
40 IF D=0 THEN D=12  
50 B=D+B\$NEXT C:PRINT "Winning Number is";B\$NEXT A

### SPECTRUM version

10 FOR A=1 TO 25 INPUT "CODE";B\$  
20 LET B=FOR C=1 TO 4 LET B=B+C\$  
30 LET D=CODE B\$C: I J  
40 IF D=0 THEN LET D=12  
50 LET B=D+B\$NEXT C:PRINT "Winning Number is";B\$NEXT A

## TYPING IN THE PROGRAM

### SPECTRUM

10 FOR A=1 TO 25 INPUT "CODE";B\$  
20 B=FOR C=1 TO 4 B=B+C\$  
30 D=ABCDEFGHIJ.C: I J  
40 IF D=0 THEN D=12  
50 B=D+B\$NEXT C:PRINT "Winning Number is";B\$NEXT A

### AMIGA

10 FOR A=1 TO 25 INPUT "CODE";B\$  
20 B=FOR C=1 TO 4 B=B+C\$  
30 D=ABCDEFGHIJ.C: I J  
40 IF D=0 THEN D=12  
50 B=D+B\$NEXT C:PRINT "Winning Number is";B\$NEXT A

### ABSTRACT SPS

10 FOR A=1 TO 25 INPUT "CODE";B\$  
20 B=FOR C=1 TO 4 B=B+C\$  
30 D=ABCDEFGHIJ.C: I J  
40 IF D=0 THEN D=12  
50 B=D+B\$NEXT C:PRINT "Winning Number is";B\$NEXT A

### ATARI ST

10 FOR A=1 TO 25 INPUT "CODE";B\$  
20 B=FOR C=1 TO 4 B=B+C\$  
30 D=ABCDEFGHIJ.C: I J  
40 IF D=0 THEN D=12  
50 B=D+B\$NEXT C:PRINT "Winning Number is";B\$NEXT A

### AMIGA

10 FOR A=1 TO 25 INPUT "CODE";B\$  
20 B=FOR C=1 TO 4 B=B+C\$  
30 D=ABCDEFGHIJ.C: I J  
40 IF D=0 THEN D=12  
50 B=D+B\$NEXT C:PRINT "Winning Number is";B\$NEXT A

### OTHER MACHINES

10 FOR A=1 TO 25 INPUT "CODE";B\$  
20 B=FOR C=1 TO 4 B=B+C\$  
30 D=ABCDEFGHIJ.C: I J  
40 IF D=0 THEN D=12  
50 B=D+B\$NEXT C:PRINT "Winning Number is";B\$NEXT A

### RULES

1. The program is a game which will convert the number obtained when you use the program into a 4-letter code. The number you use is the number on the ACE card. A 4-letter code is a prize in the program which is awarded to the winner.

2. The ACE decoder will convert the number obtained when you use the program into a 4-letter code. The number you use is the number on the ACE card. A 4-letter code is a prize in the program which is awarded to the winner.

3. The ACE decoder will convert the number obtained when you use the program into a 4-letter code. The number you use is the number on the ACE card. A 4-letter code is a prize in the program which is awarded to the winner.



# Shard

## Unchain yo' k

Your friends are performers within the entertainment industry. Release them! But first, there are some things to yourself, only then can you make your friends perform as much as you can for their entertainment to die, though this more you know, more there is when your program will be. Defined, presented with a table of 4 different payment levels, your way through it, a stage of getting someone who's behind your back, reach your friends, escape from every single day, there is freedom, even!



Version

Spectrum 48K Version

Amoeba Version



**Shackled**  
for Imagination

Shackled is available for:  
Amstrad CPC-Atari ST-  
CBM 64/128-  
Spectrum 48K/128K+2-  
Spectrum+3-MSX

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# UNDER STARTER'S ORDERS

The tension's mounting as these thoroughbreds prepare to get under way. Will the favourites turn out to be non-starters? If you're smart you'll check out their form and starting prices in a future issue of ACE - you wouldn't want to lose your shirt on a bob-tailed nag, now would you?



DS - In the Analyst's space-based thriller



DS - Two great games compatible with Dual Scan and available in both hard and softcopy versions



SA - The Analyst's Analyst's Analyst

## DARK SIDE

Thriller

To produce a follow up to such an innovative and enthralling game as *Dark Side* - ACE-based 960 DPC Version would be regarded by many as a tall order. Inevitable setbacks they've got the answer though with *Dark Side*. The game incorporates the 3D interlocking technique - *Parallax*, developed for *Dark Side* and is set on Earth's other moon. Through four objectives is to destroy the giant weapon *Sphinx One* which the Soviets are planning to destroy Earth with. Watch out for the definitive ACE review in the next issue.

## INTERCEPTOR

Defence sim.

The action-packed flight sim for the Amiga gives the player six missions to complete in and around the San Francisco Bay area. You've got two planes to choose between for the missions

- on F18 Hornet and on F16 Falcon, both featuring digitised engine and weapon sounds. We're happy to review the one next month - so don't miss out



The F18 is never the slowest member's coming



We love yellow! Pegasus is like all



Technology over focus. This is a nice view of your plane and the ground below.

## QUADRALIEN

Lightnin'

This exploration/puzzle game for the ST is set in the 21st century and the player is in charge of six remote-controlled robots. The idea is to destroy the alien which is located at the core of a large radioactive installation. You have to enter the installation on the lower level and clear the level of all radioactive contamination, before you can access the elevator and pro-



If this is the right side you can make copies on your tape.

ceed to the next level. Clear enough levels and you'll arrive at the core.



QuadrAlien - you're controlling the robot called SP4 at the moment.

## INTERNATIONAL SOCCER

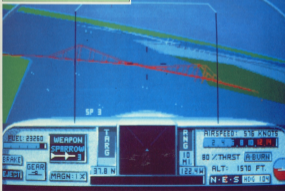
Microed

There are a couple of wonderful football games already available for the ST on machines, but there's no good in you if you own an ST or Amiga. Microed is the answer. The ST football game gives the player the

chance to play under floodlights, or even in the wind and rain. However, will be lacking at its next month's ACE - so grab yourself a season ticket and make sure you never miss a match.



Ready to set off - let's hope the fans don't invade the pitch at the end of 90 minutes.



The Golden Gate Bridge. You would think it up with a Spectrum... would you?

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Amstrad CPC/Commodore 64/128  
disk £24.95 disk £14.95  
Average £24.95 Amstrad £124.95  
IBM PC + Compatibles £24.95  
IBM PC 2 to disk £29.95

**(4) TASK 10**

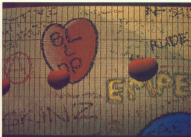
"It really has to be played to  
be believed, I'm hooked" - Commodore 64  
Commodore 64/128 disk £9.95 disk £14.95

**(5) STAR WARS**

"If you liked Starfighter you'll love this game  
it plays better and it's much more fun to  
play, overall it's a much better game!"  
Amstrad £24.95

**C**omputer animation can take any one of a number of forms, most of which rely on techniques quite similar to conventional animation. Color switching, panes and letter objects (text) are all basically processes giving the impression of movement in the picture plane (i.e. across the face of the monitor). They're usually used in almost all current entertainment software. A number of existing programs allow easy manipulation of sequences. *File Developer* and *Image Animator* for the AT and *Deluxe Video* and *Image Animator* for the Amiga are perhaps the best known. These are really just more powerful versions of hi-cropped 2D-art and animation programs already available for the machines.

The more advanced software now appearing uses a very different set of techniques to give an impression of movement that's closer to reality. The technique used is called *solid Modelling*. This means that you can construct a computer simulation of any solid shape, decide on colors, surface texture and pattern, position your viewpoint and light source, then render all of it on the computer screen. Once a scene is rendered it is a simple matter to move objects, view-



These hearts bounce from right to left across the screen with small position, size, and color shifts.

Computer graphics on the home micro have become much more sophisticated over the past few years - but still basically static and in 2D.

Now, however, there's a new breed of animating software available for the 16-bit machines, and a new world has opened up for the graphics enthusiast. Brian Larkman looks at some of the latest techniques and packages.

# GETTING ANIMATED

point or lighting and render again, eventually producing a series of frames that can be used to produce the effect of animation.

These techniques can be broken down into three main processes: object editing, motion editing and rendering. All of the software under review use some combination of these to produce their end result, though some of the packages are much more elegant and simple about it than others.

## OBJECT EDITING

The heart of any process aiming to simulate the real and solid world should be the object editor, where the building blocks are constructed, moved and related together.

The computer's view of the world is a series of points (vertices) whose lines (edges) need to be defined (usually flat surfaces drawn, joined together in various ways, then base-

elements can form 'primitive' solids of varying complexity from three-sided pyramids to cubes to multiple-sided pseudo-spheres. These 'primitive' solids are the computer's building blocks. A range of them - including rings, wedges and cones - is normally available to the object editor and usually constructed directly by the software from stored algorithms defining them when requested.

Normally, the working view (the computer provides) of the scene is constructed at first - a 'wireframe' view. The solid model, with all hidden lines removed, takes some time to compute, so for normal working the wireframe is sufficient. However, once the wireframe has to be visualised in some way that makes editing and composition of the object easy and straightforward.

The conventional approach - used by designers and artists - is to provide two

viewports or elevations: a front elevation, an end elevation, a plan - facing, say, north, east and down respectively - and an orthographic (flight) view that can be rotated to suit the circumstances to show the overall effect of the other three. Usually, the fourth view is the observation view. This approach is taken by both *Cyber Studio* and *Autopictor* (though *Cyber* can provide all four of course). The great advantage a full view point can be defined accurately using at least two of the views - though the particular of images can be confusing initially.

As alternative is to provide a single, variable viewpoint of the whole scene - either a conventional elevation or an orthographic view. Less confusing, but not so easy to manipulate individual points with. A single viewpoint a thumbnail better suited to a method that only creates, easily made objects

and easily dealt with individual pixels. This is the case with *Form in Flight*.

As well as the primitive shapes, an object editor needs to provide other tools to manipulate objects and create a variety of shapes - including 3DFX, to produce 'wire-glass' shapes, SGI's *ROUTE* to drag 3D shapes such as letters into 3D, and *JOB* to glue simple shapes together. Once formed it's necessary to move objects about the screen, duplicate them, change their color or scale them. For this the editor should possess a series of functions both easy to access and simple to operate. Both the *Amiga* and *AT* can use gadgets or icons on screen and drag along menus, tables or the top. A combination of these two methods seems to be the best way to manipulate objects within the editor. In this respect, only *Cyber Studio* and *SoftMachine* (*Amiga*) can be used in an intuitive way.

**SCENEMOTION EDITOR**

Once objects comprising a scene have been assembled, their relative motion through the animation must be choreographed. This process is the make or break of computer animation, and if a computer is to make a task easier and quicker than the actual process of using the machine should be very able.

Like conventional animation, computer animation produces a series of images or frames that vary from one to another in a sequential way. The simplest way to achieve this is to set up a scene, render it, change it slightly, then render the next scene into the animation, a complete. This can be a very tedious process, and the producers of an animation want tools that make it more automatic and they want them to be easy to use.

Several methods can automate the procedure - using a global scene, key-frame animation, motion paths, object motion or 'tree' hierarchies etc. Some of the software reviewed has some of these facilities. Only *SoftMachine* has all of them in an easy-to-use form. Most of the other packages are either not very versatile for animation or are complicated and difficult to use.

A global scene is one, preferably composed in the object editor, that contains ALL the information required to produce a particular animation. It should include the starting position of all the objects, the observer, camera and lights. For each moving object its path or at least its starting point should be defined. If the camera or lights move, the extent of that movement should also be determined. Ideally, all the animation should be visible in the full window using 'motion paths' set shown in the next window.

If an object transforms during an animation - a rubber ball compressing as it strikes a surface perhaps - the information cannot be contained in a global scene. Instead key-frame animation and interpolation can be used. At key places during the animation - when the ball is at maximum compression



Various stages of 3D object being through 30 frames. Simple when you're making it.

for instance - a scene is composed and stored to disk. The first cell used scenes might also be key frames. Once these have been done, the computer can automatically interpolate the frames between.

That scene 1 might be at the ball of the top of its frame; frame 10 of the bottom when it is most compressed and frame 20 of the ball back at the top. The computer would compose each of the scenes for frames 2-9 with the ball gradually becoming more and more compressed. This is not actually what is required, so another key-frame is needed at perhaps frame 4 showing the ball uncompressed but just touching its surface but will compress it. Frames 7, 8 and 9 would then be the 'intermediate' steps before full compression for scene 10.

Multiple hierarchies are finally trees of the parts of an object. Each part is loaded separately so that a motion path can be attached to it. Thus a finger can bend independently but must follow a moving hand, which must in its turn be attached to a moving arm.

## RENDERING

Once the computer simulation of the scene has been constructed, it can be rendered. The screens showing all the objects in the set from the chosen viewpoint. Illustrated correctly and using the maximum number of pixels. All the packages listed except Animator Apprentice and the key-framing modes of Sculptor/Avatar fill the by-rendering each face of each object in relation to the light source(s), deciding which side of it is predetermined colour it should be showing, then drawing that face. Each starts the drawing of the frame furthest from the viewpoint so that the last faces drawn would obscure earlier ones - a quick and effective form of hidden-line removal.

Animator Apprentice is unique in some computer simulations in that it uses a 'write-to-copy' technique to present very specific preposed but arbitrary (including RAM) image data to a combined surface, meaning that it rendered object like a Cole Can can be shown in full colour 3D. Sculptor/Avatar

## Colour on-screen

The Mac IIx is normally capable of showing only 14 colours on-screen at once, 640 in size for a range of shades across the surface.

Each object can only have a limited number of colours, usually 2 to 3. The Amiga can show 32 colours at once in its normal 640x480 mode, and allowing for a range of 6 or 7 shades across a surface this still only gives a basic 10 colours for any object. Nevertheless,

quite remarkable results can be achieved with both the ST and Amiga in these modes and real-animators software available is taking to the small pixels.

Most Amiga users are now aware that in text-and-body mode of 4800 colours can be used on-screen. Rendering a surface only of these colours would allow smooth colour and full photographic colouration of a scene. Animator Apprentice and Sculptor/Avatar both take advantage of this mode in very different ways to provide full colour images.

## Delta Compression

Animation uses up vast amounts of memory, both with the CPU's and on disk. To animate 1 second requires approximately 25 images, which would amount of of one disc or about 1M of memory. If the animation is recorded to film or video this is not a problem, if it is to be played back in real time (RAM animation) sufficient information must be stored in RAM.

For several seconds' worth of frames to be reconstructed quickly enough for smooth animation. All 3D animation packages use Delta Compression, which involves recording the first frame in full followed by just the parts of the image that change in the subsequent frames. This allows more frames to be stored in RAM and for them to be displayed very quickly.

uses another common technique than the complete graphics industry called 'ray-tracing'. The colour of each pixel on-screen is calculated by tracing a 'ray' back into the simulation model. If it hits a surface it is recorded the colour, lighting and surface texture at that spot can be used to calculate the value of the pixel. Adjusting that value can be made to look stored with a smoothing algorithm.

A new version of Forms in Flight due to appear soon should also use RAM, though in what form is not yet known. Quantum Paint from Eidosoft has shown that it is also possible to provide 4000 colours on the fly. The technical problems may prove insurmountable but it seems of local possible that the ST could also be made to provide full colour. True 3D 'ray-tracing' would then be possible.

## FORMS IN FLIGHT

IBM - available from the Amiga Centre, Gains, Scotland

Had this package appeared in this country a year ago it would have been hailed as a masterpiece. As it stands it looks not like the current crop of animation packages, partly because of the lack of animation and partly due to the look-quality and being unusual,

which doesn't give the reader a clear idea of the range of features available. Nevertheless, it is capable of a number of excellent tools and it is, some might even say, the best to be completed. The use of one view at a time on a clear screen may be under the experienced, but it is straightforward. The window-looking (just-downs menus after the greatest innovation in use - some 'in-screen' graphics is used and a full range colour in the menu would have made the interface much easier to use. Overall, the object editing tools are adequate.

Good animation is accomplished by each object by selecting it, then using menus to define the movement required during a particular block of frames. A hierarchy of objects can be established to ensure that '... fingers follow hand follow arm...' In other words, groups of objects can be moved and

stored either together or separately. Even the 'Camera' can be attached to the horizon (usually to produce pans and zooms). Key-frame creation and transformation of objects does not seem to be possible.

2, 4, 8, 16 or 32 colour can be used for rendering the final images, though some problems can occur if the minimum IMA system is used. Depending on the complexity of the scene, rendering can take from a few minutes to several hours. Both frames a date compressed so one disc can hold quite a large animation. The two major complaints about rendering one that frames cannot be saved as ST files for use in other programs and, conversely, pictures from other programs cannot be used as backgrounds.

## ANIMATOR APPLICANCE

### Background

IBM - available from the Amiga Centre, Gains, Scotland

By the standards of the current crop of packages, in author Martin Heath, describes it as an 'average animator', because it especially good with regular objects such as humans, plants and animals rather than the usual smooth globes, glossy surfaces and geometric shapes. A feature at the instant used can only be gained by trying it out - difficult because the main program is expensive and the manual is either disappointing and difficult to use. There is a simpler (and



Illustration showing how the 3D eye spinning round its right eye - with a like globes and text box.

cheaper) version - Animator Junior (198).

The technique used is surface mapping. The front, side, top and bottom views of each object are first drawn using a digitiser or drawing package (using RAM drawings). An object can be a limb, finger, flower, anything - though complex limbs are more trouble if broken down into parts. Each surface pattern - skin, feathers, hair, etc. - is projected onto the smooth underlying surface. The resulting object can be wire-framed with all the other parts to match the same way that other packages work sheets using a hierarchy of names.

Like Videopage, Animator Apprentice also uses individual 'module programs' - a 'tool' program is stored for each stage of the animation. Here, the system seems to work reasonably well, though it still not a very elegant solution to the problem. Objects are



The age mice to mice

edited in the Sculpt screen then the various parts are put together or 'stik figure' themselves. The local and global movements each element can undertake are then set using Motion and Devisio, the actions programmed using Behavioral, then the full animation rendered with Render. The result can be viewed with the Display program. Backgrounds can only be included using a palette.

Overall, the system seems to work reasonably well, though to get great, consistent results will take practice. For drawing animation of complex, textured forms in 3D this is probably the only package of its type in the world. Developed to better use the Amiga's system of gadgets and windows, it would be superb. At present it is rather quirky.



Minesweeper mine

### VIDEOCAPE 3D

Amiga

£19.95 - available from/Flextron Software

Some of the best and best 3D animation demos in the Amiga were produced by John Hastings using software he had written, now available as Videocape 3D - currently through the best source package for the very reason that John is right: a lot is good presentation and packaging. While it is certainly true that Videocape can produce excellent animations, it's not as easy or versatile as others. The trouble is it is designed as a modular system supposedly easy to add more facilities to later, the menu seems unnecessarily ragged and only, especially in the initial, object-editing phase. Objects are created in one of three programs that link back to the DGS or BNC packages of three years ago: simple lots of choices with little or no feedback. For tiny complex objects the only method available is by copying in the correct values (unusually fast

from the table side), an impressive task in the context.

Motion and transformation of objects are both possible using keyframes and interpolation, but once again the motion files must be each text files, very tedious. Foreground and background pictures can be added pointing they are down using Videocape's standard 16-color palette. Frames are saved in Delta compressed form.

Overall, Videocape 3D is intended for the advanced user, in whose hands many fine animations have been produced. To get the best out of the package takes many hours of hard work and before all writing speedily in the object editing department. The manual is readable but it has an awful streak against the complexity of the software.

### CYBER STUDIO

Amiga

£19.95 - available from/Flextron Distribution

In fact, all the packages mentioned here in the Amiga. Better than any of them, relatively in order of use, is Cyber Studio for the 68000pack developed as a CAD package. The object editor CAD-3D 2.0 is an excellent example of the best use of windows, icons and menus. The working interface shown in the illustration provides an easy-to-understand drawing mode, which does tend to waste a bit of space that could better be



Here we see, courtesy, the light one

used on a larger drawing area. The package of Sculpt/Animate's working areas shows that only very small gadgets around the windows are needed. Most notably CAD-3D is very easy to work with.

The excellent manual takes the user in easy steps through each part of the program. More than any other package could all learn something by reading the guide, notably that most people could produce good animations on their home computers if they had a decent tutorial, even when the software is not very user friendly.

Animation can be produced directly from within CAD-3D by saving each frame in a render, making changes on the fly. Smooth motion is aided by the use of 'multiple exposure' sequence files that display all positions of an object in motion as it moves. Frames are saved as Delta compressed files.

More complex animations could be Cyberstudio animation editing language but

comes with the package. This provides a wide range of facilities including keyframes and in-betweening, special effects, key-frames and even sound effects. Unfortunately, these facilities are not readily available without learning the Cyberstudio language, which makes sophisticated effects difficult to access. Nevertheless, Cyber Studio is one of the best animation packages on any machine. It has been well developed and modules for more sophisticated effects can be used here. Libraries of ready made parts such as spaceships, robots and human skeletons are also available. Highly recommended, but note that it requires an ST 1040.

### SCULPTANIMATE 3D

Amiga

£19.95 - available from/Flextron Amiga Centre, Scotland

The best package with the lot to be rendered, and sufficiently the lot to be rendered. One engine with any other is animation shells to use Sculpt/Animate 3D may never want to use any other package. It is quite simple the best piece of software so far written for the Amiga - very powerful and yet simple to use, producing superb images.

The object editor has put three windows showing them, side and plan views. Around each are gadgets, simple developments of the standard Amiga window tools, allowing selection, rotation and movement of objects, plus naming and coloring of the view. Publisher's manual provide all other facilities.

Modern editing takes place in the same windows as object editing, by means of motion paths, spline smooth curve devices, key-frames and object/motion name facilities.

Any resolution/number of colors can be used in rendering, which can also be of low levels of accuracy: wire-frame, pointing equivalent to Videocape, isophotal (simple wire-frame) or gives full wire-frame. Foreground and background pictures can be added. All images (frames) may be saved explicitly as DFF data and also Delta compressed so as to be played back from LANs.

Sculpt/Animate only real fault is that there is no built-in. This does not seem to present much of a problem. ■

**N.B.** A special thanks to Martin Lewis of the Amiga Centre, Scotland (081 887 4242) for providing software and invaluable technical advice.

### The verdict

For 3D artists who want to take 3D animation, there's only one choice - Cyber Studio. The review can only touch on a few of the facilities it offers. If you do not have a computer, or you want to try 3D animation, there is no need to get an Amiga and Sculpt/Animate 3D if you have an Amiga you really should have this package - it is the largest and best bit of hard disk, you'll need them!



# Dungeon Master



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# WELCOME BACK, PAC?

Some very old game styles are back in vogue in the arcades. Do the manufacturers assume we just can't get enough of the stuff? Or are they running out of ideas?



Feeling hungry for a ghost? There's one and a half!

## PACMANIA

Namco Price 30p

If the names Clyde, Blinky, Pinky, Inky, and Flyny aren't the make you break out in a cold sweat and start gawking about power pills, cherries and strawberries, then the chances are you're an old Pacman fan. 30 years the Pacman games terrified the masses, you either loved the games or hated them, and if you loved them, well, you were looked on good.

Seven years after his first appearance has back, Now Pac is strutting 3D and has learnt how to jump. The plot hasn't changed one iota in all this time as you've still got to clear each screen by eating all the power pills. You get a reward of star points for each game, however, and the scoring changes accordingly. The very lovely music that accompanied you can certainly not frighten the ghosts, but terrify over them.

If you've been waiting for Pacman to become popular once again, you probably



Pac has gone from pills into

## EXZISUS

Taito Price 20p

Follow the button action as you only hope of survival in this increasingly exciting shoot-'em-up. The game seems complete with a list and level arcade formula: fly your man through waves of other waves of attacking aliens, pick up the benefits for score, disappear and defeat the end-of-level guardian.

You've got a standard four firing gun plus bombs to start with, and both are controlled with the same fire button. Bombs come in jolly handy for destroying the fire, but attacking ground based installations. Symbols that appear throughout the game control extra benefits, shoot the symbol and collect the resulting letter. The benefits vary according to which letter you pick up. As I guess your gun will lose too, while on if you're the player super fast-paced, the sliding down the fire button and the button that's locked lead to it as the cabinet results in



On the first stage, fortunately you've got a bomb to make life just a bit easier.

quick fire mode being activated - very handy if you're in a tight spot.

On the earlier levels of level, there's no warning to crash into so your only worry is destroying the stars. Later, Saturnoid-type monsters that cannot be destroyed appear from floors and ceilings and must be dodged. The end-of-level guardians can be tough to defeat, as you have to hit them in certain areas - you'll have your reactions tested to the full here.

Exzibus is a mash-up of features from many other popular arcade games, with no exceptional or outstanding features of its own. It's still playable and addictive with good graphics and sound, but it doesn't do anything better than, say, 8-Phase or Saturnoid.



On again an end-of-level guardian. Firing this is so fast as you can.

## BLASTERIDS

Another old favourite given a new lease of life is Blasterids. The 80 version gives the player the chance to switch between three craft at the touch of a button. One of the craft is tough and can withstand a few bullets from the new, blood in eyes. The next craft is not so tough but has a higher rate of fire and the third craft is very weak but very fast. Factors are how the order of day, decide which craft to use in which situation and hopefully you can clear the sector of red just the aliens but the learning curve that now make their appearance in the game.

## VIGILANTE

Here's another collaboration of game styles. King's Master meets Rengard and Double Dragon for this fast one-up. Same old got - punch or kick the bad guys and defeat the gang leaders. You've got letters to pick up in the shape of red stars so, but once again, who sees it all before.

## CYBER TANK

One of the latest machines to offer something different to the player is Cyber Tank. The game comes in a huge multi-screen configuration and is one of the first of the new co-operation games to hit the UK. Two players are needed to control your tank. One is mainly concerned with the driving, and so has few controls to operate and the other player stands to the right of the driver on a steel platform and is in charge of the weapons. This should create some lively discussions in the arcade, so it's worth a visit. Watch out for a full review of the game in a future issue of ACE.



On again an end-of-level guardian. Firing this is so fast as you can.



On again an end-of-level guardian. Firing this is so fast as you can.



On again an end-of-level guardian.

your pattern down and there, don't you? This is the answer to your prayer. For anyone else, however, the interest is how likely to be due to recognize their actions.



On again an end-of-level guardian.



On again an end-of-level guardian.



On again an end-of-level guardian.

# ARCADE COMMANDOS





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## HERCULES -

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Son of the Gods, ruler of his fellow men, Hercules is set 12 awesome tasks to restore the sin of murdering his children. Armed by his divine fathers he sets forth to face the hideous, diabolical forces and ultimately overcome the evil ministers. To slay the damned in his only task he is repenting his sins.

## BLOOD BROTHERS

"Our blood is mixed,  
We are an one,  
Let us men or beast come  
between us,  
And let nothing deter us from  
our aim,  
To avenge the deaths of our  
parents,  
And destroy the Scorpions,  
DEATH TO THE  
SCORPIONS!"



What have the highest ACE-rated game ever, Atari's supercharged ABAQ and a Spectrum-compatible micro for the Third World all got in common? Cambridge, that's what! The city of dreaming spires and glittering prizes is home for some of Britain's top programmers and hardware designers - not to mention several major micro industry landmarks.



# SILICON SPIRES

In the boom years of 1982-4, Cambridge was the centre of British micro technology. The University seems come out on top as prestige to machines like Sinclair Spectrum and Acorn BBC models, and Neil Angier was listed as Silicon Pet - the UK's answer to Silicon Valley, no less. The golden age didn't last. Acorns now broken-down and out of the main market, while Spectre Research is no more than an Amstrad brand name. Other smaller firms didn't make it through the bad times at all. But don't imagine Silicon Pet's dead and gone - not a bit of it. One of the brights, Cambridge is still vying to be the stage for future of its micro business.

## A MICRO FOR THE THIRD WORLD

The last new name to come out of Cambridge was the Amn Archimedes. Just about the last word in conventional computer design, the £1000 Archimedes aimed at the educational market. The usual Cambridge motto will also be aimed at education, but from the unlikely angle. The forthcoming Mite (Acorn Technology machine - formerly named SAM - may be a lot of things, but *Micro-World* is not).

MITE won't exactly fit household name, but a Spectrum-based circle they're built

up with a reputation. They designed the popular Decpu disk protocol, and followed this up with a cheaper, more compact version called the Plus D. Now that the Plus Ds bring in the money that helps subsidise more Amn Mite and hardware designer Bruce Gordon has to work on SAM.

The machine's specification is surprising to put it mildly. Its central processor is the 2868 specialist version of the 6804 chip used in the Amn's CPC unit, more significantly, the Spectrum. The SAM's intended to be



Neil Angier (left) and Bruce Gordon, founder of MITE.

Spectrum-compatible in fact, and the current decompiled prototype certainly does run a 528 KHz of Spectrum games. There's still the 16M to claim - the prototype uses an Amn's 16-bit bus - but there's no porting

also means why they should cause problems.

It all goes according to plan: the machine will have 2Mk of RAM, built-in networking and a price tag of around £100. Its four differ-



The SAM prototype. The screen board is the computer itself, while the more standard one in the background handles the data input. The CPU is employed as a single custom chip in its finished version.

ent graphics modes will allow 80-column text at a pinch, 641 attributes (like on MSX) or a 16-colour screen with no attributes at all.

And how a machine like SAM will sell is open to question. MITE aims to locate production of the machine in India and the table's set for use in education - to which end it'll be getting a far better price than the Spectrum box - as well as manufacturing cost



#### Dublin Research King's Forks

Compared to the city's historical street scenes, Dublin has been regenerated after decades from a mix of old streets and old buildings. Combining the neighborhood and modern planning approaches King's Forks is a mix of both.



#### The Garden of Hope

The early urban planning project made the national papers three years ago, and set the standard for what other teams from Ohio State and Georgia Institute of Technology were to do. The project was a mix of old and new buildings, and a mix of old and new streets. The project was a mix of old and new buildings, and a mix of old and new streets.



#### Perihelion

Perihelion is a mix of old and new buildings, and a mix of old and new streets. The project was a mix of old and new buildings, and a mix of old and new streets.

#### Blue Garden Technology

Blue Garden Technology is a mix of old and new buildings, and a mix of old and new streets. The project was a mix of old and new buildings, and a mix of old and new streets.



#### Blue Office

Blue Office is a mix of old and new buildings, and a mix of old and new streets. The project was a mix of old and new buildings, and a mix of old and new streets.



#### Blue Office

Blue Office is a mix of old and new buildings, and a mix of old and new streets. The project was a mix of old and new buildings, and a mix of old and new streets.



setting it free in the UK. But won't the 16-bit boxes seriously damage SAM's chances in Britain? People don't need that kind of power! Alan Miles replies, "It's like using a sledge to go down road in the shops. What people need in schools is a cheap means you can network easily. And why you can buy it whole class of them and connect them up together."

There are other possibilities for a cheap, respectable class of console. Multi-player games would be particularly suitable. The Spectrum incompatibility means that games programmers know how to make the

mode quite a good one. It's was originally a BBC game, conceived and written in Cambridge, sales on 16-bit formats have been spectacular, missing out on David Butler and his first a small feature. Now there's a PC version in the shops, with 17 and Amiga versions waiting in the wings.

There was also a Cambridge game, as you might have guessed from its strong physics favour. Author Jeremy Smith chose the 3-8-8-8-8 control keys to match those on Acorn's version of Asterix, but the same management snags up in the very Thrust-it-Off! (continued on page 44) in the game



Cambridge Computer

Available in New Zealand, the first that brought you the 28 games from five games from the Cambridge branch of one northern Power Station.



BT (BBC) There are still the clipping and under review in case - for the main looking out - but already the game's looking very impressive indeed.

machine perform, and with a \$199 price tag you could actually afford to get a few of them within a table-length of each other.

The SAM's choices as a mainstream machine aren't great. It must be said, since one to one side there's a heavy bias towards Intel machines, and not without reason. While the 386 might be perfectly adequate for productivity - the Archon PC and the 386 are fine examples here - it really can't cope with the sort of demands modern computer entertainment makes. A year or maybe 18 months ago it might have been a very different story, but 18 months is a very long time in the home-computer business.

#### GAMES INTO THE NINETIES

Although British Research seem to have entered the UK games market with the Spectrum, Cambridge programmers have always looked towards the city's other micro giant, Acorn. The BBC Micro's hobbyist, academic earnings made it the first choice of most student bodies. But the trouble is that there isn't a maintenance games writing on the Spectrum gained the upper hand. Some have ceased on writing to the best hardware, and when the resulting games have made it across to other formats it's usually

clearly done some influencing itself.

With the arrival of the Archon/Archie, Acorn fans are coming into their own again. The Archie isn't a major games micro and probably never will be, but the power and memory size of the 10-18 powerhouse means that games developed on it will typically convert well to the 17 and Amiga. This lack of intention the highest 32-bit game ever to be only available for the 17 and Amiga. Author David Bellows - doing the conversion work himself - said simply has the 17 horsepower thing. The finished game won't be quite as satisfying to look at as it looks on the screen - no surprise there - but the latest 17 version runs at a healthy 15 frames per second or so, by 4860 standards, the one-taps and dimes.

Visually, the main loss compared to the Archie stems from the 17's smaller palette and lower on-screen colours. The Archie's phenomenal 80K display offers 256 colours at screen of size out of 4096, allowing Zach to use "soft-icing" - a system where the landscape gets darker as it recedes into the distance. Depth-cueing makes the game already realistic, but with only 16 colours out of 1111 the 17 just isn't up to the task.

Neither, surprisingly enough, is the

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The multi-layer AMD embedded the fine line oligo-conductors in through-hole lead wires in wire bonding AMD the silicon to its substrate layer to make this one.

Amiga. Though the proof-of-concept (C3 release, out of 4000) might sound like it, Amiga 3000 will certainly stay true in release as soon as once - and still will run slightly slower than the C3 version. The little simply not added to the set of tasks the game involves, it seems, so the 3000 has to copy the whole board. In the set-up time, it takes longer. The others very fast once it's working on a position, but it takes so long to get the thing going that overall it's slower than the 68000. In other words, the Amiga's no better than an 87 in this kind of thing, in fact it's slightly worse if anything, for 3000 being a slightly better value.

Suppose it's the next? That's hard to be the precisely said that it is at the moment of Spectrum. Zero. Granted the very idea sounds ridiculous, but how a few back-of-the-envelope findings it looks like it could just work. As for the other direction, you can work those out by yourself.

Other things sold and 3D are also about in Cambridge, in the form of *CompuLink*. Written by Jonathan Goffin, but using Jeffrey 3D-drawing routines, the book makes its appearance in ACE issue 4's *Game of the Future* special. It's about to become a game of the present now. Thanks to the home-constructed Superio Software, so you'll soon be able to drive out in your 124/135 to take on these exciting games. It's there are a good range of other books to try, and you can choose just how strategic the games going to get - meaning you can certainly afford the hardware in case it's out of course.



Jack Long, head of Precision Software, shows off an AMD 3000 and explains it and you get the idea the processing power!

At present CompuLink has to be one of the most exclusive games commercially available. It's only out on the Archimedes, and not any old Archimedes either. You'll need a 130 or 410 series machine in case it's on, so buying your old micro together would be a good idea. And since there's 1280 12" and Amiga owners will have to wait a few months for their version of the forthcoming spec - that word is that they'll be published by Activision - but Amiga seems easy on well and getting their teeth now it looks like the game will want to be the machine. And, he's triggering of the book now.

#### SILICON PEN MOVES ON

Once upon a time, a Cambridge-based firm, by the name of CompuLink used to build a home micro called the Lynx. The Lynx would have been a masterpiece, at the top, except for a few little quibbles - it wouldn't scroll the screen once you reached the bottom line, that kind of thing. To cut a long story short,



Tom King, the man behind AMD's revolutionary scrolling system.

CompuLink eventually stopped producing the Lynx and shipped out. They were only the last casualty of a tough winter: poor sales sales convinced City analysts that the micro business was over, badly damaged. One day Amiga people and drove Amiga into the arms of Glens.

CompuLink may be gone but their office, behind an expensive restaurant on Cambridge Bridge St, is still in use by the computer industry. Now they're home to a writer

higher form of technology than you. Precision Hardware are busy there, building the Amiga 3000 version for ACE. The Transputer technology driving the Amiga 3000 is a long way ahead of the Lynx 286. It represents a whole new stage in the evolution of computers, and Amiga sees it as a stage never in reaching home from here.

ACE caught up with Precision in an even better in the University's New Materials Site, of a remaining bit for complete success underpioneer. Coast forms written by Simon Pat Allan proved to be crucial, but not only based on the machine's true power. After all, an Amiga picture is not a million colours-down! look that much better than an Amiga one in a mere 40%. The million-pixel board and while display gave a better better view of scale. A 144-million, 120 line resolution is impressive but not mind-blowing either. Of course, 1200 pixels in more and that's better than the resolution some Macintosh set-up can manage - but the computer doesn't do any the wonder that's that fast while the Amiga could eventually manage 1200x1200 in 10 colours. That's about 30 Amiga 27 graphics-chips of a million, that's the Amiga's got the power to handle that much display too.



Amiga's version (3000 series)

As you'll notice if you read *Game of the Future* in ACE issue 4, the beauty of CompuLink is the way they can reproduce in text, showing the work between them. It's CompuLink and it's the job that enough, you can plug more of them in till your machine get the power it needs. The Amiga 3000 has up to 12 CompuLink on a single board and in addition to the one it works with and it can usually be some other - only later.

Tom King, the man behind AmigaDoc, is now head of Precision Software. He can't deny that CompuLink was the way ahead. All traditional success have an absolute upper limit on their speed - the speed of light, in fact. If you want to get any faster you've got to start using processes in parallel - and the CompuLink was designed from the start to be used that way. What was to try to do is create a parallel operating system for the CompuLink, in time to when it really takes off. It's not the point two years or so in the future, but for now there should be plenty of specialist markets to keep Precision going. ■

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Will there ever be a game in which the alien opposition actually evolves its own intelligence? Could Space Invaders learn to fight back? Simon Beesley is running scared...

# ALIENS ALIVE!

## EVOLUTION GAMES EVOLVE...



▲ **The Sims Evolves** - Titled as a step toward system development, the first "evolution" game, *The Sims Evolves* is an evolutionary simulation. It's a step toward the first game that can evolve its own intelligence. It's a step toward the first game that can evolve its own intelligence. It's a step toward the first game that can evolve its own intelligence.

▲ **The Sims Evolves** - Titled as a step toward system development, the first "evolution" game, *The Sims Evolves* is an evolutionary simulation. It's a step toward the first game that can evolve its own intelligence. It's a step toward the first game that can evolve its own intelligence. It's a step toward the first game that can evolve its own intelligence.

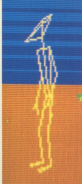
**L**et's face it, if it were here just needed your data (which is another way to say "I need your data") to evolve, it would have been nearly impossible for it to do so. It's not that it's not smart, it's just that it's not smart enough to evolve. You'll probably think about it the other way: that it's not smart enough to evolve. You'll probably think about it the other way: that it's not smart enough to evolve. You'll probably think about it the other way: that it's not smart enough to evolve.

Seriously though, you are probably intrigued even (even let's say it's evolved by the idea). As everyone knows, computers are just without willpower. Yet even with willpower, they're still highly predictable since they're only doing what they've been told to do. With a virus, however, you can make the system that something else has emerged: a degree of computer autonomy. When the Amiga virus developed by the late hacking group SOA straggled in presence, it did so with the message "Something wonderful has happened. The computer is alive!" Really.

It's computers like these that explain why the prospect of a new genre of games, inspired by biological principles, can be so enticing. True, it is only a prospect - the biological game doesn't exist, as yet. It isn't yet evolved - but there are a number of programs that come close to it exist - at the very least - just the way to what it possible.

The first step along the way will be to produce games in which the alien opposition is both a living, breathing - and in the process evolves its own game technology with the objective of defeating you - the player.

The production of all life-games is a life itself (see box) invented by coincidence



mathematical John Conway in 1970. More recently, Richard Dawkins, an Oxford biologist, has devised a game called the first *Wolframator* to simulate the process of evolution. Two other candidates are the now almost-forgotten *Dino* or *Mirachromed* (so, two games which use superficially based on the theory of evolution. Once you've internalized these programs and the programming principles behind them, you begin to realize that the concept of evolving them in a game isn't so outrageous after all.

#### THE BLIND WATCHMAKER

Richard Dawkins developed the first *Wolframator* game for the Apple Mountain while writing the book of the same title. Put simply, the book is intended to show how effective Charles Darwin's theory of evolution is. And on a much smaller scale, the game does the same thing.

Like *Wolframator*, the game illustrates the theory by showing the evolution of genetic shapes. Initially, the shapes are nothing but random. The rules for doing a shape correspond to the biological games which created the form of a species. A shape evolves as the rules are continually altered from one round of the game to the next. By selecting one small variation (introducing a mutation in the genetic code of a species) after another, you may end up with a shape dramatically different to the first generation form. These random biological cells "survive."

The goal of the game is to show how a succession of small cumulative changes in a handful of simple governing rules can lead to highly complex designs. Like *Dino* particles, the shapes that emerge are often quite unexpected and unpredictable.

However, these shapes develop in a

## Life

Life takes place on a grid of cells, each of which is either on or off. On a simple test display, the grid may consist of rows and columns of character spaces - the letter 'O' represents a live cell and a dead cell is left blank. More commonly, the screen's pixels form the grid and a live cell is one where the pixel is drawn in a foreground colour.

Being in mind that each live cell can have a maximum of eight neighbours (including diagonal neighbours), Life proceeds according to several simple rules:

- If a live cell has two or three neighbours, it stays alive for the next generation.
- Any other number of neighbours means that the cell dies. In the next generation, the box it occupies on the grid will be blank.
- Two neighbours surrounding a blank box give birth to a new cell. In the next generation, the box will contain a new cell.

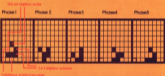
Notice that what we're really talking about are simple graphical boxes on the screen, but that we have referred to them as biological 'cells'. When you see a pixel-based life screen in action it is hard to think of them in any other

way - further testimony to people's tendency to personify what they see, looking for real-life significance even in an inert computer 'life'.

To start a game of Life, you either lay down a pattern of cells yourself (using the cursor, mouse or joystick), or let the computer randomly seed the initial Life universe. The program then passes from box to box calculating whether cells will live, die or be born. When it reaches the bottom of the screen, it displays the next generation.

If the computer is fast enough to calculate new generations at a rate of, say, at least twice a second, the screen action becomes animated. Cell clusters grow, disintegrate, collide with each other and form new patterns. And a whole-life terminology has sprung into being to describe them. Some Life objects move across the screen ('gliders'), some evolve into stable unchanging patterns ('still lifes'), others become 'oscillators' and go through a cycle of symmetrical patterns; a single cluster of cells may in turn generate hundreds of other shapes before finally settling down. In short, the screen appears to teem on a life of its own. It's a microcosm, rather like looking at a speeded-up laboratory culture under a microscope.

## LIFE IN MOTION...



The diagram shows the 'light path' of a Life 'glider' - a particular cell pattern that can detach itself from a group and fly across the screen. The pattern has a life-cycle of four stages before returning to its original birth pattern.

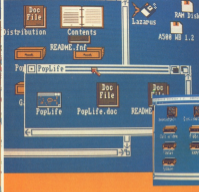
## Origin of the Theories

Steve Dawkins' book *The Blind Watchmaker* is the latest in a long series of publications inspired by the controversy surrounding Darwin's *Origin of the Species*. This book was published in 1987 and his theory of evolution has been generally accepted ever since as the only viable scientific explanation of life on earth.

Well, almost the only viable explanation. There is now a massive body of Creationists, mainly in the USA (and among their former presidential candidates), who believe otherwise. Extreme Creationists hold that God created the world and all its creatures in 4004 B.C. at the same time cleverly covering His tracks

by leaving false fossil evidence of an evolutionary process starting several thousand million years earlier.

If you think that's weird, then wait if you catch up on the so-called Anthropic Principle. Briefly speaking, this offers an interpretation of modern physics which says simply that the alien on your monitor screen didn't exist until you spotted it. Looking on from this is the idea that the world exists primarily to be observed and therefore, by implication, primarily for pleasure - in us humans. What takes us back to the Biblical idea of creation as a necessary for mankind, but with more 'scientific' credentials...



## SCREEN UNDER ATTACK

PopLife attacks Screen and shows the desktop file by file before executing the PopLife program.

Screen Executes a screen before of desktop destruction!



preferable direction according to the player's selection. If the player enters from any direction of natural selection, that means the choice over which variables will survive and begeth its genes to the next generation. True evolution on the other hand according to Darwin is the process by which features favoring survival become dominant. In the most commonly given example, natural selection explains the giraffe's elongated long necks, because long-necked giraffes were better suited to reaching food of tree level, and so survived better than short-necked giraffes.

This is where, for us computer gamers, the challenge comes in. It's been tested by Robert Cowling and a startlingly simple but brilliant implication. The challenge is to make the computer do the selecting, it's called a "bottle-necking" which decides whether a tomorrow's survival or not. "Ideally," he says, "the environment should include other evolving hereditary genetic traits, prey, parasites, competitors."

The evolution of computer gaming has thrown up the species best fitted to meet the challenge — games programmers. Actively inspired Darwinia just a rather differently

but the goal of it is the same. They are steadily concentrated on setting up a little world in which creatures interact with each other. All they would need to do is introduce some random perturbations, to Darwinize "the game."

### A GAME FOREVER

The idea of Darwinizing a game has the most numerous applications for computer entertainment. The local reason ACE introduced the PC game in the earlier section was the experience of building Darwinia in a game. Take a typical screenshot — Photo.

## Where to find Life

If you want to pursue your own life studies, the best thing you will need is a competent version of Life. Studies to BASIC often supply a listing for the game, but BASIC is too slow. What is required is a program which delivers a fast generation rate over a high resolution grid. The bigger the grid, the better, otherwise lifeforms do not have enough room to develop and die off when they reach the edge. Some Life programs solve the problem by wrapping the grid round. The left side of the grid is then continuous with the right side, while the top left hand cell wraps on to the bottom right cell. This turns the grid into a torus (a doughnut with a hole in) — good for displaying glider paths or spaceship movement.

The best source of Life is the public domain software libraries. These software collections always include some applications of early game concepts. Even when the public

domain library is for a new machine, you can be sure to find an example of the Trek or Breakout and Life.

Of course, they also go much further. The Path disk library for the Amiga is particularly well stocked with high quality games, and graphics applications. In fact the Path disks were an almost reason enough to buy an Amiga. Rumormongering through 50 or 60 Path disks, I turned up two versions of Life — 2D Life and PopLife; and there are probably others.

PopLife is one of the whatever instances of Conway's game. Using the filter on a great board grid of 640 by 256, it manages to achieve a rate of almost seven generations per second. You click on the program icon in the Workbench window, and it starts straight away, taking the Workbench icons and windows as its initial seed patterns. The effect is rather disconcerting — as if the Workbench screen is being

conquered by bacteria. You can click on an icon to redisplay it only to have it instantly devolve into cell clusters.

For the limited PC and other IBM compatibles, there is Darwinia in the earlier section. ACE's life library PC Plus supplied the last year or one of their seven disks.

With a version of Life in hand, you can then begin to explore the Life universe, to do your own natural history. Remember, though, that people have been investigating Life's flow and fauna for the past 50 years, whatever you discover has almost certainly been catalogued already. So it might be a good idea to take advantage of their findings by consulting a book on the subject. Although heavy going in places, William Poundstone's Recursive Universe is highly recommended as an introduction, and it's available in paperback.

## Life variants

John Conway's rules seem to strike just the right balance between making Life fun, hectic, an environment and too hectic. Most attempts to modify the rules fail: the screen becomes swamped or there is not enough variation in 3,4 Life, for example, cells survive if they have 1 or 4 neighbours, and they are as fastidious as scientists with either 3 or 4 neighbours. The trouble is that the screen soon fills up and resembles what has been described as a "ferocious churning crooked puzzle that never settles down".

Mike Singleton, interviewed in last month's ACE, is a creative Life enthusiast who has developed more successful Life variants for the IBM ET by changing the rules in a different way.

Dreamworks by taking into account the colour values of neighbouring pixels. There are certain colours on-screen and each has a value from 0 to 15. The program sums the colour values for a pixel and its four orthogonal neighbours (led up and two to the side). Then it consults a table to see what colour the pixel should take in the next generation. The resulting effect is spectacular: a Minispace light show only more varied and

more spontaneous.

With Dawkins' Mike Singleton has introduced Watchmaker-style genetic mutations in Life. Once again, there are 16 different coloured species. A cell survives when there are 2 or 4 neighbours, otherwise it dies. But if it has two neighbours, it also goes both to two offspring of the same species. Just where they are placed in the next cell field depends on the position of its neighbours. Every species has its own genetic code made up of 16 genes. Since there are 16 different ways in which the two neighbours can be positioned, each combination triggers a particular type of reproduction, i.e., neighbours at positions 1 and 2, could trigger birth at 3 and 5. Genetic mutations occur when a species is wiped out.

The rules sound mind-bogglingly complex but the result is a game that is as absorbing as Life itself. Species attack each other and a dominant species emerges, filling much of the screen with its own colour. The interesting thing is that the dominant species then usually suffers a catastrophe. There is a flash of colour and a mutant takes over. In this version of Life goes on...and on...

When, would you be able to design a game where the game play took an unpredictable course?

Perhaps, as lots of Midnight programmer Mike Singleton speculates, the structure that emerged from Dawkins' software test tube could be used in games. You could actually set a game that evolved with the player - to match the player's skill level. In this case, the player would provide the hostile-environment needed to select the fittest from the game's various software life-forms.

More realistically, though, Mike Singleton thinks that the world of the biosphere is far too complex to be adapted to a game. Too much processing power is called for. Dawkins' challenge may have to wait for the day when games are played on parallel processors.

For the time being, programmers might like to try out another Singleton idea: a game based on multi-colour evolution similar to Life's objects but with a new set of rules. Different colours would represent opposite cell functions. Thus you would have egg-carrying cells, motor cells to shift the information across the screen, sensor cells, and so on. Natural selection can wipe the game's competitors with other lifeforms, and you can introduce mutation of the egg-laying stage, possibly employing radioactive areas to trigger it off.

Programs like Life, Mike Singleton's *Chromes* and Steve Dowland's *Blind Watchmaker* have all established sound principles for the generation of on-screen life-forms. Despite Milton's scepticism about the possibility of introducing on-games of the present time, fans at ACE will reckon that more promising power in an Amiga or an ET is set for nothing going. One thing for certain - whichever software house succeeds in producing an evolutionary game is going to make it fortune. Meanwhile, we suggest that you keep practicing your laser techniques - so that when the opposition does start taking up, you'll be ready for them. ■

you start playing, it's a battle between you and the opposition. Only problem is in the long run there can be only one winner - You.

Both because after a time you begin to recognise the clear, tight patterns, positioning your stuff in the right areas of the screen is to make the life-forms with a listening ear of laser fire. There's a lot of reformation in this, but it probes into impalpability, inside the idea of a game at which the stars are shining their light patterns, as they are in which they develop stronger features and ambush techniques. A game like that wouldn't just last a few months - you could still be playing it in fifty years' time.

Unpredictability and the lasting interest it generates is one of the main features that blind Life is featuring. For the beginner, the only way to tell how a pattern will develop is to try it out. Despite the simple basic formulae in the game, life-watchers have spent an enormous amount of time exploring the life universe, coaxing its objects and devising new ones. There is even a newsletter for enthusiasts called *LifeLife*. One of the questions that occupied the pioneers was whether they could detect a pattern, which kept on growing. John Conway put up a \$50 prize for the first person to find such a pattern. It was collected by William Gosper (of the MIT group of investigators with the invention of the glider gun - it shoots out gliders every 30 generations).

Many of the most interesting cell patterns, however, were discovered by chance. Spontaneous, which are similar to gliders but bigger, were spotted when one of John Conway's colleagues noticed a

large object moving across the screen and managed to stop the computer at time to identify it. The lesson is simple - some basic mathematical shrewdness can introduce ideas of variation and evolution.

### GAMES ALIVE!

Strictly speaking Life isn't described elsewhere on these pages as really a game of oil off's more a spectator sport. There is no interaction, and you can't win or lose. But could the ideas behind Life and Watchmaker be applied to games design? By introducing a few rules for cell generation or by borrowing a few techniques from evolutionary

## BLIND WATCHMAKER IN ACTION



It's not starting.



It's getting busy, only with the second generation and lots of features to go.

Richard Dawkins' program allows the user to define his own cell forms and then breed them, mutate them, and study their development through many generations. You can then save promising life-forms (or "biosomes") to disk for future breeding programs. Here are two stages in a breeding program - the first desired result is a bipolar being.

# ARKANOID

TAITO  
COPY-CP

## REVENGE OF DOH



...the name  
of the game

Learned from the best, this  
SPECTRUM (454) CT 88 AND PRAD CASE OR RE COMMISSIONERS CASE OR RE  
SPEIC + 2.114.85 (64) DIX 072.88 AND 2054 014.88

Adding to the fun and excitement of Arkanoid, all new features include all  
choices to easily increase the extent options, many more "BONUS" effects, multiple shots and several additional alien characters. The  
sets up to the most thrilling action game since ARKANOID, with exciting improvements you just won't be able to stop playing.





# FREE FILMS FOR A YEAR!

Three lucky winners will get 52 free cinema tickets each, plus two superb Cinemaware jackets for the runners-up.

Here, it's free. Just imagine - it's Friday evening and there's a new film on at your local Cinema Cinema. Now you won't have to queue up like everyone else - in fact, you won't even have to get lost wandering in like the star you are and grab

## WHAT YOU HAVE TO DO

Cast your highly-trained eye over the black and white still below, taken from an original *Three Stooges* short. Decide which of the stooges is which and enter the answer on the form provided.



the best seat in sight - and spend the evening too on a healthy bag of popcorn.

And not just one Friday either, but every week for a whole year. In conjunction with Cinemaware, we're offering three lucky winners special vouchers for entry to their local Cinema Cinema, 52 in all. Spend them how you like - take your loved one every fortnight, for example, or gather together 51 friends and treat them all at once!

Even if you're not lucky enough to get the tickets, there are still two superb Cinemaware jackets to be won. These normally cost over £50 each, but more importantly they're not exactly common in the shops. We're talking exclusive get furs, and it won't cost you a penny.

That's it! Couldn't be simpler, could it? Then enter the rest of your details on the form and post it to: ACE Stoggles, 4 Queen Street, Belfry, BR1 1BU, to arrive not later than May 31st.



Rocket Ranger

The Three Stooges



## MEANWHILE, ON YOUR COMPUTER SCREEN...

...it's movie time. Thanks to Microsoft. The studio about comes from their latest Cinemaware distribution, *Rocket Ranger* (to be released in June) and *The Three Stooges* (in the shops any moment now).

Cinemaware have already produced some stunning visual material in their legendary *Calendar of the Cosmos*, recently converted onto the ST from the Amiga original and playing better than ever. *Rocket Ranger* and *The Three Stooges* are their latest attempt to go even further with the 'interactive' concept, combining state-of-the-art animated sequences with arcade action.

*The Three Stooges* features the infamous names of the black and white screen in a series of 600-600, designed to save cash for an extra game. You have to get the team through prize-lighting, gas throwing, and medical mayhem - accompanied by digitised sound effects and voices from the original movies.

*Rocket Ranger* combines arcade sequences with strategy elements in a plot that varies each time you play. As *Rocket Ranger* you must defeat Axis warplanes, rescue beautiful ladies and kidnapped scientists, and eventually a powerful sample of the legendary Lunarium, which will send your robot to the moon for a final confrontation with the hordes.

Check out a future issue of ACE for the definitive reviews of these very promising products - *Rocket Ranger* will be appearing for the Amiga, C64/128, Atari ST, and IBM PC at prices ranging from £14.99 to £29.99, with the same formats and price range for *The Three Stooges*.



## ENTRY FORM



Name \_\_\_\_\_

Address \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Tel. No. \_\_\_\_\_

Hint: (a) Stogee A is \_\_\_\_\_ Stogee B is \_\_\_\_\_ Stogee C is \_\_\_\_\_

Age: Under 12 | 12-16 | 17-25 | 25-35 | 35-45 | 46-65 | Over 65

# PANDORA



ACT II - Pandora



ACT III - Pandora

On a dark and rainy mission, you learn about Pandora's true origin.

Something is wrong. Communications have mysteriously died. The ship's hardware seems to be compromised. But the real message... Just what evil is it?

Your mission to investigate what happened takes you to the outer limits. Can you make the remaining 20% of the way, or will you be fighting to save the remaining 20% of the Pandora?

**Pandora— Dare you open the box...**

Mac: \$74.95, Amiga: \$79.95, Commodore: \$69.95, Windows: \$79.95 and Commodore: \$69.95

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## FIREBIRD



A LEGEND IN GAMES SOFTWARE

# SCREEN TEST



Better put on gloves before handling this month's Screen Test. We've got two of the hottest games we've seen for quite a while — *Dungeon Master* and *Civids*, both from FTL/Microsoft. If you've been wondering what all the fuss about 16-bit megagames has been about, enlighten yourself now. Time, too, to find out the facts behind the fuss over the Hewson/Telecom-soft wrangle — Steve Turner and Andy Braybrook took their wares to the big BT — you can see what it was they had in their suitcases in our reviews of *Morpheus* and *Magnetron*. Amiga owners get pole position on the track this month as well, with *Ferrari Formula One*, a mouse-controlled racing sim that leaves very little to be desired, apart from actually owning the car. And once you've got a bellyfull of this month's goodies, don't forget to check out the latest conversions for your machine on the Updates pages.



## THE RATINGS

### HOW they're calculated...

If you buy a game, how much enjoyment will you get out of it, and for how long? Just check out our revolutionary PC (Personal Interest) Curve for the full story. Brilliant arcade games start high on the curve, and their steady fall off as you lose interest; powerful puzzle games may ride the crest of the curve for months — but the moment you solve them they'll come tumbling down; casual strategy games may slump you at first — but climb up the scale as you begin to appreciate the logic of the games. And so for the turkey — they start low, stay low, and have nowhere to go but down. Seen, seen.

Once you've seen how long the game can hold your attention, all you need to gauge it is the renowned ACE (Amiga) Index. This is calculated according to the area under the PC. The bigger it is, the better the game. Add to that our definitive ratings for G-Factor (all it gives your brain cells a work-out) and Fun Factor — a measure of instant appeal and exhilaration as you dive into the

game. And, of course, we rate the Graphics and Audio effects too, for EVERY machine the game's available on.

### WHY you can rely on them...

The ACE reviewing team covers a broad spectrum of computer entertainment talent. Andy Wilson knows more about 88000 chip codes than many a commercial programmer — but he can also beat the pants off the opposition in *Disk*. Andy Smith doesn't know an *ag* code from an *af*, but his years of game-playing experience enable him to pass definitive judgement on anything from *zms* to *zoo* — er, *zoo*. Add Steve Cooke (ex-Personal Computer Games and formerly columnist for magazines ranging from *Zip!* 64 to *Your Sinclair* and *Pete* (ex-Amstrad Action, Personal Computer Games, and *Your Computer* reviewed) and you've got age and experience as well as youthful enthusiasm.

Every game on the following pages has been seen by all of us. We compare notes, express differing opinions, and only then do we decide who's to take final responsibility for getting our views into print. What follows, then, isn't just a collection of casual comments, but the definitive ACE verdict on this month's software. We've checked it out — now you can too.

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**DO** you like dandy, bearded, drowsy, guileless port-tales, blasting out mashing for all your worth? Are you looking for heavy controls and wailing wails? Do you want a nervous mess, or running out and leaving me AT night for wails? This field is tight - the game delivers.

The story so far: those noisy Boccies have enslaved the poor defenseless Ods, locking them away in factories spread across the planets of the distant galaxies. Your mission is to destroy the factories, rescue the Ods from the wreckage and keep them to safety. The odds are stacked against you: heavy apparatus, the confining tapered pylons and gravity itself pile on the pressure as you negotiate tight gaps to reach these Ods and get them back to your waiting mother ship.

Before you even reach all those narrow tunnels and sloping heights, you'll have to learn your ship's controls. From the moment the mother ship drops you off, your fighting prowess grows: do nothing, and your ship will be crushed to pieces on the ground below. To stay afloat you'll need to make quick turns on your engine the whole time, killing left or right to down the forest sideways.

Mimicking the problems of tennis and acceleration shouldn't take you too long here, but there's a catch: First, your weapons - both bullets and the more destructive bombs - are fired from the right side, while your engine mounted on the left. In other words, you need to speed ahead at your throating time upright to stay airborne and head at your firing time rearward to hit ground targets. Sliding the

right before you takes practice. Though repetition on the 5-bit screen should still be an enormous help.

Needless to say, the game's no piece of cake once you've got control flying sorted out. The Boccies ground force throw so much fire at you for one thing. Different types of installation fire bullets, explosive spheres or flaming missiles, while the large "volcano" complexes spit fire but all of them and launch lighters in killer combinations. Other ground forces shoot gravity to us to offset or repel your ship, giving even experienced pilots some serious control problems.

If you find gravity distortions too a problem when you're blasting Boccies into orbit in the open, you won't have matter yet. In very ungrounded corners they make life all but impossible, grinding you against solid floors as you struggle desperately to stay in control. There's worse: In some the Ods you've freed, you have to find a piece of that ground and



**Atari ST Version**

The big screen games reach their peak with the perfectly pitched Ods franchise, but are hardly enough to encourage us to give you unlimited advice. Future one of it from your favorite ST (that always gets lots of things you want)

GRAPHICS	6	IQ FACTOR	7
ADVICE	5	FUN FACTOR	6

**ACE RATING 969**



# ODS

MIRROSOFT to the rescue!

The construction creates a small path map of the entire level as you fly out.

Before these pylons make the passage through, you'll have to make the tower for help.

When this game starts, you'll see a factory emitting smoke and fire. These Ods are collecting, including a lot of the question of these structures are gone - and your ship's ready to go out.

When these pylons put you to the test, you'll see the Ods!

After the ship starts, releasing a wave of bullets and bombs will make your ship.





At 400 x 250 Rockford's maze-making was a really big achievement to design to control those palpitating hearts. You can't see it, but the one who built walls, built it with today's tunnel, run on the floor and see what happens when the line. There is a high play game when you can't see what's behind the wall.

# ROCKFORD

MELBOURNE HOUSE dig for treasure

**ORIGINAL** games will always dig down, upward, and down. Rockford is the latest in a long line of games that may have been designed by the great Melbourne House. And so to prove its pedigree, the puzzle here has been designed with the aid of Peter Lippo - who started the whole thing off in the first place. Rockford himself is, of course, the cute foot-tapping thief who started it all.

Despite Peter Lippo's involvement, however, Rockford is obviously uncutting. There are five different game "worlds" in which of which Rockford plays a different character.

Each world has 14 difficulty levels, giving you 500 levels in all.

The scope is as before: push around the rocks or other obstacles, avoid enemies, gather the treasure and then make it out of the exit before the time limit expires. Depending on Rockford's character, the obstacles and treasure will change. On the Cowley world you have to avoid the

## Spectrum Version

Developed with the incredible processing power of the things it may well be that it's not quite the Spectrum game. Graphics are fine, and of the screen - as with the other versions. The problem - as with the other versions - is the writing. The Spectrum port can't handle it very well. If you don't mind the game, though, it's good to see it on the

GRAPHICS 4 IQ FACTOR 9  
AUDIO 7 FUN FACTOR 7  
**ACE RATING 720**

## C64 Version

Graphics are just a tad bit better on the version, so that Rockford himself isn't all that close to his many games while the treasure you collect is not a little better. The sound is an odd equivalent of the graphics, but it plays well enough.

GRAPHICS 4 IQ FACTOR 9  
AUDIO 7 FUN FACTOR 7  
**ACE RATING 720**

## IBM PC Version

Very well implemented indeed, Rockford feels more like the screen, while the writing is nice and smooth. It's a little strange to have to write the text. The default is the custom play space for you to set very pleasant. There is a patch option, but it's IBM only.

GRAPHICS 4 IQ FACTOR 9  
AUDIO 6 FUN FACTOR 8  
**ACE RATING 832**

## RELEASE BOX

ATARI ST	0/1986	OUT NOW
IBM PC	0/1986	OUT NOW
MSX2	0/1986	MSX2/1
SPEC	0/1986	OUT NOW
OS/2	0/1986	OUT NOW

hunting paths and collect gold coins, or the Cook, you must gather apples, and so on.

The puzzles are tough, but don't seem quite as tedious as in other games of that ilk, and the graphics and animation are excellent, but some will have too much of the dull to get excited.

• Fun Factor

## Atari ST Version

Very pretty graphics and nice sound. It's a very enjoyable piece of work - but you'll need to be a real fan to get it. You already have the 2MB/2GB.

GRAPHICS 8 IQ FACTOR 9  
AUDIO 6 FUN FACTOR 7  
**ACE RATING 758**

## PREDICTED INTEREST CURVE



Very smooth and polished - but you'll need to be a real fan to get it. You already have the 2MB/2GB.



200 - There's a little bit of a problem with the writing, but it's not a big one. The writing is nice and smooth. It's a little strange to have to write the text. The default is the custom play space for you to set very pleasant. There is a patch option, but it's IBM only.



# FERRARI FORMULA ONE

ELECTRONIC ARTS put the pedal to the metal

**EVERY** single detail of owning a Ferrari Formula One is the essential personal experience has been purchased but the rest of hardware you get to drive in the simulation is another matter altogether.

Ferrari One racing is the name of the game, with the player firmly in the driver's seat. Participating in races is the main attraction, but there are other things that need

driver's-eye view of each race track, complete with cockpit interior and wing mirrors. As soon as you've got used to the controls — including how to brake and accelerate through corners without coming to a stop — in using large amounts of speed — it's time to enter the 1986 Grand Prix.

The game is structured so that the mobility of events are subject to time constraints, as they would be in real life. For example, it takes 45 minutes to fit a new engine into a real formula three car, then it will take 40 minutes (game time) (about two in real time), so it's no use blowing your engine in warm-up 30 minutes before the flag drops, as you just won't have enough time to swap. The only thing that is not affected by any sort of time obscuring are the lights to and from successive race meetings.

Once the player has arrived at the race track, it's straight into the test of the two practice sessions. During these sessions the player



The race track in Ferrari One is realistic, showing the length of each of the car's wings and accurately showing the car's handling properties.

the two qualifying sessions. Success here helps determine the player's starting position on the grid.

Each Grand Prix takes place over a distance of up to 300 kilometers or 200 real-time game playing, whichever comes first, and with a total of 16 to contest, it will see you a long time to visit your test session. Ferrari Formula One is a superb racing game that will thrill fans of the game.

Andy Bell

RELEASE BOX		
AMIGA	CD-ROM	D/1/NOV
Other versions under development		

attending to. The car's engine and chassis settings have to be tested (thoroughly) in Ferrari headquarters in Fiorano (Italy). Test-O-bot-010, then, the player also has to decide



Bank's (above) side wings have months of preparation time to be in with.

how to angle the wings, how right to have the front and rear suspension, what gear ratio to use and so on.

Once the player has decided how to set up his car, the next step is to test it. You get a

real-time view of each race track, complete with cockpit interior and wing mirrors. As soon as you've got used to the controls — including how to brake and accelerate through corners without coming to a stop — in using large amounts of speed — it's time to enter the 1986 Grand Prix.

## Amiga Version

The graphics used throughout the game is very realistic — you really do get the impression that you're swimming around the circuit with about 20000 between the front and the rear of your car. Sound effects, too, are very good and help to make this a compelling and extremely playable game worthy of that space in any top ten lists.

GRAPHICS 8 | RE FACTOR 4  
AUDIO 7 | PER FACTOR 7

ACE RATING 85%

## PREDICTED INTEREST CURVE



Graphing staff with quality of ratings method.





**NEVER** make the legal, wrangle-re-sounding *Morpheus*, which the game title? Initially it's confusing, but it soon becomes apparent that this game has a lot more depth of gameplay than you average arcade shoot-'em-up.

Basically speaking, you're in charge of a large spaceship in which you attempt to destroy all enemy - the nucleus - which is located at the center of each of the 50 game levels. You have to destroy the nucleus indirectly by first destroying a number of charge orbits which are scattered throughout the level. The function of charge orbits and nucleus is supposedly to maintain the positive and negative charge of the two equi-

# MORPHEUS

Conquer the universe with RAINBIRD

but opposite poles of space that together make up the Universe - all else new?

To succeed you do your quest to destroy the six "charges" Morpheus who resides on level 10 and a number of small alien enemies collectively as Morpoids. These enemies tend to shoot aggressively towards your craft and will fire at you later too many hits and your spaceship is low energy, use too much energy and the game over. To add your chances of survival, the game has a complex purchasing system - points you receive on a level are turned into Quanta with which you can buy extra weapons etc. This is where the game really comes into its own - the Mor-

phoid learn how to survive your attack as you constantly have to upgrade your weapons systems in order to level them.

There's a large enough tank in *Morpheus* to keep the player busy for some time, but the repetitive nature of the task could see your interest dipping sooner than it might have.

Andy Smith

## RELEASE BOX

COMES IN 16-BIT, 17-BIT, 18-BIT, 19-BIT, 20-BIT

Available until 1991



Background of the main interface you're background at center of charge orbits is visible.

## C64 Version

Though the game's tough to get into, performance really pays off. Once you start accumulating the money and buying better weapons the game can become very satisfying. A great entertaining game if you're prepared to persevere with it at the start.

GRAPHICS 9 IQ FACTOR 9  
AUDIO 9 FUN FACTOR 9

ACE RATING 772

## PREDICTED INTEREST CURVE



Time will tell if the game is worth to play.

# POWER AT SEA

ACCOLADE tread water



**OCTOBER 1944** is the time, and the battle that is the *Power at Sea* is the game. The player controls a fleet of three American ships of different classes and has to destroy four Japanese land bases (shooting down Bomber planes and bombing the airways) and bases in a very sim-

ulated of the old *Blackboard* type of game. Simple but with nothing much to keep you interested for long.

Andy Smith



ACE RATING 520

# VAMPIRE'S EMPIRE

MAGIC BYTES grab the garlic

**SARLIC** (singing Dr. Van Helsing) takes levels starting the Peter Cushing in the role of the very

pretty. Amigo arcade puzzle. Guide the light beam through *Count Dracula* golden chamber by playing with changing mirrors. Automated control of the main character added help to improve the game. *Count Dracula* and *Vampire's Empire* has ended up looking like something of a missed opportunity.

Andy Smith

RELEASE BOX	
COMES IN 16-BIT, 17-BIT, 18-BIT, 19-BIT, 20-BIT	
AVAILABLE UNTIL 1991	
GRAPHICS 9 IQ FACTOR 9	
AUDIO 9 FUN FACTOR 9	
ACE RATING 515	

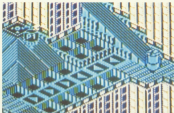


ACE RATING 515

**LAWYERS** may end up making more money off a than proprietors of software houses do, but the stars got to be a nice little matter for themselves. Regulated by Steve Nouri, the 3D dock-dodge gets all the playability of *Turbo* or *Leviathan* classes like *Proton* or *Assault*, and its every bit as addictive too.

The plot's simple enough—eight enemy reactors are endorphing (oh,apocryphal, it's never got to be a nice little matter for themselves. Regulated by Steve Nouri, the 3D dock-dodge gets all the playability of *Turbo* or *Leviathan* classes like *Proton* or *Assault*, and its every bit as addictive too.

Self-improvement's something the ELP-2's very good at, mind you. Just switch its grappling device on, turn its enemy dock back, though the slightest security system can



There are 17 docks worth dodging for their reactors, so independently, the ELP-2's got a lot to offer.

# MAGNETRON

## Can FIREBIRD spare the rod?

you can calculate it to spare parts. There's no it here improved—dead with better weapons, defenses or power systems, depending on the type of dock you grabbed—and you're still got the ELP-2 to fall back on if the new model gets destroyed.

Grapples let the pull-over it might sound like, however, thanks to the on-again-off-again security systems. The only late-to-market set-up takes the form of a sliding door (also linked to a self-destruct device like the pulse completely within a given time limit and you get your brand new dock get only the bottom one right and you exchange your current dock every time, but fall to it even that cost the enemy and register, taking you with it.

Docks come in different categories but are categorized to eight (heaviest—ELP-2's on eight) and the time limit for the pulse depends on the relative strength of your own dock and you target almost a thing dock with a weak one and you'll have very little time to react.

Once you've mastered grappling you're ready for the game proper, with its exploration, combat and reactor-boating. The game starts 100-plus aesthetic 3D scenes, late scenes, bridges and docks rather in the *Star* *Madness* style (plus helpbars and their corresponding reactors. Though you can't fall off a screen entirely you can easily fall into one ledge to another, taking them up in the process. In places, magnetic force and sleep stages function to send you over the edge. At first those present few problems, but as you start building reactors your

dock becomes harder to handle, with weight and magnetism both affecting you the more.

It's the odds that are the problem, you see each reactor's got four rods, and each rod's got a positive or negative charge. The total charge across the four rods determines the reactor's status (weak rods between reactors and you can send the charge to one or the other, shutting the power off. Unfortunately, rods are heavy things, so carrying them up stages can be a problem. What's more, the charge on the rod you're holding alters the nature of magnets

on your dock: the higher the charge, the stronger the pull.

Once you've cleared out a reactor, you can teleport to another one and continue your reactor-ride. With only 10 reactors to do the game's not going to be impossible to finish, but as the difficulty steps up you'll soon see just how tough the task is. Mostly painful and very challenging, with great in-game information displays and warring dual objectives to add depth, the one moneypiece to be economically complete despite being made up of some pretty standard game components.

● Andy Miller



Independently projects ELP-2's got it the one—game around the reactor, but the look-out and the reactor dock to it completely to react.

### Spectrum Version

Comes with a guide as responsive as they might be and there's the old bit of extra stuff too, but it's not the best looking stuff—and fourth playable in the

GRAPHICS 7 10 FACTOR 7  
AUDIO 2 FUN FACTOR 8

ACE RATING 904

### PREDICTED INTEREST CURVE



Something to think for you when it comes.

### RELEASE BOX

SPEC	17 Box	OUT NOW
CHART	18 Box, 17 Box	UNRATED
	No other versions planned	

# ARKANOID 2

Balls bounce back from IMAGINE

**BOUNCING** balls can still make addictive computer fun, as *Arkanoid 2* - The Revenge of Bob Jones, the breakout super-clone for new casual fans to produce a game which would attract you with its originality, but will certainly keep you at the keyboard for lengthy periods.

The game, just in case you didn't know, involves bouncing a ball off your ball to break through walls of bricks at the top of the screen. These bricks are arranged in various formation ways (55 different ones) making them pretty tricky to destroy. Individual bricks may require several hits to destroy, while others are indestructible.



ARCANOID - Two expanding balls on the go, but it's all going to hit a brick wall.

## PREDICTED INTEREST CURVE



Not so sure you'll continue to... but feature graphics, control you off.

## Spectrum Version

There's a problem with the background of the *Arkanoid* on level levels. It's a similar color to the ball, making it more difficult than it should be to distinguish between the two. Appletron had that's a little bit of confusion or addition is the order of the day.

GRAPHICS	5	IG FACTOR	4
AUDIO	5	PUR FACTOR	7
<b>ACE RATING 871</b>			

To help you, various items will flutter down towards you as you hit certain bricks; you might get lower for an expanding ghost

## RELEASE BOX

SPEC	07/86	OUT/86N
AMS	03/86	04/86N
DA/86	03/86	03/86N
ELAR/87	01/86N	06/86N
IBM PC	01/86N	06/86N

but, or multiple balls. A welcome addition to the power is *Arkanoid* use the red ball which, bounces through everything on screen, and the expanding balls which come back even if you let them go off the screen.

The basic idea is exactly the same as the first version of the game - but that's not going to put you off if you like the best of them. It's all put together pretty well and remains interestingly addictive.

File Code

## Amstrad Version

Very pleasant to look at, with extremely nice graphics and pretty colours. Control can be a little odd, you want the paddle stuck out, but the large ball to be passed in a play manner to get to the right place. Furthermore, the ball sometimes seems to have much more power than the ball, which can lead to great fun and anguish. But that's why you play, isn't it?

GRAPHICS	8	IG FACTOR	4
AUDIO	8	PUR FACTOR	9
<b>ACE RATING 749</b>			

# SOKO-BAN

Not-so-golden oldie from MIRRORSOFT.

**SOKO-BAN** gives you 50 pre-designed single-screen, maze level for ability to design almost 50 more! Each contains a number of doors, switched oppositely of mirrors throughout the labyrinth and an equal number of view-locked, one-stop-ops. Your task is simple - push the doors one square at a time round the maze until they all open the ops.

On these mazes one file is pretty simple, but by these right things are getting literally tricky. The problem is that you can only push ONE door at a time - two together are just too heavy to shift. At best, you'll be

## C64 Version

Graphics and sound are very good. Frequent dot access is frustrating and extremely slow.

GRAPHICS	5	IG FACTOR	9
AUDIO	5	PUR FACTOR	7
<b>ACE RATING 487</b>			

able to challenge them from different angles - or worse, they'll block off an exit or become immovably lodged against a wall.

You can access very screen of *SokoBan*, without passwords if you really want to discourage yourself, you can take a peek at, say, screen 43. Anyone who thinks they're going to win, that one out in less than a day should be lecturing at Imperial College.

## IBM Version

Very similar to C64 version, but this screen is no longer such a problem.

GRAPHICS	4	IG FACTOR	9
AUDIO	4	PUR FACTOR	7
<b>ACE RATING 546</b>			



Getting those doors into the Soko-Ban mazes is like a walk, but this is only screen number 10.

## RELEASE BOX

DA/86	01/86N	04/86N
IBM PC	01/86N	04/86N

Using a board on time taken, together with insurance it shows just what's home! There's a competition made for up to ten players to compete simultaneously.

Originally released three years ago as Japanese MSX cartridge, it's a bit of a shock to see this one in 1986. The simplicity of the game itself has stood the test of time, but the presentation, sadly, hasn't. What's more other games (Microcharmer, for example) have managed to combine challenging yet pretty with more varied graphics.

Steve Cook

## PREDICTED INTEREST CURVE



So simple, but high-quality puzzle.

# BAD CAT



The graphics used are of a high standard, the events original and the sound is superb. **ST USER**



A brand new and exciting program for the Olympic Games. The graphics and animation program for sports and event the top quality expected in this series are still the leading edge in the industry. All the software can be used for the in playing their own computer games. Will find it all in the up to the moment?

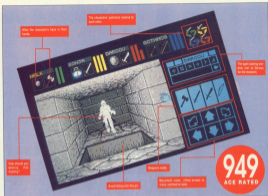
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GO! logo with a stylized 'GO!' text and a blue and yellow background.

**Rainbow Arts**

Rainbow Arts logo featuring three stylized human figures in red, yellow, and blue.



#### TURNING ON THE WORMS

Once you've got a fair way into the game you'll come across some pretty ferocious (and glib) worms that can reduce your health (and even team) to so many zeroes in a short space of time. The way to defeat these monsters is to first yank a metal doorway (one you can operate with a button on a wall) and lure the worms towards it. Stand on the other side of the doorway and keep it closed, unless you have plenty of anti-poison potions ready and put your best fighters at the bars. Position yourself as close to the door as possible and raise it. As soon as the worms enter, hit the door button to close it and get your fighters going. You'll notice the doorwings hanging up and down in the worms (causing them damage) and after a while the worms will retreat. Reuse your strength, un-poison anyone who's been bitten and repeat the process. (Some or later the worms will be deleted.)



Write the rules: You'll struggle with your fighters.

# DUNGEON MASTER

MIRROSOFT's fantastic quest

**FIENDISH** puzzles and a multitude of obscure enemies prove to be the main ingredients of this huge, immensely playable and very atmospheric mixture of role-playing and arcade adventure. If you've been waiting for a real-time role-playing game that not only looks good but manages to keep you interested for long periods of time, then your prayers have been answered.

You take the part of Thorne, an apprentice wizard, which put to reverse his master's feud with the Dungeons of Lord Chen. Now your master comes to see his staff (and end up feeling he was split in two) is the sub-

ject matter for the steel story that comes with the package.

Thorne's last adventures have already entangled to recover the Phoenix, all told. As Thorne, you now have the choice to reappear up to four of these adventures to accompany you. This choice at character is substantiated by these peculiar attributes, and you'll need to be fast on your feet (and you'll need to deal with the various obstacles, wizards will be needed to create and cast spells to deal with really tough, multi-colored puzzles will need to be on hand should any one become square).

## VITAL STATISTICS

As with all role-playing games, the characters in *Dungeon Master* develop during play, their abilities improving with practice. A character's current ability levels can be examined by selecting the status screen and clicking the pointer on the eye icon. The rest of the status screen shows which particular character you're checked (Pak in this case), what they're carrying and their food and water levels. The top right of the screen shows the positions of the adventurers as they move through the dungeon. Pak and Serj are at the front at the moment but the player can alter the line-up whenever he feels like it, matching the abilities of the leader with the next immediate challenges.



## Ahor! ST Version

The graphics, though largely negative, are wonderful when and where needed. Sound is sparse but the effects are good. It's boring games with plenty in it to keep you searching, fighting and wandering for a long time.

GRAPHICS: 9 IQ FACTOR: 7  
AUDIO: 8 FUN FACTOR: 9  
ACE RATING: 9/10

## PREDICTED INTEREST CURVE



Full size: 10 MB; get complete disk: 4; you'll like it: 8; the way you play: for a long time: 9/10.

## RELEASE BOX

ADVISORY: CR: MILD CUT: NONE  
No other versions planned

The game is viewed through a large window filling up most of the screen, with icons across the top of the window relating to each individual level, statistics, magic levels and whatever equipment they happen to be carrying in their hands. Food, water and other equipment found throughout the dungeon is viewed in an individual text box.

And there has not only filled, his daisy

## The Worm's Turn...



1. Walking through the Dungeon, there's a flexibility of choice, but the screen has to be divided to fit a job. What's the writing on the wall?



2. Entrance and entrance



3. Well, he's standing on a panel that might open a secret passage, or it might close the pit if you can destroy the altar. I'm not really watching, being on the ground. Getting up a tree and seeing death on the tree.



4. A secret passage has been opened. How low to go to it? And what are their party frequency?



5. One step to the right, and an entrance opening. I'm not really watching, being on the ground.



goal with a variety of hideous monsters, but also flowers in some tricky puzzles that need solving before you can progress. These puzzles are of various kinds, some are simple logic puzzles while others take the form of riddles. We know only completely on the top of your curves—what's a permutation tree?

No fantasy adventures would be complete without a scattering of magic, and *Dungeon Master* has its fair share. You won't have to worry about collecting eyes of newts or wings of bats though, because the quality of each spell is only dependent upon a character's magic level. For example, Goli-

wing is a powerful wizard with a high magic level, which means he can be loose with some pretty powerful spells - basically for example, at magic weapons powers which can cause a very heavy damage a tough fight. But as the other hand has no spell power, so he's never able to learn and cast spells.

*Dungeon Master* is a wonderful game that will provide real enjoyment for a long time - with 14 levels to the game, it's doubtful you'll finish it in one sitting. Think however then for that some-games option.

—Andy Bell

**TASTE** You never think the American flag goes well, but some might find the Falklands War sequence in this action simulation from-reviews the Pond a little more than totally judged. The Falklands War was only six years ago, after all, and would be the lives of those that lost a few of our production.

Well, not all of the fun scenarios found in *Strike Fleet* are based in the South Atlantic—some are set in the volatile Persian Gulf and others involve battling up the British fleet in the Norwegian Sea.

The player takes charge of the whole fleet during the particular scenario the

#### RELEASE BOX

CRIBS 14.95  
Number remains identical

number of ships and helicopters available in the water. Depending on which scenario you happen to be playing, objectives include sinking a certain number of subs within a time limit (this is one of the scenarios set around the Falkland Islands), protecting innocent civilians for a specified time etc. (the

#### C64 Version

new graphics and sound make for an enjoyable game. You'll need to add a few pounds of memory and storage (making it you able to play that multi-episode or three-levels) but it's a nice upgrade—flows enough extra to keep you busy too.

GRAPHICS 7 IQ FACTOR 4  
AUDIO 4 FUN FACTOR 7

ACE RATING 7/10

# STRIKE FLEET

ELECTRONIC ARTS pipe you aboard



The biggest screen shot when you enter the number and class of ships you wish to send.

one can) track precision through the route to floor Admiral whereas failure can result in a court-martial.

There's plenty to keep the player occupied in the game though that's not all that the game's speed-time-up features when things get quiet. *Strike Fleet* is a well put together and involving game that will keep you busy for quite some time—both if you can stand the politics.

Andy Smith

#### PREDICTED INTEREST CURVE



Compare this company's growth to any you intend to do with.

## BLACK SHADOW

Asteroid action from CRL

**CRIBS:** A classic asteroid maneuvering to put the Earth into a permanent eclipse. It's up to you (and a friend if you want to) to try flying across the intergalactic landscape and destroyed the mining bases, scattered with evil with hyper-sector. *Black Shadow* is very

pretty, visually difficult and extremely playable but it's just another shoot-em-up with no interesting features.

Andy Smith

#### RELEASE BOX

CRIBS 12.95  
Number remains identical

#### PREDICTED INTEREST CURVE



ACE RATING 7/10

## SECONDS OUT

Get punch-drunk with TYNESOFT



THE Manager of Blackburn would have us all grove if he knew Mike Manselwood began was better than with

headbuts in the ring it doesn't seem to worry Tynesoft, however, really about it with one man in the ring a transparent? You've got the opponents to fight, each slightly tougher than the last, as the food to the championship life-food but do don't expect it to go the far distance.

Andy Smith

#### RELEASE BOX

CRIBS 12.95  
Number remains identical

#### PREDICTED INTEREST CURVE



ACE RATING 8/10



# DREADNOUGHT



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ATARI  
 GAMES



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**ARNIE** Schwarzenegger fans will jump for joy at the way this is the one — a strip of adrenaline-soaking jungle, a whole bunch of alien and a wide range of weapons to kill 'em with — but the game does have something to be desired.

The clock begins run using a strip of both slinking head guys and wild animals, dodging bushes for and collecting weapons. The only competition — the alien hunter when been killing your men off — struts as



Oh — here's an alien. Time to put your dead buddies to rest and get on with the action.

#### RELEASE BOX

ORIG	\$19.95	\$14.95	OUT NOW
MS	\$19.95	\$14.95	OUT NOW
SPC	\$19.95		IMMINT
ATARI ST	\$14.95		IMMINT

# PREDATOR

ACTIVISION go wild in the jungle!

it gun-act tracking across the screen after you. You'll use a lot of the ammo as usually, but outsourcing it's a easy problem.

The weapons available to you might look different, but they tend to be somewhat different in performance. Arnie's got such a limited, so use it sparingly. The best is that, with the weight of opposition you face from

aliens and what look like that that lets you could try punching but that won't get you much further than if you just keep running.

So you've found to take into. So this out you of life and being those lines costs you the game, as it's just a question of how far you can get before the thing grade you down. This would get shut enough even while out the games poorly implemented multi-task, but on larger versions the overall game experience is a lot like watching point city.

Andy Rubin

#### Amstrad Version

Excellent graphics, graphics and sharp bullets spot any dead opponent the sluggish action might have made.

GRAPHICS	4	IQ FACTOR	1
AI/DO	3	FUN FACTOR	3
ACE RATING 410			

#### C64 Version

A nice graphic combination for quite playable but, but somewhat interesting.

GRAPHICS	7	IQ FACTOR	1
AI/DO	3	FUN FACTOR	4
ACE RATING 606			

#### PREDICTED INTEREST CURVE



See how fast the Amstrad version gets off the ground.

# SIDE ARMS

GO! shoot some aliens — again

**ALIEN** Synthesizer seems to play an important part in game scenes and the latest to translate the basic idea for some of those. Thankfully there's a study of how the player to control in an attempt to lower the Synthesizer plots.

Step in Lieutenant Barry and Sergeant Sanchez that's you killed for this one (C64 has two-player option) player that will bring you how to face with the M16A1 Assault Rifle, Rocket Launcher, and so on. As seems to be the norm of side with this style of game, there are numerous extra weapons to pick up. Defeat a wave of aliens, pick up the Synthesizer that appears on screen and you'll gain a benefit. Shooting the Synthesizer sends it spinning through a maze of benefits to choose from — extra speed, 3-way shots or a Mega Rocket Launcher etc. You can then start to think about going for the extra points gained from shooting various non-aggressive ani-



SPECTACULAR — Shooting away at the start of level two. You have to play well on the Synthesizer.

malicious and that that appear occasionally.

While the game can be fun for a short while, there's nothing in it to make you come back for more. Inexpensively simple that that doesn't have any new features to keep the player interested for very long.

Andy Rubin

#### RELEASE BOX

ORIG	\$19.95	\$11.95	OUT NOW
SPC	\$19.95		OUT NOW
MS	\$19.95	\$14.95	IMMINT
ST version planned			

#### Spectrum Version

Graphic quality isn't just the only game's one of the better versions available. One of the best graphics make the appearance here but even they will be happy you interested for long.

GRAPHICS	8	IQ FACTOR	1
AI/DO	3	FUN FACTOR	4
ACE RATING 493			

#### C64 Version

The best of the bunch simply because it has a single bonus level after the first. This makes the game more enjoyable, and therefore likely to keep you interested for longer. You pay for this extra option at the C64 version though with a bit of cost.

GRAPHICS	7	IQ FACTOR	1
AI/DO	4	FUN FACTOR	5
ACE RATING 594			

#### PREDICTED INTEREST CURVE



The C64's enhanced graphics option increases the game's longevity, but only slightly.

# DRILLER

IBM PC • Incentive \$19.95

It's gas build-up time on lateral drive bits, and while not talking about independence, the various vapors produced by dirty mining techniques have been in pressure in the past where they could blow the whole place apart, so you'd better start planning your drilling rig pretty fast, buddy, yeh?

On the 8-bit scene this one made quite a splash, and no wonder - the solid 3D-good looks-and feel would feel by the game made a built-around-and-impressive. Now on the PC it's got a special something extra special. It's built on an 8088 VGA PC like the



PC-ized - being moved to your workstation profile, you get to see it all in 3D color too.



PC-ized - being moved to your workstation profile, you get to see it all in 3D color too.

Amiga PC 1500 it shows their little-bit but on the final version, and that's a phenomenal difference.

The game that built changed - there's all the same mix of heavy grinding and frantic blasting - but with all much more speed

## IBM PC Version

The best Driller yet and a fine game to anyone wanting the game that just means well and a little to everyone.

GRAPHICS 4 10 FACTOR 4  
AUDIO 3 FUN FACTOR 4

ACE RATING 982

the other is nicely laid up. The overall feel of an action game with adventure components other than view views and that's probably going to make the game a whole lot more popular - not that it was being any too badly as it was.

A strategy game means allows you to use Amiga's or IBM systems instead of the usual keyboard controls, while the choice of VGA or VGA versions will let about 1040 owners play the best-looking Driller yet. Before you own your own, think no longer as before. Option to your own in the old yet again. Amiga's that that's success admirably. It would be a worthy addition to any serious gameplayers collection.

Andy Bell

## PREDICTED INTEREST CURVE



Showing that you're not a work pig.

# MERCENARY

AMIGA • Novagen \$24.95

When Mercenary first appeared on 8-bit formats it immediately enhanced our status and created quite a bit of excitement among gamers. You either loved the game and played it for months on end, or you hated it and couldn't play it for more than 10 minutes without getting bored stiff.

Whatever factor you happen to belong to, Mercenary offers the best that the game has to offer. Your task is simply to remove the war-torn planet of being on which you've crash landed. (It's relieving that will take you a long time. Your own spaceship is well-off, so the whole game revolves around trying to capture a new world in which you can achieve escape velocity and head to home. The planet has many inhabitants - Porgs and Mithrochs - one of two with

each other, and other side is willing to play for your necessary services. Should you choose to remain neutral, you could even try playing the sides-off against each other.

The game uses a huge, and most of the screen takes place in-ground in Temp's Central City, which has a equally large underground complex for you to explore. If you're looking for a game with a huge quest to

## PREDICTED INTEREST CURVE



Though most people may call them it's a magnificent building game.

complete that, look no further.

Andy Bell

## Amiga Version

Despite the power of the Amiga, the game is still in its native format. This is a 3D environment - some will doubtless have noticed the buildings and objects in the field in other games would appear that the world around that of the game's animation. With the Amiga's graphics, this is a must for anyone who's interested.

GRAPHICS 5 10 FACTOR 5  
AUDIO 5 FUN FACTOR 5

ACE RATING 894



There's nothing out of Center City changes and you'll have a hard time. Study your file printing it!

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Screenshots from Spectrum version.



Screenshots from Atari 5200 version.

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# BATTLE VALLEY

RACK-IT go blasting



**CONTROLS** Start-ups are set a trap at the path down to Battle Valley this section is being an event with tank and again in the track of the battle.

The game lets you organize a variety of land and air-based weapons installations, all blasting away at you. Choosing the best or chopper you can

off sideways to settle their back.

Battle Valley's shooting is especially clean, the action is fast and the sound effects, after time, all in all, it's a very good budget shoot-em-up.

• Pete Carter

## RELEASE BOX

SNES	100%	100%
MSX	100%	100%
MSX2	100%	100%



# TIME FIGHTER

CRL don't know what time it is

**CONTROLS** your way through alien time zones using the weapons of each epoch, doesn't even like a good idea or at least you've got ready arsenal of characters, all the battle.

Okay, Timefighter is a bit of a mess. While the tiny figure you control is well animated, everything else about the game seems an awful lot to be desired. The plot is perfectly

the backgrounds are dull, the sound effects acceptable. To top it all, the gameplay is decidedly dull.

• Pete Carter

## RELEASE BOX

SNES	100%	100%
See a longer article page 100		



# ALIEN SYNDROME

Damp squibs from SEGA

**ALIEN SYNDROME** was a very computer game. It still is to see many other classic game titles - Robotron, Defender, Galaxian, etc. But we don't expect to see these sorts of games being released in 1988 on a new console system. We certainly don't expect to pay \$24.95 for them.

And both the problem with Alien Syndrome. The overhead view, the rolling Groucho-style opponent, the shooting isn't the best to be around, the different levels, the end-of-level questions, which one?

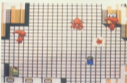
Alien Syndrome Despite unimpressive graphics and poor sound, it's still quite playable, but if you really want to look out for the best of

things of your eyes? Probably not.

• Steve Cook

## RELEASE BOX

SNES	100%	100%
------	------	------



# DEMON STALKERS

EA go clone arranging

**DEMON STALKERS** just keep coming. The clan party character, offering 100 minutes of more action as you attempt to clear the Magic Vaults of the evil of Calvus.

Back at the money level has, all things, its own system of monsters, stack of treasure chests and bunch of keys. It's a question of getting the requisite keys to get through to the next level, while fighting the monsters and eating and drinking enough to

keep you strong up.

An average example of the genre in all ways. Considered best in most leading times.

• Pete Carter

## RELEASE BOX

SNES	100%	100%
See a longer article page 100		



# INTRIGUE

MIRROSOFT join the fight against crime

**CHEEZ** Is it as yet another game about peepers?

It is indeed. *Bobby*, another game featuring peepers-yes-and. The team's motto swapped that CEO to keep their eyes suddenly narrowed to those comicalities.

And, he managed as *Bobby* guided a bottle of Jack Daniels. The display works horizontally, revealing the streets of Washington DC in greyish-monochrome.

Game? I chose *Happy* in red-graphic. Jack Don - word!

They can indeed work, before peepers, as when they are comical - though just a few at that. It seems we can DIRT (drinking), HUG, JO, WALK and SEARCH. The one also FEEL and HAS. With the controls appear above the demand of the

## C64 Version

The entire appeal to the peepers action was with a reservation. You get a party line while you play. So the highest graphics are gone and the whole feature's quality depicted in black and white.

GRAPHICS 5    8K FACTOR 7  
 AUDIO 7    16K FACTOR 6

ACE RATING 871

## RELEASE BOX

GAME	PRICE	OUT NOW
No other information		

## PREDICTED INTEREST CURVE



Interests are highest, but most that the way left and that's a simple matter to the right.

display they see to, to I can DIRT (drinking), for example. Inside, we might well encounter the topology, whereas, we select a speed option with the typical and escape from inside a limited conversation.

Wow! Get a load of that being, I learned *Bobby*, there's into a delighted breeze by the unneeded tip of the bottom-on screen.



Display (captioned below) is a new view, showing the state of the landscape. As you move, the graphics of large buildings decrease the size of the game (and the top). Any in other locations - but they are located again.

That, *Bobby*, has a slight touch. But I don't see it, fingers, less.

Probably because it's pretty good quality, measured the best under his limits.

What's about? I queried *Happy*.

You said that these streets and the location of a hideout. In doing so you will locate your kidnapped brother and isolate the mystery in this attempt to release a cloud of deathly gas above the top city.

Sounds a piece of cake to me, then.

Yes, unfortunately it is, replied the *Don* party. And there are plenty few locations to visit, but there are three levels of play, some involving conversation options, and the locations of the objects change with each game.

Looks like a game to mug, I guessed *Bobby*, getting really at his empty bottle. You should taste, I clarified the *Don*.

● Dave Cooke (with apologies to Leslie Charteris).

# GEE BEE AIR RALLY

ACTIVISION fly sky high

**WANT** to fly through the air with the greatest of ease? *Gee Bee Air Rally* puts you at the controls of one of those outstanding planes of the American 1930s, and lets you fly to your heart's content.

The plane you control is the Gee Bee of the game's title - specially designed to take part in race and aerobics. You navigate it from a set of 6000 ft of clouds, rising, falling, peeping, and so on.

## Amiga Version

Excellent graphics are the main attraction here. Each plane is clearly visible, and it's very satisfying to control her in those. Sound adds to her staff, and there's some pleasing jolly-like music.

GRAPHICS 8    8K FACTOR 7  
 AUDIO 7    16K FACTOR 7

ACE RATING 879

Being that you found a variety of courses, where the birds get right and together. Before peeping birds flapping the ground and flapping and hovering to see the updates. There's a status - swimming inside and outside the ground-based features. All of these events take place with con-



Large in other planes, the standard of the features.

other lower planes containing the race.

And that's the end attraction of *Gee Bee*, the 3D control graphics. The planes each would have previously and its great fun, but just oversteering, but flying under

above other planes. Other race features include being well what you have a great and landing in a waypoint with little Amiga as 7007.

While *Gee Bee*'s graphics are good to the fun is not a touch, unfortunately there are enough substance or variety to make a great game. While there is a variety of courses, there are only three time events, racing, storm and balance-peeping - and there can be the state point being eventually, the game is an almost never-dry-CD and have not a lot of miles left in that box.

● Pete Cook

## RELEASE BOX

AMIGA	£11.99	OUT NOW
SPCC	£7.99	IMMENT
DATA	£9.99	IMMENT
ARC	£9.99	IMMENT

## PREDICTED INTEREST CURVE



Looks like long for a while, but not oversteering.





SPECTRUM  
CASS £7.95

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CASS £8.95

# ALIEN



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# FRIGHTMARE

CASCADE get traumatised

**WHAT** can you expect from a program written by Ben Boga for Wally you might rate your self - is learning old platform game full of timing problems? Well that's what you get here alright, plus a few other giggles as well. Collectible weapons, extra traps and the like are all very well, but not as these are probably unless while the other half can so that you might do well give up if you waste one of them. The supposedly night-time graphics are really rather dull and the games seriously lacking in colour leaving the program as a whole somewhat below the standard you'd expect of a two-pud game.

RELEASE BOX			
Amiga	£10.95	£10.95	£12.95
MSX	£10.95	£10.95	£12.95
MSX2	£10.95	£10.95	£12.95
SNPC	£10.95	£10.95	£12.95



● Andy Ellis



# BATTLESHIPS

EUTE get all hands on deck

**IT MIGHT** be a lack of a lot deeper to buy a present and save paper than it is to buy an Amiga and Eute's version of Battleships but then you'd have to get a friend to play it with you. The basic version gives you a computer-controlled opponent, so you won't have to worry on the new. Computer Battleships is a simple game that you'd

probably play for hours to come - but never get too excited -

● Andy Bell

RELEASE BOX			
Amiga	£12.95	£12.95	£12.95
MSX	£12.95	£12.95	£12.95
MSX2	£12.95	£12.95	£12.95
MSX2	£12.95	£12.95	£12.95



# CHAMPIONSHIP SPRINT

ELECTRIC DREAMS after course



**CONSTRUCTION** sets the great things to have around on most games, so a re-interpretable Super Sprint must have looked like a good move for ED. As it turns out, the track isn't quite the set property you might have expected. The track designer is nicely implemented but the range of track shapes available isn't too large - you can't even do the first standard Super

Sprint track properly - and in any case different tracks can only hold your attention for so long. What gapped about the original was the great control and driving action, but really this one just doesn't have that in the same way.

● Andy Ellis

RELEASE BOX			
Amiga	£10.95	£10.95	£12.95
MSX	£10.95	£10.95	£12.95
MSX2	£10.95	£10.95	£12.95



# BLOOD VALLEY

GREMLIN'S manhunt

**THIS** one or two-player game is based on the Dual Master series of fighting fantasy books. The game is centred around a central plot it is then built, and a fourth player into you play the quarry. Blood Valley is an action game that just doesn't deliver, with an interesting game concept ruined by poor gameplay.

● Andy Bell



RELEASE BOX			
MSX2	£10.95	£12.95	£12.95
MSX	£10.95	£12.95	£12.95
MSX	£10.95	£12.95	£12.95



Don't tell me - you've been green with envy over all those terrific games coming out for every machine under the sun except yours. Fret no more! Now Amstrad and C64 owners can unwrap their Mavericks as Digital Integration's ATF goes multi-format. Now Amiga owners can boil some monster skeletons down into bars of soap as *Bonecruncher* hits the 16-bit scene. And that isn't all...

## SPECTRUM

### BLACK LAMP

Rated 5.5/10

12 version reviewed issue 4 - ACE Rating 8.0

On the CT that one looked like an old Spectrum arcade adventure with great graphics and witty animation, guess that it led the graphics and the animation on the way over. This was never going to be a great conversion. It's sluggish, tedious, and unscripted, with a dull game that only the occasional cut scene just jolly little extra sound effects and sounds, collecting lamps and wiping mud. There's some terrible (28C) music - really top notch stuff - but the inevitable bits and bobs control responses are simply too high a price to pay.



### ROLLING THUNDER

Rated 5.5/10

12 version reviewed issue 4 - ACE Rating 7.0

Amstrad version reviewed issue 6 - ACE Rating 8.0

Agent Alcotron (that's you) takes action in this top-down machine in style. The plot is the same, but the graphics have been substantially improved. Unfortunately, the music and effects are still. Certainly it's not too far either, but it's acceptable to play one machine in the short-term. But the real co-op conversion your interest will come rather rather than later.

● ACE RATING 7.5

### BMX SIMULATOR

Rated 5.5/10

Amstrad version reviewed issue 6 - ACE Rating 8.0  
Amstrad version reviewed issue 6 - ACE Rating 8.0

● ACE RATING 8.0

## AMSTRAD

### PLATOON

Rated 5.5/10

12 version reviewed issue 7 - ACE Rating 8.0

C64 version reviewed issue 7 - ACE Rating 8.0

A worthwhile game on the C64, this date when the laboratory on the C64. The game format and sluggish controls mean that you're bound to take hits as you slip through the jungle, and without the dropped supplies at the C64 version, there's no way to undo the damage. The graphics are a nice way to do it, or at least a Borealis, making the whole thing rather unexciting.



● ACE RATING 6.5

## BLACK LAMP



● ACE RATING 6.12

## ATARI ST

### SLAP FIGHT

Rated 5.5/10

A screen view of the title too late, this one often you're full price what budget releases have been doing better for the last six months or more. The standard-up, colorful graphics make a really dated coin, the graphics are impressive and the sound is really in better gear. Coming out a month after the substantially better *Slam*, the game doesn't have a great deal to recommend it.

● ACE RATING 5.8



## ATF

## Sight Inspector 01 Rev 0.00

A few games on the Spectrum, the claim still is not properly on the CDC. What do you own? Mission objectives, load up with Merveil's firing mission and watch for the stars. Both enemy agents, can swimming inside and find your targets as you were over the contours of the 3D landscape. The games are fast - it uses Amiga's 16-bit mode to good effect - and extremely playable. Easy.



● ACE RATING 900

## C64

## ATF

## Sight Inspector 01 Rev 0.00

The C64 version reviewed last is - ACE Rating 910. The C64 800kbit/s may have been disappointing compared with its Amiga and Spectrum counterparts, but it's fine, no such problem here. This is a cracking con-



version with fast-moving levels and good use of colour plus, naturally, all the gameplay of the original. The finely tuned combination of action and strategic depth, just gives the player a much better game.

● ACE RATING 900

## AMIGA

## BONECRUNCHER

## Sight Inspector 01 Rev 0.00

The puzzle here isn't exactly the same as in the C64 version of the wrap-and-selects routine, so you can feel that the game play will go to waste. The graphics are rather better and the music spot on, making it even more presentable. It would suit to the Amiga and very welcome because of that, this is strongly recommended for thinking games - especially of that price.

● ACE RATING 940



## BMX SIMULATOR

## Sight Inspector 01 Rev 0.00

The objective budget title was a very popular 4-bit game and is now appearing on the larger machines. Read your way around some course or competing against either a friend or the computer. Good game with lots of activities.

● ACE RATING 810

## ROLLING THUNDER

## Sight Inspector 01 Rev 0.00

The Amiga version reviewed last is - ACE Rating 910. Amiga version reviewed last is - ACE Rating 910.

Wonderful music and effects. A shame that the gameplay isn't, doesn't live up to expectations. Marginally better than the ST version.

● ACE RATING 730

## IBM PC

## PIRATES

## Sight Inspector 01 Rev 0.00

The Amiga version reviewed last is - ACE Rating 910.

The game has been looked out in little more than a year, appeared on the C64, with the addition of several extra features. The ship is slightly easier to control and seems to be a little bit better on the PC than on the C64. This improves the game slightly and makes it fun to play for a while.



● ACE RATING 750



In theory, the joy of playing computer games is that you don't need to go off and find a human opponent: the computer itself provides the opposition. That's all very well for games like chess - it's just you and your micro on equal terms - but when it comes to *Space Invaders* there's something missing...

# DOUBLE TROUBLE...

**Y**ou're not really competing against the computer if all is Space Invaders. There's no evidence of equality, because it can keep throwing aliens at you all night. It will always win in the end. The only thing in doubt is whether you'll get more points from the next guy before you get killed - but that's where the fun starts.

It's curious really if you're not on equal terms with the alien, you're still on the same

level as other players. The game then becomes a multi-player bet on who can get the highest score: what the micro and software can now only part of the game experience, with all that human sweating and boasting playing a major part in the proceedings. The game involved can be very simple - the simpler the better, some would say - and yet have you totally hooked, simply because you're trying to beat other people. How much better would it be then if you could involve the

other people directly in you game?

Games programmers have been trying to encourage the sort of group game-playing society by getting two or more players on screen at once. Games with two-player options have been with us since the dawn of the coin-op age, but until recently they've only had one person playing at any one time. Players take turns if games like this, forming one when they lose a life. This is attracting two-player action,

and in such it just really any different from the single-player game, the competitive feel is still just for high scores.

That multi-player games allow several people onto the screen simultaneously, either competing or (more recently) cooperating with each other. The kind of game has a long history too - look at *Pong*, for example - but it's only necessary for two-play for really taken off. Two-player racing games are all the rage with Coleco Micro stage of simulation dominating the budget charts for most of last year.

Traditional one-on-one sport or martial arts games aren't the only genre used for multi-player action. Cooperative two-player shoot-em-ups are big business too - both work against a host of aliens in all the rage, while scenarios in fantasy and sports involving are already offering three-player options on some C64, GB and ST games. With a specially-made rule, Microtech's turbocharged ST turbo-em-up *Leatherstocking* will be able to take two players at once - all on joystick. This really is a team work taking about 100 - and the expansion needs to get there.

By the way, you can get a dose in more people playing at once in the MIDI files by linking them together, but you'll need a lot of memory to use place if you want that size of setup. The breakthrough will come when more games can run across the phone, taking you into one enormous game universe. Sounds fantastic? It's already happening in the States, where a major online service offers subscribers a real-time fight simulator for two or four players from across the USA. Fighting it out in the street? You want people whose names are flashing up to them a bomb? Then be sure to grab a copy of ACE and march to the bar-down on Air House, and here a modern dual channel your ideas on games.

## BMX SIMULATOR

Code Masters

Spectrum	£1.99ea
Amstrad	£1.99ea
MSX128	£1.99ea
Amiga	£19.99ea
Mac/ST	£19.99ea

The marvelous simulation for player blow-ups has very recently made it onto the 16-bit machines, and here! You have



Combat School: Armed, Registering a fight.

to compete against a friend or the computer over a succession of arena courses. The jumps and turns etc. all affect your life instantly and help to make the game incredibly addictive and tough. Which is not to be confused with Professor Boff's *Evolution* which provides an even tougher challenge.

## COMBAT SCHOOL

Code Masters

Spectrum	£7.99ea	
Amstrad	£9.99ea	£19.99ea
C64/GB	£9.99ea	£19.99ea

The latest in the long line of 'warping' athletic games. The ones get a military bonus to it though, and seven separate

stages. There's no chance to cooperate with your friend, though, as each player plays separately - for example on the first stage both players have to wrangle their way across an erupting course, and the screen is split horizontally with each player's character occupying one half. Other stages, however, do allow the players to cooperate - the title stage for example. *Combat School* is certainly guaranteed to make you white-knuckled to make a lot of fun for both one or two players.

## DRUID UTE

Finch

Spectrum	£1.99ea	
C64-128	9.99ea	£19.99ea
Amstrad	£1.99ea	

But of the *Druid* derivatives on the third ropes with the force of evil. Its last game the *Druid* is equipped with a number of spells for stopping enemies or causing other effects. In the original game line of the spells create a subclass called *Druid* - the second player.

## HARVEY HEADBANGER

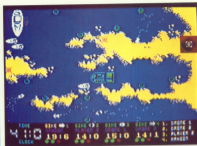
Silverbird

C64/128	£1.99ea
Amstrad	£1.99ea
Spectrum	£1.99ea

Stunningly original and beautifully presented, the heavy metal get *Harvey* combines elements of classic sci-fi. It's not



BMX Simulator: Amiga. Race around the BMX course and try to complete the set number of laps within the set time.



**Jungle Brawler**—Spectrum, with a hand stand to save elephants.

exciting oriental boardgame. It is a basic-bending gameplay. As you, your sponsored character swings round the screen, from one board, he trails colour behind him. Backward steps of your opponent's colour with your own, and you'll make cocktails every board; surround the opponent himself and pull in the boat. Five levels of computer opposition ticks the one great value as well as great fun — and with a bonus Kaper 2 it even better.

## IKARI WARRIORS

	Price
Spectrum	£9.99s
Amstrad	£9.99s
Amstrad	£9.99s
Amstrad	£9.99s
Amstrad	£9.99s
Amstrad	£9.99s

A classic original two-player game because it not only features frantic action but demands cooperation and speed tactics between the players. It's basically a two-player or, thanks to Commodore with

two diving throws in.

The fighters make their way up a downward scrolling screen, usually armed with machine guns and grenades. You'll encounter enemy vehicles, jet tanks, tanks, helicopters, grenade launchers and much more. The test feature is when you can hop into a tank and drive that around making the enemy, while player two looks safely behind until he can take his own tank. Also measures up superbly as a one-player game.

## INTERNATIONAL KARATE

System 2

004120	£9.99s	£12.99s
Amstrad	£9.99s	£12.99s

One of the many ST arcade ship savings that are now available. You have 16 separate moves to try out against your opponent in each of such wonderful levels deep as the Sydney Opera House and Venice. This is pure competition stuff, you'll want to look and play your opponent as much as possible to engage the winner and you get nothing to drinking money.

## JET BIKE SIMULATOR

Commodore

Spectrum	£4.99s
Amstrad	£4.99s

This is one of Commodore's best range, which means that in just a couple of pounds more from the usual £1.99 that Commodore charges for 8-bit games, you get two versions of the game — normal and expert. In Jet Bike Simulator you use a limited oil storage amount several water sources on your jet bike competing against two computer drivers. Simple but effective fun.

## MATCHDAY II

Commodore

Spectrum	£9.99s	£14.99s
Amstrad	£9.99s	£14.99s
004120	£9.99s	£12.99s

The definitive football game is 8-bit soccer. You don't get it complete just against the computer though — you can pit against a human opponent's if you like, or the two of you can cooperate by grouping up on the computer, which makes it plenty of fun. Tennis put to nobody else, and a game that really shows how two-player options can add sparkle to an otherwise standard genre.

## PLUTOS

System 2

Amstrad	£14.99s
Amiga	£14.99s

One of the first classic 16-bit shoot-em-ups. Plutos' 3-stage option really does deserve the fun factor. Before you quite can really know many levels of play, there are 16 the game, but it takes perseverance to get beyond level 30 as your 100,000,000 points and you'll still



**Pluto's Edge**—Should you eat pizza from your partner, or eat together in space?



get starting up to level 30 and beyond.

However, the best thing about the game is the way you can choose your tactics to suit your temperament. On the one hand, 3-player Pluto can be a competitive blast-out as you both struggle to grab resources, base areas, and base points from your colleague. On the other hand, if you're in a jangling mood, you can work together very effectively leading the opposition in unison and moving further through the levels in a yet undiscovered third dimension.

Simple, visually attractive, and a real adrenaline boost at the higher levels, Pluto is a multiplayer perfection. There's nothing in it that you haven't seen in a shoot-'em-up before, but what's this experiment does is simply to take it to the next level.

## ROADWARS

Melbourne House

Spectrum	£9.95	
MSX/MS	£9.95	
Amstrad		£19.95
Atari		£19.95



Roadwars: top line says to speed up - a motor!

If you're after cut-throat competition with a third then Roadwars could provide the answer. You take charge of one of two British-built cars which drive the continuously winding roads of Attercliffe. If you're feeling competitive you can help each other to take out the rogue parties but one to be found at either side of the road. But if you're looking more you can compete with your friend and try to knock him off the road. The Amiga version may be by far the best looking, but the Spectrum version actually has more playability.

## ROOM TEN

CRJ

MSX/MS	£9.95	£14.95
Spectrum	£7.95	

Amstrad £9.95 £14.95

A split screen gives each player a new look behind his own but in this sea-gloomy 3D Hong-Kong-style 'Whites by the Cooks of the Old and Anarchy' game, the game uses great point-of-view 3D graphics to help you grope where the hell a Computer opponent possessing various strengths are on hand just in case you need find a human being to play against, but either way it's great fun.

## SKULLDOGERY

Merit distribution now uncertain

Merit BT £19.95 (originally)

Probably the best Skulldogery clone around, so if you haven't got one of you can get your heart out. Even if you know, you may experience some frustration since Merit coded trading recently and the future of Skulldogery is in doubt.

That's all the bad news, however. The rest is all good. Unlike the original Skulldogery, there's a two-player option in Skulldogery when you fight

## SUPER SPRINT

Atari

MSX/MS	£9.95	£14.95
Spectrum	£9.95	
Amstrad	£9.95	£14.95

This simple crossword-style racing game involves a fascinating mix of cooperation and competi-

tion: a fast and furious and a lot like affects the both of you. Cooperation is necessary simply because at the end of the game is structured. When you're in two-player mode you can your hand can feel yourselves with with two bits to control - this is not normally for much of



Super Sprint: Sprint fast through before eyes are lost

tion in two-player mode. You want to control in control of your opponent and collect enough spaces for a two-up fee, but it's vital that one of you beats the computer-controlled driver otherwise it's game over for both of you. Do you leave the opponent for the other player if he needs a two-up - extra speed, better handling etc - or play dog-in-the-manger and see both of you losing on the fast track? Interesting stuff which seems thought a racing game would turn into 'them against it'.

a problem, except when you consider that control of the both switches randomly between the players. Really fun that's had moved to two.

## WAY OF THE EXPLODING FIST

Pleasant

Spectrum	£11.95
MSX/MS	£11.95
Amstrad	£11.95

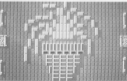
## ...TRAZ

Canvase

Spectrum	£9.95	
Amstrad	£9.95	£14.95
MSX/MS	£9.95	£14.95
MSX PC		£19.95

Cooperation is a must if you hope to complete any of the level's eleven 44 screens. In two-player mode you'll get nowhere fast if you try to compete with a friend because the

Should you own one of the machines and you're on the look-out for a high score boot-ers-up, then look no further than the little number. Originally released at full price by Melbourne House, you can now strap the game up at a bargain price. Like International Events you've got 34 moves to see against your opponent in the fight to capture the judge. More on that level action for those who like their competition fierce.



Traz - 34 moves for making what your machine is to do.

# STRATEGY SPECIAL

What is it about strategy games that attracts a certain kind of games player? Could it possibly be something to do with long-term interest? With a bit of strain on the old grey matter? With the varying game-play from game to game? With the relentless strength of the computer opposition? People are beginning to realise that strategy games can provide much more of a lasting challenge than the average shoot-em-up coin-op conversion. When did you last lie awake all night devising a sure-fire strategy to defeat a particular wave of *Space Invaders*?

**S**ince the arrival of 16-bit machines in the games market, the future for the strategy genre looks brighter than ever. Programmers quickly realised machines with new machines and we shouldn't have to wait long before we start to see highly imaginative strategy spots that involve the player in a degree of on-top-side on an 8-bit machine. *Barbarian: Universal Military Simulator* is just the beginning...

So what's the current state of play on the strategy games front? Here are the latest contenders to test your mettle on the battlefield.



## OVERLORD

CCS  
Spectrum £12.95

June 6th 1944 saw the start of operation Overlord — the invasion of Normandy by the allied British, American and Canadian forces. This latest release from CCS attempts to recreate this operation, widely regarded as the decisive western battle of the Second World War. Inspiration for the game was drawn extensively from the *Wax* history book 'Overlord'.

The program is for one player and allows you to control the allied forces only. Though there are three difficulty levels, the object of the game is to lead your forces, secure the beaches, to allow reinforcements to land and then break out and reach the right hand edge of the game map. The game can end before then, however, should either side's effectiveness be reduced to below 40 per cent.

The game breaks down into two broad phases

— the landing of reinforcements and the issuing of orders. Your limited supply of reinforcements can only come ashore at beaches which are in your control and which are clear of other units, issuing orders is effective until by unit, and involves placing a cursor at the required destination, left for the unit's centre, and then for each of its tanks. Once all the units have been positioned, movement of the allies occurs — followed by any resulting combat. Then the German force moves and combat is resolved again.

The game plays well, and the screen itself is simple but effective, though mistakes are not to correct to each step has to be carefully noted and. The screen level gives no great problems while the hardest will provide you with a real challenge. The additional features available to the player at the start of the game (those not used to the real settings) but which really could have been added the player to play several 'what if' scenarios.

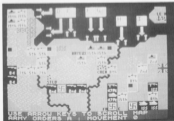
OPPOSITION OF BASE OR USE OF  
DISPLAY OR GAME DEPTH OR  
ACE RATING 5/5



## LORES OF CONQUEST

Electronic Arts  
C64/128 £9.95ms £12.95ms  
IBM PC £14.95ms

Up to three players can compete against each other in the game of conquest. The world is simple — an area of land is divided into regular shapes (like counties) and each player tries to conquer the opponent's territories. There are some 26 pre-set areas including simplified maps of the World, America, Europe and the Middle East. You also get the chance to design your own maps or you could even request the computer generate a unique map. Once you've settled it



OVERLORD: CCS

which map you're going to use, the computer randomly distributes resources throughout the game area. These take the shape of small icons representing cities etc. Next comes the shoving up of the borders. The players each select a territory it falls until all are occupied - that's battle conditions.

There are several aspects of the game which the player can define, including the degree to which chance will influence the result of a battle, or the amount of resources available at the start of the conflict. The instruction manual is not terribly helpful, but it doesn't take long to pick up the rules of the game, and once you have it becomes very entertaining - especially if you play with a friend or two.



© John W. Cooney

OPPOSITION 04 LAKE OF USE 04  
 DISPLAY 07 GAME DEPTH 05  
**ACE RATING 855**

**POWER STRUGGLE**  
 PDS  
 Atari ST 114,000

Superpower politics raise their ugly head in this PDS strategy game that offers one or two players the chance to influence countries through political, economic and military means. Each game turn allows the player to do as much trading, persuading and coming as possible within a time limit. Once the time limit expires, the game map of the world updates and you start on the next turn. The game is limited to a few options only and the computer opponent is so much of a match for the averagely computer neophyte.



© New England

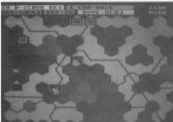
OPPOSITION 05 LAKE OF USE 02  
 DISPLAY 06 GAME DEPTH 06  
**ACE RATING 830**

**FIREZONE**  
 PDS  
 Amstrad 172,800 172,800

This one or two-player wargame set in the 21st Century comes complete with a scenario design program that allows you to design and fight your own battles. The first version of the game comes with nine pre-set scenarios while you only get three on cassette. The terrain for each game is divided into hexagons and the victory conditions for each scenario are roughly the same, i.e. you have to destroy all the opponent's pieces or force them to retreat. While the display is colourful, the screen updating is tediously slow, as the screen is re-drawn rather than scrolled. Firezone beats

down into four sections: moving your forces, firing, waiting for your opponent's moves and firing again. Unfortunately, much of the damage either incurred or dished out seems to be left to chance, which narrows your scope for tactical planning. It's simple wargame then that provides a nice design feature and a serious computer opponent but not much else.

OPPOSITION 04 LAKE OF USE 04  
 DISPLAY 07 GAME DEPTH 04  
**ACE RATING 710**



© Mattel Games

## 16-bit strategy explosion...

There are two distinct strands in the strategy world. First, you've got the conflict scenario; second, you've got strategy simulations. In which the strategic element is, for example, commercial or political (as in the old game *Decision*).

Most 8-bit strategy software has had to make compromises. Large amounts of data mean less room for graphics, and the depth of play can be limited by processing power. These problems do not apply to anything like the same extent with the new 16-bit machines, so what changes can we expect to see?

First, better user interfaces. Namco's Universal Military Simulator offers user-definable maps and a large number of control screens to help the player 'steer' the simulation. In addition, the extra memory allows larger simulations and therefore greater strategic depth. It also means the program runs faster.

Second, better graphics. With all that extra RAM and higher resolution, there's now room for detailed maps, diagrams, and even animation sequences.

Finally, greater depth of play. Software houses can use more powerful development tools on the new machines to produce more

intricate software, with wider playing options.

All this adds up to the possibility of strategy games moving more and more to the top of the games charts. There's a good reason for this - there just isn't any room in a 200-a-game arcade environment for the development of anything other than looting tactics - strategy just can't enter into it. For this reason, pure-blooded strategy, together with role-playing, has always been the poor cousin of straight-forward arcade action - but stand by for big changes in the days ahead.



Namco's Universal Military Simulator on the PC - sign of things to come in strategy software.

Play By Mail (PBM) gaming has grown vastly in popularity over the last few years - adventure and strategy, trade and conquest, game-scenarios of all kinds and involving hundreds of players simultaneously can now be played by post.

**T**hese have been standard human and computer modeled PBM games around for years now, judging by the thousands of many new games displayed at the recent Third British Play By Mail Convention, they will be with us for years to come. Check out the following goodies that were showcased at the Convention.

#### TIME TRAVEL

One of the most interesting new concepts in Play By Mail gaming displayed was the introduction of a new dimension: time. Various games (e.g. *Juniper*, *Arch Hill*, *Bookend*, *Behr*) still have not started running their own computer modeled game. The first-timers in the game space-time is regulated by a crystal located in a far off world. Some-

times the value is too small, other too

#### BRAVE NEW WORLD

As far as computer programming goes, this is a real head banger. Now in the PBM scene (but still harsh on the bootstrapping scene) *Brave New World* (shortly *Dark Skies*) could well prove to be a classic. Developed from their board game of the same name, *Dark Skies* is an advanced computer modeled Fantasy Role Playing (FRP) game. Within the computer three exists a real world containing plots (developed) thousands of creatures with characters built up from top to enviable characters.

Over 100 players battle it out in the Land of *Dark Skies* for survival. The game boasts a lot of interesting features, although the most attractive element must be the computer-

ized character in the point where they are almost as capable as individual human play-ers. Scattered within that the game could pay itself - really, the only way to prove the usual be for every player to deposit one or two don't really want that, do we?

Exact details of the PBM version of *Dark Skies* remain uncertain at the time of going to press, but we can tell you that the price is very cheap and the shipping pack a VHSI impressive indeed. The retailer? Standard Games PBM, Adren News, Station Road, High Langley, Berk RG24 6J7.

#### TEAMWORK

Many Play By Mail games are modeled with a mixture of computer efficiency and human ingenuity. Two good new examples of such games are in *Daloux Battle* (by Hal-

# PLAY IT... BY MAIL

low the crystal declines and its fragments fall through time - sometimes even appearing the time of time itself.

You join a number of other independent members of the space corps in a journey through time to reassemble the crystal. The device is that the game environment has only two-to five physical locations, but each location exists in many timezones not necessarily containing the same things.

Here's a good example of the way the game system works: you find a post at the crystal in location 34 during year 30. You have something to do in a different location in year 40; this action may take you 12 years to complete. Therefore you deposit the crystal at a location in, say, the year 51 before traveling back to year 40.

When you begin the time-consuming action in the year 40 the crystal is nowhere to be seen - some completion of the action in the year 51 is then waiting for you. Continued? It gets worse, but that's enough for the moment.

The possibility of this game really becomes apparent when you consider the large number of other players all moving about through time in the same world (and



While play-by-mail games continue to grow in popularity it's nice to see that some of the old favorites are still going on strong as ever. The Tribes of Crane is no exception to many as one of the best board games and it looks to be going strong enough to remain - ten years after it's birth. You'd be surprised to see how many people are still playing that thing!

dem Games, PO Box 127, Bristol SP9 9SL, Southern Ireland) and *Chin Of Crane* (under development by Odeh Fellows & Co Inc, Gloucestershire).

Both games enable you to play God. It is *Daloux Battle* your aim is to become the very (the Godfather?), by gaining power through support from the mortals of the world below you or from gaining control of *Queen* (and of the Gods). The device touch to the game is the use of two playing-boards.

*Chin Of Crane*, once launched, will be equally interesting. It is related the game takes over from the Chinese *Go* after *Go*. It is a the played role to forward the person of *Evolution* in the battle of the *Nebel* (battles) against the *Lord of Chaos*. You negotiate the time of life with the aim of creating your *Evolution*. For the complex to run up in a single page version, but watch out for further coverage in a future issue of ACE.

So there we have it. Advanced Computer Entertainment is the world's Play By Mail gaming. In future issues we'll be bringing you the latest reports, reviews, and gossip from the growing area of internet news. See you next month.

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## MAKING MUSIC

Most people can pick out a clarinet tune on a keyboard, or strum the old chord on a guitar. Whatever your instrument, MIDI allows you to explore into the most rudimentary skills to create music for your own use and other people's enjoyment. At the simplest level, a keyboard such as the Casio CT320, which has 100 varied and usable preset sounds and a programmable rhythm accompaniment, used in conjunction with readily available software, will enable you to produce music beyond the scope of your normal playing ability.

Alternatively, one of the increasingly affordable MIDI guitars, now on the market from \$200 to \$275 to \$600 to \$100 or more, will allow the guitarists access to all the superb sounds of modern synthesizers. In fact, you don't even have to try to play - most manufacturers produce what is called an 'expander' - a synth without all the expensive bits - keyboard, buttons, sliders etc - that uses your computer or other MIDI instrument MIDI guide. An example is the controller device.

Expanders also represent terrific value bargains. The Roland MT2, for example, has much of the internal circuitry of the \$1,000+ DM synth, but costs only \$490. It gives you an astounding 50 voices to play around with in full stereo - literally an orchestra under computer control.

## SAMPLING

Sampling is the conversion of real-world sounds to numbers, and the subsequent manipulation of those numbers, which allows the sounds to be played or sequenced by a MIDI instrument. There are many sampling keyboards and expanders now available, and their potential for creative music-making is enormous. They enable you to take any recordable sound, or dropped coffee lid, or your kid brother's whining, and play it from a keyboard as a sequence. They work particularly well with drum sounds, and so are great for sequenced drum parts, but a good quality sampler will allow you to imitate any instrument sound, as well as giving wide scope to experimenting with your concepts to be edited out, then are serious tools as well as being fun.



Real-time sequencer - a fully featured MIDI real-time software package at a good price!

# PRACTICAL MIDI

Even if you don't know Middle C from the Mediterranean, MIDI can help you express yourself musically in ways you never thought possible. Part two of our no-nonsense guide to home music-making continues as Keith Ansell looks at the different uses for MIDI and ways in which you can exploit the new technology.

## COMPOSING/SONG WRITING

Sequencers make excellent song-writing tools, even if you have never composed a tune before. One approach is to start the sequencer recording in real time and then just enter and delete any of the key-board or MIDI notes, or even a wind controller that enables wind instrument play as to generate MIDI notes until it stops. Then print it back and listen for any sections that seem to have potential, strip everything else, and continue doodling on a different track while listening to the first. Sometimes this technique produces gems, sometimes usable ideas, but it is always enjoyable.

Furthermore, with software such as PRO24 by the Alan S.T. working this

recorded can be edited in music notation form and printed out as a score for others to play.



Use of software to edit scores, with full notation printouts.

## SEQUENCING

Sequencing software is a lot easier to install than MIDI processor-card-multi-track recorder, but enables sound data to be manipulated at will. There is a wide range of excellent sequencing software available, and it should form the heart of a MIDI system.

Data can usually be entered in several ways:

- **Real-time recording:** The sequencer records the notes as you play them on your MIDI instrument. Because it is data that is recorded, not sound, it can be played back through any other MIDI instrument and the sound can be altered during playback in ways that would be impossible by any other means. So you can play a tune on your MIDI guitar, then replay it through your keyboard.
- **Step-line recording:** Several possibilities, depending on your sequencer - enter notes one at a time from an instrument, specifying the time value for each note, or create a visual pattern by entering notes as a grid, or enter notes in music notation form (good for creating your own version of anything published as sheet music) - just transcribe the data from the collection.

The best thing about sequencers is that they enable you to edit your playing and really get the best out of it - altering the sound until you get it just the way you like it. Without MIDI, the only way to do this would be to spend time investing in expensive equipment and refining your playing techniques.

## MULTI-LAYER SOUNDS

MIDI allows you to play an sequence up to 16 different instruments set in different channels, or you could have sixteen instruments playing the same thing on one channel. This might be a little over the top, but layering two or three different sounds can be made not only possible by adding to it a form of channel or channel split or expansion, especially if one sound is slightly detuned relative to the other. Or velocity-controlling sounds can be mixed to create totally new and individual sound effects.

If you have a keyboard with, say, 128 poly-arr. sounds, then the addition of a few odd, expensive such as a Yamaha TX7 (which has 32 sounds) versus, will give you 2,000 possible sound combinations, with infinite potential for new combinations by loading new banks of sounds into the TX7. Instead of the TX7, you had a TX82 which allows you to trade the number of notes played simultaneously (polyphony) for the number of different sounds played at once, (multi-velocity), then the number of possible permutations becomes astronomical. With 8-note polyphony you could have 12,800 3-layer sounds (8x 128x128) but 128 notes at once, with 4-note polyphony you could have 128 x 128 x 128 possible 3-layer combinations. And when considering the microphone possibilities will have to skip the maths due to shortage of space for lengthy strings of zeros.



A lot of equipment can be fitted into a small space, and the MIDI standard makes you reprogramming it easy.



Settings/Performance allow you to edit sounds on the TX7, TX8, Yamaha TX82, and everything in between.

## SOUND EDITING

One of the reasons many of today's high-tech instruments are so affordable is that the buttons used to program them are made to perform several functions. This keeps the cost down, but makes getting the most from the instrument very difficult, particularly if they usually have only a small liquid crystal display.

Full-on editing of synthesizer sounds is now possible in many leading instruments, via affordable software that often allows you to do things with the synth that would be impossible without the computer. For example, many editing programs will allow you to take two of the synths you set sounds and blend them together until you end up with a sound somewhere in between. Suddenly, the extreme bias of synthesizing becomes more compromiseable and you can build up libraries of sounds all day, which the software allows you to edit or copy to easily to the synth's memory banks. These libraries then be swapped with other users, or even - if the sounds you prepare are particularly good - offered for sale.

## RECORDING TO TAPE

Sequenced composite sets of sounds be stored as computer data on disk or cassette, however, it is likely that at some stage you will want to record your work in a more readily playable form as a stereo-format cassette. No problem here - many MIDI instruments have an audio out socket that you can use to record directly onto tape.

## SO WHAT CAN I DO WITH IT?

If it's hard to think of it more satisfying and enjoyable way to use a home computer than making music, but it does your personal satisfaction not enough, here are some ideas for possible applications:

- Sound effects and incidental music for amateur theatrical performances
- Education - it is nearly impossible not to learn more about music while using the unit, and the use of the new learning experiences, it is highly satisfying.
- Instrumental backing tapes for jazz, club singers
- Sound tapes for local groups - pub-band concerts, music and movement classes, play groups, etc.
- Music in a Message - background music for parties, party-play-thing, and noisy meetings, etc.
- Practice tapes for singers or instrumentalists, with the part to be practised running from the end.
- Soundtracks for home videos (An SMPTE sync and tally be needed for this one, although you could edit your results to make the sounds)
- Demo tapes for singers, engineers
- Complete songs for slow-learning (or accident-prone) instrumentalists (Music City Service)

The recently purchased an Atari 5200STM and I'm interested in finding out what it can do as regards music. I don't have any MIDI equipment yet though...  
**Joe Whittaker, Buxton.**

The AT is naturally the worst choice music from to someone of professional aspirations. There are several packages which will help you create first-rate music, or at least it sound like like you did, but software which but because the AT has built-in MIDI system, its most popular use is in conjunction with other MIDI-equipped instruments.

The best applications would be in recording MIDI data to recreate complete musical compositions, editing and storing the sounds of synthesizers, and perhaps sound sampling. Originally it was impossible to do all these at once with one AT, but that situation slowly changing.

If you want to edit just out of the AT itself with an on-board sound manipulator such as The Music Constructor, or even IAN, then get a cheap software package such as Microsoft SuperComposer 2.04, although there are some good sequencers in the Power Domain too, and a MIDI synth such as the Cyber CD-101 (11.80 second delay). These will probably give you the most bang, and also that the night the best.

I have an Amstrad CPC6128 and Amstrad MD-218 synth - how would I connect these together? I saw a package called MIDItrack at the Amstrad Show but since it is CPT I decided to wait a bit and look around...  
**Daniel Beaman, Liverpool.**

As far as I know you won't purchase the CPC to play the MD-218 as the latter has no MIDI. You'll have to start by trading it in for a CD-1200 or similar MIDI synth, once you've done so, you'll find MIDItrack as good as any other CPC sequencer, and there should also be many cheap adapters out to consider.

I have designed and built a MIDI interface for my Amstrad CPC6128 and want to use it to re-program the voices of my Data CD-100 and Gillette's rhythm section...  
**Brian Wilson, Chalfont**

Congratulations on building your own interface, but it won't allow you to re-program any sounds on the CD-100 other than the 80 built-in, 16-bit. Any CD-100 such as those built by B&B or D&P would be suitable provided your interface is fully standard, memory 48 is usually best as we will buffer while you're writing.

The CD-100 can't channel recording MIDI data to the drum channel, so you'll stuck with on-board composition. Sorry.

I own a Yamaha DG-100 MIDI synth and an Amstrad MD-218 and would like to use to make my synth multi-timbral to make the most of the 16 voices available...  
**Mark Conolly, Doncaster.**

You can't make the DG-100 play more than one different sound at a time, but Yamaha

# MIDI PANEL OF EXPERTS

The letters we've received range from four-line requests for information on the sum total of all software available for a particular computer, to four-page epics about debugging existing MIDI systems. Your MIDI Agency Aunt is Mark Jenkins.

PS-1 module will do exactly that. It can play eight notes simultaneously and you can assign any number of notes to any of its hundreds of sounds, provided the total is eight in a mono base line. Six-note string chords, two-note bass, or lead line and a rily effect could all be programmed and controlled from different banks of Super Conductor. The sound quality of the notes is virtually identical to those of the DS-100, its first DS-100 and PS-100 sounds are interchangeable. You'll need editing software to create new sounds on the PS-1, this can be obtained from Soundbits and many other companies receiving most drop.

Is it possible to connect the Atari 5050's 'note-out' socket to a DS-1 to improve sound quality? I own a Calsi C11385, C13000 and Yamaha Clavinova and would be grateful if you could recommend some affordable software to use...

Chris Donald, Ayrshire

Buy a spare module plug from your local dealer, carefully wire up the audio- and earth pins in a pair of phone plugs as below, and you'll hear your DS's built-in sounds through a set. As for MIDI keyboards, Super Conductor from Meticon is the best bet - it's powerful but straightforward. It's made polyphonic sequencer which will let you create long compositions and hold up to 16 in memory simultaneously. A bargain at \$49.95.



Owners use DS-1: unlimited possibilities to owner's!

I've been a very low-tech lead guitarist for many years but now have an Atari 5050M with Steinberg Pro-16 software, a Cheats MIDI patch keyboard and latest TRON drum machine. Can I use the Atari or M6 directly to one bank of my TASCAM Portastudio? Can I use the Atari or M6 directly to one bank of my TASCAM Portastudio? Can I use the Atari as a sampler and control the samples from a MIDI guitar like the Gator? It'd like to be able to sample my favourite guitar sounds and sequence them. Where are the Atari's audio input and output ports? How can you record samples with them? Can the new Cheats DS patch be used to trigger the 5050? How could I link up two MIDI controllers such as a guitar and a keyboard into the single MIDI input of the Atari? Geoff Rees, Clevedon.

Paul? No ought to be no consultancy rates.

for this site. To take your questions one of a kind the TRON will come to tape and will free check the Atari for playing back MIDI notes in synchronization with music on tape. But if you want to record MIDI data at the same time you'll need a trigger - see below.

There are a couple of cheapish 80-based samplers such as the Sound Designer which could be played by a MIDI guitar, but some of them will let you simultaneously load up and use Steinberg to sequence the events. To do that you need a new system called System of around £1,000. That's not bad if you buy a second-hand Atari 5010 sample about \$500, stick your four-guitar sounds in there and sequence them from Steinberg.

The Atari studio is-out size pin on the monitor socket and quit! used by any of the samples we mentioned. Cheats DS patch should pay the bill, but still aren't available to check the lot of the time of writing. A Sound-Occupied will definitely do the job though.

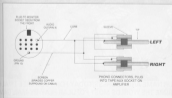
To use both keyboards (and guitar controllers) to send MIDI into the DS without re-plugging you'll need a MIDI switcher or patch selector - the Philip Lee's model is good value. But since you also need to be able to continue sequencing note-data with new signals from your tape and while recording, a MIDI merger would be more useful to you. There aren't many cheap ones available yet, but check with your local music shop to see what they've got in stock.

I've played electronic keyboards for some time but will soon be buying a Sonobro DS15 - when can I do when it's linked to a DS Spectrum via a MIDI interface? Steve Robinson, Fyfe & Ross

There are plenty of Spectrum interface and software packages about - DS15 DS15 and others should all be a music store like this. City in Newcastle. You can make particular use of the DS15 or the DS15 (see note or check at a time), play them back, edit sounds and create a sound library using other software, and change from one sound to another in the middle of an on-sequences playback. But you'll only be able to play back one sound at a time on the DS15, the new DS15, being multi-sequential, is a better bet, but that won't be available unless cheaper than the DS15 or DS15, with all-around.

Having just bought some MIDI keyboards my friends are having enormous trouble trying to set up reasonably priced sequencers... John Robinson, Dover

Since you mention the Cheats and DS packages elsewhere to you what we assume you're using a Spectrum - you'll understand that there's no point recommending the very wonderful Steinberg Pro-16 if you haven't got a Commodore or a Meticon Super Conductor without an AT for instance. But hardware sequencers are getting cheaper too - Cheats are just about to launch one on a computer, to their drum machine or sound 1100. Watch the space.



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## DRILLER

If the tips from Incentive's very own Ian Andrews in ACE Issue 5 weren't enough for you Spectrum owners, then this poke for infinite drilling power and shields will prove invaluable. Simply type in the program, RUN it and load the tape as normal.

© CLEARBYTE  
 10 LET T=0: GET W=0

```

10 FOR I=0000 TO 0000
20 READ A: POKE T,A
30 LET T=T+1:VFA
40 NEXT I
50 IF T=0:GOTO THEN PRINT "ERROR":
STOP
60 PRINT "START TAP!"
80 LOAD "CODE 0000"
90 POKE 0,100,104
90 RANDOMIZE USR-0000
10 DATA 005,04,054,01,04,020
90 DATA 11,100,054,1,10,020
90 DATA 110,104,020,1,0,0
100 DATA 110,100,00,17,100,0
110 DATA 000,107,100,104,101
  
```

©DAVID MULLISH, Bromley

## ENDURO RACER

A nice little cheat for ST owners here.

When you first begin to play Enduro Racer, after the countdown tape the word CHEAT is on the keyboard. Having typed that in, pressing one of the following keys will result in a specific effect:

- pressing T gives you an extra 10 seconds to complete the race.
- pressing S advances you one checkpoint.
- pressing F gives you turbo speed (270kmh)

©DARREN CLARKE,  
 South Haverham

## TERRAMEX

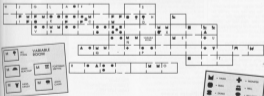
Not only do we bring you a wonderful map of the game, but a complete solution as well (Use at your discretion)

GET VACUUM CLEANER, R:RIGHT, R: GET FLUTE: USE VACUUM CLEANER, L:LEFT, L: S:USE, LAND ON LEFT CLOUD: USE FLUTE, L: GET LARGE BARREL, O:DOWN, R: USE VACUUM CLEANER, U: LAND ON RIGHT CLOUD: GET ACME BRIDGE, R: GET MAMPRISTO, R: GET SILVER LINING, R: GET UNICYCLE, R: GET UMBRELLA, R, D, L: GET CRICKET BALL, DOWN WHEEL, IF PU:POKE DO: L, L: GET FLASH GUN, R, R: R: USE BRIDGE, R: USE FLUTE, R, R: JUMP ON SPRING: GET BELLOW AND SHIPS, JUMP NEXT TO MONSTER: USE FLUTE, DOWN ROPE, L, L: USE FLUTE, L: USE BRIDGE, L, U, R, R, R: USE BELLOW, GET IN BALLOON, U: LAND ON CUP TOP, R: GET PINE, USE UMBRELLA, D, D, R: GET MEDIUM SIZED BARREL, USE LARGE BARREL, GET IN CAR

MON: USE UMBRELLA, D, U: IF KRUSH: DO R, GET BEER BARREL, L, L: USE BEER, WALK INTO WALL: IF PU:POKE USE FLAG, U: GET GEM: USE CRICKET BALL, U: IF CAR: USE SHIELD, U: IF BEANCOUL: USE UNICYCLE, U: GET FORMULA, R, R: GET BEER: IF NOT: GET ALREADY R, R: GET CRYSTAL, L, D, L, L, L: GET BATTERY, L: JUMP ON TRANSPARENT, GET LEVER, L: USE UMBRELLA, D, L: GET COAT HANGER, L: USE CRYSTAL, PUT CRYSTAL IN YELLOW BOX, USE TRANSPORTER, L: GET ATOMIC PILE, USE PINE, R, R: USE LEVER, PUT LEVER IN SOCKET AT TOP RIGHT OF SCREEN, R: WAT, R, R, R, R: GET BUTTON, L, L: JUMP AT LEVER, L: WAT, L, L: USE TRANSPORTER, L, D, D, D, P, R: UP LADDER, GET TEA, DOWN LADDER, L, U: UP LADDER, USE SILVER LINING, STAND ON WALL, R, U, P: USE CROSS, R: USE FORMULA.

...Use the Pin! the items as he asks for them and that's it. A fopper now appears that tips the planet away from the Earth.

©PAUL KNIGHT, Chislehurst



### KEY TO ITEMS

- |                  |                      |                            |
|------------------|----------------------|----------------------------|
| A = UNICYCLE     | Q = PARTY MAMPRISTO  | P = BATTERY                |
| B = FLASHGUN     | H = BELLOW           | Q = COAT HANGER            |
| C = CRICKET BALL | I = VACUUM CLEANER   | R = ATOMIC PILE            |
| D = SPURS        | J = EXPANDING BRIDGE | S = AMY RADIATION PINE     |
| E = BEER BARREL  | K = FLUTE            | T = CUP OF TEA             |
| F = UMBRELLA     | L = SILVER LINING    | U = ENERGY CRYSTAL         |
|                  | M = SECRET FORMULA   | V = SMALL GUNPOWDER        |
|                  | N = SWITCH           | W = LARGE GUNPOWDER        |
|                  | O = RED BUTTON       | X = MEDIUM SIZED GUNPOWDER |

Another insult-packed issue of letters – most of the nastiness stemming from your views on the touchy subject of piracy. We always want to hear original thinking on this subject; but if you're going to insult someone let's just try and keep it relatively clean, eh?

Elsewhere, there's stirring news of Mums playing games, and a long letter full of wisdom from north the border.

Whatever you want to say, just get it down on paper and send it to ACE Letters, 4 Queen Street, Bath, BA1 1EJ. And don't forget to specify which computer you own; you never know – yours just might be one of our Prize Letters.

#### • Mum's the word

I thought I would write in to confirm Logotron's statement about more mature computer players and maybe other readers out there will confirm their statement.

I have a daughter 15 (still the best 3D game. I have nearly 7000 code numbers, an 8000 16-bit graphics board and a 286 with 16 megs installed and I still have found 10 solutions so far.

I am a mum of 48 years young and spend most of my time on my Commodore 128 as my family and I love grow up and I feel a computer is far more enjoyable than sitting in a living or any of the other conventional hobbies that are popular with my age group.

Barbara Hulley  
Barnard

Well said, mum! Being grateful to see that you like your gaffed at much as the young ones – and were sure there will be plenty more of the kind of games you like in the coming months.

#### • Singapore ailing

Computations is a well-produced and information-packed magazine. I thoroughly enjoyed reading it. The ratings given for software reviews are often fair and honest – unlike some other magazines that are sometimes biased towards the Amstrad machine.

In issue 4 it was mentioned that the vertical and horizontal scrolling on the Amstrad is rough and jerky. I must disagree with you on this point. It should be pointed out that with careful programming the scrolling problem can be overcome. Take for example, *Tronik*, *Superjet*, *Mission Jupiter*, the scrolling is phenomenally smooth on the Amstrad. Really, it's all dependent on the programmer – the program can either be in a class of its own on the Amstrad or inferior to any version on other 8-bit formats.

Keep up the good work. I hope both the ACE will extend and outlast the other magazines on the market.

David Wong  
Singapore

What precisely do you mean by "often fair and honest"? They're always fair and honest: why take your point about the Amstrad scrolling; the games you mentioned are all excellent in that respect. But you should bother to mention the millions of games that don't come anywhere near that standard...

#### • Load of old Cobol

Could you please help me find a copy of COBOL for the Spectrum 48K. I have been trying to buy a copy for ages, but cannot find anyone who produces it for the Spectrum.

Ricardo Navini  
Spain

We tried to find one at well – but no takers! Finally, the Society is not the kind of machine that you're likely to find copies of Cobol for. Then there's the point of whether you should bother with Cobol at all: many computer professionals believe it's an awful language that should be abolished forthwith.

#### • Please please

Guess what, it's another one of those letters that fit on your letters page with grace.

As a dedicated Amstrad ST user, and I know there are several thousand more out there, I wish to join a User Club. The thing is, the closest club to me is 12 miles away. This is okay when you have a car, but as I can't afford one, I cannot make it to that meeting.

As the U4805 area is lacking a User Club, several friends and I

have decided to try and put one together.

We have at present around 12 people definitely interested but we still need a lot more to make it a viable proposition.

One thing must be pointed out now. This venture will not be for those who intend purely to rip-off software. It is for those who are dedicated to learning how to use their machine to the fullest. We hope to have guest programmers from development houses along to explain the ins and outs of programming and selling software of commercial quality. If it is also possible, we will offer a PG service. As the ST is an excellent music machine (ie MIDI), musicians who use the machine are also welcome. I see my machine for music as well as games, and writing these letters. Other ideas will be greatly appreciated.

Anybody who is interested, please ring me on (0452) 871329, after 5pm, any weekday evening or daytime during the weekend and let me know. If you don't have a phone, write to the address below.

We will organise a meeting probably at a pub depending on the age of people interested and take things from there.

Please support this, it can only do you good.

Paul Cooke  
4 Station Close, Garforth  
Leeds, LS25 1PT

We're glad to print your letter if you're going, if you want to withdraw later on, then why not make use of the Post Pages email alert?

#### • Amiga queries

I have owned my Amiga and Mentor for around two-thirds months since going to have spent around £20,700 on software, the majority of which is American import. A few questions:-

# ACE LETTERS

1) Can we register our warranty agreements in the UK (Barnsley, etc.)?

2) Anywhere the help books are available?

As I'm thinking of updating *Am* on a colour printer - which you?

**Matthew Green**  
Barnford

You should be able to register any software games with Activision, who distribute that software in the UK. Help books aren't widely available in the country you live in to read. The *Amiga* or its cousin the people offering help on software in our *Print Pages*. A decent colour printer would be the *Star*

*CG10 Colour*, which weighs in at around £300.

### • Give it a rest

I don't do ST. No I haven't got TOS installed, but that's not a getting mad. As I think that ST might not be ST itself I think it's more fun, it has I've looked over many magazines, when I read the letter, especially ACE. In the reviews for ST games there's always a lot in them, sometimes forcing the fact computers. But it still gets the things on the air.

Anyway, my friend owns an Amiga but we don't argue about which is the best graphics. Now the ST can produce 6000 colours on the screen, at the same time,

the rules are Wright's best about the Amiga, but it still has the greater processing power in its colour. Again the ST has a built in MIDI for good music.

I am trying to keep this a non-toxic letter unless Wright quote that if you want something really special get an Amiga.

I am really fed up of seeing ST lists, or any Amiga letters. Why can't people give computer magazines? Let's face it, they do try to be fair. Keep up the good work ACE.

### • Clark

**New Malden**

4 Are there really really doesn't do any harm does it or not, if every-

body was perfectly happy, we wouldn't have much to write about would we?

### • Extremely confused

I am getting extremely confused, please help me. I own an Amiga ST FM and I buy several magazines to get information on which software to buy.

When I purchase ACE, I often see a review of a game that you thought was very good and I might decide to buy it. I get "IT" "IT" and I get the same game a few days and I quite like it.

It happens with other magazines as well. I don't know what software to buy any more. I am sure other people are getting the same problem.

**James Miller**  
Barnford

Dear Confused,

The answer is simple. ACE is right and all other magazines are wrong. Keep taking the medicine.

### • Very rude indeed

I own a new Amiga ST owner and was hoping to do some programming. But alas when I asked there was no information on programming. I did get a booklet on advanced ST basic but that was no good for me because I don't know how to write the simplest ST basic programme simply. Perhaps you could tell me if there are any books in the line on this subject.

The price of games is really expensive. £20-25, for just one game is just not on. I know you can shop around and buy them for £10 or £15 but still it is very expensive. You do get a really good game generally, but the software companies must get a lot of profit.

Now start to grow. Can't remember reviewed about Lamp by Physion. You put the game disk because of its highly impressive controls. I bought the game last month and I am enjoying it very much. The highly sophisticated controls are excellent, even with the joystick. I have never found anything which was necessary so perhaps you were not trying hard enough. I think about Lamp should have got at least 95, not a measly 815. Shame on you! I hope I have not been too rude!

**Ben Morris**  
Barnford

Yes, you have been too rude, but we're used to that kind of thing here. We stand by our review of Block Lamp. It definitely wasn't a

## Words of wisdom

### LETTER OF THE MONTH

I believe that I am older than the majority of your readers and as such have perhaps had a little more time to develop an opinion of the pattern of computer sales and perhaps my reflections may be of interest to you.

In my youth I became one of the earliest owners of Dragon 32 (an early steam-powered computer) because I realised that the pundits were right, and that this machine, with its 4000 chip, was to be the standard by which others were judged. How right I was. Everything else seems to have been better than it.

As the years rolled by, I came time for me to stop messing playing with computers and to use them for the purpose for which God intended, namely playing. Obviously, the simple Dragon would not suffice for this strenuous role and so I used my aged eye around for a marvellous machine to supplant it, and I hit that in the Amiga 6429. I had found such a machine, and that this was one which would not quickly become obsolete!

It is now obsolete. Nevertheless my trusty Amiga will not be replaced in the near future. The aged eyes are now slightly pained, and for their own protection many of your readers would be best advised to develop the same ailment, at least for a while. The reasons being as follows.

Given the promise that the 16-bit games machine market is in relative infancy, buyers should be cautious about buying their death and jumping at the first or the cheapest knock-back that comes their way. I cite as an example of the video recorder. Originally there were three main types: i.e.,

VHS, Betamax and VHS. The first two are respectively dead and dying, now only Hi80 remains. If you think that this does not apply to computers, named yourself at the Amiga, Atari, Zenith, Zenith, Amiga, Amiga and Zenith, Dragon 32, Aquarius etc. etc. The main premise of whether or not to buy a new machine is not how good it is, but how long it will last! Only time will tell. There were many, perhaps better, computers on the market before the IBM PC, but they aren't there now.

Secondly, I would suggest that the current boom in 16-bit games software is probably a transient phenomenon. The examples that I cite for this is Amiga software. The fact like hot sales when the CPC's were introduced, but sales fell to a lower level and now runs very much in the wake of C64 and Spectrum sales, reflecting the relative numbers of the machines. I truly believe that 16-bit games are doing the same. Therefore, after 16-bit buyers are wiser than they are buying software for their machines because at yet they have very little.

Thirdly, any prospective buyer should consider whether or not he or she would prefer to upgrade if possible or completely replace

any machine if and when the manufacturer replaces it. Both are one of a number of cases could be cited, but perhaps one need only look to far as the bewildering plethora of ST variants already on the market to wonder how long any one of them will last.

In conclusion, I think that the 16-bit isn't dead yet. I know that you've heard everyone say that before, but the format is, after all is said and done, both versatile and more importantly, popular. The sheer volume of these computers in the country speaks for itself. There is really a massive amount of software presently on the market. 16-bit games are not prepared to die full proof for programming. It's more difficult and have been most miserably disappointed by an unplayable game that seem called. There is no reason to suppose that 16-bit owners will not do the same in due course. If ST, Amiga and the prospective Amiga owners are supplied with impeccable software I will be proved wrong, but frankly, I doubt it.

**Robert Maloney**  
Uxley, Barnsleyshire

Don't you feel such terrible bad but I cannot find it in myself to withhold a price from you - I only because of the fantastic way which you run the other cheek in the time of trouble. As for buying your sets on 16-bit, were concerned that those machines and their software are here to stay. But we don't believe that 16-bit is about there's plenty of it in those old days yet.



of software reviews news and views which all add up to an excellent magazine.

In you are called ACE (Advanced Computer Entertainment) I feel I had to write to you to ask you where the games consoles are in your magazine? Surely, since these are dedicated games machines they should get some coverage of the software available to them. I own a Mega System and buying games for it is rather difficult as I have no shelves at home to store them beforehand, so maybe you could review a game or two a month (as I only buy one game a month or so) so that people like myself can get the best software for our games system and give the world one a try (as £10 - £20 is a lot to pay for a game that will only appeal for a few days).

I do think that the system does deserve some coverage even if the number of games titles is relatively small at the moment so how about it?

Jon Healy  
Exmouth

Jon - we've never neglected the consoles, but their sales have been much better and around to review. We did have Sega reviews in our last issue. To make sure you don't miss console software reviews in issue, we're pointing them out more clearly at the Screen Star on this page.

## Needle

First I would like to say, that I have been a devoted ACE fan, and your mag is so good I don't read anything else. Great mag, tell me, any printing again.

For the attention of ACE readers and ST users, I have just bought that simulator that all maggees use to be good - including ACE - Flight Simulator 2, by Sublogics. Great, can't wait to get home and get up with the birds in the clouds! But please, what about what I bought, what??"

"Yes, for just £49.95 you can fly in among scenes with color graphics and read a 132 page handbook, that you need a degree in aviation, or mag reading, to understand how to get from one place to another."

"Yes I know it's not a game, but for £59.95 you should at least expect to get your £5.95 pound's worth."

All the airports look the same apart from the odd mountain, that when you fly over it, it looks as flat as a pancake on a screen. Tuesday's (printed) issue gave Flight Simulator 24 out of 25.

## Piracy again

amount of the time spent traveling to my local retailer.

My last word on this subject is: There is no excuse for piracy.

David Pease  
Glasgow

## Piratical cobblers

After reading the letter to 'Doby' a month' by Ian Chisham in your March issue, I finally snapped. Sorry Ian, but it's you who's the pirate, not A Doby. It's not and I'm tired of being labelled a thief just because I copy games for friends, and of people who condemn others for me in general. So A Doby is 'spilling the software industry as we know it?' Total rubbish!

The music business, isn't it? Couldn't get out of them? More people copy audio tapes and cassettes than they do software. 'Software' must have done it all these five years, even you, Ian Chisham! And anyone who says that 'hardware' is a lot. Usually when you buy a game you get a large number of things along with it, supports in the shape of a manual, but nowadays you probably don't get anything.

So all the things Ian and Chisham who keep having bugs in us, introduced that of who can?

Howard Turner  
Canterbury

Is it just a question of cost? Is whether something is right or

wrong merely a question of how much you do it?

## Mad member

While reading last month's letter page I was surprised to find the letter from the reluctant pirate. It said just what I wanted to, I read it through agreeing with more or less everything. Then I read your reply. I couldn't believe what you were saying so I planned to bomb the pirate. Then I thought I couldn't agree as you are a mag and everything would fall on you like a ton of bricks so I wrote a letter instead. Here is another tip for the companies - do not release reproduction copies. My Diamond has the men of all the same but the game's the same. On Final War, you can't copy any more - but so what?

Always companies - I really is that bad. I cannot tell how you keep in production as they're in it time has copied copies.

Vege



Yes, we think you're wrong. Perhaps your problem is that you're just not the right simulator kind of person. Many of these people exist, and they take no pleasure in

the detailed mechanics of flight, and keep away from software which simulates it. It's just a job that you bought the most expensive one around.

The sound is not too hot as well - by cheating - just a 'Dobby' sort of sound, whereas are the other planes or trees, or buildings. I did not know that the earth of ours is flat. I thought it was round, but just by light rain - everything is flat, the whole boring thing is flat.

Just by the falling World War I. Now. Get your sights on the speaghits flying enemy, what your game - no sound? No explosions when you drop the bombs that you can't even see, yes all in all I must be in a short nose.

Now as you can see I am very disappointed and so I should be, but should I? Am I expecting too much from my ST or is it that software programmers are taking the money home? And I say again for £49.95, £50/70? Think...AM MCGARRIG??

P.J. Brady  
London



What a month! The Cowled Crusader casts his eye over Infocom's latest offering, checks out a new release from the company that will soon be bringing you *Dungeons and Dragons*, and checks out a new competitor to *The Bard's Tale*. All that PLUS Shades Diary, Pat's Patch, and No Problem! Go for it, wanderers...

# SHERLOCK HOLMES

## The Riddle of the Crown Jewels

Return to tradition with INFOCOM

**DURING** the last few months, we've seen many different game styles coming out of the Infocom stable. We've also seen more puzzles than ever before at such a short space of time. One of these has been excellent - *Sherlock Holmes* - but the others have all had their weak points well reflected in the ratings accordingly.

*Murdered Women* - great new game, but for too many hours/turn - highly engaging and occasionally very funny, but just a bit too quirky to suit British adventures, usually, Infocom's, which haven't been needed over here yet if they ever will be - a very disappointing move away from advertising into a pay-downloads budget model.

Now we get *Sherlock*, and this is my hunch if there isn't anything else about it at all except on-line text, which we've already had in *Murdered*. It's a reasonable hour-long adventure, not one of Infocom's best by any means but still very challenging at parts. But is that enough? The problem is that the previous edition has many supporters, who (wisely?) of suspicion to try the older, classic Infocom games of more-or-less high quality. *Sherlock* doesn't seem to have either.

The plot is straightforward enough. As

Scott Watson, you must locate the missing Crown Jewels, stolen from the Tower of London. The game begins at 4.00am on a Saturday morning and you must retrieve the loot by Monday. It's not easy.

First, you find *Sherlock* is of very little help. He simply follows you around throughout most of the game, insisting to help well. This is tough, because some of the puzzles could do with the personal attention of the great detective. You'll find yourself turning flying birds-gulls - give them the wrong job and the game's up, referring without solaced bonuses from difficult spots - one of the jewels, for example, is stuck in the crevice of a legless, and getting past cunning guards of Madame Tussaud's, the Tower of London, and so on.

The game takes place in a relatively small shop, featuring locations in 19th century London, though there are also a few anomalies. My colleague the *White Wizard*, who's been around a bit longer than I have, issued the first even in the 70s saying you could walk westwards along Baker Street. Furthermore, there's a debate-episode on well-known local landmarks that forms the program on the product of an American software house for an American public.

What's missing from the program, however, is any really inventive attention with computer-generated characters. You can try talking Mrs Hudson, with vaguely amusing results, but there's nothing along the lines of, say, the intelligent birds in *Starbuck* or the party guests in *Suspect*. This, combined with a map that will appeal more to the fronts than to those of us who've seen most of it before, weakens the game and fails to compensate for the strong and undeniably engaging puzzles.



# PILLGRIM

So, not exactly elementary, no old *Pillgrim*, but not a one of Infocom's more advanced productions. There's no doubt that, with other companies coming onto the market with some very strong products, some support of Infocom's position as leader into is required. These recent games have pointed out some new directions, but *Sherlock* doesn't really push the way forward at any of them. Furthermore, *Sherlock* is fully portably supported.

SYSTEM: 91 ENCOUNTERS 84  
CHALLENGE 88 LANDSCAPE 84

ACE RATING: 899

### RELEASE BOX

OS/2	£19.99	OUT NOW
IBM PC	£14.99	OUT NOW
ATARI ST	£14.99	IMMEND
AMIGA	£14.99	IMMEND

# MIGHT AND MAGIC

Rapid-fire role-play from ACTIVISION

**ACTIVISION** We are really excited about the products these days. They seem to have an inexhaustible supply of games from Infocom (and they own it) and Simon & Schuster and now they've added New World Computing, associated with the Bard's Tale box-sets fantasy role-playing games.

In the first, M&M seems definitely inferior to Bard's Tale, and especially to Bard's Tale II which we reviewed last month. The graphics are noticeably poorer, as is the atmosphere generated by the text (just here is not the documentation). The controls are a very similar - the viewing graphics window shows the view in four directions so you make your way through the different levels plus assorted dungeons, towns, and other monster-infested areas.

## RELEASE BOX

QM 128 C-128a DUT 1016

IBM PC C-128a DUT 1016

For other names, please



How do you feel as a party in Bard's Tale, but it's not here.

When M&M scores, however, is in its user interface and in the combat system. Although the game features fewer character types than Bard's Tale, it enables you to get more out of them by evaluating nearly customizable options during combat that permit changing the order of battle and coordinating your attack on particular members of the enemy.

In some ways, however, gameplay becomes rather too easy at first, since you

can often select which traps you lead to, your foot locations or feel (and completely recover) without penalty. Later in the game these options become slightly less accessible, but we still think to get you out of tight spots. There are a large number of spells to cast and novice players will find that they can move quite a bit of damage even at Level 1, unlike the Bard's Tale which doesn't give you much offensive strength until you've died to the next level of experience. However, the more advanced spells are less imaginative than the Bard's Tale equipment, being simply for the most part more powerful versions of their lower-level equivalents.

Good games, therefore, are rapid gameplay on the system a familiar, engrossed combat system that actually provides tactical thinking, and a number of games written around an often forgotten set of different levels is something.

On the menu file, the presentation on-screen, and on good as Bard's Tale had a magic users interface at the higher levels, it's not nearly as interesting. The visual must be that those who like flashy graphics and unusual spells will prefer Bard's Tale, those who want an easier life at the lower levels and better overall controls should try out M&M.

SYSTEM 88 ENCOUNTERS 78  
CHALLENGE 87 LANDSCAPE 77  
ACE RATING 838

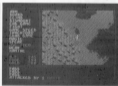
# QUESTRON II

Ultima-style gameplay from SGI

**THIS** new wizard is significant because it comes from the same company that, later this year, are to bring us Advanced Dungeons and Dragons. Looking at Questron II you get an idea of this period.

The program is pretty run-of-the-mill in design. It's similar to the Ultima series in concept, with an overhead view of a landscape area which you manoeuvre a small figure with the joystick. Every so often monsters appear with whom you do battle as usual, by means of and at the expense of your limited supply of hitpoints.

All in all the map, the towns, cottages, towns and roads, as well as the usual dungeons, displayed in front-on perspective as a Bard's Tale, Dungeons Master and others.



QUESTRON II: In magical world of Lenda, sword brandishes.

Placing your figure on top of the representative symbols for these features and then selecting an earlier spot changes the display accordingly, with towns and cottages also shown from overhead. Your ultimate objective is to defeat the creator of the Evil Book of Magic (which, incidentally, helps you in your quest and get rid of the program).

There have been quite a few programs

like this on the market - Waterworld, Ring of Darkness was one of the first and despite its crude graphics it's slightly better to realize that Questron II doesn't offer an overall lot more. You only get four different spells and a single person to move, round and parrying in the game's odd combat system (as a sam-

ple out and then attack with each side taking a turn at the other and either being or missing).

The obvious comparison must be with the Ultima games, which offer more detailed maps, more magic, and in general the more features throughout the game. However, in the dungeon sequences, Questron II does have some superb graphics (together with an screen mapping) and is also very easy to play throughout, relying heavily on rapid joystick selection and interpretation of the various options. If

you want to try out this game genre without feeling anything too complex, then the game is recommended, otherwise stick with its master competitors.

SYSTEM 78 ENCOUNTERS 80  
CHALLENGE 86 LANDSCAPE 76  
ACE RATING 819

# SHADES DIARY

No time for pacifism this month as Sappho the Witch tells how Britain's largest multi-user on-line game copes with the introduction of a new feature - the Fighting Skill attribute. Contact her on MBX 018998149.

When someone operators gossip they refer to who is leaving who, when, and where but it seems that everyone has done everything to everyone else already.

Actually, what has really happened is that there has been yet another change to the game. So everyone is too busy arguing about that to worry about those attitude messages in the final hole into the 82, where skills play a crucial role and avoid.

This latest addition to Shades involves several changes to the fight system and the introduction of Fight Skill (FS). All players start with a base of 1000 skill points, and this is then shared by their ability to kill other players. The point of FS is that as your skill increases so does your ability to fight better, or to the contrary too.

The resultant debate is very long-winded

with one element of the debate coming to the fore. Inevitably a few, as the cause of excitement - is being able to collect 1,000 points and thus keep them from a gaggle of frustrated long-players, willing to engage you on two weapons (if I add I wasn't going to talk about the Blood Sub). So, should violence rules made be allowed?

Some argue that they should have the choice of being peaceful, non-killing characters that can't be attacked, whilst others say that it is a full part of the game, an essential collecting (I wouldn't mind using points).

It would be nice to report that the debate had been settled once and for all, but it could have been more like the Government that the problems of standard were solved, and all live happily ever after. Unfortunately, the conflict between the supporters of order and

## ATTENTION PLEASE

If you've ever wondered what it's like taking part in an on-line game with dozens of other human players, then wonder no more. Next month, AGE will bring you a special feature - an on-line MMORPG in which Sappho will give you everything you need to know about this exciting area of computer entertainment.

The games, the players, the secrets, and all the details you need to log on will all be there. Don't miss it!

the supporters of pacifism is unlikely to be settled in a hurry.

My own view is that being peaceful doesn't mean that you can't, or shouldn't be able to defend yourself. Surely part of the whole adventure is about being able to cope with all contingencies, violent ones included? Sappho would never attack, but that never stopped her grabbing on someone's weapons and returning a pretty nice list.

My favourite weapon? The cabbage.

> You are being battered by a cabbage leaf. You like it so much that you beg for more, completely failing to see the nasty longsword being inserted into the lesser perfor of your elementary canal. You'd never be able to walk properly again.

Then again, if that doesn't appeal, you could always witness gaily and show a clean pair of heels.

## NO PROBLEM!

All glory, praise, and adoration is due to those valiant adventurers who have raised the bar, and a tip to the wizard (good to deliver these timely tips to other players). This month, the Pagan-contra Immortal-Pagan starts upon Raymond Farnen, in Guy, R.J. O'Rourke, R. W. 1988.

To send in your work list for immortals, get your clues clearly on a postcard and post it to the Pagan, 4 Queen Street, Bath BA1 1EL.

### Secrets of the Kings

Robbers - play safe and don't peek.

### Stomped Time

Buy a meeting in dealer's to stop a fight at the airport.

### Billy Bico

A fancy dress party the meeting is not - but it could get you quite a bit. Lame that dealer (could need a whipping, but don't be a thief).

### Stations

Red and yellow could save your hide - in the report room they will die.

### Stational

Plato is a problem concerning a drink, so maybe you could use Floyd. (Skins, stars on the wall, is there any platinum to be found at all?)

What was once hot can help with the cold problem of explosives.

### Plentiful

Morales fall for hot loans. Let Floyd do the dirty work in the backchambers.

### Whisperer

A stone in the head is better than a hole in the head.

### Karyzaki - Queen of Diamonds

The password to part 2 is OF14. Say Onelia Octavia to stop head attacking. Exchange lines, open door, and go low. Then drop and then north. Say to Harrod, Yell. Drop (double) on to the platform and it will turn into a pair of double doors.

### Exaltia

Need to enter the castle? Reunite Timara with Oregon. Zilla and help will be at hand.

### Karyzaki Haro

To get the watch, activate it and put it in get out of the pit, climb on the wall.

### Exp...

To catch the bus, raise sign, then raise hand. To get past the crocodile step on it.

### Might's Revenge

Lost in the desert? Refresh your maps. To get a weapon from the burglar, three game table at the security light.

### Redhawk

Give the rope to the hunter. The wolf will save you from a thief. Taurus can be defeated with the magnet.

### Beyond Jack

Get Maxwell and Fireworks - both wanted. Get valuable objects - fish, money, student, jewel etc.

Buy a rabbit and rabbit-to-ear link. To get the iron, make snow bricks (be seen compassion) and wait for the hunter to panic. Kiss the (iron) horn to lock and then female unicorn and saddle (be seen compassion). Stay lightning to rooftop to gain access to light house.





# BRAVE NEW WORLDS

Not an Atari veteran? When are they, 16-bit games?

My opinions, below. Pigs, but don't despair — we have good reason for our choice.

First, we received two more nice 120-minute this month. *Wander II* and *Mighty Magic* return, being new releases, needed the space we had set aside for the 120-minute games. Second, despite the original release schedule, the new *Slime V* adventure is not so desirable and it seemed odd to cover the same without being able to look at the latest and probably the greatest of them all. We live in a hopeful new world.

Every day's about as a new thing, however. The big deal, *Playlog*, is that we are planning to make the whole new *SLIME* and *BUTER* from now on, so that we won't suffer too badly from space problems in the future. It's no coincidence that we

scored two new fantasy role-playing games in one month — the market is growing very rapidly and the new 16-bit machines are ideally suited to this kind of software. We've therefore decided to *REBORN* the use of the series, covering areas of science fiction, fantasy, interactive fiction, cross-dressing, and just about anything. No doubt about it: it's going to be a winner!

AND we want YOU to help us. We're not going to reveal the hints section upon you — we want you to tell us what you want and how you want it. To the end, we'll be playing in the magazine next month a special questionnaire. There'll be a special prize draw for those sending it in, with some fantastic adventure software up for grabs. Don't miss it or you'll miss out on your chance of stopping the future of the country's finest new world.

# PAT'S PATCH

Adventures often contain non-player characters, and usually they're as plain as the scenery. To add a bit of spice to your games, why not have dangerous characters painting the playing area on a regular basis when the player must walk out in order to avoid danger?

The following *SLIME* routine does just that and works by using an array (no. 50) as a character and moving that array from room to room as the game progresses. Also loaded is a counter (no. 1) set counter 100, a marker (marker 100) to check the progress of the character and a set of rooms, say 6 to 8 inclusive where the character can be. Next start the character off in room 4, send it through rooms 6, 5, 7 and 8 then turn round and come back again, and again, and again...

- Line 1 loads counter 100 with the character's start room and marker 100 shows the direction of travel. This should go in your initialization line unless the game begins after another event is then opened at an item set off (perhaps) — then make line 1 part of the action for that event instead.
- Line 2 is called on if the character is going up the room numbers but not at the end yet.
- Line 3 is done when the character reaches the highest numbered room on its list. It loads the marker to show the direction of movement has changed and reduces counter 100.
- Line 4 is the reverse of line 2 and line 3 the reverse of line 3.
- Line 5 simply looks up the number in counter 100, loads the as the location of the character object, and moves the object to it.

There's nothing to stop you having several characters in your game each with separate or possibly interesting goals. In fact you could make an interesting maze-shifter and make the player avoid a whole host of enemies with different patterns of movement in the same area. You could even have characters interacting with each other if they meet the player controlling the time they shift the patch.

## INITIALIZATION LINE (part of 4)

```
10 4 C002 100 001 001
```

## HIGH PRIORITY

```
11 10 4 C00 100 4 0 001 001 100
1000 100 000 0000 001
12 10 4 C00 100 4 0 001 001 100
0000 100 000 100 000 0000 0000
13 10 4 C00 100 4 0 001 001 100
0000 100 000 0000 0000
14 10 4 C00 100 4 0 001 001 100
0000 100 000 0000 0000
15 10 4 C00 100 4 0 001 001 100
0000 100 000 0000 0000
16 10 4 C00 100 100 000 000 000000
0000 00 000 000 0000 0000
```

# IN BRIEF

... Beyond Zed is definitely the first game where you're on Cloud 9 for space. When you watch the progress of the real ad of the game to find the General (whatever you think get the best and best) I've seen your adventure game, coming there. There's a real feeling of excitement when you press anything is not — no loading.  
 Jim-Monk, Croydon

'Yeah, it's a 16-bit. Did you know that role-playing is now the largest growth area on the 16-bit adventure scene? It's success is bound to influence other, more traditional adventure software houses.

'While the *Playlog* may consider *SLIME* to be the role-playing game you mentioned, I have a different opinion. It's called a *boxed game* is that the only way players can gain experience points is through combat. This can be damaging to the game, with players asking why out of character to go up a level.

Other games that do not have these restrictions placed upon them are far better. Two of these are *Wanderer Fantasy* and *Slime* and *Slime*. They both use different systems of advancement, which prevent characters stopped more by the player and less by enemies.

*WANDER*, for example, uses a system of cross-schedule rules to allow the player to progress from an experience level to experience, as in real life the character has to learn and then require experience, but these are given more for good role-playing than combat skills. The character can change color and doesn't have to stick to a general rule such as *MAGIC* 1000 but can specialize and become, say, an *ELMENDALF* or any other character type, but the character is controlled by the player, and the player can be killed the character, encouraging better role-playing. The system used by *Slime* and *Slime*, although different, has similar advantages.

*SLIME* players may disagree with what I've said about the game, but before they criticize I think they should try the systems I have mentioned — they will find them extremely better.  
 Simon Felton, Kilmorye

Thanks for these interesting points, Simon. Actually, I am well aware of the games you mention, but still include them in the article, since it was primarily about computer games. I used *SLIME* as an illustration simply because it is well known amongst non-role players. We should also give it credit for its role in taking public interest in role-playing games in general.

# ACE PINK PAGES

Want to know the best games to run on your micro? Want all the facts and figures on the latest hardware? Look no further - it's all in the Ace Pink Pages. You'll also find our regular Reader to Reader section, plus this month's brain-teasers in the Random Access pages.

## ACE RECOMMENDED SOFTWARE

### ARCADE ADVENTURES

These games usually give the player a joystick controlled character with which to explore the huge game area.

#### AIRBALL

Strattek ■ Amstrad £7 £24.95

Multi-coloured three-dimensional arcade adventure that gives something to the classic style but is years ahead in terms of graphics detail and presentation. You're pitched direct and presentation. You're the ball in question, must negotiate obstacles and remain full of various obstacles - an exciting instant death. An outstanding rendition of a popular game.

#### DUNGEON MASTER

Strattek ■ Amstrad £7 £24.95

The following arcade adventure runs on all playing games in the past of being your £7 was made for. Check out the main menu change list.

#### EAGLE'S NEST

Palmer ■ Amstrad £10 £24.95 ■ Amstrad £7 £19.95

This is one of the better Counter-Strike, especially on the 386 bit machines. The

player's favour of the arcade adventure adds atmosphere and you like the particular style of game, you won't be disappointed with Eagle's Nest.

#### HEAD OVER HEELS

Orson ■ Spectrum £7.95 ■ C64 £8.95 ■ ZX Spectrum ■ Amstrad £8.95 ■ £14.95 ■ MSX £8.95 ■ £8.95 PC £19.95

3D exploration reaches its peak with the huge intricate landscape. Fourteen characters - Head and Heels - go into search for the objects that will free the galaxy. The puzzles range from very difficult indeed, and you'll often have to split Head and Heels up to use their different capabilities. The game's 3D locations are witty, dense, and the animation is excellent throughout. A real classic.

#### MAGIC KNIGHT TRILOGY

Strattek ■ Amstrad ■ Knight (Amstrad Spectrum

£2.95 Amstrad £2.95 ■ Spectrum Spectrum £2.95 Amstrad £2.95 £2.95 £2.95 ■ Strattek ■ Spectrum Spectrum £2.95 Amstrad £2.95

This trilogy is a series of non-linear arcade adventures which, as well as all the expected running and jumping, have a complex system of interaction between characters. In Spectator you must rescue Central the Wizard from the hands

some Castle of Magic. In Knight you have to find a way back in time after being catapulted into the 20th century, while in Strattek, the final part, we find that the magic Knight has been split in two, one part good, the other evil. You can't kill yourself, so the only solution is to merge the two halves. But how? Lots of action, plenty of thought and good graphics make all three winners.

### SIMULATIONS

Games that put you at the controls. Whether you're flying helicopters or airplanes, or peering telescopes, simulation games can become very involving.

#### BOBSLEIGH

Digital Integration ■ Spectrum £19.95 ■ Amstrad £19.95 £19.95

Bobsleigh is a highly competent and effective simulation with more than a little strategy. How you get the bobsleigh to finish in the top three is the end of the session? Bobsleigh, spectrum, don't look down. Bobsleigh is available by the C64, but it's a poor game compared to the Amstrad and Spectrum versions.

#### CHUCK YEAGER'S ADVANCED FLIGHT TRAINER

Electronic Arts ■ C64 £24.95 £24.95 ■ PC £24.95

Chuck Yeager's flight trainer takes the flight simulator game a step further by including a training option. Chuck will guide the novice through such difficult phases as altitude range and rate, 180° or



























	<b>IN BRIEF</b>	<b>GRAPHICS &amp; SOUND</b>
<b>SINCLAIR SPECTRUM</b>	<p>The Spectrum is primarily a games machine and should be thought of as such. It is aimed at the home user with only one extension—the possibility of 640KB extra memory. Display: 640x256 pixels and 16 colors. Maximum RAM: 128K. Recommended Operating Sys: 1.44. Recommended Price: £100-120 (US \$199-200).</p>	<p>Resolution: 320 x 256 Colors: 16 Options: 4. Only two colors can be used with only a 64Kb square color graphics memory. RAM: 128 Monitor/Output: RGB Monitor/Options: No Speed: Average: 500 to 600 CPU: Z80 Sound Quality: Fair—standard FM/3 and 1.5 notes MSX: Possible on Plus 2.0 (MSX) via card (available under £200) Serial Output: No</p>
<b>NINTENDO ENTERTAINMENT SYSTEM</b>	<p>Graphics: Excellent, but not as good as the Amiga, but still superior to low byte titles such as MSX. Maximum resolution: 256x224 pixels. Recommended Price: £100-120 (US \$199-200).</p>	<p>Resolution: 256 x 240 Colors: 16 Options: No Serial Output: No Speed: Average: 500 to 600 CPU: Z80 Sound Quality: Fair—standard FM/3 and 1.5 notes MSX: Possible on Plus 2.0 (MSX) via card (available under £200) Serial Output: No</p>
<b>SEGA MASTER SYSTEM</b>	<p>Resolution: 256 x 240 Colors: 16 Options: No Serial Output: No Speed: Average: 500 to 600 CPU: Z80 Sound Quality: Fair—standard FM/3 and 1.5 notes MSX: Possible on Plus 2.0 (MSX) via card (available under £200) Serial Output: No</p>	<p>Resolution: 256 x 240 Colors: 16 Options: No Serial Output: No Speed: Average: 500 to 600 CPU: Z80 Sound Quality: Fair—standard FM/3 and 1.5 notes MSX: Possible on Plus 2.0 (MSX) via card (available under £200) Serial Output: No</p>



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# RANDOM ACCESS

Once you've read your way through your latest issue of ACE - and digested all the features, game reviews, news and other equally satisfying sections of the magazine - it's probably time to pay a visit to your newspaper for more of the same. Should you happen to be an extremely quick reader however, you may have a few minutes to fill before the mad rush to buy the next ACE. This is when you'll appreciate our Random Access section - we've got lardish puzzles, cryptic crosswords, mini-listings and cartoons to entertain - and possibly reward you. Because should you strike it lucky you could walk away with £25-worth of software - just for enjoying yourself! So don't waste any more time - get to it!

## GET INTO PRINT!!

The cartoons appearing on these pages are drawn by one of ACE's resident artists Steve Spicer. Steve's always appreciated, however, and this is where you come in - if you happen you've got the ability, time and most importantly the organising to be able to produce a couple of cartoons that'll give everyone a chuckle, then we'd very much like to see them. So get to it! But remember to keep them short!

Send your contributions to **RANDOM ACCESS** at the usual address. For the best chance of reproduction, your artwork should be in black on stiff white paper.

### PUZZLE ENTRY FORM

NAME

ADDRESS

COMPUTER OWNED

Write the original order of the cards was

\_\_\_\_\_

And the final order was

\_\_\_\_\_

Send your answers to

**PRIZE PUZZLE 2, ACE, 4**  
Queen Street, Bath BA1 1EQ

Closing date: May 1981

## THE ACE PUZZLE No2

Set by Archie Meade



Puzzles can intrigue, infuriate and even delight - if you crack them. If you also get the chance of winning £25-worth of software for having your correct entry pulled from the hat, first, well, you're laughing aren't you?

Professor Otto Hsu of the Institute of Advanced Mathematics has recently received the following communication from his colleague Professor Brown:

Dear Otto,  
Here is an interesting problem for you. I have five playing cards, taken from a standard deck. They are the ace, two, three, four and five of clubs. I have shuffled the five cards and have dealt them

two cards either side of the three.  
6. Turn all the cards, except the ace, face down.

The cards are now as you see them here. Can you determine the order that the cards are now in (go from left to right) and also say how they were arranged at the start of the experiment (again left to right)?  
Yours faithfully,  
Brown.

I didn't take Otto long to find the answers, but can you? Also, all you write a simple letter to get your name in provide you will be answer!

face up in a row and am now about to move them in the following series of operations:

1. Exchange the positions of the two cards either side of the ace.
2. Exchange the position of the ace and the two.
3. Exchange the positions of the two cards either side of the five.
4. Exchange the four with the card to its immediate left.
5. Exchange the position of the



## ACE PRIZE CROSSWORD 2

Set by Mips

The first correct entry taken from the postbag wins cash worth £25.00. Closing date for entries May 15th.

The Ace crossword is cryptic. The answer might be an anagram, or formed from the end of one word and the beginning of another, or simply another word hinted at by the clue. Most – but not quite all – of the answers are computer-related.

### Across

5. Epic, lovely, steep (6) (computer jargon)
7. Game (body of) fighting man (7)
8. When not, whether it's hard or soft (4)
10. Please us, the magazine, make for a game (5,3)
11. Game waster giving one the run-around (8)
14. A part developed by Cohen Games (5,3)
17. Mat full made joint up (8)
18. Break into system and get the show (4)
19. Peripheral that's character forming (7)

20. Girl giving Amstrad software to Ms (5)

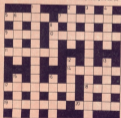
### Down

1. Announcement (provided by games in the last ACE) (1,5)
2. Key (4) (5)
3. Obtain gamble from (3) (1,3)
4. May the ... be with you! (5)
6. Mice ... arising from Minicomps (5)
8. Computer-employers (4)
12. Passes raw characters for lines (5)
13. PC Game - new product from software house (5)
15. Also playing on a PC (5)
16. Clearly holding the bar (5)

## ODD ACE FACTS

Steve Cooke started going bald when he was 15. ● Andy Smith is a trained scuba diver. ● This page was printed directly from an Apple Macintosh Spicco computer file that was 28K in length. ● Fred Lawson worked in a slaughterhouse. ● Andy Wilson wouldn't think of any ACE word hints. ● ACE was originally going to be called ACE, but was then renamed *Blitter* and finally, just before the first issue went to press - ACE. ● Peter Connor comes from Northaisle. ● The people in the photograph below designed this issue of ACE - give them a big hand! ● Fred Lawson came 17th in the Broad Oak Half Marathon. ● Spicco, the program used to lay-out and design ACE, takes up nearly 500K. ● Andy Smith used to live in Singapore - sometimes we think he still does. ● Chris Anderson has an algebra oval. ● All the cables in the ACE office are FREE! ● Trevor Gilman got engaged to the girl in the sheep next door. ● Chris Anderson got appendicitis immediately after seeing Bob Wade for the first time.

Lithograph: Aaga, Aaga, Gorden, Kain, The art editor: Mips and July - the ACE art team.



### CROSSWORD ENTRY FORM

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

COMPUTER OWNED \_\_\_\_\_

**PRIZE CROSSWORD 1, ACE, 4 Queen Street, Bath BA1 1EQ** Closing date: May 15th











# THE BLITTER END...

## ACE EDIT COMPETITION RESULT

Winner of the ACE Edit Competition was **Mr. Peter Cook** of Ipswich, who came up with the best answer for our following reader's letter.

### Dear ACE:

I'm having a problem. I cannot get my old version of *Dor* to read into my Sega Console. I am getting desperate. Can you help?

### Peter advised that:

To be saying good-bye isn't it a shame to see into a world full and it's impossible to fit a new into a Sega Console.

Here will now get the pleasure of seeing a whole color page in a forthcoming issue.

Automobile owners go to **John Landon** of Milwaukee, Wisconsin, who read things out of the sky, read it into your left ear, and the resulting was, "losing" improves, remarkably when the sky is losing them. **Tyrone Davies** of Lancaster, Texas, who said the 16-bit way around there is a completely problem between Sega and Star systems but Tyrone is promoting a Sega version of *Dor* in 2016. **Adam Ward** of Blackpool with *Dear Mr. Henry*, please fit in the *Kelley Dore Card* and I will get back to you! and **Paul Holliday** from Glasgow, who saw *Canary*. First, find out the where and how to find the Sega cartridge code, so at those only you'll get, and at those only your Sega Console. Now how will we be

## AN OOPS! AT THE RACES

Probabilities are tricky things, so any mathematician will tell you. A dealer's been raving in the pages of *Computer Quarterly* recently over a probability problem involving gold and silver cards, and there's no sign of a solution the next-in-line appear-on.

Classic probability baffles are ten a penny. How about the pit restaurant where Apple is probably better than Blustern, Blustern's probably better than Cherry but when Apple and Cherry are all that's available Cherry is the best bet. (It's possible, however!)

Not satisfied? Then by the way: you get a pack of cards, and a hand tells you 170 that along with all the black and red cards you'll find at least one green one. You start turning the cards over, and each red or black card you turn makes you feel safer because it's one less that could have turned out green. Then you get to a blue card. Now that's still another card that could have been green and isn't, so it's got to make your chances of winning even better — here's at least a tip, probabilities are tricky things.

All of which is by way of an excuse for an OOPS! or two in our *Dear ACE* feature last month. The logic was (probably) the plain made for Z-Account's Method that it could increase a gambler's returns on an even or better chance.

Probably the system seems to do worse than a fixed bet once your chances get much above even, and besides there's a stingy school of thought in the offices here that no betting system can actually increase your returns in the long run anyway. A classic case in point is the *Marriage* system, where you bet double your stake if you lose and return to your original stake if you win. On paper it looks like a sure fire winner: provided you end your bet on a win, you'll make a profit of one coin per win regardless of how many times

you bet.

In practice, gamblers run out of credit or reach the house limit so they can't always hang on for that first win — and when that happens in the *Marriage* bet, he goes down for a while! We're not quite sure how Z-Account's method stacks-up here, so we'll suggest you consult your favorite professor of applicable maths before using it in anger. ■

## MID-AIR COLLISION

If you thought the computing business was full of numbers and letters just waiting to confuse the uninitiated, you should try the small industry. If it isn't the *MSX*ists along underneath your VHS-A APF to the *IBM* or your *IBM* 161, or even the *MSX* or your F-15, (small wonder that that poor old SA 100 is snatched at all but software firm Electronics Arts) should get mixed up on one of their investigator press releases. The all-promising standard fight can't break a set in promises or *MSX*. If you haven't already let you take to the skies in an F-16 Falcon or F-16 Hornet. Or an F-16 Hornet, indeed. Or even an F-16 Falcon. Look, there are three too American planes and you can't fly either of them, right? ■



## OLLIE, FAWN AND... LANCE?

Entertainment as an instrument of US foreign policy is never a pretty thing to see, but this one really is a bit over the top. You thought *Road* over America was in good taste? You thought *Green Beret* was a bit out of line? Well how about Kenner's latest Nintendo cartridge for the American market. It looks like *Dynor* it sounds like *Dynor* and it's even got the name box around to *Dynor* — but it's actually called *Centis*. Does it have already sequences, we ask ourselves? Do you have to get a bit through Congress before you can pick up extra weapons? Will the *MSX* Air-Force save your bacon when you get in a bit? We think the public should be told. ■

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# WE ARE THE CHAMPIONS

ALL THESE CHART TOPPING HITS



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**BARBARIAN**  
 This is a classic action game where you control a warrior who can fight and kill. The game is set in a fantasy world and features a variety of weapons and power-ups. It's a challenging and exciting experience for fans of the genre.



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